

PRELIMINARY HUMAN HEALTH RISK ASSESSMENT

Prepared for:

HRP Potomac, LLC
c/o Hilco Redevelopment Partners
Boston, Massachusetts

Prepared by:

Ramboll Americas Engineering Solutions, Inc.
Arlington, Virginia

Date:

May 2024

Project Number:

1690022371-008_Conv

PRELIMINARY HUMAN HEALTH RISK ASSESSMENT

**1400 NORTH ROYAL STREET, ALEXANDRIA,
VIRGINIA**

CONTENTS

1.	INTRODUCTION	3
2.	SITE HISTORY	4
3.	SITE DESCRIPTION AND CURRENT SITE AND SURROUNDING AREA USE	6
4.	RISK ASSESSMENT OVERVIEW	7
4.1	HHRA Data Selection	7
4.2	HHRA Data Useability Evaluation	8
4.3	Risk Evaluation	9
5.	CONCLUSIONS	11
6.	REFERENCES	12

TABLES

Table 1: Risk Summary

FIGURES

Figure 1: Site Location Map
Figure 2: Site Layout Map
Figure 3: HHRA Soil Sample Locations
Figure 4: Groundwater Monitoring Network

APPENDICES

Attachment 1: Analytical Results
Attachment 2: ProUCL Results
Attachment 3: VURAM Results

1. INTRODUCTION

On behalf of HRP Potomac, LLC (HRP Potomac), Ramboll has prepared this preliminary human health risk assessment (HHRA) of current conditions for property located at 1400 North Royal Street in Alexandria, Virginia (the "Site") (Figure 1). The Site is the location of the former Potomac River Generating Station (PRGS). The Site conditions are being evaluated under the Virginia Department of Environmental Quality (VDEQ) Voluntary Remediation Program (VRP) in support of future Site redevelopment. In addition, an historical petroleum release is being addressed under the VDEQ Petroleum Storage Tank Program.

2. SITE HISTORY

The Site was developed as a coal-fired power-generating facility in the 1940s. Prior to the generation station, the Site was mostly vacant but was occupied circa the 1920s to 1940s at the northern end by the Potomac River Clay Works and at the southern end by the American Chlorophyll Company and Green Colors Manufacturing. From the 1940s to 2000, the generating station was operated by various entities as a coal-fired power plant. The Site ceased operations in October 2012. HRP Potomac acquired the Site in the fall of 2020 and plans to redevelop the property for mixed-used development.

Site conditions are being evaluated under two programs with oversight by the VDEQ. An historical release of petroleum (Pollution Complaint No. 2013-3154) from two former 25,000-gallon fuel oil underground storage tanks (USTs) is being addressed pursuant to the VDEQ Petroleum Storage Tank Program. The facility historically used No. 2 fuel oil to preheat its generating unit boilers with coal as its primary fuel to generate electricity. To address the presence of petroleum hydrocarbons in soil and groundwater near the USTs, GenOn (the prior facility owner) conducted investigations and remediation, in coordination with the VDEQ, the National Park System (NPS), and the District of Columbia Department of Energy and Environment (DC DOEE). At least 56 wells (26 shallow and 30 deep) have been installed in the area of the petroleum release. A corrective action plan (CAP) was approved by VDEQ in March 2015 and subsequently implemented at the Site. Corrective action activities included the following:

- Implementation of total phase extraction (TPE) to remove light non-aqueous phase liquid (LNAPL) in the shallow groundwater zone and from overlying soils in and near the smear zone.
- Installation and operation of a pump and treat (P&T) system to remove LNAPL and remediate the dissolved phase plume in deep groundwater in the area of the source zone.
- Installation and operation of a biosparging system to address the dissolved phase plume downgradient of the source area.
- Sealing of six seeps observed at the bulkhead.

On September 29, 2019, the VDEQ approved the discontinuation of active remediation, and the Site transitioned to post-remediation monitoring. A CAP Addendum was approved by VDEQ in September 2021 which limited ongoing post-remediation monitoring to a network of 30 wells and reduced the quarterly sampling to semi-annual sampling. Groundwater monitoring results for the second quarter of 2023 were documented in the Corrective Action Monitoring Report submitted to VDEQ on August 22, 2023¹. The results from recent groundwater monitoring events indicate that the groundwater conditions are stable, and the concentrations of constituents of concern (COCs) in groundwater at the point of discharge to the Potomac River are less than the remediation goals and the DC DOEE Surface Water Quality Standards.

A separate evaluation of site-wide conditions is being performed pursuant to the Virginia Voluntary Remediation Program (VRP). Preliminary VRP site characterization activities were conducted in October 2021, and a Preliminary Site Characterization Report was submitted to VDEQ and the City of Alexandria in the Spring of 2022. Certain areas of the Site, which are not currently accessible due to

¹ The fourth quarter 2023 groundwater monitoring event was completed in October 2023; results are currently being tabulated and will be summarized in an annual report.

PRELIMINARY HUMAN HEALTH RISK ASSESSMENT

the locations of buildings and structures, will be investigated concurrent with or subsequent to demolition of the structures.

Due to the corrective actions employed at the Site, groundwater analytical data collected prior to the completion of the remedial action in September 2019, is not representative of current Site conditions and thus, is not utilized in this preliminary HHRA.

3. SITE DESCRIPTION AND CURRENT SITE AND SURROUNDING AREA USE

HRP Potomac acquired the Site in the fall of 2020 and plans to redevelop the property as mixed-used development, including both commercial and residential uses. The former generating station is no longer operating and will be deconstructed in coordination with redevelopment of the Site. Current Site uses are limited to routine property maintenance and assessment activities in preparation for deconstruction and redevelopment.

The Site is currently improved with a multi-story main power plant building constructed with a basement (Main Plant Building); a covered utility corridor (historically referred to as the "Precipitator Area"); and five coal-fired steam boilers and turbine generators (Units 1 to 5). Supporting features include air emissions equipment, a former (unlined) coal pile area, a clay-lined sediment basin, a rail yard, water treatment facilities, one bottom ash and two fly ash silos, administration offices, an analytical laboratory, and storage facilities and ancillary buildings, which include a maintenance area (Figure 2). The Site is secured with a perimeter fence to prevent trespassing.

The Site is located in an area of mixed residential and commercial land use. Surrounding property uses include an inactive railroad spur and residential and commercial development to the south and west, a Pepco switchyard and parking lot to the northwest, Slaters Lane and a condominium building to the north, and the National Park System (NPS) Mount Vernon Trail and Potomac River to the east. Groundwater at and in the vicinity of the Site is not utilized as a source of potable water.

4. RISK ASSESSMENT OVERVIEW

Risk assessment is used to evaluate the likelihood and degree of chemical exposure and the possible adverse health effects associated with such exposure for reasonably expected current and future human populations. This preliminary HHRA quantitatively and conservatively evaluates cancer risks and non-cancer health hazards from exposure to chemicals at the Site based on known Site conditions. The basic steps of the HHRA process are the following:

1. Data collection and analysis (i.e., data evaluation), which evaluates the nature and extent of chemical constituents in environmental media.
2. Exposure assessment, which is an estimate of the reasonable maximum exposure (RME), and an estimation of human chemical intake through exposure routes such as ingestion, inhalation, or skin contact.
3. Toxicity assessment, which is an evaluation of chemical toxicity including cancer risk and non-cancer health effects from exposure to chemicals.
4. Risk characterization, which describes the risks and hazards from the chemical exposures at the Site and the possible adverse health effects associated with such exposure. This information is used to inform risk management decisions at the Site. USEPA sets an acceptable risk range of $1\text{E-}06$ to $1\text{E-}04$ for cancer risk, while noncancer risks (i.e., the hazard index [HI]) should not exceed 1.

This HHRA utilizes the Virginia Unified Risk Assessment Model (VURAM) for the evaluation of potential Site risks. VURAM, which was developed by Virginia DEQ, utilizes a conservative approach to ensure that the study area population is not exposed to unacceptable risks. This includes the use of RME (i.e., reasonable worst case) exposure scenarios. The RME is defined as the highest exposure that is reasonably expected to occur at a site.

To assess current baseline conditions, this screening level HHRA evaluates risks in the absence of any additional remedial actions, engineering controls (ECs), or institutional controls (ICs).

4.1 HHRA Data Selection

This preliminary HHRA includes soil data collected to date and groundwater data collected between October 2019 and April 2023 (subsequent to remediation activities) as part of site characterization and monitoring activities. These data are described below and locations are depicted on Figure 3.

- In 2015, ten soil samples were collected from monitoring and recovery well boreholes (MW-118S, MW-120², MW-121, MW-122, MW-123S, RW-05S, RW-116S, RW-117S, RW-28S, and RW-30S) installed at the Site as part of investigation activities performed to evaluate a release of heating oil from a former underground storage tank (UST). Surface soil samples (at 0 feet below ground surface [ft bgs]) were collected at MW-118S and RW-117S. Subsurface soil samples were collected from varying depths ranging from 23 to 30 ft bgs, depending on location. Samples were analyzed for select petroleum parameters including benzene, ethylbenzene, toluene, total xylenes (collectively, BTEX), and naphthalene.

² MW-120 could not be installed due to auger refusal. A soil sample was collected from 27 to 28 ft bgs before the borehole was abandoned; this attempted location is depicted between RW-25S and RW-25 (GES 2015).

- As summarized in the preliminary Site Characterization Report (SCR), in 2021, 49 soil samples and four duplicates were collected from 22 locations at the Site (Ramboll 2022). Surface soil samples were collected from 0 to 1 ft bgs, 0 to 2 ft bgs, and/or 0 to 3 ft bgs, depending on location. Subsurface soil samples were collected from varying depths, with the deepest sample collected from 25 to 30 ft bgs. Soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), target analyte list (TAL) metals. Select soil samples were additionally analyzed for the presence of polychlorinated biphenyls (PCBs), cyanide, and/or total petroleum hydrocarbons (TPH) diesel-range organics (DRO), gasoline-range organics (GRO), and oil-range organics (ORO).
- Groundwater samples were collected from four previously existing monitoring wells and nine newly installed monitoring wells as part of the preliminary SCR. Groundwater samples were analyzed for some or all of the following analytes, depending on location: VOCs, SVOCs, PCBs, sulfate, ammonia, total and dissolved TAL metals, glycols, hydrazine, TPH-DRO, TPH-GRO, and TPH-ORO.

Groundwater samples have been collected since October 2021 during routine monitoring activities from a network of 23 wells installed as part of the petroleum release investigation (Figure 4). Groundwater samples were collected for analysis of naphthalene and TPH-DRO. The analytical results for samples described above and included in this evaluation have been summarized in other documents submitted to Virginia DEQ and available as part of the public record for the Site. As such, analytical data reports and discussions of data quality are not included herein. A summary of data utilized to support this preliminary HHRA is included as Attachment 1.

This represents step 1 of the risk assessment process.

4.2 HHRA Data Useability Evaluation

Data were evaluated to ensure that they were appropriate for use as part of the preliminary HHRA. Usability of the Site characterization data for quantitative risk assessment were considered as follows:

- Constituent concentrations qualified as not detected (i.e., U or UJ qualified data) are evaluated as non-detects.
- Concentrations qualified as estimated (i.e., J qualified data) are included as detected results in the preliminary HHRA.
- Field duplicate samples were collected at the Site. When a constituent is detected in only one sample of a duplicate pair, the detected result is used. When both results in a duplicate pair are detected, the maximum result was used as a conservative measure.
- Select parameters were analyzed by more than one method (e.g., naphthalene analyzed as both a VOC and SVOC). As a conservative measure, where an analyte was detected in a sample by both methods, the highest detected result was included for use in the preliminary HHRA.
- Groundwater samples collected at the Site were analyzed for both total and dissolved metals. As a conservative measure, where an analyte was detected in a sample as both total and dissolved, the highest detected result was included for use in the preliminary HHRA.
- Soil and groundwater samples collected at the Site were analyzed for total chromium. For the purposes of the preliminary HHRA, total chromium results are assumed to be trivalent chromium, as known Site history does not include operations thought to include hexavalent chromium.

- As described above, corrective actions were conducted to remediate groundwater at the Site between 2016 and 2019. As such, only groundwater data that was collected subsequent to termination of remedial activities in October 2019 (i.e., 2020-2023) were considered for use in the preliminary HHRA, as these data are most representative of current Site conditions.

4.3 Risk Evaluation

As noted above, the risk calculations for this preliminary HHRA were performed using VURAM. VURAM uses standard inputs to assess exposure, quantify toxicity, and calculate conservative, quantitative human health risk estimates that are based on USEPA guidance for residential and non-residential receptors. This process represents steps 2 through 5 of risk assessment. Specifically, VURAM was used to estimate risks from soil and groundwater for potential exposure by future residents, construction workers, industrial/commercial composite workers, recreators, and trespassers. Noncancer risks are calculated for a “child-only” version of the resident, recreator, and trespasser receptors to ensure the potential risks are understood, as the lower body weight and other exposure factors for a child could make them more sensitive than an adult. The details of the calculations, including exposure factors, modeling assumptions, and risk equations are included in the VURAM User Guide (VDEQ 2022) and are not repeated here. As a conservative estimate of the exposure concentrations in soil and groundwater, the upper confidence limit on the mean (UCL) was calculated using USEPA’s ProUCL software. The outputs from ProUCL are included in Attachment 2. The following assumptions and/or adjustments were made regarding the VURAM risk estimates:

- VURAM uses several toxicity values provided by USEPA as Provisional Peer-Reviewed Toxicity Values (PPRTV) Screening Values. However, PPRTV guidance states that “Screening Values are not defensible as the primary drivers in making cleanup decisions because they are based on limited information.” Thus, the use of screening toxicity values is not appropriate for a preliminary baseline risk assessment, which will contribute to potential remedy decisions, and are not used in this HHRA. In many cases, reviews provided by USEPA under the Integrated Risk Information System (IRIS), which is considered the definitive source of toxicological values, determined that there is inadequate data available to derive these toxicity values, typically due to the quality of the studies available. Therefore, constituents where risk estimates are based on PPRTV screening values [benzo(a)pyrene, 1,1-biphenyl, dibenzofuran, methyl acetate, propylbenzene, sec-butylbenzene, and thallium] were excluded from the calculations performed in VURAM.
- Soil and groundwater samples collected at the Site were analyzed for total chromium. Total chromium results are assumed to be representative of the more common, trivalent form of chromium, as known Site history does not include operations or chemical use known to be associated with, or result in, hexavalent chromium.
- Groundwater beneath the Site is not a source of drinking water at the Site or at off-Site properties in the vicinity of the Site. No water production wells are in use at the Site, and potable water at the Site and for surrounding area properties is supplied by Virginia American Water, which obtains potable water from surface water sources that do not include the Potomac River adjacent the Site. There are plans to establish ICs as part of corrective measures to prohibit potable and non-potable use (e.g., in manufacturing operations) of on-site groundwater. Additionally, as described in the preliminary SCR (Ramboll 2022) groundwater generally flows east toward the Potomac River and would not migrate off-Site towards buildings or residences. Therefore, this preliminary HHRA does not include an evaluation of groundwater exposures for residents and composite workers as VURAM risks are based on tapwater exposure factors.

- The HHRA dataset includes the described soil samples collected in 2015 and 2021 at all depths (i.e., ground surface to maximum sampled depth of approximately 30 ft). By including all soil samples, the HHRA evaluates current and potential future exposures in the absence of existing buildings and pavement, ICs, and in the case that subsurface soil is brought to the surface as part of site redevelopment.

The results of the VURAM risk calculations are shown in Table 1. The detailed VURAM outputs are included in Attachment 3.

Table 1. Risk Summary						
Receptor	Soil		Groundwater		Total	
	Risk	HI	Risk	HI	Risk	HI
Resident	2.06E-05	3.01E-01	NA	NA	2.06E-05	3.01E-01
Resident – Child Only	NA	2.52E+00	NA	NA	NA	2.52E+00
Construction Worker	3.21E-07	2.43E-01	1.96E-06	7.55E-01	2.28E-06	9.99E-01
Composite Worker	3.65E-06	1.82E-01	NA	NA	3.65E-06	1.82E-01
Recreator	1.10E-05	1.33E-01	NA	NA	1.10E-05	1.33E-01
Recreator– Child Only	NA	1.37E+00	NA	NA	NA	1.37E+00
Trespasser	1.35E-06	1.63E-02	NA	NA	1.35E-06	1.63E-02
Trespasser – Child Only	NA	1.68E-01	NA	NA	NA	1.68E-01
Note: Cumulative risks calculated above the cumulative cancer risk of or 1E-04 and HI of 1 are bolded.						

USEPA guidance and VURAM use a default cumulative cancer risk limit of 1E-04 and a HI of 1. Sites with calculated preliminary cancer risk in excess of 1E-04 or HI of 1 require further evaluation, which might include more robust, site-specific risk assessment. Preliminary HHRA results indicate a HI that exceeds 1 for exposure to soil by a resident child or child recreator. Iron (48%/49%), cobalt (18%), arsenic (10%), and aluminum (5%) contributed the highest percentage of the cumulative HI for child resident and child recreator soil exposure. The concentrations of these metals detected in soil samples from the Site may be consistent with background concentrations; however, these constituents were conservatively retained for quantitative evaluation in this risk assessment. This approach may overestimate actual risk estimates for future child residents and recreators. No unacceptable risk was indicated for remaining exposure pathways and receptors.

5. CONCLUSIONS

The preliminary HHRA identified potentially unacceptable noncancer risk for a child resident or child recreator exposed to Site soil. These risks are driven by metals in soil which may be present at concentrations consistent with background. Accordingly, the noncancer risks presented in this risk assessment may overestimate actual risk. Further evaluation of background concentrations in the area may be conducted, and this risk assessment may be updated based on those results. Currently, the Site is fully fenced with a locking gate to prevent access to the Site. Based on the preliminary calculations, further evaluation, mitigation, and/or remediation is appropriate prior to redevelopment of the Site for mixed use, residential use, or recreational use. However, results indicate that current Site use does not pose unacceptable risk. Further, the preliminary HHRA results indicate no unacceptable risks to future construction workers or subsurface utility workers at the Site during redevelopment. As described above, the preliminary HHRA does not include an evaluation of risk posed by vapor intrusion because it is anticipated that Site soils will be redistributed across the Site during future construction; the potential risk relating to vapor intrusion to indoor air will be evaluated following Site grading. Health and safety procedures and monitoring performed during future soil excavation activities will be protective of construction workers in excavations or trenches. In addition, HRP Potomac anticipates the conduct of dust monitoring during future Site deconstruction activities to document that dust is not migrating beyond the property boundaries at concentrations of concern.

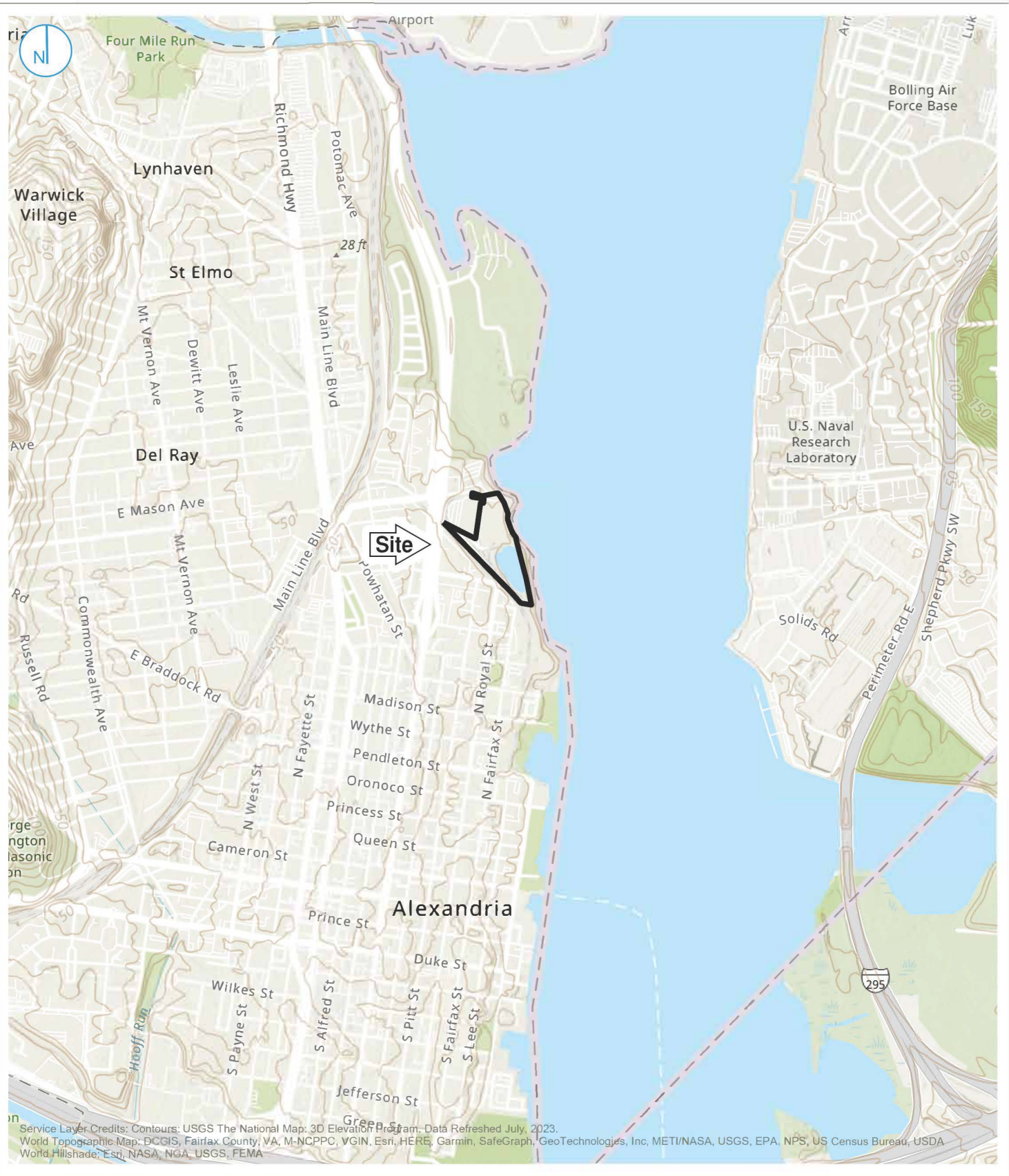
6. REFERENCES

Groundwater & Environmental Services, Inc. (GES). 2015. 3rd Quarter CAP Implementation Monitoring Report: October 2015. October 30.

Ramboll. 2022. Preliminary Site Characterization Report: Former Potomac River Generating Station. March.

Virginia Department of Environmental Quality (VDEQ). 2022. Virginia Unified Risk Assessment Model (VURAM) User Guide for Risk Assessors. August.

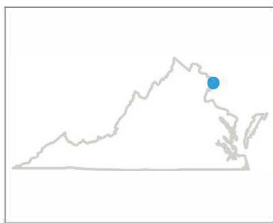
FIGURES



Map Scale: 1:24,000 | Map Center: 77°2'26"W 38°49'4"N

SITE LOCATION MAP

FIGURE 1



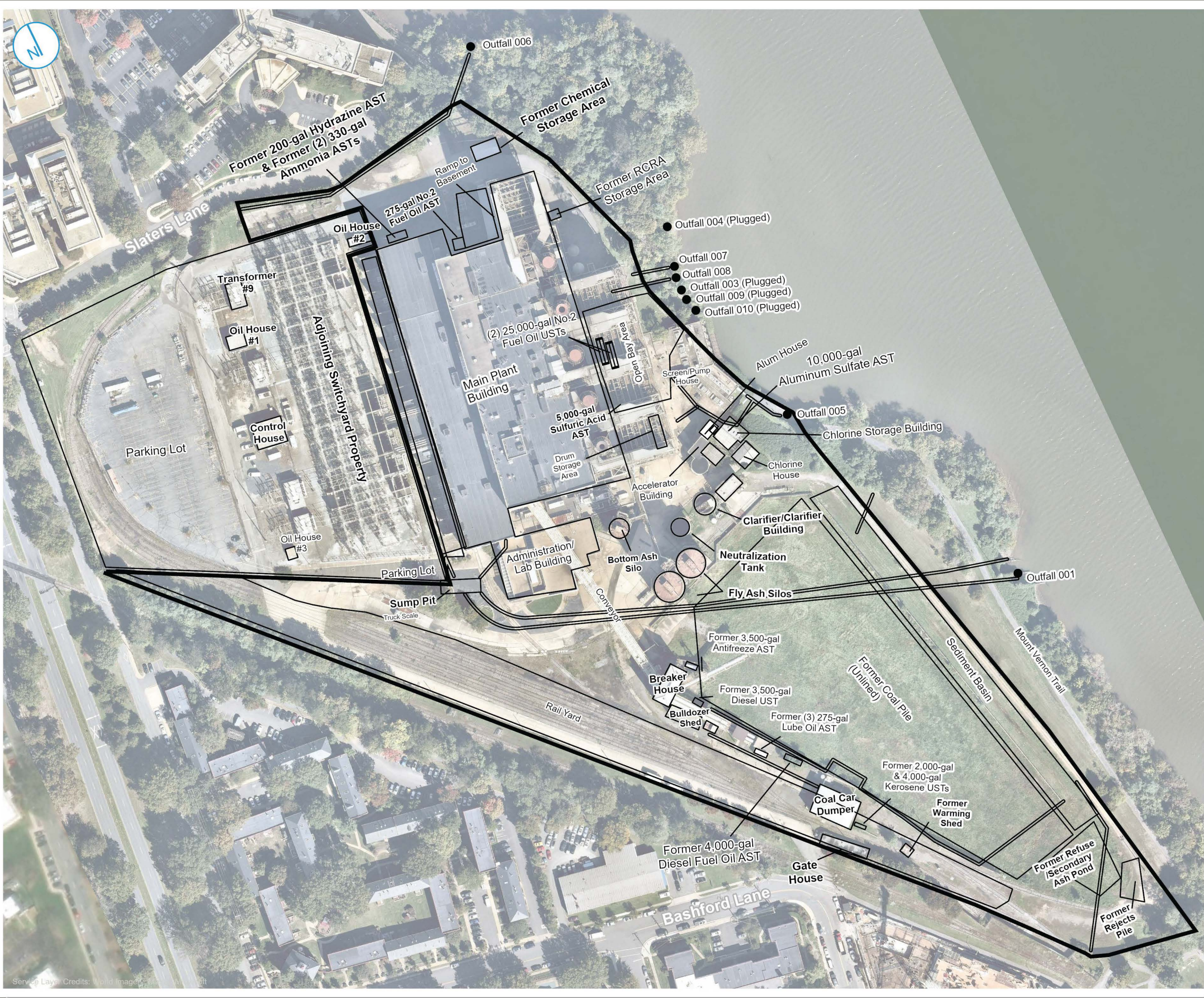
KEY MAP (not to scale)

0 500 1,000
Feet

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, Virginia 22314

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY





- Outfall Locations
- Site Boundary
- Site Features

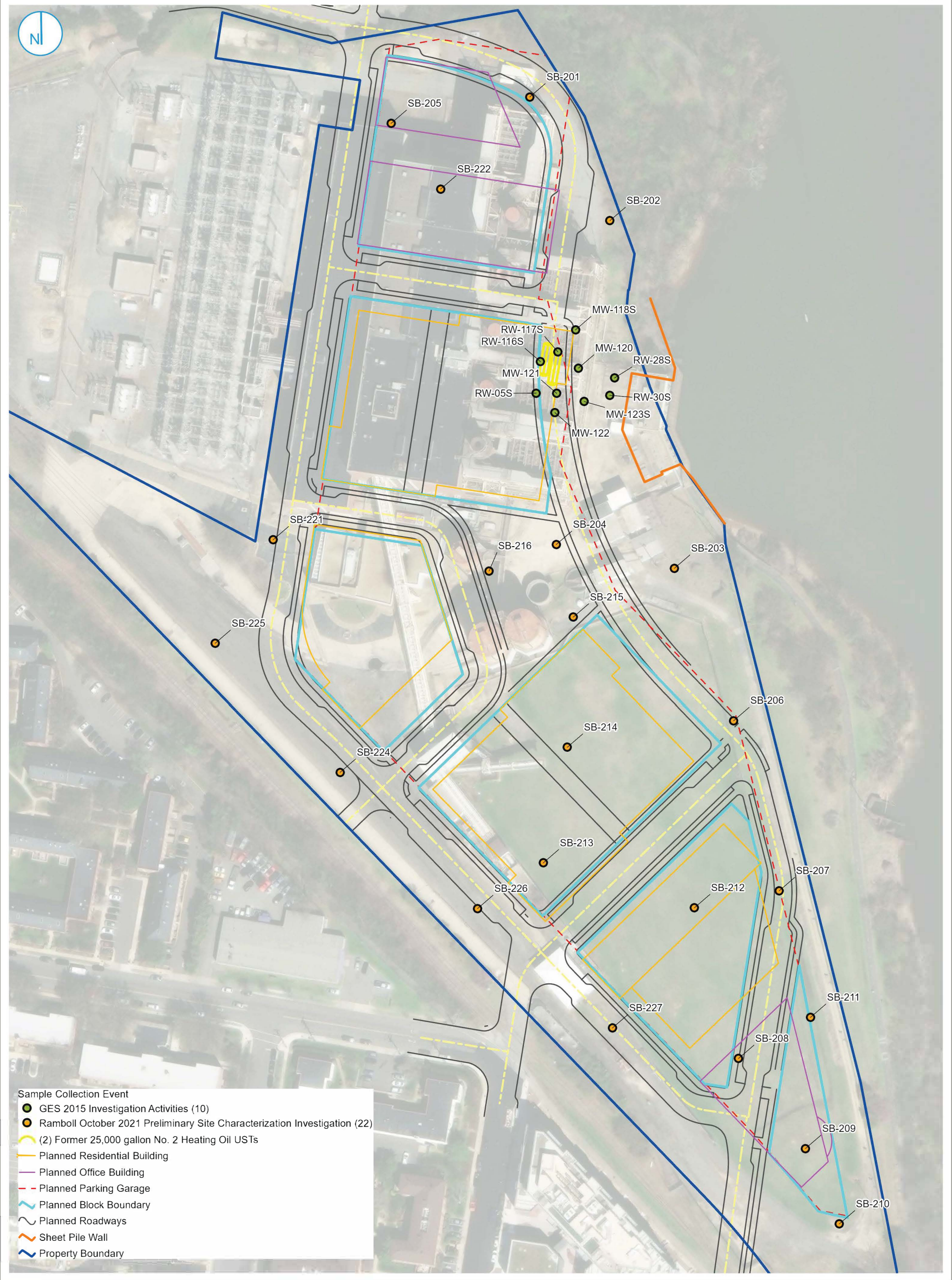


SITE LAYOUT MAP

Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

FIGURE 2





Notes

- MW-120 could not be installed due to auger refusal. A soil sample was collected from 27 to 28 ft bgs before the borehole was abandoned; this attempted location is approximate and is depicted between RW-25S and RW-25 (GES 2015).
- All redevelopment plans depicted herein are preliminary and subject to change.

HHRA SOIL SAMPLE LOCATIONS

FIGURE 3



Former Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY



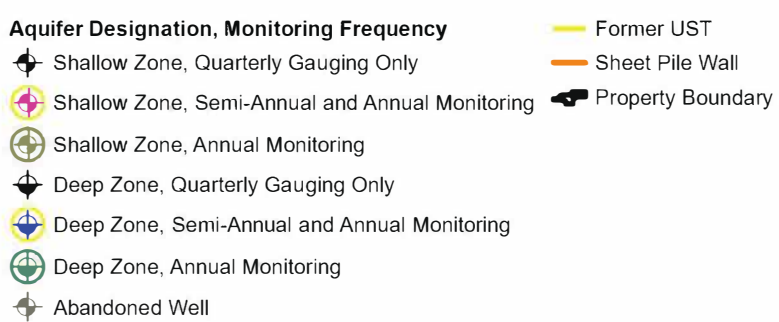


FIGURE 4

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY



ATTACHMENT 1

Analytical Results

Attachment 1-1 – Soil Concentrations

Attachment 1-2 – Groundwater Concentrations

ATTACHMENT 1-1
SOIL CONCENTRATIONS

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
RW-28S	N	27	27	07/06/15	SVOC	Naphthalene	91-20-3	5.30E-02		4.00E-03	8.6E+01	6.2E-04	2.0E+01	2.7E-03
RW-30S	N	28	29	06/23/15	VOC	Benzene	71-43-2		U	2.30E-01	5.1E+01		1.2E+01	
RW-30S	N	28	29	06/23/15	VOC	Ethyl Benzene	100-41-4		U	2.30E-01	2.5E+02		5.8E+01	
RW-30S	N	28	29	06/23/15	VOC	Toluene	108-88-3		U	2.30E-01	4.7E+04		4.9E+03	
RW-30S	N	28	29	06/23/15	VOC	Xylenes (total)	1330-20-7		U	2.30E-01	2.5E+03		5.8E+02	
RW-30S	N	28	29	06/23/15	SVOC	Naphthalene	91-20-3	1.50E-01	J	2.30E-01	8.6E+01	1.7E-03	2.0E+01	7.5E-03
SB-201	N		1	10/05/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.30E-01	9.3E+03		1.8E+03	
SB-201	N		1	10/05/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.30E-01	1.1E+02		2.6E+01	
SB-201	N		1	10/05/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.30E-01	1.1E+02		2.6E+01	
SB-201	N		1	10/05/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.30E-01	2.6E+02		5.8E+01	
SB-201	N		1	10/05/21	SVOC	Acenaphthene	83-32-9		U	2.10E-01	4.5E+04		3.6E+03	
SB-201	N		1	10/05/21	SVOC	Acenaphthylene	208-96-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-201	N		1	10/05/21	SVOC	Acetophenone	98-86-2		U	4.30E-01	1.2E+05		7.8E+03	
SB-201	N		1	10/05/21	SVOC	Aniline	62-53-3		U	4.30E-01	4.0E+03		4.4E+02	
SB-201	N		1	10/05/21	SVOC	Anthracene	120-12-7		U	2.10E-01	2.3E+05		1.8E+04	
SB-201	N		1	10/05/21	SVOC	Benzidine	92-87-5		U	8.30E-01	1.0E-01		5.3E-03	
SB-201	N		1	10/05/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.10E-01	2.1E+02		1.1E+01	
SB-201	N		1	10/05/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.10E-01	2.1E+01		1.1E+00	
SB-201	N		1	10/05/21	SVOC	Benzo(b)fluoranthene	205-99-2	6.90E-02	J	2.10E-01	2.1E+02	3.3E-04	1.1E+01	6.3E-03
SB-201	N		1	10/05/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.10E-01	2.3E+04		1.8E+03	
SB-201	N		1	10/05/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.10E-01	2.1E+03		1.1E+02	
SB-201	N		1	10/05/21	SVOC	Benzoic Acid	65-85-0		U	1.30E+00	3.3E+06		2.5E+05	
SB-201	N		1	10/05/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.30E-01	2.5E+03		1.9E+02	
SB-201	N		1	10/05/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.30E-01	1.0E+01		2.3E+00	
SB-201	N		1	10/05/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.30E-01	1.6E+03		3.9E+02	
SB-201	N		1	10/05/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.30E-01				
SB-201	N		1	10/05/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.30E-01	1.2E+04		2.9E+03	
SB-201	N		1	10/05/21	SVOC	Carbazole	86-74-8		U	2.10E-01	3.0E+04		2.4E+03	
SB-201	N		1	10/05/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.30E-01	8.2E+04		6.3E+03	
SB-201	N		1	10/05/21	SVOC	4-Chloroaniline	106-47-8		U	8.30E-01	1.1E+02		2.7E+01	
SB-201	N		1	10/05/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.30E-01	6.0E+04		4.8E+03	
SB-201	N		1	10/05/21	SVOC	2-Chlorophenol	95-57-8		U	4.30E-01	5.8E+03		3.9E+02	
SB-201	N		1	10/05/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.30E-01				
SB-201	N		1	10/05/21	SVOC	Chrysene	218-01-9	6.30E-02	J	2.10E-01	2.1E+04	3.0E-06	1.1E+03	5.7E-05
SB-201	N		1	10/05/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.10E-01	2.1E+01		1.1E+00	
SB-201	N		1	10/05/21	SVOC	Dibenzofuran	132-64-9		U	4.30E-01	1.2E+03		7.8E+01	
SB-201	N		1	10/05/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.10E-01	5.1E+01		1.2E+01	
SB-201	N		1	10/05/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.30E-01	2.5E+03		1.9E+02	
SB-201	N		1	10/05/21	SVOC	Diethylphthalate	84-66-2		U	4.30E-01	6.6E+05		5.1E+04	
SB-201	N		1	10/05/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.30E-01	1.6E+04		1.3E+03	
SB-201	N		1	10/05/21	SVOC	Dimethylphthalate	131-11-3		U	4.30E-01	6.6E+05		5.1E+04	
SB-201	N		1	10/05/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.30E-01	8.2E+04		6.3E+03	
SB-201	N		1	10/05/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.30E-01	6.6E+01		5.1E+00	
SB-201	N		1	10/05/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.30E-01	1.6E+03		1.3E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N		1	10/05/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.30E-01	8.2E+03		6.3E+02	
SB-201	N		1	10/05/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.30E-01	2.9E+01		6.8E+00	
SB-201	N		1	10/05/21	SVOC	Fluoranthene	206-44-0	7.20E-02	J	2.10E-01	3.0E+04	2.4E-06	2.4E+03	3.0E-05
SB-201	N		1	10/05/21	SVOC	Fluorene	86-73-7		U	2.10E-01	3.0E+04		2.4E+03	
SB-201	N		1	10/05/21	SVOC	Hexachlorobenzene	118-74-1		U	4.30E-01	9.6E+00		7.8E-01	
SB-201	N		1	10/05/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.30E-01	5.3E+01		1.2E+01	
SB-201	N		1	10/05/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.30E-01	7.5E+00		1.8E+00	
SB-201	N		1	10/05/21	SVOC	Hexachloroethane	67-72-1		U	4.30E-01	8.0E+01		1.8E+01	
SB-201	N		1	10/05/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.10E-01	2.1E+02		1.1E+01	
SB-201	N		1	10/05/21	SVOC	Isophorone	78-59-1		U	4.30E-01	2.4E+04		5.7E+03	
SB-201	N		1	10/05/21	SVOC	1-Methylnaphthalene	90-12-0	7.20E-02	J	2.10E-01	7.3E+02	9.9E-05	1.8E+02	4.0E-04
SB-201	N		1	10/05/21	SVOC	2-Methylnaphthalene	91-57-6	1.20E-01	J	2.10E-01	3.0E+03	4.0E-05	2.4E+02	5.0E-04
SB-201	N		1	10/05/21	SVOC	2-Methylphenol	95-48-7		U	4.30E-01	4.1E+04		3.2E+03	
SB-201	N		1	10/05/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.30E-01				
SB-201	N		1	10/05/21	SVOC	Naphthalene	91-20-3		U	2.10E-01	8.6E+01		2.0E+01	
SB-201	N		1	10/05/21	SVOC	2-Nitroaniline	88-74-4		U	4.30E-01	8.0E+03		6.3E+02	
SB-201	N		1	10/05/21	SVOC	3-Nitroaniline	99-09-2		U	4.30E-01	1.1E+03		2.5E+02	
SB-201	N		1	10/05/21	SVOC	4-Nitroaniline	100-01-6		U	4.30E-01	1.1E+03		2.5E+02	
SB-201	N		1	10/05/21	SVOC	2-Nitrophenol	88-75-5		U	4.30E-01				
SB-201	N		1	10/05/21	SVOC	4-Nitrophenol	100-02-7		U	8.30E-01				
SB-201	N		1	10/05/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.30E-01	3.4E-01		2.0E-02	
SB-201	N		1	10/05/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.30E-01	4.7E+03		1.1E+03	
SB-201	N		1	10/05/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.30E-01	3.3E+00		7.8E-01	
SB-201	N		1	10/05/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.30E-01	4.7E+04		3.1E+03	
SB-201	N		1	10/05/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.30E-01	1.3E+02		2.7E+01	
SB-201	N		1	10/05/21	SVOC	Pentachlorophenol	87-86-5		U	4.30E-01	4.0E+01		1.0E+01	
SB-201	N		1	10/05/21	SVOC	Phenanthrene	85-01-8	7.70E-02	J	2.10E-01	2.3E+04	3.3E-06	1.8E+03	4.3E-05
SB-201	N		1	10/05/21	SVOC	Phenol	108-95-2		U	4.30E-01	2.5E+05		1.9E+04	
SB-201	N		1	10/05/21	SVOC	Pyrene	129-00-0	7.90E-02	J	2.10E-01	2.3E+04	3.4E-06	1.8E+03	4.4E-05
SB-201	N		1	10/05/21	SVOC	Pyridine	110-86-1		U	4.30E-01	1.2E+03		7.8E+01	
SB-201	N		1	10/05/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.30E-01	3.5E+01		2.3E+00	
SB-201	N		1	10/05/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.30E-01	8.2E+04		6.3E+03	
SB-201	N		1	10/05/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.30E-01	8.2E+02		6.3E+01	
SB-201	N		1	10/05/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.30E-01	7.4E+01		1.7E+01	
SB-201	N		1	10/05/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.30E-01	1.5E+01		3.6E+00	
SB-201	N		1	10/05/21	NITRO	Nitrobenzene	98-95-3		U	4.30E-01	2.2E+02		5.1E+01	
SB-201	N		1	10/05/21	INORG	Aluminum	7429-90-5	7.70E+03		2.00E+01	1.1E+06	7.0E-03	7.7E+04	1.0E-01
SB-201	N		1	10/05/21	INORG	Antimony	7440-36-0		U	2.00E+00	4.7E+02		3.1E+01	
SB-201	N		1	10/05/21	INORG	Arsenic	7440-38-2	2.50E+01		4.10E+00	3.0E+01	8.3E-01	6.8E+00	3.7E+00
SB-201	N		1	10/05/21	INORG	Barium	7440-39-3	4.20E+01		2.00E+00	2.2E+05	1.9E-04	1.5E+04	2.8E-03
SB-201	N		1	10/05/21	INORG	Beryllium	7440-41-7	3.50E-01		2.00E-01	2.3E+03	1.5E-04	1.6E+02	2.2E-03
SB-201	N		1	10/05/21	INORG	Cadmium	7440-43-9	6.00E-01		4.10E-01	1.0E+02	6.0E-03	7.1E+00	8.5E-02
SB-201	N		1	10/05/21	INORG	Chromium (total)	7440-47-3	1.90E+01		8.10E-01	1.8E+06	1.1E-05	1.2E+05	1.6E-04
SB-201	N		1	10/05/21	INORG	Cobalt	7440-48-4	5.10E+00		2.00E+00	3.5E+02	1.5E-02	2.3E+01	2.2E-01

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N		1	10/05/21	INORG	Copper	7440-50-8	1.60E+01		8.10E-01	4.7E+04	3.4E-04	3.1E+03	5.2E-03
SB-201	N		1	10/05/21	INORG	Iron	7439-89-6	2.50E+04		4.10E+02	8.2E+05	3.0E-02	5.5E+04	4.5E-01
SB-201	N		1	10/05/21	INORG	Lead	7439-92-1	1.40E+01		6.10E-01	8.0E+02	1.8E-02	2.0E+02	7.0E-02
SB-201	N		1	10/05/21	INORG	Manganese	7439-96-5	5.40E+01		4.10E-01	2.6E+04	2.1E-03	1.8E+03	3.0E-02
SB-201	N		1	10/05/21	INORG	Mercury	7439-97-6	5.00E-02		3.20E-02	4.1E+01	1.2E-03	7.4E+00	6.7E-03
SB-201	N		1	10/05/21	INORG	Nickel	7440-02-0	7.90E+00		8.10E-01	2.2E+04	3.6E-04	1.5E+03	5.3E-03
SB-201	N		1	10/05/21	INORG	Selenium	7782-49-2		U	4.10E+00	5.8E+03		3.9E+02	
SB-201	N		1	10/05/21	INORG	Silver	7440-22-4		U	4.10E-01	5.8E+03		3.9E+02	
SB-201	N		1	10/05/21	INORG	Thallium	7440-28-0	1.30E+00	J	2.00E+00	1.2E+01	1.1E-01	7.8E-01	1.7E+00
SB-201	N		1	10/05/21	INORG	Vanadium	7440-62-2	3.00E+01		8.10E-01	5.8E+03	5.2E-03	3.9E+02	7.7E-02
SB-201	N		1	10/05/21	INORG	Zinc	7440-66-6	2.20E+01		8.10E-01	3.5E+05	6.3E-05	2.3E+04	9.6E-04
SB-201	FD		1	10/08/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	
SB-201	FD		1	10/08/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-201	FD		1	10/08/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-201	FD		1	10/08/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-201	FD		1	10/08/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-201	FD		1	10/08/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	FD		1	10/08/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-201	FD		1	10/08/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-201	FD		1	10/08/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-201	FD		1	10/08/21	SVOC	Benzidine	92-87-5		U	7.80E-01	1.0E-01		5.3E-03	
SB-201	FD		1	10/08/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	FD		1	10/08/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-201	FD		1	10/08/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	FD		1	10/08/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	FD		1	10/08/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-201	FD		1	10/08/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-201	FD		1	10/08/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-201	FD		1	10/08/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-201	FD		1	10/08/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-201	FD		1	10/08/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-201	FD		1	10/08/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-201	FD		1	10/08/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-201	FD		1	10/08/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.80E-01	8.2E+04		6.3E+03	
SB-201	FD		1	10/08/21	SVOC	4-Chloroaniline	106-47-8		U	7.80E-01	1.1E+02		2.7E+01	
SB-201	FD		1	10/08/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-201	FD		1	10/08/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-201	FD		1	10/08/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-201	FD		1	10/08/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-201	FD		1	10/08/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-201	FD		1	10/08/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-201	FD		1	10/08/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-201	FD		1	10/08/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-201	FD		1	10/08/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	FD		1	10/08/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-201	FD		1	10/08/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-201	FD		1	10/08/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-201	FD		1	10/08/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-201	FD		1	10/08/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.80E-01	1.6E+03		1.3E+02	
SB-201	FD		1	10/08/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-201	FD		1	10/08/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-201	FD		1	10/08/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-201	FD		1	10/08/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-201	FD		1	10/08/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-201	FD		1	10/08/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-201	FD		1	10/08/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-201	FD		1	10/08/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-201	FD		1	10/08/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	FD		1	10/08/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-201	FD		1	10/08/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-201	FD		1	10/08/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-201	FD		1	10/08/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-201	FD		1	10/08/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-201	FD		1	10/08/21	SVOC	Naphthalene	91-20-3		U	2.00E-01	8.6E+01		2.0E+01	
SB-201	FD		1	10/08/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-201	FD		1	10/08/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-201	FD		1	10/08/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-201	FD		1	10/08/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-201	FD		1	10/08/21	SVOC	4-Nitrophenol	100-02-7		U	7.80E-01				
SB-201	FD		1	10/08/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-201	FD		1	10/08/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-201	FD		1	10/08/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-201	FD		1	10/08/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-201	FD		1	10/08/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-201	FD		1	10/08/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-201	FD		1	10/08/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	FD		1	10/08/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-201	FD		1	10/08/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	FD		1	10/08/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-201	FD		1	10/08/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-201	FD		1	10/08/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-201	FD		1	10/08/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-201	FD		1	10/08/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-201	FD		1	10/08/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-201	FD		1	10/08/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-201	FD		1	10/08/21	INORG	Aluminum	7429-90-5	8.30E+03		2.00E+01	1.1E+06	7.5E-03	7.7E+04	1.1E-01
SB-201	FD		1	10/08/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-201	FD		1	10/08/21	INORG	Arsenic	7440-38-2	7.40E+00		3.80E+00	3.0E+01	2.5E-01	6.8E+00	1.1E+00

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	FD		1	10/08/21	INORG	Barium	7440-39-3	9.10E+01		1.90E+00	2.2E+05	4.1E-04	1.5E+04	6.1E-03
SB-201	FD		1	10/08/21	INORG	Beryllium	7440-41-7	8.80E-01		1.90E-01	2.3E+03	3.8E-04	1.6E+02	5.5E-03
SB-201	FD		1	10/08/21	INORG	Cadmium	7440-43-9		U	3.80E-01	1.0E+02		7.1E+00	
SB-201	FD		1	10/08/21	INORG	Chromium (total)	7440-47-3	1.90E+01		7.70E-01	1.8E+06	1.1E-05	1.2E+05	1.6E-04
SB-201	FD		1	10/08/21	INORG	Cobalt	7440-48-4	9.50E+00		1.90E+00	3.5E+02	2.7E-02	2.3E+01	4.1E-01
SB-201	FD		1	10/08/21	INORG	Copper	7440-50-8	1.50E+01		7.70E-01	4.7E+04	3.2E-04	3.1E+03	4.8E-03
SB-201	FD		1	10/08/21	INORG	Iron	7439-89-6	3.10E+04		3.80E+02	8.2E+05	3.8E-02	5.5E+04	5.6E-01
SB-201	FD		1	10/08/21	INORG	Lead	7439-92-1	1.90E+01		5.80E-01	8.0E+02	2.4E-02	2.0E+02	9.5E-02
SB-201	FD		1	10/08/21	INORG	Manganese	7439-96-5	2.10E+02		3.80E-01	2.6E+04	8.1E-03	1.8E+03	1.2E-01
SB-201	FD		1	10/08/21	INORG	Mercury	7439-97-6	2.90E-02	J	3.20E-02	4.1E+01	7.1E-04	7.4E+00	3.9E-03
SB-201	FD		1	10/08/21	INORG	Nickel	7440-02-0	1.60E+01		7.70E-01	2.2E+04	7.3E-04	1.5E+03	1.1E-02
SB-201	FD		1	10/08/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-201	FD		1	10/08/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-201	FD		1	10/08/21	INORG	Thallium	7440-28-0	1.40E+00	J	1.90E+00	1.2E+01	1.2E-01	7.8E-01	1.8E+00
SB-201	FD		1	10/08/21	INORG	Vanadium	7440-62-2	3.00E+01		7.70E-01	5.8E+03	5.2E-03	3.9E+02	7.7E-02
SB-201	FD		1	10/08/21	INORG	Zinc	7440-66-6	5.30E+01		7.70E-01	3.5E+05	1.5E-04	2.3E+04	2.3E-03
SB-201	N	10	12	10/08/21	VOC	Acetone	67-64-1		U	8.10E-02	1.1E+06		7.0E+04	
SB-201	N	10	12	10/08/21	VOC	Acrylonitrile	107-13-1		U	4.90E-03	1.1E+01		2.5E+00	
SB-201	N	10	12	10/08/21	VOC	Benzene	71-43-2		U	1.60E-03	5.1E+01		1.2E+01	
SB-201	N	10	12	10/08/21	VOC	Bromobenzene	108-86-1		U	1.60E-03	1.8E+03		2.9E+02	
SB-201	N	10	12	10/08/21	VOC	Bromochloromethane	74-97-5		U	1.60E-03	6.3E+02		1.5E+02	
SB-201	N	10	12	10/08/21	VOC	Bromodichloromethane	75-27-4		U	1.60E-03	1.3E+01		2.9E+00	
SB-201	N	10	12	10/08/21	VOC	Bromoform	75-25-2		U	1.60E-03	8.6E+02		1.9E+02	
SB-201	N	10	12	10/08/21	VOC	Bromomethane	74-83-9		U	8.10E-03	3.0E+01		6.8E+00	
SB-201	N	10	12	10/08/21	VOC	2-Butanone	78-93-3		U	3.20E-02	1.9E+05		2.7E+04	
SB-201	N	10	12	10/08/21	VOC	n-Butylbenzene	104-51-8		U	1.60E-03	5.8E+04		3.9E+03	
SB-201	N	10	12	10/08/21	VOC	sec-Butylbenzene	135-98-8		U	1.60E-03	1.2E+05		7.8E+03	
SB-201	N	10	12	10/08/21	VOC	tert-Butylbenzene	98-06-6		U	3.20E-03	1.2E+05		7.8E+03	
SB-201	N	10	12	10/08/21	VOC	Carbon Disulfide	75-15-0		U	8.10E-03	3.5E+03		7.7E+02	
SB-201	N	10	12	10/08/21	VOC	Carbon Tetrachloride	56-23-5		U	1.60E-03	2.9E+01		6.5E+00	
SB-201	N	10	12	10/08/21	VOC	Chlorobenzene	108-90-7		U	1.60E-03	1.3E+03		2.8E+02	
SB-201	N	10	12	10/08/21	VOC	Chloroethane	75-00-3		U	1.60E-02	2.3E+04		5.4E+03	
SB-201	N	10	12	10/08/21	VOC	Chloroform	67-66-3		U	3.20E-03	1.4E+01		3.2E+00	
SB-201	N	10	12	10/08/21	VOC	Chloromethane	74-87-3		U	8.10E-03	4.6E+02		1.1E+02	
SB-201	N	10	12	10/08/21	VOC	2-Chlorotoluene	95-49-8		U	1.60E-03	2.3E+04		1.6E+03	
SB-201	N	10	12	10/08/21	VOC	4-Chlorotoluene	106-43-4		U	1.60E-03	2.3E+04		1.6E+03	
SB-201	N	10	12	10/08/21	VOC	Cumene	98-82-8		U	1.60E-03	9.9E+03		1.9E+03	
SB-201	N	10	12	10/08/21	VOC	p-Cymene	99-87-6		U	1.60E-03				
SB-201	N	10	12	10/08/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.60E-03	6.4E-01		5.3E-02	
SB-201	N	10	12	10/08/21	VOC	Dibromochloromethane	124-48-1		U	8.10E-04	3.9E+02		8.3E+01	
SB-201	N	10	12	10/08/21	VOC	1,2-Dibromoethane	106-93-4		U	8.10E-04	1.6E+00		3.6E-01	
SB-201	N	10	12	10/08/21	VOC	Dibromomethane	74-95-3		U	1.60E-03	9.9E+01		2.4E+01	
SB-201	N	10	12	10/08/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.20E-03	3.2E-01		7.4E-02	
SB-201	N	10	12	10/08/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.60E-03	9.3E+03		1.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N	10	12	10/08/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.60E-03	1.1E+02		2.6E+01	
SB-201	N	10	12	10/08/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.60E-03	1.1E+02		2.6E+01	
SB-201	N	10	12	10/08/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.60E-02	3.7E+02		8.7E+01	
SB-201	N	10	12	10/08/21	VOC	1,1-Dichloroethane	75-34-3		U	1.60E-03	1.6E+02		3.6E+01	
SB-201	N	10	12	10/08/21	VOC	1,2-Dichloroethane	107-06-2		U	1.60E-03	2.0E+01		4.6E+00	
SB-201	N	10	12	10/08/21	VOC	1,1-Dichloroethene	75-35-4		U	3.20E-03	1.0E+03		2.3E+02	
SB-201	N	10	12	10/08/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.60E-03	3.7E+02		6.3E+01	
SB-201	N	10	12	10/08/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.60E-03	3.0E+02		7.0E+01	
SB-201	N	10	12	10/08/21	VOC	1,2-Dichloropropane	78-87-5		U	1.60E-03	6.6E+01		1.6E+01	
SB-201	N	10	12	10/08/21	VOC	1,3-Dichloropropane	142-28-9		U	8.10E-04	2.3E+04		1.6E+03	
SB-201	N	10	12	10/08/21	VOC	2,2-Dichloropropane	594-20-7		U	1.60E-03				
SB-201	N	10	12	10/08/21	VOC	1,1-Dichloropropene	563-58-6		U	1.60E-03				
SB-201	N	10	12	10/08/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	8.10E-04	8.2E+01		1.8E+01	
SB-201	N	10	12	10/08/21	VOC	1,4-Dioxane	123-91-1		U	8.10E-02	2.4E+02		5.3E+01	
SB-201	N	10	12	10/08/21	VOC	Ethyl tert-butyl ether	637-92-3		U	8.10E-04	5.6E+03		1.3E+03	
SB-201	N	10	12	10/08/21	VOC	Ethyl Benzene	100-41-4		U	1.60E-03	2.5E+02		5.8E+01	
SB-201	N	10	12	10/08/21	VOC	Diethyl ether	60-29-7		U	1.60E-02	2.3E+05		1.6E+04	
SB-201	N	10	12	10/08/21	VOC	2-Hexanone	591-78-6		U	1.60E-02	1.3E+03		2.0E+02	
SB-201	N	10	12	10/08/21	VOC	Methyl Acetate	79-20-9		U	1.60E-03	1.2E+06		7.8E+04	
SB-201	N	10	12	10/08/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.20E-03	2.1E+03		4.7E+02	
SB-201	N	10	12	10/08/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.60E-02	1.4E+05		3.3E+04	
SB-201	N	10	12	10/08/21	VOC	Methylcyclohexane	108-87-2		U	1.60E-03	2.7E+04		6.5E+03	
SB-201	N	10	12	10/08/21	VOC	Methylene Chloride	75-09-2		U	1.60E-02	3.2E+03		3.5E+02	
SB-201	N	10	12	10/08/21	VOC	Diisopropyl ether	108-20-3		U	8.10E-04	9.4E+03		2.2E+03	
SB-201	N	10	12	10/08/21	VOC	n-Propylbenzene	103-65-1		U	1.60E-03	2.4E+04		3.8E+03	
SB-201	N	10	12	10/08/21	VOC	Styrene	100-42-5		U	1.60E-03	3.5E+04		6.0E+03	
SB-201	N	10	12	10/08/21	VOC	tert-Butyl alcohol	75-65-0		U	8.10E-02	6.5E+04		1.4E+04	
SB-201	N	10	12	10/08/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.60E-03	8.8E+01		2.0E+01	
SB-201	N	10	12	10/08/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	8.10E-04	2.7E+01		6.0E+00	
SB-201	N	10	12	10/08/21	VOC	Tetrachloroethene	127-18-4		U	1.60E-03	3.9E+02		8.1E+01	
SB-201	N	10	12	10/08/21	VOC	Tetrahydrofuran	109-99-9		U	8.10E-03	9.5E+04		1.8E+04	
SB-201	N	10	12	10/08/21	VOC	Toluene	108-88-3		U	1.60E-03	4.7E+04		4.9E+03	
SB-201	N	10	12	10/08/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.60E-03	9.3E+02		6.3E+01	
SB-201	N	10	12	10/08/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.60E-03	2.6E+02		5.8E+01	
SB-201	N	10	12	10/08/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.60E-03				
SB-201	N	10	12	10/08/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.60E-03	3.6E+04		8.1E+03	
SB-201	N	10	12	10/08/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.60E-03	6.3E+00		1.5E+00	
SB-201	N	10	12	10/08/21	VOC	Trichloroethene	79-01-6		U	1.60E-03	1.9E+01		4.1E+00	
SB-201	N	10	12	10/08/21	VOC	Trichlorofluoromethane	75-69-4		U	8.10E-03	3.5E+05		2.3E+04	
SB-201	N	10	12	10/08/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.60E-03	1.1E+00		5.1E-02	
SB-201	N	10	12	10/08/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	8.10E-03	2.8E+04		6.7E+03	
SB-201	N	10	12	10/08/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.60E-03	1.8E+03		3.0E+02	
SB-201	N	10	12	10/08/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.60E-03	1.5E+03		2.7E+02	
SB-201	N	10	12	10/08/21	VOC	Vinyl Chloride	75-01-4		U	8.10E-03	1.7E+01		5.9E-01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N	10	12	10/08/21	VOC	Xylenes (total)	1330-20-7		U	3.20E-03	2.5E+03		5.8E+02	
SB-201	N	10	12	10/08/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-201	N	10	12	10/08/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	N	10	12	10/08/21	SVOC	Acetophenone	98-86-2		U	3.90E-01	1.2E+05		7.8E+03	
SB-201	N	10	12	10/08/21	SVOC	t-Amyl methyl ether	994-05-8		U	8.10E-04				
SB-201	N	10	12	10/08/21	SVOC	Aniline	62-53-3		U	3.90E-01	4.0E+03		4.4E+02	
SB-201	N	10	12	10/08/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-201	N	10	12	10/08/21	SVOC	Benzidine	92-87-5		U	7.60E-01	1.0E-01		5.3E-03	
SB-201	N	10	12	10/08/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	N	10	12	10/08/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-201	N	10	12	10/08/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	N	10	12	10/08/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	N	10	12	10/08/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-201	N	10	12	10/08/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-201	N	10	12	10/08/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.90E-01	2.5E+03		1.9E+02	
SB-201	N	10	12	10/08/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.90E-01	1.0E+01		2.3E+00	
SB-201	N	10	12	10/08/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.90E-01	1.6E+03		3.9E+02	
SB-201	N	10	12	10/08/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.90E-01				
SB-201	N	10	12	10/08/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.90E-01	1.2E+04		2.9E+03	
SB-201	N	10	12	10/08/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-201	N	10	12	10/08/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.60E-01	8.2E+04		6.3E+03	
SB-201	N	10	12	10/08/21	SVOC	4-Chloroaniline	106-47-8		U	7.60E-01	1.1E+02		2.7E+01	
SB-201	N	10	12	10/08/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.90E-01	6.0E+04		4.8E+03	
SB-201	N	10	12	10/08/21	SVOC	2-Chlorophenol	95-57-8		U	3.90E-01	5.8E+03		3.9E+02	
SB-201	N	10	12	10/08/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.90E-01				
SB-201	N	10	12	10/08/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-201	N	10	12	10/08/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-201	N	10	12	10/08/21	SVOC	Dibenzofuran	132-64-9		U	3.90E-01	1.2E+03		7.8E+01	
SB-201	N	10	12	10/08/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-201	N	10	12	10/08/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.90E-01	2.5E+03		1.9E+02	
SB-201	N	10	12	10/08/21	SVOC	Diethylphthalate	84-66-2		U	3.90E-01	6.6E+05		5.1E+04	
SB-201	N	10	12	10/08/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.90E-01	1.6E+04		1.3E+03	
SB-201	N	10	12	10/08/21	SVOC	Dimethylphthalate	131-11-3		U	3.90E-01	6.6E+05		5.1E+04	
SB-201	N	10	12	10/08/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.90E-01	8.2E+04		6.3E+03	
SB-201	N	10	12	10/08/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.90E-01	6.6E+01		5.1E+00	
SB-201	N	10	12	10/08/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.60E-01	1.6E+03		1.3E+02	
SB-201	N	10	12	10/08/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.90E-01	8.2E+03		6.3E+02	
SB-201	N	10	12	10/08/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.90E-01	2.9E+01		6.8E+00	
SB-201	N	10	12	10/08/21	SVOC	Fluoranthene	206-44-0	9.30E-02	J	2.00E-01	3.0E+04	3.1E-06	2.4E+03	3.9E-05
SB-201	N	10	12	10/08/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-201	N	10	12	10/08/21	SVOC	Hexachlorobenzene	118-74-1		U	3.90E-01	9.6E+00		7.8E-01	
SB-201	N	10	12	10/08/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.60E-03	5.3E+01		1.2E+01	
SB-201	N	10	12	10/08/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.90E-01	7.5E+00		1.8E+00	
SB-201	N	10	12	10/08/21	SVOC	Hexachloroethane	67-72-1		U	3.90E-01	8.0E+01		1.8E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N	10	12	10/08/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	N	10	12	10/08/21	SVOC	Isophorone	78-59-1		U	3.90E-01	2.4E+04		5.7E+03	
SB-201	N	10	12	10/08/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-201	N	10	12	10/08/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-201	N	10	12	10/08/21	SVOC	2-Methylphenol	95-48-7		U	3.90E-01	4.1E+04		3.2E+03	
SB-201	N	10	12	10/08/21	SVOC	3&4-Methylphenol	65794-96-9	1.00E-01	J	3.90E-01				
SB-201	N	10	12	10/08/21	SVOC	Naphthalene	91-20-3		U	3.20E-03	8.6E+01		2.0E+01	
SB-201	N	10	12	10/08/21	SVOC	2-Nitroaniline	88-74-4		U	3.90E-01	8.0E+03		6.3E+02	
SB-201	N	10	12	10/08/21	SVOC	3-Nitroaniline	99-09-2		U	3.90E-01	1.1E+03		2.5E+02	
SB-201	N	10	12	10/08/21	SVOC	4-Nitroaniline	100-01-6		U	3.90E-01	1.1E+03		2.5E+02	
SB-201	N	10	12	10/08/21	SVOC	2-Nitrophenol	88-75-5		U	3.90E-01				
SB-201	N	10	12	10/08/21	SVOC	4-Nitrophenol	100-02-7		U	7.60E-01				
SB-201	N	10	12	10/08/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.90E-01	3.4E-01		2.0E-02	
SB-201	N	10	12	10/08/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.90E-01	4.7E+03		1.1E+03	
SB-201	N	10	12	10/08/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.90E-01	3.3E+00		7.8E-01	
SB-201	N	10	12	10/08/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.90E-01	4.7E+04		3.1E+03	
SB-201	N	10	12	10/08/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.90E-01	1.3E+02		2.7E+01	
SB-201	N	10	12	10/08/21	SVOC	Pentachlorophenol	87-86-5		U	3.90E-01	4.0E+01		1.0E+01	
SB-201	N	10	12	10/08/21	SVOC	Phenanthrene	85-01-8	6.20E-02	J	2.00E-01	2.3E+04	2.7E-06	1.8E+03	3.4E-05
SB-201	N	10	12	10/08/21	SVOC	Phenol	108-95-2		U	3.90E-01	2.5E+05		1.9E+04	
SB-201	N	10	12	10/08/21	SVOC	Pyrene	129-00-0	9.80E-02	J	2.00E-01	2.3E+04	4.3E-06	1.8E+03	5.4E-05
SB-201	N	10	12	10/08/21	SVOC	Pyridine	110-86-1		U	3.90E-01	1.2E+03		7.8E+01	
SB-201	N	10	12	10/08/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.90E-01	3.5E+01		2.3E+00	
SB-201	N	10	12	10/08/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.90E-01	8.2E+04		6.3E+03	
SB-201	N	10	12	10/08/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.90E-01	8.2E+02		6.3E+01	
SB-201	N	10	12	10/08/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.90E-01	7.4E+01		1.7E+01	
SB-201	N	10	12	10/08/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.90E-01	1.5E+01		3.6E+00	
SB-201	N	10	12	10/08/21	NITRO	Nitrobenzene	98-95-3		U	3.90E-01	2.2E+02		5.1E+01	
SB-201	N	10	12	10/08/21	INORG	Aluminum	7429-90-5	7.60E+03		1.90E+01	1.1E+06	6.9E-03	7.7E+04	9.9E-02
SB-201	N	10	12	10/08/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-201	N	10	12	10/08/21	INORG	Arsenic	7440-38-2	9.70E+00		3.80E+00	3.0E+01	3.2E-01	6.8E+00	1.4E+00
SB-201	N	10	12	10/08/21	INORG	Barium	7440-39-3	5.80E+01		1.90E+00	2.2E+05	2.6E-04	1.5E+04	3.9E-03
SB-201	N	10	12	10/08/21	INORG	Beryllium	7440-41-7	5.60E-01		1.90E-01	2.3E+03	2.4E-04	1.6E+02	3.5E-03
SB-201	N	10	12	10/08/21	INORG	Cadmium	7440-43-9	2.40E-01	J	3.80E-01	1.0E+02	2.4E-03	7.1E+00	3.4E-02
SB-201	N	10	12	10/08/21	INORG	Chromium (total)	7440-47-3	2.10E+01		7.50E-01	1.8E+06	1.2E-05	1.2E+05	1.8E-04
SB-201	N	10	12	10/08/21	INORG	Cobalt	7440-48-4	8.30E+00		1.90E+00	3.5E+02	2.4E-02	2.3E+01	3.6E-01
SB-201	N	10	12	10/08/21	INORG	Copper	7440-50-8	1.50E+01		7.50E-01	4.7E+04	3.2E-04	3.1E+03	4.8E-03
SB-201	N	10	12	10/08/21	INORG	Iron	7439-89-6	2.30E+04		3.80E+02	8.2E+05	2.8E-02	5.5E+04	4.2E-01
SB-201	N	10	12	10/08/21	INORG	Lead	7439-92-1	1.10E+01		5.60E-01	8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-201	N	10	12	10/08/21	INORG	Manganese	7439-96-5	2.60E+02		3.80E-01	2.6E+04	1.0E-02	1.8E+03	1.4E-01
SB-201	N	10	12	10/08/21	INORG	Mercury	7439-97-6	2.20E-02	J	2.90E-02	4.1E+01	5.4E-04	7.4E+00	3.0E-03
SB-201	N	10	12	10/08/21	INORG	Nickel	7440-02-0	1.30E+01		7.50E-01	2.2E+04	5.9E-04	1.5E+03	8.7E-03
SB-201	N	10	12	10/08/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-201	N	10	12	10/08/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N	10	12	10/08/21	INORG	Thallium	7440-28-0	1.40E+00	J	1.90E+00	1.2E+01	1.2E-01	7.8E-01	1.8E+00
SB-201	N	10	12	10/08/21	INORG	Vanadium	7440-62-2	2.20E+01		7.50E-01	5.8E+03	3.8E-03	3.9E+02	5.6E-02
SB-201	N	10	12	10/08/21	INORG	Zinc	7440-66-6	6.90E+01		7.50E-01	3.5E+05	2.0E-04	2.3E+04	3.0E-03
SB-201	N	24	26	10/08/21	VOC	Acetone	67-64-1		U	1.10E-01	1.1E+06		7.0E+04	
SB-201	N	24	26	10/08/21	VOC	Acrylonitrile	107-13-1		U	6.60E-03	1.1E+01		2.5E+00	
SB-201	N	24	26	10/08/21	VOC	Benzene	71-43-2		U	2.20E-03	5.1E+01		1.2E+01	
SB-201	N	24	26	10/08/21	VOC	Bromobenzene	108-86-1		U	2.20E-03	1.8E+03		2.9E+02	
SB-201	N	24	26	10/08/21	VOC	Bromochloromethane	74-97-5		U	2.20E-03	6.3E+02		1.5E+02	
SB-201	N	24	26	10/08/21	VOC	Bromodichloromethane	75-27-4		U	2.20E-03	1.3E+01		2.9E+00	
SB-201	N	24	26	10/08/21	VOC	Bromoform	75-25-2		U	2.20E-03	8.6E+02		1.9E+02	
SB-201	N	24	26	10/08/21	VOC	Bromomethane	74-83-9		U	1.10E-02	3.0E+01		6.8E+00	
SB-201	N	24	26	10/08/21	VOC	2-Butanone	78-93-3		U	4.40E-02	1.9E+05		2.7E+04	
SB-201	N	24	26	10/08/21	VOC	n-Butylbenzene	104-51-8		U	2.20E-03	5.8E+04		3.9E+03	
SB-201	N	24	26	10/08/21	VOC	sec-Butylbenzene	135-98-8		U	2.20E-03	1.2E+05		7.8E+03	
SB-201	N	24	26	10/08/21	VOC	tert-Butylbenzene	98-06-6		U	4.40E-03	1.2E+05		7.8E+03	
SB-201	N	24	26	10/08/21	VOC	Carbon Disulfide	75-15-0		U	1.10E-02	3.5E+03		7.7E+02	
SB-201	N	24	26	10/08/21	VOC	Carbon Tetrachloride	56-23-5		U	2.20E-03	2.9E+01		6.5E+00	
SB-201	N	24	26	10/08/21	VOC	Chlorobenzene	108-90-7		U	2.20E-03	1.3E+03		2.8E+02	
SB-201	N	24	26	10/08/21	VOC	Chloroethane	75-00-3		U	2.20E-02	2.3E+04		5.4E+03	
SB-201	N	24	26	10/08/21	VOC	Chloroform	67-66-3		U	4.40E-03	1.4E+01		3.2E+00	
SB-201	N	24	26	10/08/21	VOC	Chloromethane	74-87-3		U	1.10E-02	4.6E+02		1.1E+02	
SB-201	N	24	26	10/08/21	VOC	2-Chlorotoluene	95-49-8		U	2.20E-03	2.3E+04		1.6E+03	
SB-201	N	24	26	10/08/21	VOC	4-Chlorotoluene	106-43-4		U	2.20E-03	2.3E+04		1.6E+03	
SB-201	N	24	26	10/08/21	VOC	Cumene	98-82-8		U	2.20E-03	9.9E+03		1.9E+03	
SB-201	N	24	26	10/08/21	VOC	p-Cymene	99-87-6		U	2.20E-03				
SB-201	N	24	26	10/08/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	2.20E-03	6.4E-01		5.3E-02	
SB-201	N	24	26	10/08/21	VOC	Dibromochloromethane	124-48-1		U	1.10E-03	3.9E+02		8.3E+01	
SB-201	N	24	26	10/08/21	VOC	1,2-Dibromoethane	106-93-4		U	1.10E-03	1.6E+00		3.6E-01	
SB-201	N	24	26	10/08/21	VOC	Dibromomethane	74-95-3		U	2.20E-03	9.9E+01		2.4E+01	
SB-201	N	24	26	10/08/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	4.40E-03	3.2E-01		7.4E-02	
SB-201	N	24	26	10/08/21	VOC	1,2-Dichlorobenzene	95-50-1		U	2.20E-03	9.3E+03		1.8E+03	
SB-201	N	24	26	10/08/21	VOC	1,3-Dichlorobenzene	541-73-1		U	2.20E-03	1.1E+02		2.6E+01	
SB-201	N	24	26	10/08/21	VOC	1,4-Dichlorobenzene	106-46-7		U	2.20E-03	1.1E+02		2.6E+01	
SB-201	N	24	26	10/08/21	VOC	Dichlorodifluoromethane	75-71-8		U	2.20E-02	3.7E+02		8.7E+01	
SB-201	N	24	26	10/08/21	VOC	1,1-Dichloroethane	75-34-3		U	2.20E-03	1.6E+02		3.6E+01	
SB-201	N	24	26	10/08/21	VOC	1,2-Dichloroethane	107-06-2		U	2.20E-03	2.0E+01		4.6E+00	
SB-201	N	24	26	10/08/21	VOC	1,1-Dichloroethene	75-35-4		U	4.40E-03	1.0E+03		2.3E+02	
SB-201	N	24	26	10/08/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	2.20E-03	3.7E+02		6.3E+01	
SB-201	N	24	26	10/08/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	2.20E-03	3.0E+02		7.0E+01	
SB-201	N	24	26	10/08/21	VOC	1,2-Dichloropropane	78-87-5		U	2.20E-03	6.6E+01		1.6E+01	
SB-201	N	24	26	10/08/21	VOC	1,3-Dichloropropane	142-28-9		U	1.10E-03	2.3E+04		1.6E+03	
SB-201	N	24	26	10/08/21	VOC	2,2-Dichloropropane	594-20-7		U	2.20E-03				
SB-201	N	24	26	10/08/21	VOC	1,1-Dichloropropene	563-58-6		U	2.20E-03				
SB-201	N	24	26	10/08/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	1.10E-03	8.2E+01		1.8E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N	24	26	10/08/21	VOC	1,4-Dioxane	123-91-1		U	1.10E-01	2.4E+02		5.3E+01	
SB-201	N	24	26	10/08/21	VOC	Ethyl tert-butyl ether	637-92-3		U	1.10E-03	5.6E+03		1.3E+03	
SB-201	N	24	26	10/08/21	VOC	Ethyl Benzene	100-41-4		U	2.20E-03	2.5E+02		5.8E+01	
SB-201	N	24	26	10/08/21	VOC	Diethyl ether	60-29-7		U	2.20E-02	2.3E+05		1.6E+04	
SB-201	N	24	26	10/08/21	VOC	2-Hexanone	591-78-6		U	2.20E-02	1.3E+03		2.0E+02	
SB-201	N	24	26	10/08/21	VOC	Methyl Acetate	79-20-9		U	2.20E-03	1.2E+06		7.8E+04	
SB-201	N	24	26	10/08/21	VOC	Methyl tert-butyl ether	1634-04-4		U	4.40E-03	2.1E+03		4.7E+02	
SB-201	N	24	26	10/08/21	VOC	4-Methyl-2-pentanone	108-10-1		U	2.20E-02	1.4E+05		3.3E+04	
SB-201	N	24	26	10/08/21	VOC	Methylcyclohexane	108-87-2		U	2.20E-03	2.7E+04		6.5E+03	
SB-201	N	24	26	10/08/21	VOC	Methylene Chloride	75-09-2	6.80E-04	J	2.20E-02	3.2E+03	2.1E-07	3.5E+02	1.9E-06
SB-201	N	24	26	10/08/21	VOC	Diisopropyl ether	108-20-3		U	1.10E-03	9.4E+03		2.2E+03	
SB-201	N	24	26	10/08/21	VOC	n-Propylbenzene	103-65-1		U	2.20E-03	2.4E+04		3.8E+03	
SB-201	N	24	26	10/08/21	VOC	Styrene	100-42-5		U	2.20E-03	3.5E+04		6.0E+03	
SB-201	N	24	26	10/08/21	VOC	tert-Butyl alcohol	75-65-0		U	1.10E-01	6.5E+04		1.4E+04	
SB-201	N	24	26	10/08/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	2.20E-03	8.8E+01		2.0E+01	
SB-201	N	24	26	10/08/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	1.10E-03	2.7E+01		6.0E+00	
SB-201	N	24	26	10/08/21	VOC	Tetrachloroethene	127-18-4		U	2.20E-03	3.9E+02		8.1E+01	
SB-201	N	24	26	10/08/21	VOC	Tetrahydrofuran	109-99-9		U	1.10E-02	9.5E+04		1.8E+04	
SB-201	N	24	26	10/08/21	VOC	Toluene	108-88-3		U	2.20E-03	4.7E+04		4.9E+03	
SB-201	N	24	26	10/08/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	2.20E-03	9.3E+02		6.3E+01	
SB-201	N	24	26	10/08/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	2.20E-03	2.6E+02		5.8E+01	
SB-201	N	24	26	10/08/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	2.20E-03				
SB-201	N	24	26	10/08/21	VOC	1,1,1-Trichloroethane	71-55-6		U	2.20E-03	3.6E+04		8.1E+03	
SB-201	N	24	26	10/08/21	VOC	1,1,2-Trichloroethane	79-00-5		U	2.20E-03	6.3E+00		1.5E+00	
SB-201	N	24	26	10/08/21	VOC	Trichloroethene	79-01-6		U	2.20E-03	1.9E+01		4.1E+00	
SB-201	N	24	26	10/08/21	VOC	Trichlorofluoromethane	75-69-4		U	1.10E-02	3.5E+05		2.3E+04	
SB-201	N	24	26	10/08/21	VOC	1,2,3-Trichloropropane	96-18-4		U	2.20E-03	1.1E+00		5.1E-02	
SB-201	N	24	26	10/08/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	1.10E-02	2.8E+04		6.7E+03	
SB-201	N	24	26	10/08/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	2.20E-03	1.8E+03		3.0E+02	
SB-201	N	24	26	10/08/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	2.20E-03	1.5E+03		2.7E+02	
SB-201	N	24	26	10/08/21	VOC	Vinyl Chloride	75-01-4		U	1.10E-02	1.7E+01		5.9E-01	
SB-201	N	24	26	10/08/21	VOC	Xylenes (total)	1330-20-7		U	4.40E-03	2.5E+03		5.8E+02	
SB-201	N	24	26	10/08/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-201	N	24	26	10/08/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	N	24	26	10/08/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-201	N	24	26	10/08/21	SVOC	t-Amyl methyl ether	994-05-8		U	1.10E-03				
SB-201	N	24	26	10/08/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-201	N	24	26	10/08/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-201	N	24	26	10/08/21	SVOC	Benzidine	92-87-5		U	7.70E-01	1.0E-01		5.3E-03	
SB-201	N	24	26	10/08/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	N	24	26	10/08/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-201	N	24	26	10/08/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	N	24	26	10/08/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	N	24	26	10/08/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N	24	26	10/08/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-201	N	24	26	10/08/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-201	N	24	26	10/08/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-201	N	24	26	10/08/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-201	N	24	26	10/08/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-201	N	24	26	10/08/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-201	N	24	26	10/08/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-201	N	24	26	10/08/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.70E-01	8.2E+04		6.3E+03	
SB-201	N	24	26	10/08/21	SVOC	4-Chloroaniline	106-47-8		U	7.70E-01	1.1E+02		2.7E+01	
SB-201	N	24	26	10/08/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-201	N	24	26	10/08/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-201	N	24	26	10/08/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-201	N	24	26	10/08/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-201	N	24	26	10/08/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-201	N	24	26	10/08/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-201	N	24	26	10/08/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-201	N	24	26	10/08/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-201	N	24	26	10/08/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-201	N	24	26	10/08/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-201	N	24	26	10/08/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-201	N	24	26	10/08/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-201	N	24	26	10/08/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-201	N	24	26	10/08/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.70E-01	1.6E+03		1.3E+02	
SB-201	N	24	26	10/08/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-201	N	24	26	10/08/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-201	N	24	26	10/08/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-201	N	24	26	10/08/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-201	N	24	26	10/08/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-201	N	24	26	10/08/21	SVOC	Hexachlorobutadiene	87-68-3		U	2.20E-03	5.3E+01		1.2E+01	
SB-201	N	24	26	10/08/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-201	N	24	26	10/08/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-201	N	24	26	10/08/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-201	N	24	26	10/08/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-201	N	24	26	10/08/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-201	N	24	26	10/08/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-201	N	24	26	10/08/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-201	N	24	26	10/08/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-201	N	24	26	10/08/21	SVOC	Naphthalene	91-20-3		U	4.40E-03	8.6E+01		2.0E+01	
SB-201	N	24	26	10/08/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-201	N	24	26	10/08/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-201	N	24	26	10/08/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-201	N	24	26	10/08/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-201	N	24	26	10/08/21	SVOC	4-Nitrophenol	100-02-7		U	7.70E-01				
SB-201	N	24	26	10/08/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-201	N	24	26	10/08/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-201	N	24	26	10/08/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-201	N	24	26	10/08/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-201	N	24	26	10/08/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-201	N	24	26	10/08/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-201	N	24	26	10/08/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	N	24	26	10/08/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-201	N	24	26	10/08/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-201	N	24	26	10/08/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-201	N	24	26	10/08/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-201	N	24	26	10/08/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-201	N	24	26	10/08/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-201	N	24	26	10/08/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-201	N	24	26	10/08/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-201	N	24	26	10/08/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-201	N	24	26	10/08/21	INORG	Aluminum	7429-90-5	9.60E+03		1.90E+01	1.1E+06	8.7E-03	7.7E+04	1.2E-01
SB-201	N	24	26	10/08/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-201	N	24	26	10/08/21	INORG	Arsenic	7440-38-2	2.70E+00	J	3.80E+00	3.0E+01	9.0E-02	6.8E+00	4.0E-01
SB-201	N	24	26	10/08/21	INORG	Barium	7440-39-3	7.20E+01		1.90E+00	2.2E+05	3.3E-04	1.5E+04	4.8E-03
SB-201	N	24	26	10/08/21	INORG	Beryllium	7440-41-7	8.00E-01		1.90E-01	2.3E+03	3.5E-04	1.6E+02	5.0E-03
SB-201	N	24	26	10/08/21	INORG	Cadmium	7440-43-9		U	3.80E-01	1.0E+02		7.1E+00	
SB-201	N	24	26	10/08/21	INORG	Chromium (total)	7440-47-3	1.30E+01		7.70E-01	1.8E+06	7.2E-06	1.2E+05	1.1E-04
SB-201	N	24	26	10/08/21	INORG	Cobalt	7440-48-4	1.40E+01		1.90E+00	3.5E+02	4.0E-02	2.3E+01	6.1E-01
SB-201	N	24	26	10/08/21	INORG	Copper	7440-50-8	1.40E+01		7.70E-01	4.7E+04	3.0E-04	3.1E+03	4.5E-03
SB-201	N	24	26	10/08/21	INORG	Iron	7439-89-6	2.40E+04		3.80E+02	8.2E+05	2.9E-02	5.5E+04	4.4E-01
SB-201	N	24	26	10/08/21	INORG	Lead	7439-92-1	8.30E+00		5.80E-01	8.0E+02	1.0E-02	2.0E+02	4.2E-02
SB-201	N	24	26	10/08/21	INORG	Manganese	7439-96-5	1.30E+02		3.80E-01	2.6E+04	5.0E-03	1.8E+03	7.2E-02
SB-201	N	24	26	10/08/21	INORG	Mercury	7439-97-6	1.80E-02	J	3.20E-02	4.1E+01	4.4E-04	7.4E+00	2.4E-03
SB-201	N	24	26	10/08/21	INORG	Nickel	7440-02-0	1.50E+01		7.70E-01	2.2E+04	6.8E-04	1.5E+03	1.0E-02
SB-201	N	24	26	10/08/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-201	N	24	26	10/08/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-201	N	24	26	10/08/21	INORG	Thallium	7440-28-0	1.30E+00	J	1.90E+00	1.2E+01	1.1E-01	7.8E-01	1.7E+00
SB-201	N	24	26	10/08/21	INORG	Vanadium	7440-62-2	2.50E+01		7.70E-01	5.8E+03	4.3E-03	3.9E+02	6.4E-02
SB-201	N	24	26	10/08/21	INORG	Zinc	7440-66-6	4.40E+01		7.70E-01	3.5E+05	1.3E-04	2.3E+04	1.9E-03
SB-202	N		1	10/07/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.60E-01	9.3E+03		1.8E+03	
SB-202	N		1	10/07/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.60E-01	1.1E+02		2.6E+01	
SB-202	N		1	10/07/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.60E-01	1.1E+02		2.6E+01	
SB-202	N		1	10/07/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.60E-01	2.6E+02		5.8E+01	
SB-202	N		1	10/07/21	SVOC	Acenaphthene	83-32-9		U	2.30E-01	4.5E+04		3.6E+03	
SB-202	N		1	10/07/21	SVOC	Acenaphthylene	208-96-8		U	2.30E-01	2.3E+04		1.8E+03	
SB-202	N		1	10/07/21	SVOC	Acetophenone	98-86-2		U	4.60E-01	1.2E+05		7.8E+03	
SB-202	N		1	10/07/21	SVOC	Aniline	62-53-3		U	4.60E-01	4.0E+03		4.4E+02	
SB-202	N		1	10/07/21	SVOC	Anthracene	120-12-7		U	2.30E-01	2.3E+05		1.8E+04	
SB-202	N		1	10/07/21	SVOC	Benzidine	92-87-5		U	9.00E-01	1.0E-01		5.3E-03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-202	N		1	10/07/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.30E-01	2.1E+02		1.1E+01	
SB-202	N		1	10/07/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.30E-01	2.1E+01		1.1E+00	
SB-202	N		1	10/07/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.30E-01	2.1E+02		1.1E+01	
SB-202	N		1	10/07/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.30E-01	2.3E+04		1.8E+03	
SB-202	N		1	10/07/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.30E-01	2.1E+03		1.1E+02	
SB-202	N		1	10/07/21	SVOC	Benzoic Acid	65-85-0		U	1.40E+00	3.3E+06		2.5E+05	
SB-202	N		1	10/07/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.60E-01	2.5E+03		1.9E+02	
SB-202	N		1	10/07/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.60E-01	1.0E+01		2.3E+00	
SB-202	N		1	10/07/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.60E-01	1.6E+03		3.9E+02	
SB-202	N		1	10/07/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.60E-01				
SB-202	N		1	10/07/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.60E-01	1.2E+04		2.9E+03	
SB-202	N		1	10/07/21	SVOC	Carbazole	86-74-8		U	2.30E-01	3.0E+04		2.4E+03	
SB-202	N		1	10/07/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	9.00E-01	8.2E+04		6.3E+03	
SB-202	N		1	10/07/21	SVOC	4-Chloroaniline	106-47-8		U	9.00E-01	1.1E+02		2.7E+01	
SB-202	N		1	10/07/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.60E-01	6.0E+04		4.8E+03	
SB-202	N		1	10/07/21	SVOC	2-Chlorophenol	95-57-8		U	4.60E-01	5.8E+03		3.9E+02	
SB-202	N		1	10/07/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.60E-01				
SB-202	N		1	10/07/21	SVOC	Chrysene	218-01-9		U	2.30E-01	2.1E+04		1.1E+03	
SB-202	N		1	10/07/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.30E-01	2.1E+01		1.1E+00	
SB-202	N		1	10/07/21	SVOC	Dibenzofuran	132-64-9		U	4.60E-01	1.2E+03		7.8E+01	
SB-202	N		1	10/07/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.30E-01	5.1E+01		1.2E+01	
SB-202	N		1	10/07/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.60E-01	2.5E+03		1.9E+02	
SB-202	N		1	10/07/21	SVOC	Diethylphthalate	84-66-2		U	4.60E-01	6.6E+05		5.1E+04	
SB-202	N		1	10/07/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.60E-01	1.6E+04		1.3E+03	
SB-202	N		1	10/07/21	SVOC	Dimethylphthalate	131-11-3		U	4.60E-01	6.6E+05		5.1E+04	
SB-202	N		1	10/07/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.60E-01	8.2E+04		6.3E+03	
SB-202	N		1	10/07/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.60E-01	6.6E+01		5.1E+00	
SB-202	N		1	10/07/21	SVOC	2,4-Dinitrophenol	51-28-5		U	9.00E-01	1.6E+03		1.3E+02	
SB-202	N		1	10/07/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.60E-01	8.2E+03		6.3E+02	
SB-202	N		1	10/07/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.60E-01	2.9E+01		6.8E+00	
SB-202	N		1	10/07/21	SVOC	Fluoranthene	206-44-0		U	2.30E-01	3.0E+04		2.4E+03	
SB-202	N		1	10/07/21	SVOC	Fluorene	86-73-7		U	2.30E-01	3.0E+04		2.4E+03	
SB-202	N		1	10/07/21	SVOC	Hexachlorobenzene	118-74-1		U	4.60E-01	9.6E+00		7.8E-01	
SB-202	N		1	10/07/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.60E-01	5.3E+01		1.2E+01	
SB-202	N		1	10/07/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.60E-01	7.5E+00		1.8E+00	
SB-202	N		1	10/07/21	SVOC	Hexachloroethane	67-72-1		U	4.60E-01	8.0E+01		1.8E+01	
SB-202	N		1	10/07/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.30E-01	2.1E+02		1.1E+01	
SB-202	N		1	10/07/21	SVOC	Isophorone	78-59-1		U	4.60E-01	2.4E+04		5.7E+03	
SB-202	N		1	10/07/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.30E-01	7.3E+02		1.8E+02	
SB-202	N		1	10/07/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.30E-01	3.0E+03		2.4E+02	
SB-202	N		1	10/07/21	SVOC	2-Methylphenol	95-48-7		U	4.60E-01	4.1E+04		3.2E+03	
SB-202	N		1	10/07/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.60E-01				
SB-202	N		1	10/07/21	SVOC	Naphthalene	91-20-3		U	2.30E-01	8.6E+01		2.0E+01	
SB-202	N		1	10/07/21	SVOC	2-Nitroaniline	88-74-4		U	4.60E-01	8.0E+03		6.3E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-202	N		1	10/07/21	SVOC	3-Nitroaniline	99-09-2		U	4.60E-01	1.1E+03		2.5E+02	
SB-202	N		1	10/07/21	SVOC	4-Nitroaniline	100-01-6		U	4.60E-01	1.1E+03		2.5E+02	
SB-202	N		1	10/07/21	SVOC	2-Nitrophenol	88-75-5		U	4.60E-01				
SB-202	N		1	10/07/21	SVOC	4-Nitrophenol	100-02-7		U	9.00E-01				
SB-202	N		1	10/07/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.60E-01	3.4E-01		2.0E-02	
SB-202	N		1	10/07/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.60E-01	4.7E+03		1.1E+03	
SB-202	N		1	10/07/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.60E-01	3.3E+00		7.8E-01	
SB-202	N		1	10/07/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.60E-01	4.7E+04		3.1E+03	
SB-202	N		1	10/07/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.60E-01	1.3E+02		2.7E+01	
SB-202	N		1	10/07/21	SVOC	Pentachlorophenol	87-86-5		U	4.60E-01	4.0E+01		1.0E+01	
SB-202	N		1	10/07/21	SVOC	Phenanthrene	85-01-8		U	2.30E-01	2.3E+04		1.8E+03	
SB-202	N		1	10/07/21	SVOC	Phenol	108-95-2		U	4.60E-01	2.5E+05		1.9E+04	
SB-202	N		1	10/07/21	SVOC	Pyrene	129-00-0		U	2.30E-01	2.3E+04		1.8E+03	
SB-202	N		1	10/07/21	SVOC	Pyridine	110-86-1		U	4.60E-01	1.2E+03		7.8E+01	
SB-202	N		1	10/07/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.60E-01	3.5E+01		2.3E+00	
SB-202	N		1	10/07/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.60E-01	8.2E+04		6.3E+03	
SB-202	N		1	10/07/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.60E-01	8.2E+02		6.3E+01	
SB-202	N		1	10/07/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.60E-01	7.4E+01		1.7E+01	
SB-202	N		1	10/07/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.60E-01	1.5E+01		3.6E+00	
SB-202	N		1	10/07/21	NITRO	Nitrobenzene	98-95-3		U	4.60E-01	2.2E+02		5.1E+01	
SB-202	N		1	10/07/21	INORG	Aluminum	7429-90-5	8.30E+03		2.20E+01	1.1E+06	7.5E-03	7.7E+04	1.1E-01
SB-202	N		1	10/07/21	INORG	Antimony	7440-36-0		U	2.20E+00	4.7E+02		3.1E+01	
SB-202	N		1	10/07/21	INORG	Arsenic	7440-38-2	8.10E+00		4.40E+00	3.0E+01	2.7E-01	6.8E+00	1.2E+00
SB-202	N		1	10/07/21	INORG	Barium	7440-39-3	7.30E+01		2.20E+00	2.2E+05	3.3E-04	1.5E+04	4.9E-03
SB-202	N		1	10/07/21	INORG	Beryllium	7440-41-7	3.40E-01		2.20E-01	2.3E+03	1.5E-04	1.6E+02	2.1E-03
SB-202	N		1	10/07/21	INORG	Cadmium	7440-43-9		U	4.40E-01	1.0E+02		7.1E+00	
SB-202	N		1	10/07/21	INORG	Chromium (total)	7440-47-3	1.60E+01		8.80E-01	1.8E+06	8.9E-06	1.2E+05	1.3E-04
SB-202	N		1	10/07/21	INORG	Cobalt	7440-48-4	4.50E+00		2.20E+00	3.5E+02	1.3E-02	2.3E+01	2.0E-01
SB-202	N		1	10/07/21	INORG	Copper	7440-50-8	2.40E+01		8.80E-01	4.7E+04	5.1E-04	3.1E+03	7.7E-03
SB-202	N		1	10/07/21	INORG	Iron	7439-89-6	3.00E+04		4.40E+02	8.2E+05	3.7E-02	5.5E+04	5.5E-01
SB-202	N		1	10/07/21	INORG	Lead	7439-92-1	1.80E+01		6.60E-01	8.0E+02	2.3E-02	2.0E+02	9.0E-02
SB-202	N		1	10/07/21	INORG	Manganese	7439-96-5	9.80E+01		4.40E-01	2.6E+04	3.8E-03	1.8E+03	5.4E-02
SB-202	N		1	10/07/21	INORG	Mercury	7439-97-6		U	3.80E-02	4.1E+01		7.4E+00	
SB-202	N		1	10/07/21	INORG	Nickel	7440-02-0	9.20E+00		8.80E-01	2.2E+04	4.2E-04	1.5E+03	6.1E-03
SB-202	N		1	10/07/21	INORG	Selenium	7782-49-2		U	4.40E+00	5.8E+03		3.9E+02	
SB-202	N		1	10/07/21	INORG	Silver	7440-22-4		U	4.40E-01	5.8E+03		3.9E+02	
SB-202	N		1	10/07/21	INORG	Thallium	7440-28-0	1.30E+00	J	2.20E+00	1.2E+01	1.1E-01	7.8E-01	1.7E+00
SB-202	N		1	10/07/21	INORG	Vanadium	7440-62-2	2.60E+01		8.80E-01	5.8E+03	4.5E-03	3.9E+02	6.7E-02
SB-202	N		1	10/07/21	INORG	Zinc	7440-66-6	3.20E+01		8.80E-01	3.5E+05	9.1E-05	2.3E+04	1.4E-03
SB-202	N	25	30	10/07/21	VOC	Acetone	67-64-1		U	8.60E-02	1.1E+06		7.0E+04	
SB-202	N	25	30	10/07/21	VOC	Acrylonitrile	107-13-1		U	5.20E-03	1.1E+01		2.5E+00	
SB-202	N	25	30	10/07/21	VOC	Benzene	71-43-2		U	1.70E-03	5.1E+01		1.2E+01	
SB-202	N	25	30	10/07/21	VOC	Bromobenzene	108-86-1		U	1.70E-03	1.8E+03		2.9E+02	
SB-202	N	25	30	10/07/21	VOC	Bromochloromethane	74-97-5		U	1.70E-03	6.3E+02		1.5E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-202	N	25	30	10/07/21	VOC	Bromodichloromethane	75-27-4		U	1.70E-03	1.3E+01		2.9E+00	
SB-202	N	25	30	10/07/21	VOC	Bromoform	75-25-2		U	1.70E-03	8.6E+02		1.9E+02	
SB-202	N	25	30	10/07/21	VOC	Bromomethane	74-83-9		U	8.60E-03	3.0E+01		6.8E+00	
SB-202	N	25	30	10/07/21	VOC	2-Butanone	78-93-3		U	3.50E-02	1.9E+05		2.7E+04	
SB-202	N	25	30	10/07/21	VOC	n-Butylbenzene	104-51-8		U	1.70E-03	5.8E+04		3.9E+03	
SB-202	N	25	30	10/07/21	VOC	sec-Butylbenzene	135-98-8		U	1.70E-03	1.2E+05		7.8E+03	
SB-202	N	25	30	10/07/21	VOC	tert-Butylbenzene	98-06-6		U	3.50E-03	1.2E+05		7.8E+03	
SB-202	N	25	30	10/07/21	VOC	Carbon Disulfide	75-15-0		U	8.60E-03	3.5E+03		7.7E+02	
SB-202	N	25	30	10/07/21	VOC	Carbon Tetrachloride	56-23-5		U	1.70E-03	2.9E+01		6.5E+00	
SB-202	N	25	30	10/07/21	VOC	Chlorobenzene	108-90-7		U	1.70E-03	1.3E+03		2.8E+02	
SB-202	N	25	30	10/07/21	VOC	Chloroethane	75-00-3		U	1.70E-02	2.3E+04		5.4E+03	
SB-202	N	25	30	10/07/21	VOC	Chloroform	67-66-3		U	3.50E-03	1.4E+01		3.2E+00	
SB-202	N	25	30	10/07/21	VOC	Chloromethane	74-87-3		U	8.60E-03	4.6E+02		1.1E+02	
SB-202	N	25	30	10/07/21	VOC	2-Chlorotoluene	95-49-8		U	1.70E-03	2.3E+04		1.6E+03	
SB-202	N	25	30	10/07/21	VOC	4-Chlorotoluene	106-43-4		U	1.70E-03	2.3E+04		1.6E+03	
SB-202	N	25	30	10/07/21	VOC	Cumene	98-82-8		U	1.70E-03	9.9E+03		1.9E+03	
SB-202	N	25	30	10/07/21	VOC	p-Cymene	99-87-6		U	1.70E-03				
SB-202	N	25	30	10/07/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.70E-03	6.4E-01		5.3E-02	
SB-202	N	25	30	10/07/21	VOC	Dibromochloromethane	124-48-1		U	8.60E-04	3.9E+02		8.3E+01	
SB-202	N	25	30	10/07/21	VOC	1,2-Dibromoethane	106-93-4		U	8.60E-04	1.6E+00		3.6E-01	
SB-202	N	25	30	10/07/21	VOC	Dibromomethane	74-95-3		U	1.70E-03	9.9E+01		2.4E+01	
SB-202	N	25	30	10/07/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.50E-03	3.2E-01		7.4E-02	
SB-202	N	25	30	10/07/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.70E-03	9.3E+03		1.8E+03	
SB-202	N	25	30	10/07/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.70E-03	1.1E+02		2.6E+01	
SB-202	N	25	30	10/07/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.70E-03	1.1E+02		2.6E+01	
SB-202	N	25	30	10/07/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.70E-02	3.7E+02		8.7E+01	
SB-202	N	25	30	10/07/21	VOC	1,1-Dichloroethane	75-34-3		U	1.70E-03	1.6E+02		3.6E+01	
SB-202	N	25	30	10/07/21	VOC	1,2-Dichloroethane	107-06-2		U	1.70E-03	2.0E+01		4.6E+00	
SB-202	N	25	30	10/07/21	VOC	1,1-Dichloroethene	75-35-4		U	3.50E-03	1.0E+03		2.3E+02	
SB-202	N	25	30	10/07/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.70E-03	3.7E+02		6.3E+01	
SB-202	N	25	30	10/07/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.70E-03	3.0E+02		7.0E+01	
SB-202	N	25	30	10/07/21	VOC	1,2-Dichloropropane	78-87-5		U	1.70E-03	6.6E+01		1.6E+01	
SB-202	N	25	30	10/07/21	VOC	1,3-Dichloropropane	142-28-9		U	8.60E-04	2.3E+04		1.6E+03	
SB-202	N	25	30	10/07/21	VOC	2,2-Dichloropropane	594-20-7		U	1.70E-03				
SB-202	N	25	30	10/07/21	VOC	1,1-Dichloropropene	563-58-6		U	1.70E-03				
SB-202	N	25	30	10/07/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	8.60E-04	8.2E+01		1.8E+01	
SB-202	N	25	30	10/07/21	VOC	1,4-Dioxane	123-91-1		U	8.60E-02	2.4E+02		5.3E+01	
SB-202	N	25	30	10/07/21	VOC	Ethyl tert-butyl ether	637-92-3		U	8.60E-04	5.6E+03		1.3E+03	
SB-202	N	25	30	10/07/21	VOC	Ethyl Benzene	100-41-4		U	1.70E-03	2.5E+02		5.8E+01	
SB-202	N	25	30	10/07/21	VOC	Diethyl ether	60-29-7		U	1.70E-02	2.3E+05		1.6E+04	
SB-202	N	25	30	10/07/21	VOC	2-Hexanone	591-78-6		U	1.70E-02	1.3E+03		2.0E+02	
SB-202	N	25	30	10/07/21	VOC	Methyl Acetate	79-20-9		U	1.70E-03	1.2E+06		7.8E+04	
SB-202	N	25	30	10/07/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.50E-03	2.1E+03		4.7E+02	
SB-202	N	25	30	10/07/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.70E-02	1.4E+05		3.3E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-202	N	25	30	10/07/21	VOC	Methylcyclohexane	108-87-2		U	1.70E-03	2.7E+04		6.5E+03	
SB-202	N	25	30	10/07/21	VOC	Methylene Chloride	75-09-2	6.20E-04	J	1.70E-02	3.2E+03	1.9E-07	3.5E+02	1.8E-06
SB-202	N	25	30	10/07/21	VOC	Diisopropyl ether	108-20-3		U	8.60E-04	9.4E+03		2.2E+03	
SB-202	N	25	30	10/07/21	VOC	n-Propylbenzene	103-65-1		U	1.70E-03	2.4E+04		3.8E+03	
SB-202	N	25	30	10/07/21	VOC	Styrene	100-42-5		U	1.70E-03	3.5E+04		6.0E+03	
SB-202	N	25	30	10/07/21	VOC	tert-Butyl alcohol	75-65-0		U	8.60E-02	6.5E+04		1.4E+04	
SB-202	N	25	30	10/07/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.70E-03	8.8E+01		2.0E+01	
SB-202	N	25	30	10/07/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	8.60E-04	2.7E+01		6.0E+00	
SB-202	N	25	30	10/07/21	VOC	Tetrachloroethene	127-18-4		U	1.70E-03	3.9E+02		8.1E+01	
SB-202	N	25	30	10/07/21	VOC	Tetrahydrofuran	109-99-9		U	8.60E-03	9.5E+04		1.8E+04	
SB-202	N	25	30	10/07/21	VOC	Toluene	108-88-3		U	1.70E-03	4.7E+04		4.9E+03	
SB-202	N	25	30	10/07/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.70E-03	9.3E+02		6.3E+01	
SB-202	N	25	30	10/07/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.70E-03	2.6E+02		5.8E+01	
SB-202	N	25	30	10/07/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.70E-03				
SB-202	N	25	30	10/07/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.70E-03	3.6E+04		8.1E+03	
SB-202	N	25	30	10/07/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.70E-03	6.3E+00		1.5E+00	
SB-202	N	25	30	10/07/21	VOC	Trichloroethene	79-01-6		U	1.70E-03	1.9E+01		4.1E+00	
SB-202	N	25	30	10/07/21	VOC	Trichlorofluoromethane	75-69-4		U	8.60E-03	3.5E+05		2.3E+04	
SB-202	N	25	30	10/07/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.70E-03	1.1E+00		5.1E-02	
SB-202	N	25	30	10/07/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	8.60E-03	2.8E+04		6.7E+03	
SB-202	N	25	30	10/07/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.70E-03	1.8E+03		3.0E+02	
SB-202	N	25	30	10/07/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.70E-03	1.5E+03		2.7E+02	
SB-202	N	25	30	10/07/21	VOC	Vinyl Chloride	75-01-4		U	8.60E-03	1.7E+01		5.9E-01	
SB-202	N	25	30	10/07/21	VOC	Xylenes (total)	1330-20-7		U	3.50E-03	2.5E+03		5.8E+02	
SB-202	N	25	30	10/07/21	SVOC	Acenaphthene	83-32-9		U	2.10E-01	4.5E+04		3.6E+03	
SB-202	N	25	30	10/07/21	SVOC	Acenaphthylene	208-96-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-202	N	25	30	10/07/21	SVOC	Acetophenone	98-86-2		U	4.20E-01	1.2E+05		7.8E+03	
SB-202	N	25	30	10/07/21	SVOC	t-Amyl methyl ether	994-05-8		U	8.60E-04				
SB-202	N	25	30	10/07/21	SVOC	Aniline	62-53-3		U	4.20E-01	4.0E+03		4.4E+02	
SB-202	N	25	30	10/07/21	SVOC	Anthracene	120-12-7		U	2.10E-01	2.3E+05		1.8E+04	
SB-202	N	25	30	10/07/21	SVOC	Benzidine	92-87-5		U	8.20E-01	1.0E-01		5.3E-03	
SB-202	N	25	30	10/07/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.10E-01	2.1E+02		1.1E+01	
SB-202	N	25	30	10/07/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.10E-01	2.1E+01		1.1E+00	
SB-202	N	25	30	10/07/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.10E-01	2.1E+02		1.1E+01	
SB-202	N	25	30	10/07/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.10E-01	2.3E+04		1.8E+03	
SB-202	N	25	30	10/07/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.10E-01	2.1E+03		1.1E+02	
SB-202	N	25	30	10/07/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-202	N	25	30	10/07/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.20E-01	2.5E+03		1.9E+02	
SB-202	N	25	30	10/07/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.20E-01	1.0E+01		2.3E+00	
SB-202	N	25	30	10/07/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.20E-01	1.6E+03		3.9E+02	
SB-202	N	25	30	10/07/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.20E-01				
SB-202	N	25	30	10/07/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.20E-01	1.2E+04		2.9E+03	
SB-202	N	25	30	10/07/21	SVOC	Carbazole	86-74-8		U	2.10E-01	3.0E+04		2.4E+03	
SB-202	N	25	30	10/07/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.20E-01	8.2E+04		6.3E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-202	N	25	30	10/07/21	SVOC	4-Chloroaniline	106-47-8		U	8.20E-01	1.1E+02		2.7E+01	
SB-202	N	25	30	10/07/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.20E-01	6.0E+04		4.8E+03	
SB-202	N	25	30	10/07/21	SVOC	2-Chlorophenol	95-57-8		U	4.20E-01	5.8E+03		3.9E+02	
SB-202	N	25	30	10/07/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.20E-01				
SB-202	N	25	30	10/07/21	SVOC	Chrysene	218-01-9		U	2.10E-01	2.1E+04		1.1E+03	
SB-202	N	25	30	10/07/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.10E-01	2.1E+01		1.1E+00	
SB-202	N	25	30	10/07/21	SVOC	Dibenzofuran	132-64-9		U	4.20E-01	1.2E+03		7.8E+01	
SB-202	N	25	30	10/07/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.10E-01	5.1E+01		1.2E+01	
SB-202	N	25	30	10/07/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.20E-01	2.5E+03		1.9E+02	
SB-202	N	25	30	10/07/21	SVOC	Diethylphthalate	84-66-2		U	4.20E-01	6.6E+05		5.1E+04	
SB-202	N	25	30	10/07/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.20E-01	1.6E+04		1.3E+03	
SB-202	N	25	30	10/07/21	SVOC	Dimethylphthalate	131-11-3		U	4.20E-01	6.6E+05		5.1E+04	
SB-202	N	25	30	10/07/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.20E-01	8.2E+04		6.3E+03	
SB-202	N	25	30	10/07/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.20E-01	6.6E+01		5.1E+00	
SB-202	N	25	30	10/07/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.20E-01	1.6E+03		1.3E+02	
SB-202	N	25	30	10/07/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.20E-01	8.2E+03		6.3E+02	
SB-202	N	25	30	10/07/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.20E-01	2.9E+01		6.8E+00	
SB-202	N	25	30	10/07/21	SVOC	Fluoranthene	206-44-0		U	2.10E-01	3.0E+04		2.4E+03	
SB-202	N	25	30	10/07/21	SVOC	Fluorene	86-73-7		U	2.10E-01	3.0E+04		2.4E+03	
SB-202	N	25	30	10/07/21	SVOC	Hexachlorobenzene	118-74-1		U	4.20E-01	9.6E+00		7.8E-01	
SB-202	N	25	30	10/07/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.70E-03	5.3E+01		1.2E+01	
SB-202	N	25	30	10/07/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.20E-01	7.5E+00		1.8E+00	
SB-202	N	25	30	10/07/21	SVOC	Hexachloroethane	67-72-1		U	4.20E-01	8.0E+01		1.8E+01	
SB-202	N	25	30	10/07/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.10E-01	2.1E+02		1.1E+01	
SB-202	N	25	30	10/07/21	SVOC	Isophorone	78-59-1		U	4.20E-01	2.4E+04		5.7E+03	
SB-202	N	25	30	10/07/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.10E-01	7.3E+02		1.8E+02	
SB-202	N	25	30	10/07/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.10E-01	3.0E+03		2.4E+02	
SB-202	N	25	30	10/07/21	SVOC	2-Methylphenol	95-48-7		U	4.20E-01	4.1E+04		3.2E+03	
SB-202	N	25	30	10/07/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.20E-01				
SB-202	N	25	30	10/07/21	SVOC	Naphthalene	91-20-3		U	3.50E-03	8.6E+01		2.0E+01	
SB-202	N	25	30	10/07/21	SVOC	2-Nitroaniline	88-74-4		U	4.20E-01	8.0E+03		6.3E+02	
SB-202	N	25	30	10/07/21	SVOC	3-Nitroaniline	99-09-2		U	4.20E-01	1.1E+03		2.5E+02	
SB-202	N	25	30	10/07/21	SVOC	4-Nitroaniline	100-01-6		U	4.20E-01	1.1E+03		2.5E+02	
SB-202	N	25	30	10/07/21	SVOC	2-Nitrophenol	88-75-5		U	4.20E-01				
SB-202	N	25	30	10/07/21	SVOC	4-Nitrophenol	100-02-7		U	8.20E-01				
SB-202	N	25	30	10/07/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.20E-01	3.4E-01		2.0E-02	
SB-202	N	25	30	10/07/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.20E-01	4.7E+03		1.1E+03	
SB-202	N	25	30	10/07/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.20E-01	3.3E+00		7.8E-01	
SB-202	N	25	30	10/07/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.20E-01	4.7E+04		3.1E+03	
SB-202	N	25	30	10/07/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.20E-01	1.3E+02		2.7E+01	
SB-202	N	25	30	10/07/21	SVOC	Pentachlorophenol	87-86-5		U	4.20E-01	4.0E+01		1.0E+01	
SB-202	N	25	30	10/07/21	SVOC	Phenanthrene	85-01-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-202	N	25	30	10/07/21	SVOC	Phenol	108-95-2		U	4.20E-01	2.5E+05		1.9E+04	
SB-202	N	25	30	10/07/21	SVOC	Pyrene	129-00-0		U	2.10E-01	2.3E+04		1.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-202	N	25	30	10/07/21	SVOC	Pyridine	110-86-1		U	4.20E-01	1.2E+03		7.8E+01	
SB-202	N	25	30	10/07/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.20E-01	3.5E+01		2.3E+00	
SB-202	N	25	30	10/07/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.20E-01	8.2E+04		6.3E+03	
SB-202	N	25	30	10/07/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.20E-01	8.2E+02		6.3E+01	
SB-202	N	25	30	10/07/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.20E-01	7.4E+01		1.7E+01	
SB-202	N	25	30	10/07/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.20E-01	1.5E+01		3.6E+00	
SB-202	N	25	30	10/07/21	NITRO	Nitrobenzene	98-95-3		U	4.20E-01	2.2E+02		5.1E+01	
SB-202	N	25	30	10/07/21	INORG	Aluminum	7429-90-5	1.20E+04		2.10E+01	1.1E+06	1.1E-02	7.7E+04	1.6E-01
SB-202	N	25	30	10/07/21	INORG	Antimony	7440-36-0		U	2.10E+00	4.7E+02		3.1E+01	
SB-202	N	25	30	10/07/21	INORG	Arsenic	7440-38-2	6.30E+00		4.10E+00	3.0E+01	2.1E-01	6.8E+00	9.3E-01
SB-202	N	25	30	10/07/21	INORG	Barium	7440-39-3	5.90E+01		2.10E+00	2.2E+05	2.7E-04	1.5E+04	3.9E-03
SB-202	N	25	30	10/07/21	INORG	Beryllium	7440-41-7	6.10E-01		2.10E-01	2.3E+03	2.7E-04	1.6E+02	3.8E-03
SB-202	N	25	30	10/07/21	INORG	Cadmium	7440-43-9	3.40E-01	J	4.10E-01	1.0E+02	3.4E-03	7.1E+00	4.8E-02
SB-202	N	25	30	10/07/21	INORG	Chromium (total)	7440-47-3	1.80E+01		8.30E-01	1.8E+06	1.0E-05	1.2E+05	1.5E-04
SB-202	N	25	30	10/07/21	INORG	Cobalt	7440-48-4	8.50E+00		2.10E+00	3.5E+02	2.4E-02	2.3E+01	3.7E-01
SB-202	N	25	30	10/07/21	INORG	Copper	7440-50-8	1.40E+01		8.30E-01	4.7E+04	3.0E-04	3.1E+03	4.5E-03
SB-202	N	25	30	10/07/21	INORG	Iron	7439-89-6	3.00E+04		4.10E+02	8.2E+05	3.7E-02	5.5E+04	5.5E-01
SB-202	N	25	30	10/07/21	INORG	Lead	7439-92-1	1.50E+01		6.20E-01	8.0E+02	1.9E-02	2.0E+02	7.5E-02
SB-202	N	25	30	10/07/21	INORG	Manganese	7439-96-5	1.20E+02		4.10E-01	2.6E+04	4.6E-03	1.8E+03	6.7E-02
SB-202	N	25	30	10/07/21	INORG	Mercury	7439-97-6	3.10E-02	J	3.20E-02	4.1E+01	7.6E-04	7.4E+00	4.2E-03
SB-202	N	25	30	10/07/21	INORG	Nickel	7440-02-0	1.20E+01		8.30E-01	2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-202	N	25	30	10/07/21	INORG	Selenium	7782-49-2		U	4.10E+00	5.8E+03		3.9E+02	
SB-202	N	25	30	10/07/21	INORG	Silver	7440-22-4		U	4.10E-01	5.8E+03		3.9E+02	
SB-202	N	25	30	10/07/21	INORG	Thallium	7440-28-0	1.60E+00	J	2.10E+00	1.2E+01	1.3E-01	7.8E-01	2.1E+00
SB-202	N	25	30	10/07/21	INORG	Vanadium	7440-62-2	2.80E+01		8.30E-01	5.8E+03	4.8E-03	3.9E+02	7.2E-02
SB-202	N	25	30	10/07/21	INORG	Zinc	7440-66-6	5.50E+01		8.30E-01	3.5E+05	1.6E-04	2.3E+04	2.4E-03
SB-203	N		1	10/12/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	
SB-203	N		1	10/12/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-203	N		1	10/12/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-203	N		1	10/12/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-203	N		1	10/12/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-203	N		1	10/12/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-203	N		1	10/12/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-203	N		1	10/12/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-203	N		1	10/12/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-203	N		1	10/12/21	SVOC	Benzidine	92-87-5		U	7.70E-01	1.0E-01		5.3E-03	
SB-203	N		1	10/12/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-203	N		1	10/12/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-203	N		1	10/12/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-203	N		1	10/12/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-203	N		1	10/12/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-203	N		1	10/12/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-203	N		1	10/12/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-203	N		1	10/12/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-203	N		1	10/12/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-203	N		1	10/12/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-203	N		1	10/12/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-203	N		1	10/12/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-203	N		1	10/12/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.70E-01	8.2E+04		6.3E+03	
SB-203	N		1	10/12/21	SVOC	4-Chloroaniline	106-47-8		U	7.70E-01	1.1E+02		2.7E+01	
SB-203	N		1	10/12/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-203	N		1	10/12/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-203	N		1	10/12/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-203	N		1	10/12/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-203	N		1	10/12/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-203	N		1	10/12/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-203	N		1	10/12/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-203	N		1	10/12/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-203	N		1	10/12/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-203	N		1	10/12/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-203	N		1	10/12/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-203	N		1	10/12/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-203	N		1	10/12/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-203	N		1	10/12/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.70E-01	1.6E+03		1.3E+02	
SB-203	N		1	10/12/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-203	N		1	10/12/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-203	N		1	10/12/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-203	N		1	10/12/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-203	N		1	10/12/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-203	N		1	10/12/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-203	N		1	10/12/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-203	N		1	10/12/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-203	N		1	10/12/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-203	N		1	10/12/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-203	N		1	10/12/21	SVOC	1-Methylnaphthalene	90-12-0	6.80E-02	J	2.00E-01	7.3E+02	9.3E-05	1.8E+02	3.8E-04
SB-203	N		1	10/12/21	SVOC	2-Methylnaphthalene	91-57-6	9.80E-02	J	2.00E-01	3.0E+03	3.3E-05	2.4E+02	4.1E-04
SB-203	N		1	10/12/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-203	N		1	10/12/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-203	N		1	10/12/21	SVOC	Naphthalene	91-20-3	7.60E-02	J	2.00E-01	8.6E+01	8.8E-04	2.0E+01	3.8E-03
SB-203	N		1	10/12/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-203	N		1	10/12/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-203	N		1	10/12/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-203	N		1	10/12/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-203	N		1	10/12/21	SVOC	4-Nitrophenol	100-02-7		U	7.70E-01				
SB-203	N		1	10/12/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-203	N		1	10/12/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-203	N		1	10/12/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-203	N		1	10/12/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-203	N		1	10/12/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-203	N		1	10/12/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-203	N		1	10/12/21	SVOC	Phenanthrene	85-01-8	9.40E-02	J	2.00E-01	2.3E+04	4.1E-06	1.8E+03	5.2E-05
SB-203	N		1	10/12/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-203	N		1	10/12/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-203	N		1	10/12/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-203	N		1	10/12/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-203	N		1	10/12/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-203	N		1	10/12/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-203	N		1	10/12/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-203	N		1	10/12/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-203	N		1	10/12/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-203	N		1	10/12/21	INORG	Aluminum	7429-90-5	5.10E+03		1.90E+01	1.1E+06	4.6E-03	7.7E+04	6.6E-02
SB-203	N		1	10/12/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-203	N		1	10/12/21	INORG	Arsenic	7440-38-2	1.50E+01		3.80E+00	3.0E+01	5.0E-01	6.8E+00	2.2E+00
SB-203	N		1	10/12/21	INORG	Barium	7440-39-3	6.20E+01		1.90E+00	2.2E+05	2.8E-04	1.5E+04	4.1E-03
SB-203	N		1	10/12/21	INORG	Beryllium	7440-41-7	5.80E-01		1.90E-01	2.3E+03	2.5E-04	1.6E+02	3.6E-03
SB-203	N		1	10/12/21	INORG	Cadmium	7440-43-9	5.20E-01		3.80E-01	1.0E+02	5.2E-03	7.1E+00	7.3E-02
SB-203	N		1	10/12/21	INORG	Chromium (total)	7440-47-3	2.30E+01		7.70E-01	1.8E+06	1.3E-05	1.2E+05	1.9E-04
SB-203	N		1	10/12/21	INORG	Cobalt	7440-48-4	5.30E+00		1.90E+00	3.5E+02	1.5E-02	2.3E+01	2.3E-01
SB-203	N		1	10/12/21	INORG	Copper	7440-50-8	5.10E+01		7.70E-01	4.7E+04	1.1E-03	3.1E+03	1.6E-02
SB-203	N		1	10/12/21	INORG	Iron	7439-89-6	1.30E+04		1.90E+01	8.2E+05	1.6E-02	5.5E+04	2.4E-01
SB-203	N		1	10/12/21	INORG	Lead	7439-92-1	1.60E+01		5.80E-01	8.0E+02	2.0E-02	2.0E+02	8.0E-02
SB-203	N		1	10/12/21	INORG	Manganese	7439-96-5	1.00E+02		3.80E-01	2.6E+04	3.8E-03	1.8E+03	5.6E-02
SB-203	N		1	10/12/21	INORG	Mercury	7439-97-6	4.90E-02		3.10E-02	4.1E+01	1.2E-03	7.4E+00	6.6E-03
SB-203	N		1	10/12/21	INORG	Nickel	7440-02-0	2.50E+01		7.70E-01	2.2E+04	1.1E-03	1.5E+03	1.7E-02
SB-203	N		1	10/12/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-203	N		1	10/12/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-203	N		1	10/12/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-203	N		1	10/12/21	INORG	Vanadium	7440-62-2	1.90E+01		7.70E-01	5.8E+03	3.3E-03	3.9E+02	4.9E-02
SB-203	N		1	10/12/21	INORG	Zinc	7440-66-6	1.20E+02		7.70E-01	3.5E+05	3.4E-04	2.3E+04	5.2E-03
SB-203	N	11	13	10/12/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	
SB-203	N	11	13	10/12/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-203	N	11	13	10/12/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-203	N	11	13	10/12/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-203	N	11	13	10/12/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-203	N	11	13	10/12/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-203	N	11	13	10/12/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-203	N	11	13	10/12/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-203	N	11	13	10/12/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-203	N	11	13	10/12/21	SVOC	Benzidine	92-87-5		U	7.80E-01	1.0E-01		5.3E-03	
SB-203	N	11	13	10/12/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-203	N	11	13	10/12/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-203	N	11	13	10/12/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-203	N	11	13	10/12/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-203	N	11	13	10/12/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-203	N	11	13	10/12/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-203	N	11	13	10/12/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-203	N	11	13	10/12/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-203	N	11	13	10/12/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-203	N	11	13	10/12/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-203	N	11	13	10/12/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-203	N	11	13	10/12/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-203	N	11	13	10/12/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.80E-01	8.2E+04		6.3E+03	
SB-203	N	11	13	10/12/21	SVOC	4-Chloroaniline	106-47-8		U	7.80E-01	1.1E+02		2.7E+01	
SB-203	N	11	13	10/12/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-203	N	11	13	10/12/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-203	N	11	13	10/12/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-203	N	11	13	10/12/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-203	N	11	13	10/12/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-203	N	11	13	10/12/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-203	N	11	13	10/12/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-203	N	11	13	10/12/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-203	N	11	13	10/12/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-203	N	11	13	10/12/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-203	N	11	13	10/12/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-203	N	11	13	10/12/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-203	N	11	13	10/12/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-203	N	11	13	10/12/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.80E-01	1.6E+03		1.3E+02	
SB-203	N	11	13	10/12/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-203	N	11	13	10/12/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-203	N	11	13	10/12/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-203	N	11	13	10/12/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-203	N	11	13	10/12/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-203	N	11	13	10/12/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-203	N	11	13	10/12/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-203	N	11	13	10/12/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-203	N	11	13	10/12/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-203	N	11	13	10/12/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-203	N	11	13	10/12/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-203	N	11	13	10/12/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-203	N	11	13	10/12/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-203	N	11	13	10/12/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-203	N	11	13	10/12/21	SVOC	Naphthalene	91-20-3		U	2.00E-01	8.6E+01		2.0E+01	
SB-203	N	11	13	10/12/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-203	N	11	13	10/12/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-203	N	11	13	10/12/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-203	N	11	13	10/12/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-203	N	11	13	10/12/21	SVOC	4-Nitrophenol	100-02-7		U	7.80E-01				
SB-203	N	11	13	10/12/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-203	N	11	13	10/12/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-203	N	11	13	10/12/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-203	N	11	13	10/12/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-203	N	11	13	10/12/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-203	N	11	13	10/12/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-203	N	11	13	10/12/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-203	N	11	13	10/12/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-203	N	11	13	10/12/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-203	N	11	13	10/12/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-203	N	11	13	10/12/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-203	N	11	13	10/12/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-203	N	11	13	10/12/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-203	N	11	13	10/12/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-203	N	11	13	10/12/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-203	N	11	13	10/12/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-203	N	11	13	10/12/21	INORG	Aluminum	7429-90-5	1.30E+04		2.00E+01	1.1E+06	1.2E-02	7.7E+04	1.7E-01
SB-203	N	11	13	10/12/21	INORG	Antimony	7440-36-0		U	2.00E+00	4.7E+02		3.1E+01	
SB-203	N	11	13	10/12/21	INORG	Arsenic	7440-38-2	6.50E+00		3.90E+00	3.0E+01	2.2E-01	6.8E+00	9.6E-01
SB-203	N	11	13	10/12/21	INORG	Barium	7440-39-3	6.60E+01		2.00E+00	2.2E+05	3.0E-04	1.5E+04	4.4E-03
SB-203	N	11	13	10/12/21	INORG	Beryllium	7440-41-7	8.70E-01		2.00E-01	2.3E+03	3.8E-04	1.6E+02	5.4E-03
SB-203	N	11	13	10/12/21	INORG	Cadmium	7440-43-9		U	3.90E-01	1.0E+02		7.1E+00	
SB-203	N	11	13	10/12/21	INORG	Chromium (total)	7440-47-3	1.90E+01		7.80E-01	1.8E+06	1.1E-05	1.2E+05	1.6E-04
SB-203	N	11	13	10/12/21	INORG	Cobalt	7440-48-4	7.60E+00		2.00E+00	3.5E+02	2.2E-02	2.3E+01	3.3E-01
SB-203	N	11	13	10/12/21	INORG	Copper	7440-50-8	1.80E+01		7.80E-01	4.7E+04	3.8E-04	3.1E+03	5.8E-03
SB-203	N	11	13	10/12/21	INORG	Iron	7439-89-6	6.40E+04		9.80E+01	8.2E+05	7.8E-02	5.5E+04	1.2E+00
SB-203	N	11	13	10/12/21	INORG	Lead	7439-92-1	1.30E+01		5.90E-01	8.0E+02	1.6E-02	2.0E+02	6.5E-02
SB-203	N	11	13	10/12/21	INORG	Manganese	7439-96-5	1.40E+02		3.90E-01	2.6E+04	5.4E-03	1.8E+03	7.8E-02
SB-203	N	11	13	10/12/21	INORG	Mercury	7439-97-6		U	3.10E-02	4.1E+01		7.4E+00	
SB-203	N	11	13	10/12/21	INORG	Nickel	7440-02-0	1.60E+01		7.80E-01	2.2E+04	7.3E-04	1.5E+03	1.1E-02
SB-203	N	11	13	10/12/21	INORG	Selenium	7782-49-2		U	3.90E+00	5.8E+03		3.9E+02	
SB-203	N	11	13	10/12/21	INORG	Silver	7440-22-4		U	3.90E-01	5.8E+03		3.9E+02	
SB-203	N	11	13	10/12/21	INORG	Thallium	7440-28-0		U	2.00E+00	1.2E+01		7.8E-01	
SB-203	N	11	13	10/12/21	INORG	Vanadium	7440-62-2	3.00E+01		7.80E-01	5.8E+03	5.2E-03	3.9E+02	7.7E-02
SB-203	N	11	13	10/12/21	INORG	Zinc	7440-66-6	4.90E+01		7.80E-01	3.5E+05	1.4E-04	2.3E+04	2.1E-03
SB-204	N	0.8	1.8	10/18/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.70E-01	9.3E+03		1.8E+03	
SB-204	N	0.8	1.8	10/18/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.70E-01	1.1E+02		2.6E+01	
SB-204	N	0.8	1.8	10/18/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.70E-01	1.1E+02		2.6E+01	
SB-204	N	0.8	1.8	10/18/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.70E-01	2.6E+02		5.8E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Acenaphthene	83-32-9		U	1.80E-01	4.5E+04		3.6E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Acenaphthylene	208-96-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Acetophenone	98-86-2		U	3.70E-01	1.2E+05		7.8E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Aniline	62-53-3		U	3.70E-01	4.0E+03		4.4E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	0.8	1.8	10/18/21	SVOC	Anthracene	120-12-7		U	1.80E-01	2.3E+05		1.8E+04	
SB-204	N	0.8	1.8	10/18/21	SVOC	Benzidine	92-87-5		U	7.10E-01	1.0E-01		5.3E-03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.80E-01	2.1E+02		1.1E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.80E-01	2.1E+01		1.1E+00	
SB-204	N	0.8	1.8	10/18/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.80E-01	2.1E+02		1.1E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.80E-01	2.3E+04		1.8E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.80E-01	2.1E+03		1.1E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-204	N	0.8	1.8	10/18/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.70E-01	2.5E+03		1.9E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.70E-01	1.0E+01		2.3E+00	
SB-204	N	0.8	1.8	10/18/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.70E-01	1.6E+03		3.9E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.70E-01				
SB-204	N	0.8	1.8	10/18/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.70E-01	1.2E+04		2.9E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Carbazole	86-74-8		U	1.80E-01	3.0E+04		2.4E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.10E-01	8.2E+04		6.3E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	4-Chloroaniline	106-47-8		U	7.10E-01	1.1E+02		2.7E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.70E-01	6.0E+04		4.8E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	2-Chlorophenol	95-57-8		U	3.70E-01	5.8E+03		3.9E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.70E-01				
SB-204	N	0.8	1.8	10/18/21	SVOC	Chrysene	218-01-9		U	1.80E-01	2.1E+04		1.1E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.80E-01	2.1E+01		1.1E+00	
SB-204	N	0.8	1.8	10/18/21	SVOC	Dibenzofuran	132-64-9		U	3.70E-01	1.2E+03		7.8E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.80E-01	5.1E+01		1.2E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.70E-01	2.5E+03		1.9E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	Diethylphthalate	84-66-2		U	3.70E-01	6.6E+05		5.1E+04	
SB-204	N	0.8	1.8	10/18/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.70E-01	1.6E+04		1.3E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Dimethylphthalate	131-11-3		U	3.70E-01	6.6E+05		5.1E+04	
SB-204	N	0.8	1.8	10/18/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.70E-01	8.2E+04		6.3E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.70E-01	6.6E+01		5.1E+00	
SB-204	N	0.8	1.8	10/18/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.10E-01	1.6E+03		1.3E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.70E-01	8.2E+03		6.3E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.70E-01	2.9E+01		6.8E+00	
SB-204	N	0.8	1.8	10/18/21	SVOC	Fluoranthene	206-44-0		U	1.80E-01	3.0E+04		2.4E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Fluorene	86-73-7		U	1.80E-01	3.0E+04		2.4E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Hexachlorobenzene	118-74-1		U	3.70E-01	9.6E+00		7.8E-01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.70E-01	5.3E+01		1.2E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.70E-01	7.5E+00		1.8E+00	
SB-204	N	0.8	1.8	10/18/21	SVOC	Hexachloroethane	67-72-1		U	3.70E-01	8.0E+01		1.8E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.80E-01	2.1E+02		1.1E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Isophorone	78-59-1		U	3.70E-01	2.4E+04		5.7E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.80E-01	7.3E+02		1.8E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.80E-01	3.0E+03		2.4E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	2-Methylphenol	95-48-7		U	3.70E-01	4.1E+04		3.2E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.70E-01				

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	0.8	1.8	10/18/21	SVOC	Naphthalene	91-20-3		U	1.80E-01	8.6E+01		2.0E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	2-Nitroaniline	88-74-4		U	3.70E-01	8.0E+03		6.3E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	3-Nitroaniline	99-09-2		U	3.70E-01	1.1E+03		2.5E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	4-Nitroaniline	100-01-6		U	3.70E-01	1.1E+03		2.5E+02	
SB-204	N	0.8	1.8	10/18/21	SVOC	2-Nitrophenol	88-75-5		U	3.70E-01				
SB-204	N	0.8	1.8	10/18/21	SVOC	4-Nitrophenol	100-02-7		U	7.10E-01				
SB-204	N	0.8	1.8	10/18/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.70E-01	3.4E-01		2.0E-02	
SB-204	N	0.8	1.8	10/18/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.70E-01	4.7E+03		1.1E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.70E-01	3.3E+00		7.8E-01	
SB-204	N	0.8	1.8	10/18/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.70E-01	4.7E+04		3.1E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.70E-01	1.3E+02		2.7E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Pentachlorophenol	87-86-5		U	3.70E-01	4.0E+01		1.0E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	Phenanthrene	85-01-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Phenol	108-95-2		U	3.70E-01	2.5E+05		1.9E+04	
SB-204	N	0.8	1.8	10/18/21	SVOC	Pyrene	129-00-0		U	1.80E-01	2.3E+04		1.8E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	Pyridine	110-86-1		U	3.70E-01	1.2E+03		7.8E+01	
SB-204	N	0.8	1.8	10/18/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.70E-01	3.5E+01		2.3E+00	
SB-204	N	0.8	1.8	10/18/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.70E-01	8.2E+04		6.3E+03	
SB-204	N	0.8	1.8	10/18/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.70E-01	8.2E+02		6.3E+01	
SB-204	N	0.8	1.8	10/18/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.70E-01	7.4E+01		1.7E+01	
SB-204	N	0.8	1.8	10/18/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.70E-01	1.5E+01		3.6E+00	
SB-204	N	0.8	1.8	10/18/21	NITRO	Nitrobenzene	98-95-3		U	3.70E-01	2.2E+02		5.1E+01	
SB-204	N	0.8	1.8	10/18/21	INORG	Aluminum	7429-90-5	6.70E+03		1.80E+01	1.1E+06	6.1E-03	7.7E+04	8.7E-02
SB-204	N	0.8	1.8	10/18/21	INORG	Antimony	7440-36-0		U	1.80E+00	4.7E+02		3.1E+01	
SB-204	N	0.8	1.8	10/18/21	INORG	Arsenic	7440-38-2	3.70E+00		3.60E+00	3.0E+01	1.2E-01	6.8E+00	5.4E-01
SB-204	N	0.8	1.8	10/18/21	INORG	Barium	7440-39-3	3.40E+01		1.80E+00	2.2E+05	1.5E-04	1.5E+04	2.3E-03
SB-204	N	0.8	1.8	10/18/21	INORG	Beryllium	7440-41-7	5.30E-01		1.80E-01	2.3E+03	2.3E-04	1.6E+02	3.3E-03
SB-204	N	0.8	1.8	10/18/21	INORG	Cadmium	7440-43-9		U	3.60E-01	1.0E+02		7.1E+00	
SB-204	N	0.8	1.8	10/18/21	INORG	Chromium (total)	7440-47-3	1.80E+01		7.20E-01	1.8E+06	1.0E-05	1.2E+05	1.5E-04
SB-204	N	0.8	1.8	10/18/21	INORG	Cobalt	7440-48-4	1.10E+01		1.80E+00	3.5E+02	3.1E-02	2.3E+01	4.8E-01
SB-204	N	0.8	1.8	10/18/21	INORG	Copper	7440-50-8	1.30E+01		7.20E-01	4.7E+04	2.8E-04	3.1E+03	4.2E-03
SB-204	N	0.8	1.8	10/18/21	INORG	Iron	7439-89-6	2.30E+04		1.80E+03	8.2E+05	2.8E-02	5.5E+04	4.2E-01
SB-204	N	0.8	1.8	10/18/21	INORG	Lead	7439-92-1	1.10E+01		5.40E-01	8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-204	N	0.8	1.8	10/18/21	INORG	Manganese	7439-96-5	6.40E+02		3.60E-01	2.6E+04	2.5E-02	1.8E+03	3.6E-01
SB-204	N	0.8	1.8	10/18/21	INORG	Mercury	7439-97-6	2.10E-02	J	2.90E-02	4.1E+01	5.2E-04	7.4E+00	2.8E-03
SB-204	N	0.8	1.8	10/18/21	INORG	Nickel	7440-02-0	9.80E+00		7.20E-01	2.2E+04	4.5E-04	1.5E+03	6.5E-03
SB-204	N	0.8	1.8	10/18/21	INORG	Selenium	7782-49-2		U	3.60E+00	5.8E+03		3.9E+02	
SB-204	N	0.8	1.8	10/18/21	INORG	Silver	7440-22-4		U	3.60E-01	5.8E+03		3.9E+02	
SB-204	N	0.8	1.8	10/18/21	INORG	Thallium	7440-28-0		U	1.80E+00	1.2E+01		7.8E-01	
SB-204	N	0.8	1.8	10/18/21	INORG	Vanadium	7440-62-2	2.90E+01		7.20E-01	5.8E+03	5.0E-03	3.9E+02	7.4E-02
SB-204	N	0.8	1.8	10/18/21	INORG	Zinc	7440-66-6	2.70E+01		7.20E-01	3.5E+05	7.7E-05	2.3E+04	1.2E-03
SB-204	N	6	8	10/18/21	VOC	Acetone	67-64-1		U	8.40E-02	1.1E+06		7.0E+04	
SB-204	N	6	8	10/18/21	VOC	Acrylonitrile	107-13-1		U	5.00E-03	1.1E+01		2.5E+00	
SB-204	N	6	8	10/18/21	VOC	Benzene	71-43-2		U	1.70E-03	5.1E+01		1.2E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	6	8	10/18/21	VOC	Bromobenzene	108-86-1		U	1.70E-03	1.8E+03		2.9E+02	
SB-204	N	6	8	10/18/21	VOC	Bromochloromethane	74-97-5		U	1.70E-03	6.3E+02		1.5E+02	
SB-204	N	6	8	10/18/21	VOC	Bromodichloromethane	75-27-4		U	1.70E-03	1.3E+01		2.9E+00	
SB-204	N	6	8	10/18/21	VOC	Bromoform	75-25-2		U	1.70E-03	8.6E+02		1.9E+02	
SB-204	N	6	8	10/18/21	VOC	Bromomethane	74-83-9		U	8.40E-03	3.0E+01		6.8E+00	
SB-204	N	6	8	10/18/21	VOC	2-Butanone	78-93-3		U	3.30E-02	1.9E+05		2.7E+04	
SB-204	N	6	8	10/18/21	VOC	n-Butylbenzene	104-51-8		U	1.70E-03	5.8E+04		3.9E+03	
SB-204	N	6	8	10/18/21	VOC	sec-Butylbenzene	135-98-8		U	1.70E-03	1.2E+05		7.8E+03	
SB-204	N	6	8	10/18/21	VOC	tert-Butylbenzene	98-06-6		U	1.70E-03	1.2E+05		7.8E+03	
SB-204	N	6	8	10/18/21	VOC	Carbon Disulfide	75-15-0		U	8.40E-03	3.5E+03		7.7E+02	
SB-204	N	6	8	10/18/21	VOC	Carbon Tetrachloride	56-23-5		U	1.70E-03	2.9E+01		6.5E+00	
SB-204	N	6	8	10/18/21	VOC	Chlorobenzene	108-90-7		U	1.70E-03	1.3E+03		2.8E+02	
SB-204	N	6	8	10/18/21	VOC	Chloroethane	75-00-3		U	1.70E-02	2.3E+04		5.4E+03	
SB-204	N	6	8	10/18/21	VOC	Chloroform	67-66-3		U	3.30E-03	1.4E+01		3.2E+00	
SB-204	N	6	8	10/18/21	VOC	Chloromethane	74-87-3		U	8.40E-03	4.6E+02		1.1E+02	
SB-204	N	6	8	10/18/21	VOC	2-Chlorotoluene	95-49-8		U	1.70E-03	2.3E+04		1.6E+03	
SB-204	N	6	8	10/18/21	VOC	4-Chlorotoluene	106-43-4		U	1.70E-03	2.3E+04		1.6E+03	
SB-204	N	6	8	10/18/21	VOC	Cumene	98-82-8		U	1.70E-03	9.9E+03		1.9E+03	
SB-204	N	6	8	10/18/21	VOC	p-Cymene	99-87-6		U	1.70E-03				
SB-204	N	6	8	10/18/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.70E-03	6.4E-01		5.3E-02	
SB-204	N	6	8	10/18/21	VOC	Dibromochloromethane	124-48-1		U	8.40E-04	3.9E+02		8.3E+01	
SB-204	N	6	8	10/18/21	VOC	1,2-Dibromoethane	106-93-4		U	8.40E-04	1.6E+00		3.6E-01	
SB-204	N	6	8	10/18/21	VOC	Dibromomethane	74-95-3		U	1.70E-03	9.9E+01		2.4E+01	
SB-204	N	6	8	10/18/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.30E-03	3.2E-01		7.4E-02	
SB-204	N	6	8	10/18/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.70E-03	9.3E+03		1.8E+03	
SB-204	N	6	8	10/18/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.70E-03	1.1E+02		2.6E+01	
SB-204	N	6	8	10/18/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.70E-03	1.1E+02		2.6E+01	
SB-204	N	6	8	10/18/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.70E-02	3.7E+02		8.7E+01	
SB-204	N	6	8	10/18/21	VOC	1,1-Dichloroethane	75-34-3		U	1.70E-03	1.6E+02		3.6E+01	
SB-204	N	6	8	10/18/21	VOC	1,2-Dichloroethane	107-06-2		U	1.70E-03	2.0E+01		4.6E+00	
SB-204	N	6	8	10/18/21	VOC	1,1-Dichloroethene	75-35-4		U	3.30E-03	1.0E+03		2.3E+02	
SB-204	N	6	8	10/18/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.70E-03	3.7E+02		6.3E+01	
SB-204	N	6	8	10/18/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.70E-03	3.0E+02		7.0E+01	
SB-204	N	6	8	10/18/21	VOC	1,2-Dichloropropane	78-87-5		U	1.70E-03	6.6E+01		1.6E+01	
SB-204	N	6	8	10/18/21	VOC	1,3-Dichloropropane	142-28-9		U	8.40E-04	2.3E+04		1.6E+03	
SB-204	N	6	8	10/18/21	VOC	2,2-Dichloropropane	594-20-7		U	1.70E-03				
SB-204	N	6	8	10/18/21	VOC	1,1-Dichloropropene	563-58-6		U	1.70E-03				
SB-204	N	6	8	10/18/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	8.40E-04	8.2E+01		1.8E+01	
SB-204	N	6	8	10/18/21	VOC	1,4-Dioxane	123-91-1		U	8.40E-02	2.4E+02		5.3E+01	
SB-204	N	6	8	10/18/21	VOC	Ethyl tert-butyl ether	637-92-3		U	8.40E-04	5.6E+03		1.3E+03	
SB-204	N	6	8	10/18/21	VOC	Ethyl Benzene	100-41-4		U	1.70E-03	2.5E+02		5.8E+01	
SB-204	N	6	8	10/18/21	VOC	Diethyl ether	60-29-7		U	1.70E-02	2.3E+05		1.6E+04	
SB-204	N	6	8	10/18/21	VOC	2-Hexanone	591-78-6		U	1.70E-02	1.3E+03		2.0E+02	
SB-204	N	6	8	10/18/21	VOC	Methyl Acetate	79-20-9		U	1.70E-03	1.2E+06		7.8E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	6	8	10/18/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.30E-03	2.1E+03		4.7E+02	
SB-204	N	6	8	10/18/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.70E-02	1.4E+05		3.3E+04	
SB-204	N	6	8	10/18/21	VOC	Methylcyclohexane	108-87-2		U	1.70E-03	2.7E+04		6.5E+03	
SB-204	N	6	8	10/18/21	VOC	Methylene Chloride	75-09-2		U	1.70E-02	3.2E+03		3.5E+02	
SB-204	N	6	8	10/18/21	VOC	Diisopropyl ether	108-20-3		U	8.40E-04	9.4E+03		2.2E+03	
SB-204	N	6	8	10/18/21	VOC	n-Propylbenzene	103-65-1		U	1.70E-03	2.4E+04		3.8E+03	
SB-204	N	6	8	10/18/21	VOC	Styrene	100-42-5		U	1.70E-03	3.5E+04		6.0E+03	
SB-204	N	6	8	10/18/21	VOC	tert-Butyl alcohol	75-65-0		U	8.40E-02	6.5E+04		1.4E+04	
SB-204	N	6	8	10/18/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.70E-03	8.8E+01		2.0E+01	
SB-204	N	6	8	10/18/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	8.40E-04	2.7E+01		6.0E+00	
SB-204	N	6	8	10/18/21	VOC	Tetrachloroethene	127-18-4		U	1.70E-03	3.9E+02		8.1E+01	
SB-204	N	6	8	10/18/21	VOC	Tetrahydrofuran	109-99-9		U	8.40E-03	9.5E+04		1.8E+04	
SB-204	N	6	8	10/18/21	VOC	Toluene	108-88-3		U	1.70E-03	4.7E+04		4.9E+03	
SB-204	N	6	8	10/18/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.70E-03	9.3E+02		6.3E+01	
SB-204	N	6	8	10/18/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.70E-03	2.6E+02		5.8E+01	
SB-204	N	6	8	10/18/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.70E-03				
SB-204	N	6	8	10/18/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.70E-03	3.6E+04		8.1E+03	
SB-204	N	6	8	10/18/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.70E-03	6.3E+00		1.5E+00	
SB-204	N	6	8	10/18/21	VOC	Trichloroethene	79-01-6		U	1.70E-03	1.9E+01		4.1E+00	
SB-204	N	6	8	10/18/21	VOC	Trichlorofluoromethane	75-69-4		U	8.40E-03	3.5E+05		2.3E+04	
SB-204	N	6	8	10/18/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.70E-03	1.1E+00		5.1E-02	
SB-204	N	6	8	10/18/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	8.40E-03	2.8E+04		6.7E+03	
SB-204	N	6	8	10/18/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.70E-03	1.8E+03		3.0E+02	
SB-204	N	6	8	10/18/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.70E-03	1.5E+03		2.7E+02	
SB-204	N	6	8	10/18/21	VOC	Vinyl Chloride	75-01-4		U	8.40E-03	1.7E+01		5.9E-01	
SB-204	N	6	8	10/18/21	VOC	Xylenes (total)	1330-20-7		U	3.30E-03	2.5E+03		5.8E+02	
SB-204	N	6	8	10/18/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-204	N	6	8	10/18/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-204	N	6	8	10/18/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-204	N	6	8	10/18/21	SVOC	t-Amyl methyl ether	994-05-8		U	8.40E-04				
SB-204	N	6	8	10/18/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-204	N	6	8	10/18/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-204	N	6	8	10/18/21	SVOC	Benzidine	92-87-5		U	7.80E-01	1.0E-01		5.3E-03	
SB-204	N	6	8	10/18/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-204	N	6	8	10/18/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-204	N	6	8	10/18/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-204	N	6	8	10/18/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-204	N	6	8	10/18/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-204	N	6	8	10/18/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-204	N	6	8	10/18/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-204	N	6	8	10/18/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-204	N	6	8	10/18/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-204	N	6	8	10/18/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-204	N	6	8	10/18/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	6	8	10/18/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-204	N	6	8	10/18/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.80E-01	8.2E+04		6.3E+03	
SB-204	N	6	8	10/18/21	SVOC	4-Chloroaniline	106-47-8		U	7.80E-01	1.1E+02		2.7E+01	
SB-204	N	6	8	10/18/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-204	N	6	8	10/18/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-204	N	6	8	10/18/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-204	N	6	8	10/18/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-204	N	6	8	10/18/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-204	N	6	8	10/18/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-204	N	6	8	10/18/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-204	N	6	8	10/18/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-204	N	6	8	10/18/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-204	N	6	8	10/18/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-204	N	6	8	10/18/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-204	N	6	8	10/18/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-204	N	6	8	10/18/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-204	N	6	8	10/18/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.80E-01	1.6E+03		1.3E+02	
SB-204	N	6	8	10/18/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-204	N	6	8	10/18/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-204	N	6	8	10/18/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-204	N	6	8	10/18/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-204	N	6	8	10/18/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-204	N	6	8	10/18/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.70E-03	5.3E+01		1.2E+01	
SB-204	N	6	8	10/18/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-204	N	6	8	10/18/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-204	N	6	8	10/18/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-204	N	6	8	10/18/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-204	N	6	8	10/18/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-204	N	6	8	10/18/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-204	N	6	8	10/18/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-204	N	6	8	10/18/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-204	N	6	8	10/18/21	SVOC	Naphthalene	91-20-3		U	3.30E-03	8.6E+01		2.0E+01	
SB-204	N	6	8	10/18/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-204	N	6	8	10/18/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-204	N	6	8	10/18/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-204	N	6	8	10/18/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-204	N	6	8	10/18/21	SVOC	4-Nitrophenol	100-02-7		U	7.80E-01				
SB-204	N	6	8	10/18/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-204	N	6	8	10/18/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-204	N	6	8	10/18/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-204	N	6	8	10/18/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-204	N	6	8	10/18/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-204	N	6	8	10/18/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-204	N	6	8	10/18/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	6	8	10/18/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-204	N	6	8	10/18/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-204	N	6	8	10/18/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-204	N	6	8	10/18/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-204	N	6	8	10/18/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-204	N	6	8	10/18/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-204	N	6	8	10/18/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-204	N	6	8	10/18/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-204	N	6	8	10/18/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-204	N	6	8	10/18/21	INORG	Aluminum	7429-90-5	1.10E+04		1.90E+01	1.1E+06	1.0E-02	7.7E+04	1.4E-01
SB-204	N	6	8	10/18/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-204	N	6	8	10/18/21	INORG	Arsenic	7440-38-2		U	3.80E+00	3.0E+01		6.8E+00	
SB-204	N	6	8	10/18/21	INORG	Barium	7440-39-3	3.70E+01		1.90E+00	2.2E+05	1.7E-04	1.5E+04	2.5E-03
SB-204	N	6	8	10/18/21	INORG	Beryllium	7440-41-7	3.70E-01		1.90E-01	2.3E+03	1.6E-04	1.6E+02	2.3E-03
SB-204	N	6	8	10/18/21	INORG	Cadmium	7440-43-9		U	3.80E-01	1.0E+02		7.1E+00	
SB-204	N	6	8	10/18/21	INORG	Chromium (total)	7440-47-3	2.00E+01		7.60E-01	1.8E+06	1.1E-05	1.2E+05	1.7E-04
SB-204	N	6	8	10/18/21	INORG	Cobalt	7440-48-4	4.70E+00		1.90E+00	3.5E+02	1.3E-02	2.3E+01	2.0E-01
SB-204	N	6	8	10/18/21	INORG	Copper	7440-50-8	1.20E+01		7.60E-01	4.7E+04	2.6E-04	3.1E+03	3.9E-03
SB-204	N	6	8	10/18/21	INORG	Iron	7439-89-6	1.70E+04		1.90E+03	8.2E+05	2.1E-02	5.5E+04	3.1E-01
SB-204	N	6	8	10/18/21	INORG	Lead	7439-92-1	9.30E+00		5.70E-01	8.0E+02	1.2E-02	2.0E+02	4.7E-02
SB-204	N	6	8	10/18/21	INORG	Manganese	7439-96-5	6.10E+01		3.80E-01	2.6E+04	2.3E-03	1.8E+03	3.4E-02
SB-204	N	6	8	10/18/21	INORG	Mercury	7439-97-6	1.70E-02	J	3.30E-02	4.1E+01	4.2E-04	7.4E+00	2.3E-03
SB-204	N	6	8	10/18/21	INORG	Nickel	7440-02-0	1.10E+01		7.60E-01	2.2E+04	5.0E-04	1.5E+03	7.3E-03
SB-204	N	6	8	10/18/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-204	N	6	8	10/18/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-204	N	6	8	10/18/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-204	N	6	8	10/18/21	INORG	Vanadium	7440-62-2	3.60E+01		7.60E-01	5.8E+03	6.2E-03	3.9E+02	9.2E-02
SB-204	N	6	8	10/18/21	INORG	Zinc	7440-66-6	2.90E+01		7.60E-01	3.5E+05	8.3E-05	2.3E+04	1.3E-03
SB-204	N	13	15	10/18/21	VOC	Acetone	67-64-1		U	8.50E-02	1.1E+06		7.0E+04	
SB-204	N	13	15	10/18/21	VOC	Acrylonitrile	107-13-1		U	5.10E-03	1.1E+01		2.5E+00	
SB-204	N	13	15	10/18/21	VOC	Benzene	71-43-2		U	1.70E-03	5.1E+01		1.2E+01	
SB-204	N	13	15	10/18/21	VOC	Bromobenzene	108-86-1		U	1.70E-03	1.8E+03		2.9E+02	
SB-204	N	13	15	10/18/21	VOC	Bromochloromethane	74-97-5		U	1.70E-03	6.3E+02		1.5E+02	
SB-204	N	13	15	10/18/21	VOC	Bromodichloromethane	75-27-4		U	1.70E-03	1.3E+01		2.9E+00	
SB-204	N	13	15	10/18/21	VOC	Bromoform	75-25-2		U	1.70E-03	8.6E+02		1.9E+02	
SB-204	N	13	15	10/18/21	VOC	Bromomethane	74-83-9		U	8.50E-03	3.0E+01		6.8E+00	
SB-204	N	13	15	10/18/21	VOC	2-Butanone	78-93-3		U	3.40E-02	1.9E+05		2.7E+04	
SB-204	N	13	15	10/18/21	VOC	n-Butylbenzene	104-51-8		U	1.70E-03	5.8E+04		3.9E+03	
SB-204	N	13	15	10/18/21	VOC	sec-Butylbenzene	135-98-8		U	1.70E-03	1.2E+05		7.8E+03	
SB-204	N	13	15	10/18/21	VOC	tert-Butylbenzene	98-06-6		U	1.70E-03	1.2E+05		7.8E+03	
SB-204	N	13	15	10/18/21	VOC	Carbon Disulfide	75-15-0		U	8.50E-03	3.5E+03		7.7E+02	
SB-204	N	13	15	10/18/21	VOC	Carbon Tetrachloride	56-23-5		U	1.70E-03	2.9E+01		6.5E+00	
SB-204	N	13	15	10/18/21	VOC	Chlorobenzene	108-90-7		U	1.70E-03	1.3E+03		2.8E+02	
SB-204	N	13	15	10/18/21	VOC	Chloroethane	75-00-3		U	1.70E-02	2.3E+04		5.4E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	13	15	10/18/21	VOC	Chloroform	67-66-3		U	3.40E-03	1.4E+01		3.2E+00	
SB-204	N	13	15	10/18/21	VOC	Chloromethane	74-87-3		U	8.50E-03	4.6E+02		1.1E+02	
SB-204	N	13	15	10/18/21	VOC	2-Chlorotoluene	95-49-8		U	1.70E-03	2.3E+04		1.6E+03	
SB-204	N	13	15	10/18/21	VOC	4-Chlorotoluene	106-43-4		U	1.70E-03	2.3E+04		1.6E+03	
SB-204	N	13	15	10/18/21	VOC	Cumene	98-82-8		U	1.70E-03	9.9E+03		1.9E+03	
SB-204	N	13	15	10/18/21	VOC	p-Cymene	99-87-6		U	1.70E-03				
SB-204	N	13	15	10/18/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.70E-03	6.4E-01		5.3E-02	
SB-204	N	13	15	10/18/21	VOC	Dibromochloromethane	124-48-1		U	8.50E-04	3.9E+02		8.3E+01	
SB-204	N	13	15	10/18/21	VOC	1,2-Dibromoethane	106-93-4		U	8.50E-04	1.6E+00		3.6E-01	
SB-204	N	13	15	10/18/21	VOC	Dibromomethane	74-95-3		U	1.70E-03	9.9E+01		2.4E+01	
SB-204	N	13	15	10/18/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.40E-03	3.2E-01		7.4E-02	
SB-204	N	13	15	10/18/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.70E-03	9.3E+03		1.8E+03	
SB-204	N	13	15	10/18/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.70E-03	1.1E+02		2.6E+01	
SB-204	N	13	15	10/18/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.70E-03	1.1E+02		2.6E+01	
SB-204	N	13	15	10/18/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.70E-02	3.7E+02		8.7E+01	
SB-204	N	13	15	10/18/21	VOC	1,1-Dichloroethane	75-34-3		U	1.70E-03	1.6E+02		3.6E+01	
SB-204	N	13	15	10/18/21	VOC	1,2-Dichloroethane	107-06-2		U	1.70E-03	2.0E+01		4.6E+00	
SB-204	N	13	15	10/18/21	VOC	1,1-Dichloroethene	75-35-4		U	3.40E-03	1.0E+03		2.3E+02	
SB-204	N	13	15	10/18/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.70E-03	3.7E+02		6.3E+01	
SB-204	N	13	15	10/18/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.70E-03	3.0E+02		7.0E+01	
SB-204	N	13	15	10/18/21	VOC	1,2-Dichloropropane	78-87-5		U	1.70E-03	6.6E+01		1.6E+01	
SB-204	N	13	15	10/18/21	VOC	1,3-Dichloropropane	142-28-9		U	8.50E-04	2.3E+04		1.6E+03	
SB-204	N	13	15	10/18/21	VOC	2,2-Dichloropropane	594-20-7		U	1.70E-03				
SB-204	N	13	15	10/18/21	VOC	1,1-Dichloropropene	563-58-6		U	1.70E-03				
SB-204	N	13	15	10/18/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	8.50E-04	8.2E+01		1.8E+01	
SB-204	N	13	15	10/18/21	VOC	1,4-Dioxane	123-91-1		U	8.50E-02	2.4E+02		5.3E+01	
SB-204	N	13	15	10/18/21	VOC	Ethyl tert-butyl ether	637-92-3		U	8.50E-04	5.6E+03		1.3E+03	
SB-204	N	13	15	10/18/21	VOC	Ethyl Benzene	100-41-4		U	1.70E-03	2.5E+02		5.8E+01	
SB-204	N	13	15	10/18/21	VOC	Diethyl ether	60-29-7		U	1.70E-02	2.3E+05		1.6E+04	
SB-204	N	13	15	10/18/21	VOC	2-Hexanone	591-78-6		U	1.70E-02	1.3E+03		2.0E+02	
SB-204	N	13	15	10/18/21	VOC	Methyl Acetate	79-20-9		U	1.70E-03	1.2E+06		7.8E+04	
SB-204	N	13	15	10/18/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.40E-03	2.1E+03		4.7E+02	
SB-204	N	13	15	10/18/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.70E-02	1.4E+05		3.3E+04	
SB-204	N	13	15	10/18/21	VOC	Methylcyclohexane	108-87-2		U	1.70E-03	2.7E+04		6.5E+03	
SB-204	N	13	15	10/18/21	VOC	Methylene Chloride	75-09-2		U	1.70E-02	3.2E+03		3.5E+02	
SB-204	N	13	15	10/18/21	VOC	Diisopropyl ether	108-20-3		U	8.50E-04	9.4E+03		2.2E+03	
SB-204	N	13	15	10/18/21	VOC	n-Propylbenzene	103-65-1		U	1.70E-03	2.4E+04		3.8E+03	
SB-204	N	13	15	10/18/21	VOC	Styrene	100-42-5		U	1.70E-03	3.5E+04		6.0E+03	
SB-204	N	13	15	10/18/21	VOC	tert-Butyl alcohol	75-65-0		U	8.50E-02	6.5E+04		1.4E+04	
SB-204	N	13	15	10/18/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.70E-03	8.8E+01		2.0E+01	
SB-204	N	13	15	10/18/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	8.50E-04	2.7E+01		6.0E+00	
SB-204	N	13	15	10/18/21	VOC	Tetrachloroethene	127-18-4		U	1.70E-03	3.9E+02		8.1E+01	
SB-204	N	13	15	10/18/21	VOC	Tetrahydrofuran	109-99-9		U	8.50E-03	9.5E+04		1.8E+04	
SB-204	N	13	15	10/18/21	VOC	Toluene	108-88-3		U	1.70E-03	4.7E+04		4.9E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	13	15	10/18/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.70E-03	9.3E+02		6.3E+01	
SB-204	N	13	15	10/18/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.70E-03	2.6E+02		5.8E+01	
SB-204	N	13	15	10/18/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.70E-03				
SB-204	N	13	15	10/18/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.70E-03	3.6E+04		8.1E+03	
SB-204	N	13	15	10/18/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.70E-03	6.3E+00		1.5E+00	
SB-204	N	13	15	10/18/21	VOC	Trichloroethene	79-01-6		U	1.70E-03	1.9E+01		4.1E+00	
SB-204	N	13	15	10/18/21	VOC	Trichlorofluoromethane	75-69-4		U	8.50E-03	3.5E+05		2.3E+04	
SB-204	N	13	15	10/18/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.70E-03	1.1E+00		5.1E-02	
SB-204	N	13	15	10/18/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	8.50E-03	2.8E+04		6.7E+03	
SB-204	N	13	15	10/18/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.70E-03	1.8E+03		3.0E+02	
SB-204	N	13	15	10/18/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.70E-03	1.5E+03		2.7E+02	
SB-204	N	13	15	10/18/21	VOC	Vinyl Chloride	75-01-4		U	8.50E-03	1.7E+01		5.9E-01	
SB-204	N	13	15	10/18/21	VOC	Xylenes (total)	1330-20-7		U	3.40E-03	2.5E+03		5.8E+02	
SB-204	N	13	15	10/18/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-204	N	13	15	10/18/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-204	N	13	15	10/18/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-204	N	13	15	10/18/21	SVOC	t-Amyl methyl ether	994-05-8		U	8.50E-04				
SB-204	N	13	15	10/18/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-204	N	13	15	10/18/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-204	N	13	15	10/18/21	SVOC	Benzidine	92-87-5		U	7.80E-01	1.0E-01		5.3E-03	
SB-204	N	13	15	10/18/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-204	N	13	15	10/18/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-204	N	13	15	10/18/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-204	N	13	15	10/18/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-204	N	13	15	10/18/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-204	N	13	15	10/18/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-204	N	13	15	10/18/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-204	N	13	15	10/18/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-204	N	13	15	10/18/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-204	N	13	15	10/18/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-204	N	13	15	10/18/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-204	N	13	15	10/18/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-204	N	13	15	10/18/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.80E-01	8.2E+04		6.3E+03	
SB-204	N	13	15	10/18/21	SVOC	4-Chloroaniline	106-47-8		U	7.80E-01	1.1E+02		2.7E+01	
SB-204	N	13	15	10/18/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-204	N	13	15	10/18/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-204	N	13	15	10/18/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-204	N	13	15	10/18/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-204	N	13	15	10/18/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-204	N	13	15	10/18/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-204	N	13	15	10/18/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-204	N	13	15	10/18/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-204	N	13	15	10/18/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-204	N	13	15	10/18/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	13	15	10/18/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-204	N	13	15	10/18/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-204	N	13	15	10/18/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-204	N	13	15	10/18/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.80E-01	1.6E+03		1.3E+02	
SB-204	N	13	15	10/18/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-204	N	13	15	10/18/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-204	N	13	15	10/18/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-204	N	13	15	10/18/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-204	N	13	15	10/18/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-204	N	13	15	10/18/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.70E-03	5.3E+01		1.2E+01	
SB-204	N	13	15	10/18/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-204	N	13	15	10/18/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-204	N	13	15	10/18/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-204	N	13	15	10/18/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-204	N	13	15	10/18/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-204	N	13	15	10/18/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-204	N	13	15	10/18/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-204	N	13	15	10/18/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-204	N	13	15	10/18/21	SVOC	Naphthalene	91-20-3		U	3.40E-03	8.6E+01		2.0E+01	
SB-204	N	13	15	10/18/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-204	N	13	15	10/18/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-204	N	13	15	10/18/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-204	N	13	15	10/18/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-204	N	13	15	10/18/21	SVOC	4-Nitrophenol	100-02-7		U	7.80E-01				
SB-204	N	13	15	10/18/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-204	N	13	15	10/18/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-204	N	13	15	10/18/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-204	N	13	15	10/18/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-204	N	13	15	10/18/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-204	N	13	15	10/18/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-204	N	13	15	10/18/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-204	N	13	15	10/18/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-204	N	13	15	10/18/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-204	N	13	15	10/18/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-204	N	13	15	10/18/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-204	N	13	15	10/18/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-204	N	13	15	10/18/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-204	N	13	15	10/18/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-204	N	13	15	10/18/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-204	N	13	15	10/18/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-204	N	13	15	10/18/21	INORG	Aluminum	7429-90-5	1.00E+04		1.90E+01	1.1E+06	9.1E-03	7.7E+04	1.3E-01
SB-204	N	13	15	10/18/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-204	N	13	15	10/18/21	INORG	Arsenic	7440-38-2	2.90E+00	J	3.70E+00	3.0E+01	9.7E-02	6.8E+00	4.3E-01
SB-204	N	13	15	10/18/21	INORG	Barium	7440-39-3	6.10E+01		1.90E+00	2.2E+05	2.8E-04	1.5E+04	4.1E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-204	N	13	15	10/18/21	INORG	Beryllium	7440-41-7	8.90E-01		1.90E-01	2.3E+03	3.9E-04	1.6E+02	5.6E-03
SB-204	N	13	15	10/18/21	INORG	Cadmium	7440-43-9		U	3.70E-01	1.0E+02		7.1E+00	
SB-204	N	13	15	10/18/21	INORG	Chromium (total)	7440-47-3	1.50E+01		7.40E-01	1.8E+06	8.3E-06	1.2E+05	1.3E-04
SB-204	N	13	15	10/18/21	INORG	Cobalt	7440-48-4	9.20E+00		1.90E+00	3.5E+02	2.6E-02	2.3E+01	4.0E-01
SB-204	N	13	15	10/18/21	INORG	Copper	7440-50-8	1.70E+01		7.40E-01	4.7E+04	3.6E-04	3.1E+03	5.5E-03
SB-204	N	13	15	10/18/21	INORG	Iron	7439-89-6	2.60E+04		1.90E+03	8.2E+05	3.2E-02	5.5E+04	4.7E-01
SB-204	N	13	15	10/18/21	INORG	Lead	7439-92-1	1.30E+01		5.60E-01	8.0E+02	1.6E-02	2.0E+02	6.5E-02
SB-204	N	13	15	10/18/21	INORG	Manganese	7439-96-5	8.60E+01		3.70E-01	2.6E+04	3.3E-03	1.8E+03	4.8E-02
SB-204	N	13	15	10/18/21	INORG	Mercury	7439-97-6		U	2.90E-02	4.1E+01		7.4E+00	
SB-204	N	13	15	10/18/21	INORG	Nickel	7440-02-0	1.60E+01		7.40E-01	2.2E+04	7.3E-04	1.5E+03	1.1E-02
SB-204	N	13	15	10/18/21	INORG	Selenium	7782-49-2		U	3.70E+00	5.8E+03		3.9E+02	
SB-204	N	13	15	10/18/21	INORG	Silver	7440-22-4		U	3.70E-01	5.8E+03		3.9E+02	
SB-204	N	13	15	10/18/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-204	N	13	15	10/18/21	INORG	Vanadium	7440-62-2	2.80E+01		7.40E-01	5.8E+03	4.8E-03	3.9E+02	7.2E-02
SB-204	N	13	15	10/18/21	INORG	Zinc	7440-66-6	4.60E+01		7.40E-01	3.5E+05	1.3E-04	2.3E+04	2.0E-03
SB-205	N		1	10/11/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.10E-01	9.3E+03		1.8E+03	
SB-205	N		1	10/11/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.10E-01	1.1E+02		2.6E+01	
SB-205	N		1	10/11/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.10E-01	1.1E+02		2.6E+01	
SB-205	N		1	10/11/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.10E-01	2.6E+02		5.8E+01	
SB-205	N		1	10/11/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-205	N		1	10/11/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-205	N		1	10/11/21	SVOC	Acetophenone	98-86-2		U	4.10E-01	1.2E+05		7.8E+03	
SB-205	N		1	10/11/21	SVOC	Aniline	62-53-3		U	4.10E-01	4.0E+03		4.4E+02	
SB-205	N		1	10/11/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-205	N		1	10/11/21	SVOC	Benzidine	92-87-5		U	7.90E-01	1.0E-01		5.3E-03	
SB-205	N		1	10/11/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-205	N		1	10/11/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-205	N		1	10/11/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-205	N		1	10/11/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-205	N		1	10/11/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-205	N		1	10/11/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-205	N		1	10/11/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.10E-01	2.5E+03		1.9E+02	
SB-205	N		1	10/11/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.10E-01	1.0E+01		2.3E+00	
SB-205	N		1	10/11/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.10E-01	1.6E+03		3.9E+02	
SB-205	N		1	10/11/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.10E-01				
SB-205	N		1	10/11/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.10E-01	1.2E+04		2.9E+03	
SB-205	N		1	10/11/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-205	N		1	10/11/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.90E-01	8.2E+04		6.3E+03	
SB-205	N		1	10/11/21	SVOC	4-Chloroaniline	106-47-8		U	7.90E-01	1.1E+02		2.7E+01	
SB-205	N		1	10/11/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.10E-01	6.0E+04		4.8E+03	
SB-205	N		1	10/11/21	SVOC	2-Chlorophenol	95-57-8		U	4.10E-01	5.8E+03		3.9E+02	
SB-205	N		1	10/11/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.10E-01				
SB-205	N		1	10/11/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-205	N		1	10/11/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-205	N		1	10/11/21	SVOC	Dibenzofuran	132-64-9		U	4.10E-01	1.2E+03		7.8E+01	
SB-205	N		1	10/11/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-205	N		1	10/11/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.10E-01	2.5E+03		1.9E+02	
SB-205	N		1	10/11/21	SVOC	Diethylphthalate	84-66-2		U	4.10E-01	6.6E+05		5.1E+04	
SB-205	N		1	10/11/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.10E-01	1.6E+04		1.3E+03	
SB-205	N		1	10/11/21	SVOC	Dimethylphthalate	131-11-3		U	4.10E-01	6.6E+05		5.1E+04	
SB-205	N		1	10/11/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.10E-01	8.2E+04		6.3E+03	
SB-205	N		1	10/11/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.10E-01	6.6E+01		5.1E+00	
SB-205	N		1	10/11/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.90E-01	1.6E+03		1.3E+02	
SB-205	N		1	10/11/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.10E-01	8.2E+03		6.3E+02	
SB-205	N		1	10/11/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.10E-01	2.9E+01		6.8E+00	
SB-205	N		1	10/11/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-205	N		1	10/11/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-205	N		1	10/11/21	SVOC	Hexachlorobenzene	118-74-1		U	4.10E-01	9.6E+00		7.8E-01	
SB-205	N		1	10/11/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.10E-01	5.3E+01		1.2E+01	
SB-205	N		1	10/11/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.10E-01	7.5E+00		1.8E+00	
SB-205	N		1	10/11/21	SVOC	Hexachloroethane	67-72-1		U	4.10E-01	8.0E+01		1.8E+01	
SB-205	N		1	10/11/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-205	N		1	10/11/21	SVOC	Isophorone	78-59-1		U	4.10E-01	2.4E+04		5.7E+03	
SB-205	N		1	10/11/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-205	N		1	10/11/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-205	N		1	10/11/21	SVOC	2-Methylphenol	95-48-7		U	4.10E-01	4.1E+04		3.2E+03	
SB-205	N		1	10/11/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.10E-01				
SB-205	N		1	10/11/21	SVOC	Naphthalene	91-20-3		U	2.00E-01	8.6E+01		2.0E+01	
SB-205	N		1	10/11/21	SVOC	2-Nitroaniline	88-74-4		U	4.10E-01	8.0E+03		6.3E+02	
SB-205	N		1	10/11/21	SVOC	3-Nitroaniline	99-09-2		U	4.10E-01	1.1E+03		2.5E+02	
SB-205	N		1	10/11/21	SVOC	4-Nitroaniline	100-01-6		U	4.10E-01	1.1E+03		2.5E+02	
SB-205	N		1	10/11/21	SVOC	2-Nitrophenol	88-75-5		U	4.10E-01				
SB-205	N		1	10/11/21	SVOC	4-Nitrophenol	100-02-7		U	7.90E-01				
SB-205	N		1	10/11/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.10E-01	3.4E-01		2.0E-02	
SB-205	N		1	10/11/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.10E-01	4.7E+03		1.1E+03	
SB-205	N		1	10/11/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.10E-01	3.3E+00		7.8E-01	
SB-205	N		1	10/11/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.10E-01	4.7E+04		3.1E+03	
SB-205	N		1	10/11/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.10E-01	1.3E+02		2.7E+01	
SB-205	N		1	10/11/21	SVOC	Pentachlorophenol	87-86-5		U	4.10E-01	4.0E+01		1.0E+01	
SB-205	N		1	10/11/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-205	N		1	10/11/21	SVOC	Phenol	108-95-2		U	4.10E-01	2.5E+05		1.9E+04	
SB-205	N		1	10/11/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-205	N		1	10/11/21	SVOC	Pyridine	110-86-1		U	4.10E-01	1.2E+03		7.8E+01	
SB-205	N		1	10/11/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.10E-01	3.5E+01		2.3E+00	
SB-205	N		1	10/11/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.10E-01	8.2E+04		6.3E+03	
SB-205	N		1	10/11/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.10E-01	8.2E+02		6.3E+01	
SB-205	N		1	10/11/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.10E-01	7.4E+01		1.7E+01	
SB-205	N		1	10/11/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.10E-01	1.5E+01		3.6E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-205	N		1	10/11/21	NITRO	Nitrobenzene	98-95-3		U	4.10E-01	2.2E+02		5.1E+01	
SB-205	N		1	10/11/21	INORG	Aluminum	7429-90-5	9.40E+03		1.90E+01	1.1E+06	8.5E-03	7.7E+04	1.2E-01
SB-205	N		1	10/11/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-205	N		1	10/11/21	INORG	Arsenic	7440-38-2	7.60E+00		3.90E+00	3.0E+01	2.5E-01	6.8E+00	1.1E+00
SB-205	N		1	10/11/21	INORG	Barium	7440-39-3	5.80E+01		1.90E+00	2.2E+05	2.6E-04	1.5E+04	3.9E-03
SB-205	N		1	10/11/21	INORG	Beryllium	7440-41-7	5.60E-01		1.90E-01	2.3E+03	2.4E-04	1.6E+02	3.5E-03
SB-205	N		1	10/11/21	INORG	Cadmium	7440-43-9		U	3.90E-01	1.0E+02		7.1E+00	
SB-205	N		1	10/11/21	INORG	Chromium (total)	7440-47-3	1.50E+01		7.70E-01	1.8E+06	8.3E-06	1.2E+05	1.3E-04
SB-205	N		1	10/11/21	INORG	Cobalt	7440-48-4	5.20E+00		1.90E+00	3.5E+02	1.5E-02	2.3E+01	2.3E-01
SB-205	N		1	10/11/21	INORG	Copper	7440-50-8	1.90E+01		7.70E-01	4.7E+04	4.0E-04	3.1E+03	6.1E-03
SB-205	N		1	10/11/21	INORG	Cyanide (total)	57-12-5	1.40E+00		5.80E-01	1.5E+02	9.3E-03	2.3E+01	6.1E-02
SB-205	N		1	10/11/21	INORG	Lead	7439-92-1	1.10E+01		5.80E-01	8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-205	N		1	10/11/21	INORG	Manganese	7439-96-5	8.20E+01		3.90E-01	2.6E+04	3.2E-03	1.8E+03	4.6E-02
SB-205	N		1	10/11/21	INORG	Mercury	7439-97-6	7.30E-02		3.10E-02	4.1E+01	1.8E-03	7.4E+00	9.8E-03
SB-205	N		1	10/11/21	INORG	Nickel	7440-02-0	1.20E+01		7.70E-01	2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-205	N		1	10/11/21	INORG	Selenium	7782-49-2		U	3.90E+00	5.8E+03		3.9E+02	
SB-205	N		1	10/11/21	INORG	Silver	7440-22-4		U	3.90E-01	5.8E+03		3.9E+02	
SB-205	N		1	10/11/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-205	N		1	10/11/21	INORG	Vanadium	7440-62-2	2.50E+01		7.70E-01	5.8E+03	4.3E-03	3.9E+02	6.4E-02
SB-205	N		1	10/11/21	INORG	Zinc	7440-66-6	3.30E+01		7.70E-01	3.5E+05	9.4E-05	2.3E+04	1.4E-03
SB-205	FD	13	15	10/11/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.80E-01	9.3E+03		1.8E+03	
SB-205	N	13	15	10/11/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.70E-01	9.3E+03		1.8E+03	
SB-205	FD	13	15	10/11/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.80E-01	1.1E+02		2.6E+01	
SB-205	N	13	15	10/11/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.70E-01	1.1E+02		2.6E+01	
SB-205	FD	13	15	10/11/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.80E-01	1.1E+02		2.6E+01	
SB-205	N	13	15	10/11/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.70E-01	1.1E+02		2.6E+01	
SB-205	FD	13	15	10/11/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.80E-01	2.6E+02		5.8E+01	
SB-205	N	13	15	10/11/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.70E-01	2.6E+02		5.8E+01	
SB-205	FD	13	15	10/11/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-205	N	13	15	10/11/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-205	FD	13	15	10/11/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-205	N	13	15	10/11/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-205	FD	13	15	10/11/21	SVOC	Acetophenone	98-86-2		U	3.80E-01	1.2E+05		7.8E+03	
SB-205	N	13	15	10/11/21	SVOC	Acetophenone	98-86-2		U	3.70E-01	1.2E+05		7.8E+03	
SB-205	FD	13	15	10/11/21	SVOC	Aniline	62-53-3		U	3.80E-01	4.0E+03		4.4E+02	
SB-205	N	13	15	10/11/21	SVOC	Aniline	62-53-3		U	3.70E-01	4.0E+03		4.4E+02	
SB-205	FD	13	15	10/11/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-205	N	13	15	10/11/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-205	FD	13	15	10/11/21	SVOC	Benzidine	92-87-5		U	7.40E-01	1.0E-01		5.3E-03	
SB-205	N	13	15	10/11/21	SVOC	Benzidine	92-87-5		U	7.20E-01	1.0E-01		5.3E-03	
SB-205	FD	13	15	10/11/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.90E-01	2.1E+02		1.1E+01	
SB-205	N	13	15	10/11/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.90E-01	2.1E+02		1.1E+01	
SB-205	FD	13	15	10/11/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	
SB-205	N	13	15	10/11/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-205	FD	13	15	10/11/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.90E-01	2.1E+02		1.1E+01	
SB-205	N	13	15	10/11/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.90E-01	2.1E+02		1.1E+01	
SB-205	FD	13	15	10/11/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-205	N	13	15	10/11/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-205	FD	13	15	10/11/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-205	N	13	15	10/11/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-205	FD	13	15	10/11/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-205	N	13	15	10/11/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-205	FD	13	15	10/11/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.80E-01	2.5E+03		1.9E+02	
SB-205	N	13	15	10/11/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.70E-01	2.5E+03		1.9E+02	
SB-205	FD	13	15	10/11/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.80E-01	1.0E+01		2.3E+00	
SB-205	N	13	15	10/11/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.70E-01	1.0E+01		2.3E+00	
SB-205	FD	13	15	10/11/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.80E-01	1.6E+03		3.9E+02	
SB-205	N	13	15	10/11/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.70E-01	1.6E+03		3.9E+02	
SB-205	FD	13	15	10/11/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.80E-01				
SB-205	N	13	15	10/11/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.70E-01				
SB-205	FD	13	15	10/11/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.80E-01	1.2E+04		2.9E+03	
SB-205	N	13	15	10/11/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.70E-01	1.2E+04		2.9E+03	
SB-205	FD	13	15	10/11/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-205	N	13	15	10/11/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-205	FD	13	15	10/11/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.40E-01	8.2E+04		6.3E+03	
SB-205	N	13	15	10/11/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.20E-01	8.2E+04		6.3E+03	
SB-205	FD	13	15	10/11/21	SVOC	4-Chloroaniline	106-47-8		U	7.40E-01	1.1E+02		2.7E+01	
SB-205	N	13	15	10/11/21	SVOC	4-Chloroaniline	106-47-8		U	7.20E-01	1.1E+02		2.7E+01	
SB-205	FD	13	15	10/11/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.80E-01	6.0E+04		4.8E+03	
SB-205	N	13	15	10/11/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.70E-01	6.0E+04		4.8E+03	
SB-205	FD	13	15	10/11/21	SVOC	2-Chlorophenol	95-57-8		U	3.80E-01	5.8E+03		3.9E+02	
SB-205	N	13	15	10/11/21	SVOC	2-Chlorophenol	95-57-8		U	3.70E-01	5.8E+03		3.9E+02	
SB-205	FD	13	15	10/11/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.80E-01				
SB-205	N	13	15	10/11/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.70E-01				
SB-205	FD	13	15	10/11/21	SVOC	Chrysene	218-01-9		U	1.90E-01	2.1E+04		1.1E+03	
SB-205	N	13	15	10/11/21	SVOC	Chrysene	218-01-9		U	1.90E-01	2.1E+04		1.1E+03	
SB-205	FD	13	15	10/11/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-205	N	13	15	10/11/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-205	FD	13	15	10/11/21	SVOC	Dibenzofuran	132-64-9		U	3.80E-01	1.2E+03		7.8E+01	
SB-205	N	13	15	10/11/21	SVOC	Dibenzofuran	132-64-9		U	3.70E-01	1.2E+03		7.8E+01	
SB-205	FD	13	15	10/11/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-205	N	13	15	10/11/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-205	FD	13	15	10/11/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.80E-01	2.5E+03		1.9E+02	
SB-205	N	13	15	10/11/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.70E-01	2.5E+03		1.9E+02	
SB-205	FD	13	15	10/11/21	SVOC	Diethylphthalate	84-66-2		U	3.80E-01	6.6E+05		5.1E+04	
SB-205	N	13	15	10/11/21	SVOC	Diethylphthalate	84-66-2		U	3.70E-01	6.6E+05		5.1E+04	
SB-205	FD	13	15	10/11/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.80E-01	1.6E+04		1.3E+03	
SB-205	N	13	15	10/11/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.70E-01	1.6E+04		1.3E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-205	FD	13	15	10/11/21	SVOC	Dimethylphthalate	131-11-3		U	3.80E-01	6.6E+05		5.1E+04	
SB-205	N	13	15	10/11/21	SVOC	Dimethylphthalate	131-11-3		U	3.70E-01	6.6E+05		5.1E+04	
SB-205	FD	13	15	10/11/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.80E-01	8.2E+04		6.3E+03	
SB-205	N	13	15	10/11/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.70E-01	8.2E+04		6.3E+03	
SB-205	FD	13	15	10/11/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.80E-01	6.6E+01		5.1E+00	
SB-205	N	13	15	10/11/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.70E-01	6.6E+01		5.1E+00	
SB-205	FD	13	15	10/11/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.40E-01	1.6E+03		1.3E+02	
SB-205	N	13	15	10/11/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.20E-01	1.6E+03		1.3E+02	
SB-205	FD	13	15	10/11/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.80E-01	8.2E+03		6.3E+02	
SB-205	N	13	15	10/11/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.70E-01	8.2E+03		6.3E+02	
SB-205	FD	13	15	10/11/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.80E-01	2.9E+01		6.8E+00	
SB-205	N	13	15	10/11/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.70E-01	2.9E+01		6.8E+00	
SB-205	FD	13	15	10/11/21	SVOC	Fluoranthene	206-44-0		U	1.90E-01	3.0E+04		2.4E+03	
SB-205	N	13	15	10/11/21	SVOC	Fluoranthene	206-44-0		U	1.90E-01	3.0E+04		2.4E+03	
SB-205	FD	13	15	10/11/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-205	N	13	15	10/11/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-205	FD	13	15	10/11/21	SVOC	Hexachlorobenzene	118-74-1		U	3.80E-01	9.6E+00		7.8E-01	
SB-205	N	13	15	10/11/21	SVOC	Hexachlorobenzene	118-74-1		U	3.70E-01	9.6E+00		7.8E-01	
SB-205	FD	13	15	10/11/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.80E-01	5.3E+01		1.2E+01	
SB-205	N	13	15	10/11/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.70E-01	5.3E+01		1.2E+01	
SB-205	FD	13	15	10/11/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.80E-01	7.5E+00		1.8E+00	
SB-205	N	13	15	10/11/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.70E-01	7.5E+00		1.8E+00	
SB-205	FD	13	15	10/11/21	SVOC	Hexachloroethane	67-72-1		U	3.80E-01	8.0E+01		1.8E+01	
SB-205	N	13	15	10/11/21	SVOC	Hexachloroethane	67-72-1		U	3.70E-01	8.0E+01		1.8E+01	
SB-205	FD	13	15	10/11/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-205	N	13	15	10/11/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-205	FD	13	15	10/11/21	SVOC	Isophorone	78-59-1		U	3.80E-01	2.4E+04		5.7E+03	
SB-205	N	13	15	10/11/21	SVOC	Isophorone	78-59-1		U	3.70E-01	2.4E+04		5.7E+03	
SB-205	FD	13	15	10/11/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.90E-01	7.3E+02		1.8E+02	
SB-205	N	13	15	10/11/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.90E-01	7.3E+02		1.8E+02	
SB-205	FD	13	15	10/11/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.90E-01	3.0E+03		2.4E+02	
SB-205	N	13	15	10/11/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.90E-01	3.0E+03		2.4E+02	
SB-205	FD	13	15	10/11/21	SVOC	2-Methylphenol	95-48-7		U	3.80E-01	4.1E+04		3.2E+03	
SB-205	N	13	15	10/11/21	SVOC	2-Methylphenol	95-48-7		U	3.70E-01	4.1E+04		3.2E+03	
SB-205	FD	13	15	10/11/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.80E-01				
SB-205	N	13	15	10/11/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.70E-01				
SB-205	FD	13	15	10/11/21	SVOC	Naphthalene	91-20-3		U	1.90E-01	8.6E+01		2.0E+01	
SB-205	N	13	15	10/11/21	SVOC	Naphthalene	91-20-3		U	1.90E-01	8.6E+01		2.0E+01	
SB-205	FD	13	15	10/11/21	SVOC	2-Nitroaniline	88-74-4		U	3.80E-01	8.0E+03		6.3E+02	
SB-205	N	13	15	10/11/21	SVOC	2-Nitroaniline	88-74-4		U	3.70E-01	8.0E+03		6.3E+02	
SB-205	FD	13	15	10/11/21	SVOC	3-Nitroaniline	99-09-2		U	3.80E-01	1.1E+03		2.5E+02	
SB-205	N	13	15	10/11/21	SVOC	3-Nitroaniline	99-09-2		U	3.70E-01	1.1E+03		2.5E+02	
SB-205	FD	13	15	10/11/21	SVOC	4-Nitroaniline	100-01-6		U	3.80E-01	1.1E+03		2.5E+02	
SB-205	N	13	15	10/11/21	SVOC	4-Nitroaniline	100-01-6		U	3.70E-01	1.1E+03		2.5E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-205	FD	13	15	10/11/21	SVOC	2-Nitrophenol	88-75-5		U	3.80E-01				
SB-205	N	13	15	10/11/21	SVOC	2-Nitrophenol	88-75-5		U	3.70E-01				
SB-205	FD	13	15	10/11/21	SVOC	4-Nitrophenol	100-02-7		U	7.40E-01				
SB-205	N	13	15	10/11/21	SVOC	4-Nitrophenol	100-02-7		U	7.20E-01				
SB-205	FD	13	15	10/11/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.80E-01	3.4E-01		2.0E-02	
SB-205	N	13	15	10/11/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.70E-01	3.4E-01		2.0E-02	
SB-205	FD	13	15	10/11/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.80E-01	4.7E+03		1.1E+03	
SB-205	N	13	15	10/11/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.70E-01	4.7E+03		1.1E+03	
SB-205	FD	13	15	10/11/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.80E-01	3.3E+00		7.8E-01	
SB-205	N	13	15	10/11/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.70E-01	3.3E+00		7.8E-01	
SB-205	FD	13	15	10/11/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.80E-01	4.7E+04		3.1E+03	
SB-205	N	13	15	10/11/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.70E-01	4.7E+04		3.1E+03	
SB-205	FD	13	15	10/11/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.80E-01	1.3E+02		2.7E+01	
SB-205	N	13	15	10/11/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.70E-01	1.3E+02		2.7E+01	
SB-205	FD	13	15	10/11/21	SVOC	Pentachlorophenol	87-86-5		U	3.80E-01	4.0E+01		1.0E+01	
SB-205	N	13	15	10/11/21	SVOC	Pentachlorophenol	87-86-5		U	3.70E-01	4.0E+01		1.0E+01	
SB-205	FD	13	15	10/11/21	SVOC	Phenanthrene	85-01-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-205	N	13	15	10/11/21	SVOC	Phenanthrene	85-01-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-205	FD	13	15	10/11/21	SVOC	Phenol	108-95-2		U	3.80E-01	2.5E+05		1.9E+04	
SB-205	N	13	15	10/11/21	SVOC	Phenol	108-95-2		U	3.70E-01	2.5E+05		1.9E+04	
SB-205	FD	13	15	10/11/21	SVOC	Pyrene	129-00-0		U	1.90E-01	2.3E+04		1.8E+03	
SB-205	N	13	15	10/11/21	SVOC	Pyrene	129-00-0		U	1.90E-01	2.3E+04		1.8E+03	
SB-205	FD	13	15	10/11/21	SVOC	Pyridine	110-86-1		U	3.80E-01	1.2E+03		7.8E+01	
SB-205	N	13	15	10/11/21	SVOC	Pyridine	110-86-1		U	3.70E-01	1.2E+03		7.8E+01	
SB-205	FD	13	15	10/11/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.80E-01	3.5E+01		2.3E+00	
SB-205	N	13	15	10/11/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.70E-01	3.5E+01		2.3E+00	
SB-205	FD	13	15	10/11/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.80E-01	8.2E+04		6.3E+03	
SB-205	N	13	15	10/11/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.70E-01	8.2E+04		6.3E+03	
SB-205	FD	13	15	10/11/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.80E-01	8.2E+02		6.3E+01	
SB-205	N	13	15	10/11/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.70E-01	8.2E+02		6.3E+01	
SB-205	FD	13	15	10/11/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.80E-01	7.4E+01		1.7E+01	
SB-205	N	13	15	10/11/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.70E-01	7.4E+01		1.7E+01	
SB-205	FD	13	15	10/11/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.80E-01	1.5E+01		3.6E+00	
SB-205	N	13	15	10/11/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.70E-01	1.5E+01		3.6E+00	
SB-205	FD	13	15	10/11/21	NITRO	Nitrobenzene	98-95-3		U	3.80E-01	2.2E+02		5.1E+01	
SB-205	N	13	15	10/11/21	NITRO	Nitrobenzene	98-95-3		U	3.70E-01	2.2E+02		5.1E+01	
SB-205	FD	13	15	10/11/21	INORG	Aluminum	7429-90-5	6.30E+03		1.80E+01	1.1E+06	5.7E-03	7.7E+04	8.2E-02
SB-205	N	13	15	10/11/21	INORG	Aluminum	7429-90-5	6.90E+03		1.80E+01	1.1E+06	6.3E-03	7.7E+04	9.0E-02
SB-205	FD	13	15	10/11/21	INORG	Antimony	7440-36-0		U	1.80E+00	4.7E+02		3.1E+01	
SB-205	N	13	15	10/11/21	INORG	Antimony	7440-36-0		U	1.80E+00	4.7E+02		3.1E+01	
SB-205	FD	13	15	10/11/21	INORG	Arsenic	7440-38-2	3.80E+00		3.70E+00	3.0E+01	1.3E-01	6.8E+00	5.6E-01
SB-205	N	13	15	10/11/21	INORG	Arsenic	7440-38-2	3.10E+00	J	3.60E+00	3.0E+01	1.0E-01	6.8E+00	4.6E-01
SB-205	FD	13	15	10/11/21	INORG	Barium	7440-39-3	3.90E+01		1.80E+00	2.2E+05	1.8E-04	1.5E+04	2.6E-03
SB-205	N	13	15	10/11/21	INORG	Barium	7440-39-3	4.40E+01		1.80E+00	2.2E+05	2.0E-04	1.5E+04	2.9E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-205	FD	13	15	10/11/21	INORG	Beryllium	7440-41-7	5.00E-01		1.80E-01	2.3E+03	2.2E-04	1.6E+02	3.1E-03
SB-205	N	13	15	10/11/21	INORG	Beryllium	7440-41-7	5.20E-01		1.80E-01	2.3E+03	2.3E-04	1.6E+02	3.3E-03
SB-205	FD	13	15	10/11/21	INORG	Cadmium	7440-43-9		U	3.70E-01	1.0E+02		7.1E+00	
SB-205	N	13	15	10/11/21	INORG	Cadmium	7440-43-9		U	3.60E-01	1.0E+02		7.1E+00	
SB-205	FD	13	15	10/11/21	INORG	Chromium (total)	7440-47-3	1.00E+01		7.30E-01	1.8E+06	5.6E-06	1.2E+05	8.3E-05
SB-205	N	13	15	10/11/21	INORG	Chromium (total)	7440-47-3	2.10E+01		7.10E-01	1.8E+06	1.2E-05	1.2E+05	1.8E-04
SB-205	FD	13	15	10/11/21	INORG	Cobalt	7440-48-4	4.80E+00		1.80E+00	3.5E+02	1.4E-02	2.3E+01	2.1E-01
SB-205	N	13	15	10/11/21	INORG	Cobalt	7440-48-4	6.00E+00		1.80E+00	3.5E+02	1.7E-02	2.3E+01	2.6E-01
SB-205	FD	13	15	10/11/21	INORG	Copper	7440-50-8	8.20E+00		7.30E-01	4.7E+04	1.7E-04	3.1E+03	2.6E-03
SB-205	N	13	15	10/11/21	INORG	Copper	7440-50-8	8.90E+00		7.10E-01	4.7E+04	1.9E-04	3.1E+03	2.9E-03
SB-205	FD	13	15	10/11/21	INORG	Cyanide (total)	57-12-5	4.10E-01	J	5.50E-01	1.5E+02	2.7E-03	2.3E+01	1.8E-02
SB-205	N	13	15	10/11/21	INORG	Cyanide (total)	57-12-5		U	5.40E-01	1.5E+02		2.3E+01	
SB-205	FD	13	15	10/11/21	INORG	Iron	7439-89-6	1.40E+04		1.80E+01	8.2E+05	1.7E-02	5.5E+04	2.5E-01
SB-205	N	13	15	10/11/21	INORG	Iron	7439-89-6	1.40E+04		1.80E+01	8.2E+05	1.7E-02	5.5E+04	2.5E-01
SB-205	FD	13	15	10/11/21	INORG	Lead	7439-92-1	5.70E+00		5.50E-01	8.0E+02	7.1E-03	2.0E+02	2.9E-02
SB-205	N	13	15	10/11/21	INORG	Lead	7439-92-1	6.30E+00		5.30E-01	8.0E+02	7.9E-03	2.0E+02	3.2E-02
SB-205	FD	13	15	10/11/21	INORG	Manganese	7439-96-5	6.20E+01		3.70E-01	2.6E+04	2.4E-03	1.8E+03	3.4E-02
SB-205	N	13	15	10/11/21	INORG	Manganese	7439-96-5	6.80E+01		3.60E-01	2.6E+04	2.6E-03	1.8E+03	3.8E-02
SB-205	FD	13	15	10/11/21	INORG	Mercury	7439-97-6		U	2.90E-02	4.1E+01		7.4E+00	
SB-205	N	13	15	10/11/21	INORG	Mercury	7439-97-6		U	2.80E-02	4.1E+01		7.4E+00	
SB-205	FD	13	15	10/11/21	INORG	Nickel	7440-02-0	9.30E+00		7.30E-01	2.2E+04	4.2E-04	1.5E+03	6.2E-03
SB-205	N	13	15	10/11/21	INORG	Nickel	7440-02-0	1.20E+01		7.10E-01	2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-205	FD	13	15	10/11/21	INORG	Selenium	7782-49-2		U	3.70E+00	5.8E+03		3.9E+02	
SB-205	N	13	15	10/11/21	INORG	Selenium	7782-49-2		U	3.60E+00	5.8E+03		3.9E+02	
SB-205	FD	13	15	10/11/21	INORG	Silver	7440-22-4		U	3.70E-01	5.8E+03		3.9E+02	
SB-205	N	13	15	10/11/21	INORG	Silver	7440-22-4		U	3.60E-01	5.8E+03		3.9E+02	
SB-205	FD	13	15	10/11/21	INORG	Thallium	7440-28-0		U	1.80E+00	1.2E+01		7.8E-01	
SB-205	N	13	15	10/11/21	INORG	Thallium	7440-28-0		U	1.80E+00	1.2E+01		7.8E-01	
SB-205	FD	13	15	10/11/21	INORG	Vanadium	7440-62-2	1.70E+01		7.30E-01	5.8E+03	2.9E-03	3.9E+02	4.4E-02
SB-205	N	13	15	10/11/21	INORG	Vanadium	7440-62-2	1.80E+01		7.10E-01	5.8E+03	3.1E-03	3.9E+02	4.6E-02
SB-205	FD	13	15	10/11/21	INORG	Zinc	7440-66-6	2.50E+01		7.30E-01	3.5E+05	7.1E-05	2.3E+04	1.1E-03
SB-205	N	13	15	10/11/21	INORG	Zinc	7440-66-6	2.70E+01		7.10E-01	3.5E+05	7.7E-05	2.3E+04	1.2E-03
SB-206	N		1	10/12/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.80E-01	9.3E+03		1.8E+03	
SB-206	N		1	10/12/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.80E-01	1.1E+02		2.6E+01	
SB-206	N		1	10/12/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.80E-01	1.1E+02		2.6E+01	
SB-206	N		1	10/12/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.80E-01	2.6E+02		5.8E+01	
SB-206	N		1	10/12/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-206	N		1	10/12/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-206	N		1	10/12/21	SVOC	Acetophenone	98-86-2		U	3.80E-01	1.2E+05		7.8E+03	
SB-206	N		1	10/12/21	SVOC	Aniline	62-53-3		U	3.80E-01	4.0E+03		4.4E+02	
SB-206	N		1	10/12/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-206	N		1	10/12/21	SVOC	Benzidine	92-87-5		U	7.50E-01	1.0E-01		5.3E-03	
SB-206	N		1	10/12/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.90E-01	2.1E+02		1.1E+01	
SB-206	N		1	10/12/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N		1	10/12/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.90E-01	2.1E+02		1.1E+01	
SB-206	N		1	10/12/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-206	N		1	10/12/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-206	N		1	10/12/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-206	N		1	10/12/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.80E-01	2.5E+03		1.9E+02	
SB-206	N		1	10/12/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.80E-01	1.0E+01		2.3E+00	
SB-206	N		1	10/12/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.80E-01	1.6E+03		3.9E+02	
SB-206	N		1	10/12/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.80E-01				
SB-206	N		1	10/12/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.80E-01	1.2E+04		2.9E+03	
SB-206	N		1	10/12/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-206	N		1	10/12/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.50E-01	8.2E+04		6.3E+03	
SB-206	N		1	10/12/21	SVOC	4-Chloroaniline	106-47-8		U	7.50E-01	1.1E+02		2.7E+01	
SB-206	N		1	10/12/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.80E-01	6.0E+04		4.8E+03	
SB-206	N		1	10/12/21	SVOC	2-Chlorophenol	95-57-8		U	3.80E-01	5.8E+03		3.9E+02	
SB-206	N		1	10/12/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.80E-01				
SB-206	N		1	10/12/21	SVOC	Chrysene	218-01-9		U	1.90E-01	2.1E+04		1.1E+03	
SB-206	N		1	10/12/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-206	N		1	10/12/21	SVOC	Dibenzofuran	132-64-9		U	3.80E-01	1.2E+03		7.8E+01	
SB-206	N		1	10/12/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-206	N		1	10/12/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.80E-01	2.5E+03		1.9E+02	
SB-206	N		1	10/12/21	SVOC	Diethylphthalate	84-66-2		U	3.80E-01	6.6E+05		5.1E+04	
SB-206	N		1	10/12/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.80E-01	1.6E+04		1.3E+03	
SB-206	N		1	10/12/21	SVOC	Dimethylphthalate	131-11-3		U	3.80E-01	6.6E+05		5.1E+04	
SB-206	N		1	10/12/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.80E-01	8.2E+04		6.3E+03	
SB-206	N		1	10/12/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.80E-01	6.6E+01		5.1E+00	
SB-206	N		1	10/12/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.50E-01	1.6E+03		1.3E+02	
SB-206	N		1	10/12/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.80E-01	8.2E+03		6.3E+02	
SB-206	N		1	10/12/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.80E-01	2.9E+01		6.8E+00	
SB-206	N		1	10/12/21	SVOC	Fluoranthene	206-44-0		U	1.90E-01	3.0E+04		2.4E+03	
SB-206	N		1	10/12/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-206	N		1	10/12/21	SVOC	Hexachlorobenzene	118-74-1		U	3.80E-01	9.6E+00		7.8E-01	
SB-206	N		1	10/12/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.80E-01	5.3E+01		1.2E+01	
SB-206	N		1	10/12/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.80E-01	7.5E+00		1.8E+00	
SB-206	N		1	10/12/21	SVOC	Hexachloroethane	67-72-1		U	3.80E-01	8.0E+01		1.8E+01	
SB-206	N		1	10/12/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-206	N		1	10/12/21	SVOC	Isophorone	78-59-1		U	3.80E-01	2.4E+04		5.7E+03	
SB-206	N		1	10/12/21	SVOC	1-Methylnaphthalene	90-12-0	1.00E-01	J	1.90E-01	7.3E+02	1.4E-04	1.8E+02	5.6E-04
SB-206	N		1	10/12/21	SVOC	2-Methylnaphthalene	91-57-6	1.70E-01	J	1.90E-01	3.0E+03	5.7E-05	2.4E+02	7.1E-04
SB-206	N		1	10/12/21	SVOC	2-Methylphenol	95-48-7		U	3.80E-01	4.1E+04		3.2E+03	
SB-206	N		1	10/12/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.80E-01				
SB-206	N		1	10/12/21	SVOC	Naphthalene	91-20-3	1.10E-01	J	1.90E-01	8.6E+01	1.3E-03	2.0E+01	5.5E-03
SB-206	N		1	10/12/21	SVOC	2-Nitroaniline	88-74-4		U	3.80E-01	8.0E+03		6.3E+02	
SB-206	N		1	10/12/21	SVOC	3-Nitroaniline	99-09-2		U	3.80E-01	1.1E+03		2.5E+02	
SB-206	N		1	10/12/21	SVOC	4-Nitroaniline	100-01-6		U	3.80E-01	1.1E+03		2.5E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N		1	10/12/21	SVOC	2-Nitrophenol	88-75-5		U	3.80E-01				
SB-206	N		1	10/12/21	SVOC	4-Nitrophenol	100-02-7		U	7.50E-01				
SB-206	N		1	10/12/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.80E-01	3.4E-01		2.0E-02	
SB-206	N		1	10/12/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.80E-01	4.7E+03		1.1E+03	
SB-206	N		1	10/12/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.80E-01	3.3E+00		7.8E-01	
SB-206	N		1	10/12/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.80E-01	4.7E+04		3.1E+03	
SB-206	N		1	10/12/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.80E-01	1.3E+02		2.7E+01	
SB-206	N		1	10/12/21	SVOC	Pentachlorophenol	87-86-5		U	3.80E-01	4.0E+01		1.0E+01	
SB-206	N		1	10/12/21	SVOC	Phenanthrene	85-01-8	8.80E-02	J	1.90E-01	2.3E+04	3.8E-06	1.8E+03	4.9E-05
SB-206	N		1	10/12/21	SVOC	Phenol	108-95-2		U	3.80E-01	2.5E+05		1.9E+04	
SB-206	N		1	10/12/21	SVOC	Pyrene	129-00-0		U	1.90E-01	2.3E+04		1.8E+03	
SB-206	N		1	10/12/21	SVOC	Pyridine	110-86-1		U	3.80E-01	1.2E+03		7.8E+01	
SB-206	N		1	10/12/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.80E-01	3.5E+01		2.3E+00	
SB-206	N		1	10/12/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.80E-01	8.2E+04		6.3E+03	
SB-206	N		1	10/12/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.80E-01	8.2E+02		6.3E+01	
SB-206	N		1	10/12/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.80E-01	7.4E+01		1.7E+01	
SB-206	N		1	10/12/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.80E-01	1.5E+01		3.6E+00	
SB-206	N		1	10/12/21	NITRO	Nitrobenzene	98-95-3		U	3.80E-01	2.2E+02		5.1E+01	
SB-206	N		1	10/12/21	INORG	Aluminum	7429-90-5	8.50E+03		1.90E+01	1.1E+06	7.7E-03	7.7E+04	1.1E-01
SB-206	N		1	10/12/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-206	N		1	10/12/21	INORG	Arsenic	7440-38-2	5.60E+00		3.80E+00	3.0E+01	1.9E-01	6.8E+00	8.2E-01
SB-206	N		1	10/12/21	INORG	Barium	7440-39-3	6.40E+01		1.90E+00	2.2E+05	2.9E-04	1.5E+04	4.3E-03
SB-206	N		1	10/12/21	INORG	Beryllium	7440-41-7	7.80E-01		1.90E-01	2.3E+03	3.4E-04	1.6E+02	4.9E-03
SB-206	N		1	10/12/21	INORG	Cadmium	7440-43-9		U	3.80E-01	1.0E+02		7.1E+00	
SB-206	N		1	10/12/21	INORG	Chromium (total)	7440-47-3	1.90E+01		7.70E-01	1.8E+06	1.1E-05	1.2E+05	1.6E-04
SB-206	N		1	10/12/21	INORG	Cobalt	7440-48-4	1.30E+01		1.90E+00	3.5E+02	3.7E-02	2.3E+01	5.7E-01
SB-206	N		1	10/12/21	INORG	Copper	7440-50-8	2.00E+01		7.70E-01	4.7E+04	4.3E-04	3.1E+03	6.5E-03
SB-206	N		1	10/12/21	INORG	Cyanide (total)	57-12-5		U	5.50E-01	1.5E+02		2.3E+01	
SB-206	N		1	10/12/21	INORG	Lead	7439-92-1	1.60E+01		5.80E-01	8.0E+02	2.0E-02	2.0E+02	8.0E-02
SB-206	N		1	10/12/21	INORG	Manganese	7439-96-5	1.80E+02		3.80E-01	2.6E+04	6.9E-03	1.8E+03	1.0E-01
SB-206	N		1	10/12/21	INORG	Mercury	7439-97-6	4.10E-02		3.10E-02	4.1E+01	1.0E-03	7.4E+00	5.5E-03
SB-206	N		1	10/12/21	INORG	Nickel	7440-02-0	1.50E+01		7.70E-01	2.2E+04	6.8E-04	1.5E+03	1.0E-02
SB-206	N		1	10/12/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-206	N		1	10/12/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-206	N		1	10/12/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-206	N		1	10/12/21	INORG	Vanadium	7440-62-2	2.50E+01		7.70E-01	5.8E+03	4.3E-03	3.9E+02	6.4E-02
SB-206	N		1	10/12/21	INORG	Zinc	7440-66-6	5.00E+01		7.70E-01	3.5E+05	1.4E-04	2.3E+04	2.2E-03
SB-206	N	5	7	10/12/21	VOC	Acetone	67-64-1		U	8.30E-02	1.1E+06		7.0E+04	
SB-206	N	5	7	10/12/21	VOC	Acrylonitrile	107-13-1		U	5.00E-03	1.1E+01		2.5E+00	
SB-206	N	5	7	10/12/21	VOC	Benzene	71-43-2		U	1.70E-03	5.1E+01		1.2E+01	
SB-206	N	5	7	10/12/21	VOC	Bromobenzene	108-86-1		U	1.70E-03	1.8E+03		2.9E+02	
SB-206	N	5	7	10/12/21	VOC	Bromochloromethane	74-97-5		U	1.70E-03	6.3E+02		1.5E+02	
SB-206	N	5	7	10/12/21	VOC	Bromodichloromethane	75-27-4		U	1.70E-03	1.3E+01		2.9E+00	
SB-206	N	5	7	10/12/21	VOC	Bromoform	75-25-2		U	1.70E-03	8.6E+02		1.9E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N	5	7	10/12/21	VOC	Bromomethane	74-83-9		U	8.30E-03	3.0E+01		6.8E+00	
SB-206	N	5	7	10/12/21	VOC	2-Butanone	78-93-3	1.30E-02	J	3.30E-02	1.9E+05	6.8E-08	2.7E+04	4.8E-07
SB-206	N	5	7	10/12/21	VOC	n-Butylbenzene	104-51-8		U	1.70E-03	5.8E+04		3.9E+03	
SB-206	N	5	7	10/12/21	VOC	sec-Butylbenzene	135-98-8		U	1.70E-03	1.2E+05		7.8E+03	
SB-206	N	5	7	10/12/21	VOC	tert-Butylbenzene	98-06-6		U	1.70E-03	1.2E+05		7.8E+03	
SB-206	N	5	7	10/12/21	VOC	Carbon Disulfide	75-15-0		U	8.30E-03	3.5E+03		7.7E+02	
SB-206	N	5	7	10/12/21	VOC	Carbon Tetrachloride	56-23-5		U	1.70E-03	2.9E+01		6.5E+00	
SB-206	N	5	7	10/12/21	VOC	Chlorobenzene	108-90-7		U	1.70E-03	1.3E+03		2.8E+02	
SB-206	N	5	7	10/12/21	VOC	Chloroethane	75-00-3		U	1.70E-02	2.3E+04		5.4E+03	
SB-206	N	5	7	10/12/21	VOC	Chloroform	67-66-3		U	3.30E-03	1.4E+01		3.2E+00	
SB-206	N	5	7	10/12/21	VOC	Chloromethane	74-87-3		U	8.30E-03	4.6E+02		1.1E+02	
SB-206	N	5	7	10/12/21	VOC	2-Chlorotoluene	95-49-8		U	1.70E-03	2.3E+04		1.6E+03	
SB-206	N	5	7	10/12/21	VOC	4-Chlorotoluene	106-43-4		U	1.70E-03	2.3E+04		1.6E+03	
SB-206	N	5	7	10/12/21	VOC	Cumene	98-82-8		U	1.70E-03	9.9E+03		1.9E+03	
SB-206	N	5	7	10/12/21	VOC	p-Cymene	99-87-6		U	1.70E-03				
SB-206	N	5	7	10/12/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.70E-03	6.4E-01		5.3E-02	
SB-206	N	5	7	10/12/21	VOC	Dibromochloromethane	124-48-1		U	8.30E-04	3.9E+02		8.3E+01	
SB-206	N	5	7	10/12/21	VOC	1,2-Dibromoethane	106-93-4		U	8.30E-04	1.6E+00		3.6E-01	
SB-206	N	5	7	10/12/21	VOC	Dibromomethane	74-95-3		U	1.70E-03	9.9E+01		2.4E+01	
SB-206	N	5	7	10/12/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.30E-03	3.2E-01		7.4E-02	
SB-206	N	5	7	10/12/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.70E-03	9.3E+03		1.8E+03	
SB-206	N	5	7	10/12/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.70E-03	1.1E+02		2.6E+01	
SB-206	N	5	7	10/12/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.70E-03	1.1E+02		2.6E+01	
SB-206	N	5	7	10/12/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.70E-02	3.7E+02		8.7E+01	
SB-206	N	5	7	10/12/21	VOC	1,1-Dichloroethane	75-34-3		U	1.70E-03	1.6E+02		3.6E+01	
SB-206	N	5	7	10/12/21	VOC	1,2-Dichloroethane	107-06-2		U	1.70E-03	2.0E+01		4.6E+00	
SB-206	N	5	7	10/12/21	VOC	1,1-Dichloroethene	75-35-4		U	3.30E-03	1.0E+03		2.3E+02	
SB-206	N	5	7	10/12/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.70E-03	3.7E+02		6.3E+01	
SB-206	N	5	7	10/12/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.70E-03	3.0E+02		7.0E+01	
SB-206	N	5	7	10/12/21	VOC	1,2-Dichloropropane	78-87-5		U	1.70E-03	6.6E+01		1.6E+01	
SB-206	N	5	7	10/12/21	VOC	1,3-Dichloropropane	142-28-9		U	8.30E-04	2.3E+04		1.6E+03	
SB-206	N	5	7	10/12/21	VOC	2,2-Dichloropropane	594-20-7		U	1.70E-03				
SB-206	N	5	7	10/12/21	VOC	1,1-Dichloropropene	563-58-6		U	1.70E-03				
SB-206	N	5	7	10/12/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	8.30E-04	8.2E+01		1.8E+01	
SB-206	N	5	7	10/12/21	VOC	1,4-Dioxane	123-91-1		U	8.30E-02	2.4E+02		5.3E+01	
SB-206	N	5	7	10/12/21	VOC	Ethyl tert-butyl ether	637-92-3		U	8.30E-04	5.6E+03		1.3E+03	
SB-206	N	5	7	10/12/21	VOC	Ethyl Benzene	100-41-4		U	1.70E-03	2.5E+02		5.8E+01	
SB-206	N	5	7	10/12/21	VOC	Diethyl ether	60-29-7		U	1.70E-02	2.3E+05		1.6E+04	
SB-206	N	5	7	10/12/21	VOC	2-Hexanone	591-78-6		U	1.70E-02	1.3E+03		2.0E+02	
SB-206	N	5	7	10/12/21	VOC	Methyl Acetate	79-20-9	4.10E-03		1.70E-03	1.2E+06	3.4E-09	7.8E+04	5.3E-08
SB-206	N	5	7	10/12/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.30E-03	2.1E+03		4.7E+02	
SB-206	N	5	7	10/12/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.70E-02	1.4E+05		3.3E+04	
SB-206	N	5	7	10/12/21	VOC	Methylcyclohexane	108-87-2		U	1.70E-03	2.7E+04		6.5E+03	
SB-206	N	5	7	10/12/21	VOC	Methylene Chloride	75-09-2	6.90E-04	J	1.70E-02	3.2E+03	2.2E-07	3.5E+02	2.0E-06

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N	5	7	10/12/21	VOC	Diisopropyl ether	108-20-3		U	8.30E-04	9.4E+03		2.2E+03	
SB-206	N	5	7	10/12/21	VOC	n-Propylbenzene	103-65-1		U	1.70E-03	2.4E+04		3.8E+03	
SB-206	N	5	7	10/12/21	VOC	Styrene	100-42-5		U	1.70E-03	3.5E+04		6.0E+03	
SB-206	N	5	7	10/12/21	VOC	tert-Butyl alcohol	75-65-0		U	8.30E-02	6.5E+04		1.4E+04	
SB-206	N	5	7	10/12/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.70E-03	8.8E+01		2.0E+01	
SB-206	N	5	7	10/12/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	8.30E-04	2.7E+01		6.0E+00	
SB-206	N	5	7	10/12/21	VOC	Tetrachloroethene	127-18-4		U	1.70E-03	3.9E+02		8.1E+01	
SB-206	N	5	7	10/12/21	VOC	Tetrahydrofuran	109-99-9		U	8.30E-03	9.5E+04		1.8E+04	
SB-206	N	5	7	10/12/21	VOC	Toluene	108-88-3		U	1.70E-03	4.7E+04		4.9E+03	
SB-206	N	5	7	10/12/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.70E-03	9.3E+02		6.3E+01	
SB-206	N	5	7	10/12/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.70E-03	2.6E+02		5.8E+01	
SB-206	N	5	7	10/12/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.70E-03				
SB-206	N	5	7	10/12/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.70E-03	3.6E+04		8.1E+03	
SB-206	N	5	7	10/12/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.70E-03	6.3E+00		1.5E+00	
SB-206	N	5	7	10/12/21	VOC	Trichloroethene	79-01-6		U	1.70E-03	1.9E+01		4.1E+00	
SB-206	N	5	7	10/12/21	VOC	Trichlorofluoromethane	75-69-4		U	8.30E-03	3.5E+05		2.3E+04	
SB-206	N	5	7	10/12/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.70E-03	1.1E+00		5.1E-02	
SB-206	N	5	7	10/12/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	8.30E-03	2.8E+04		6.7E+03	
SB-206	N	5	7	10/12/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.70E-03	1.8E+03		3.0E+02	
SB-206	N	5	7	10/12/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.70E-03	1.5E+03		2.7E+02	
SB-206	N	5	7	10/12/21	VOC	Vinyl Chloride	75-01-4		U	8.30E-03	1.7E+01		5.9E-01	
SB-206	N	5	7	10/12/21	VOC	Xylenes (total)	1330-20-7		U	3.30E-03	2.5E+03		5.8E+02	
SB-206	N	5	7	10/12/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-206	N	5	7	10/12/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-206	N	5	7	10/12/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-206	N	5	7	10/12/21	SVOC	t-Amyl methyl ether	994-05-8		U	8.30E-04				
SB-206	N	5	7	10/12/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-206	N	5	7	10/12/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-206	N	5	7	10/12/21	SVOC	Benzidine	92-87-5		U	7.70E-01	1.0E-01		5.3E-03	
SB-206	N	5	7	10/12/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-206	N	5	7	10/12/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-206	N	5	7	10/12/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-206	N	5	7	10/12/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-206	N	5	7	10/12/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-206	N	5	7	10/12/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-206	N	5	7	10/12/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-206	N	5	7	10/12/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-206	N	5	7	10/12/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-206	N	5	7	10/12/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-206	N	5	7	10/12/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-206	N	5	7	10/12/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-206	N	5	7	10/12/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.70E-01	8.2E+04		6.3E+03	
SB-206	N	5	7	10/12/21	SVOC	4-Chloroaniline	106-47-8		U	7.70E-01	1.1E+02		2.7E+01	
SB-206	N	5	7	10/12/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N	5	7	10/12/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-206	N	5	7	10/12/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-206	N	5	7	10/12/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-206	N	5	7	10/12/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-206	N	5	7	10/12/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-206	N	5	7	10/12/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-206	N	5	7	10/12/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-206	N	5	7	10/12/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-206	N	5	7	10/12/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-206	N	5	7	10/12/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-206	N	5	7	10/12/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-206	N	5	7	10/12/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-206	N	5	7	10/12/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.70E-01	1.6E+03		1.3E+02	
SB-206	N	5	7	10/12/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-206	N	5	7	10/12/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-206	N	5	7	10/12/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-206	N	5	7	10/12/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-206	N	5	7	10/12/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-206	N	5	7	10/12/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.70E-03	5.3E+01		1.2E+01	
SB-206	N	5	7	10/12/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-206	N	5	7	10/12/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-206	N	5	7	10/12/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-206	N	5	7	10/12/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-206	N	5	7	10/12/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-206	N	5	7	10/12/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-206	N	5	7	10/12/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-206	N	5	7	10/12/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-206	N	5	7	10/12/21	SVOC	Naphthalene	91-20-3		U	3.30E-03	8.6E+01		2.0E+01	
SB-206	N	5	7	10/12/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-206	N	5	7	10/12/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-206	N	5	7	10/12/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-206	N	5	7	10/12/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-206	N	5	7	10/12/21	SVOC	4-Nitrophenol	100-02-7		U	7.70E-01				
SB-206	N	5	7	10/12/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-206	N	5	7	10/12/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-206	N	5	7	10/12/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-206	N	5	7	10/12/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-206	N	5	7	10/12/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-206	N	5	7	10/12/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-206	N	5	7	10/12/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-206	N	5	7	10/12/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-206	N	5	7	10/12/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-206	N	5	7	10/12/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-206	N	5	7	10/12/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N	5	7	10/12/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-206	N	5	7	10/12/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-206	N	5	7	10/12/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-206	N	5	7	10/12/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-206	N	5	7	10/12/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-206	N	5	7	10/12/21	INORG	Aluminum	7429-90-5	9.40E+03		1.90E+01	1.1E+06	8.5E-03	7.7E+04	1.2E-01
SB-206	N	5	7	10/12/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-206	N	5	7	10/12/21	INORG	Arsenic	7440-38-2	5.20E+00		3.90E+00	3.0E+01	1.7E-01	6.8E+00	7.6E-01
SB-206	N	5	7	10/12/21	INORG	Barium	7440-39-3	7.40E+01		1.90E+00	2.2E+05	3.4E-04	1.5E+04	4.9E-03
SB-206	N	5	7	10/12/21	INORG	Beryllium	7440-41-7	7.20E-01		1.90E-01	2.3E+03	3.1E-04	1.6E+02	4.5E-03
SB-206	N	5	7	10/12/21	INORG	Cadmium	7440-43-9		U	3.90E-01	1.0E+02		7.1E+00	
SB-206	N	5	7	10/12/21	INORG	Chromium (total)	7440-47-3	1.40E+01		7.80E-01	1.8E+06	7.8E-06	1.2E+05	1.2E-04
SB-206	N	5	7	10/12/21	INORG	Cobalt	7440-48-4	1.40E+01		1.90E+00	3.5E+02	4.0E-02	2.3E+01	6.1E-01
SB-206	N	5	7	10/12/21	INORG	Copper	7440-50-8	1.60E+01		7.80E-01	4.7E+04	3.4E-04	3.1E+03	5.2E-03
SB-206	N	5	7	10/12/21	INORG	Cyanide (total)	57-12-5		U	5.70E-01	1.5E+02		2.3E+01	
SB-206	N	5	7	10/12/21	INORG	Iron	7439-89-6	1.80E+04		1.90E+01	8.2E+05	2.2E-02	5.5E+04	3.3E-01
SB-206	N	5	7	10/12/21	INORG	Lead	7439-92-1	2.00E+01		5.80E-01	8.0E+02	2.5E-02	2.0E+02	1.0E-01
SB-206	N	5	7	10/12/21	INORG	Manganese	7439-96-5	1.20E+02		3.90E-01	2.6E+04	4.6E-03	1.8E+03	6.7E-02
SB-206	N	5	7	10/12/21	INORG	Mercury	7439-97-6	4.90E-02		3.00E-02	4.1E+01	1.2E-03	7.4E+00	6.6E-03
SB-206	N	5	7	10/12/21	INORG	Nickel	7440-02-0	1.50E+01		7.80E-01	2.2E+04	6.8E-04	1.5E+03	1.0E-02
SB-206	N	5	7	10/12/21	INORG	Selenium	7782-49-2		U	3.90E+00	5.8E+03		3.9E+02	
SB-206	N	5	7	10/12/21	INORG	Silver	7440-22-4		U	3.90E-01	5.8E+03		3.9E+02	
SB-206	N	5	7	10/12/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-206	N	5	7	10/12/21	INORG	Vanadium	7440-62-2	2.40E+01		7.80E-01	5.8E+03	4.1E-03	3.9E+02	6.2E-02
SB-206	N	5	7	10/12/21	INORG	Zinc	7440-66-6	4.40E+01		7.80E-01	3.5E+05	1.3E-04	2.3E+04	1.9E-03
SB-206	N	15	17	10/12/21	VOC	Acetone	67-64-1		U	9.90E-02	1.1E+06		7.0E+04	
SB-206	N	15	17	10/12/21	VOC	Acrylonitrile	107-13-1		U	5.90E-03	1.1E+01		2.5E+00	
SB-206	N	15	17	10/12/21	VOC	Benzene	71-43-2		U	2.00E-03	5.1E+01		1.2E+01	
SB-206	N	15	17	10/12/21	VOC	Bromobenzene	108-86-1		U	2.00E-03	1.8E+03		2.9E+02	
SB-206	N	15	17	10/12/21	VOC	Bromochloromethane	74-97-5		U	2.00E-03	6.3E+02		1.5E+02	
SB-206	N	15	17	10/12/21	VOC	Bromodichloromethane	75-27-4		U	2.00E-03	1.3E+01		2.9E+00	
SB-206	N	15	17	10/12/21	VOC	Bromoform	75-25-2		U	2.00E-03	8.6E+02		1.9E+02	
SB-206	N	15	17	10/12/21	VOC	Bromomethane	74-83-9		U	9.90E-03	3.0E+01		6.8E+00	
SB-206	N	15	17	10/12/21	VOC	2-Butanone	78-93-3	4.40E-02		3.90E-02	1.9E+05	2.3E-07	2.7E+04	1.6E-06
SB-206	N	15	17	10/12/21	VOC	n-Butylbenzene	104-51-8		U	2.00E-03	5.8E+04		3.9E+03	
SB-206	N	15	17	10/12/21	VOC	sec-Butylbenzene	135-98-8		U	2.00E-03	1.2E+05		7.8E+03	
SB-206	N	15	17	10/12/21	VOC	tert-Butylbenzene	98-06-6		U	2.00E-03	1.2E+05		7.8E+03	
SB-206	N	15	17	10/12/21	VOC	Carbon Disulfide	75-15-0		U	9.90E-03	3.5E+03		7.7E+02	
SB-206	N	15	17	10/12/21	VOC	Carbon Tetrachloride	56-23-5		U	2.00E-03	2.9E+01		6.5E+00	
SB-206	N	15	17	10/12/21	VOC	Chlorobenzene	108-90-7		U	2.00E-03	1.3E+03		2.8E+02	
SB-206	N	15	17	10/12/21	VOC	Chloroethane	75-00-3		U	2.00E-02	2.3E+04		5.4E+03	
SB-206	N	15	17	10/12/21	VOC	Chloroform	67-66-3		U	3.90E-03	1.4E+01		3.2E+00	
SB-206	N	15	17	10/12/21	VOC	Chloromethane	74-87-3		U	9.90E-03	4.6E+02		1.1E+02	
SB-206	N	15	17	10/12/21	VOC	2-Chlorotoluene	95-49-8		U	2.00E-03	2.3E+04		1.6E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N	15	17	10/12/21	VOC	4-Chlorotoluene	106-43-4		U	2.00E-03	2.3E+04		1.6E+03	
SB-206	N	15	17	10/12/21	VOC	Cumene	98-82-8		U	2.00E-03	9.9E+03		1.9E+03	
SB-206	N	15	17	10/12/21	VOC	p-Cymene	99-87-6		U	2.00E-03				
SB-206	N	15	17	10/12/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	2.00E-03	6.4E-01		5.3E-02	
SB-206	N	15	17	10/12/21	VOC	Dibromochloromethane	124-48-1		U	9.90E-04	3.9E+02		8.3E+01	
SB-206	N	15	17	10/12/21	VOC	1,2-Dibromoethane	106-93-4		U	9.90E-04	1.6E+00		3.6E-01	
SB-206	N	15	17	10/12/21	VOC	Dibromomethane	74-95-3		U	2.00E-03	9.9E+01		2.4E+01	
SB-206	N	15	17	10/12/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.90E-03	3.2E-01		7.4E-02	
SB-206	N	15	17	10/12/21	VOC	1,2-Dichlorobenzene	95-50-1		U	2.00E-03	9.3E+03		1.8E+03	
SB-206	N	15	17	10/12/21	VOC	1,3-Dichlorobenzene	541-73-1		U	2.00E-03	1.1E+02		2.6E+01	
SB-206	N	15	17	10/12/21	VOC	1,4-Dichlorobenzene	106-46-7		U	2.00E-03	1.1E+02		2.6E+01	
SB-206	N	15	17	10/12/21	VOC	Dichlorodifluoromethane	75-71-8		U	2.00E-02	3.7E+02		8.7E+01	
SB-206	N	15	17	10/12/21	VOC	1,1-Dichloroethane	75-34-3		U	2.00E-03	1.6E+02		3.6E+01	
SB-206	N	15	17	10/12/21	VOC	1,2-Dichloroethane	107-06-2		U	2.00E-03	2.0E+01		4.6E+00	
SB-206	N	15	17	10/12/21	VOC	1,1-Dichloroethene	75-35-4		U	3.90E-03	1.0E+03		2.3E+02	
SB-206	N	15	17	10/12/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	2.00E-03	3.7E+02		6.3E+01	
SB-206	N	15	17	10/12/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	2.00E-03	3.0E+02		7.0E+01	
SB-206	N	15	17	10/12/21	VOC	1,2-Dichloropropane	78-87-5		U	2.00E-03	6.6E+01		1.6E+01	
SB-206	N	15	17	10/12/21	VOC	1,3-Dichloropropane	142-28-9		U	9.90E-04	2.3E+04		1.6E+03	
SB-206	N	15	17	10/12/21	VOC	2,2-Dichloropropane	594-20-7		U	2.00E-03				
SB-206	N	15	17	10/12/21	VOC	1,1-Dichloropropene	563-58-6		U	2.00E-03				
SB-206	N	15	17	10/12/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	9.90E-04	8.2E+01		1.8E+01	
SB-206	N	15	17	10/12/21	VOC	1,4-Dioxane	123-91-1		U	9.90E-02	2.4E+02		5.3E+01	
SB-206	N	15	17	10/12/21	VOC	Ethyl tert-butyl ether	637-92-3		U	9.90E-04	5.6E+03		1.3E+03	
SB-206	N	15	17	10/12/21	VOC	Ethyl Benzene	100-41-4		U	2.00E-03	2.5E+02		5.8E+01	
SB-206	N	15	17	10/12/21	VOC	Diethyl ether	60-29-7		U	2.00E-02	2.3E+05		1.6E+04	
SB-206	N	15	17	10/12/21	VOC	2-Hexanone	591-78-6		U	2.00E-02	1.3E+03		2.0E+02	
SB-206	N	15	17	10/12/21	VOC	Methyl Acetate	79-20-9		U	2.00E-03	1.2E+06		7.8E+04	
SB-206	N	15	17	10/12/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.90E-03	2.1E+03		4.7E+02	
SB-206	N	15	17	10/12/21	VOC	4-Methyl-2-pentanone	108-10-1		U	2.00E-02	1.4E+05		3.3E+04	
SB-206	N	15	17	10/12/21	VOC	Methylcyclohexane	108-87-2		U	2.00E-03	2.7E+04		6.5E+03	
SB-206	N	15	17	10/12/21	VOC	Methylene Chloride	75-09-2		U	2.00E-02	3.2E+03		3.5E+02	
SB-206	N	15	17	10/12/21	VOC	Diisopropyl ether	108-20-3		U	9.90E-04	9.4E+03		2.2E+03	
SB-206	N	15	17	10/12/21	VOC	n-Propylbenzene	103-65-1		U	2.00E-03	2.4E+04		3.8E+03	
SB-206	N	15	17	10/12/21	VOC	Styrene	100-42-5		U	2.00E-03	3.5E+04		6.0E+03	
SB-206	N	15	17	10/12/21	VOC	tert-Butyl alcohol	75-65-0		U	9.90E-02	6.5E+04		1.4E+04	
SB-206	N	15	17	10/12/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	2.00E-03	8.8E+01		2.0E+01	
SB-206	N	15	17	10/12/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	9.90E-04	2.7E+01		6.0E+00	
SB-206	N	15	17	10/12/21	VOC	Tetrachloroethene	127-18-4		U	2.00E-03	3.9E+02		8.1E+01	
SB-206	N	15	17	10/12/21	VOC	Tetrahydrofuran	109-99-9		U	9.90E-03	9.5E+04		1.8E+04	
SB-206	N	15	17	10/12/21	VOC	Toluene	108-88-3		U	2.00E-03	4.7E+04		4.9E+03	
SB-206	N	15	17	10/12/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	2.00E-03	9.3E+02		6.3E+01	
SB-206	N	15	17	10/12/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	2.00E-03	2.6E+02		5.8E+01	
SB-206	N	15	17	10/12/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	2.00E-03				

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N	15	17	10/12/21	VOC	1,1,1-Trichloroethane	71-55-6		U	2.00E-03	3.6E+04		8.1E+03	
SB-206	N	15	17	10/12/21	VOC	1,1,2-Trichloroethane	79-00-5		U	2.00E-03	6.3E+00		1.5E+00	
SB-206	N	15	17	10/12/21	VOC	Trichloroethene	79-01-6		U	2.00E-03	1.9E+01		4.1E+00	
SB-206	N	15	17	10/12/21	VOC	Trichlorofluoromethane	75-69-4		U	9.90E-03	3.5E+05		2.3E+04	
SB-206	N	15	17	10/12/21	VOC	1,2,3-Trichloropropane	96-18-4		U	2.00E-03	1.1E+00		5.1E-02	
SB-206	N	15	17	10/12/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	9.90E-03	2.8E+04		6.7E+03	
SB-206	N	15	17	10/12/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	2.00E-03	1.8E+03		3.0E+02	
SB-206	N	15	17	10/12/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	2.00E-03	1.5E+03		2.7E+02	
SB-206	N	15	17	10/12/21	VOC	Vinyl Chloride	75-01-4		U	9.90E-03	1.7E+01		5.9E-01	
SB-206	N	15	17	10/12/21	VOC	Xylenes (total)	1330-20-7		U	3.90E-03	2.5E+03		5.8E+02	
SB-206	N	15	17	10/12/21	SVOC	Acenaphthene	83-32-9		U	2.20E-01	4.5E+04		3.6E+03	
SB-206	N	15	17	10/12/21	SVOC	Acenaphthylene	208-96-8		U	2.20E-01	2.3E+04		1.8E+03	
SB-206	N	15	17	10/12/21	SVOC	Acetophenone	98-86-2		U	4.40E-01	1.2E+05		7.8E+03	
SB-206	N	15	17	10/12/21	SVOC	t-Amyl methyl ether	994-05-8		U	9.90E-04				
SB-206	N	15	17	10/12/21	SVOC	Aniline	62-53-3		U	4.40E-01	4.0E+03		4.4E+02	
SB-206	N	15	17	10/12/21	SVOC	Anthracene	120-12-7		U	2.20E-01	2.3E+05		1.8E+04	
SB-206	N	15	17	10/12/21	SVOC	Benzidine	92-87-5		U	8.60E-01	1.0E-01		5.3E-03	
SB-206	N	15	17	10/12/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.20E-01	2.1E+02		1.1E+01	
SB-206	N	15	17	10/12/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.20E-01	2.1E+01		1.1E+00	
SB-206	N	15	17	10/12/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.20E-01	2.1E+02		1.1E+01	
SB-206	N	15	17	10/12/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.20E-01	2.3E+04		1.8E+03	
SB-206	N	15	17	10/12/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.20E-01	2.1E+03		1.1E+02	
SB-206	N	15	17	10/12/21	SVOC	Benzoic Acid	65-85-0		U	1.30E+00	3.3E+06		2.5E+05	
SB-206	N	15	17	10/12/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.40E-01	2.5E+03		1.9E+02	
SB-206	N	15	17	10/12/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.40E-01	1.0E+01		2.3E+00	
SB-206	N	15	17	10/12/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.40E-01	1.6E+03		3.9E+02	
SB-206	N	15	17	10/12/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.40E-01				
SB-206	N	15	17	10/12/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.40E-01	1.2E+04		2.9E+03	
SB-206	N	15	17	10/12/21	SVOC	Carbazole	86-74-8		U	2.20E-01	3.0E+04		2.4E+03	
SB-206	N	15	17	10/12/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.60E-01	8.2E+04		6.3E+03	
SB-206	N	15	17	10/12/21	SVOC	4-Chloroaniline	106-47-8		U	8.60E-01	1.1E+02		2.7E+01	
SB-206	N	15	17	10/12/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.40E-01	6.0E+04		4.8E+03	
SB-206	N	15	17	10/12/21	SVOC	2-Chlorophenol	95-57-8		U	4.40E-01	5.8E+03		3.9E+02	
SB-206	N	15	17	10/12/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.40E-01				
SB-206	N	15	17	10/12/21	SVOC	Chrysene	218-01-9		U	2.20E-01	2.1E+04		1.1E+03	
SB-206	N	15	17	10/12/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.20E-01	2.1E+01		1.1E+00	
SB-206	N	15	17	10/12/21	SVOC	Dibenzofuran	132-64-9		U	4.40E-01	1.2E+03		7.8E+01	
SB-206	N	15	17	10/12/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.20E-01	5.1E+01		1.2E+01	
SB-206	N	15	17	10/12/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.40E-01	2.5E+03		1.9E+02	
SB-206	N	15	17	10/12/21	SVOC	Diethylphthalate	84-66-2		U	4.40E-01	6.6E+05		5.1E+04	
SB-206	N	15	17	10/12/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.40E-01	1.6E+04		1.3E+03	
SB-206	N	15	17	10/12/21	SVOC	Dimethylphthalate	131-11-3		U	4.40E-01	6.6E+05		5.1E+04	
SB-206	N	15	17	10/12/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.40E-01	8.2E+04		6.3E+03	
SB-206	N	15	17	10/12/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.40E-01	6.6E+01		5.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N	15	17	10/12/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.60E-01	1.6E+03		1.3E+02	
SB-206	N	15	17	10/12/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.40E-01	8.2E+03		6.3E+02	
SB-206	N	15	17	10/12/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.40E-01	2.9E+01		6.8E+00	
SB-206	N	15	17	10/12/21	SVOC	Fluoranthene	206-44-0		U	2.20E-01	3.0E+04		2.4E+03	
SB-206	N	15	17	10/12/21	SVOC	Fluorene	86-73-7		U	2.20E-01	3.0E+04		2.4E+03	
SB-206	N	15	17	10/12/21	SVOC	Hexachlorobenzene	118-74-1		U	4.40E-01	9.6E+00		7.8E-01	
SB-206	N	15	17	10/12/21	SVOC	Hexachlorobutadiene	87-68-3		U	2.00E-03	5.3E+01		1.2E+01	
SB-206	N	15	17	10/12/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.40E-01	7.5E+00		1.8E+00	
SB-206	N	15	17	10/12/21	SVOC	Hexachloroethane	67-72-1		U	4.40E-01	8.0E+01		1.8E+01	
SB-206	N	15	17	10/12/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.20E-01	2.1E+02		1.1E+01	
SB-206	N	15	17	10/12/21	SVOC	Isophorone	78-59-1		U	4.40E-01	2.4E+04		5.7E+03	
SB-206	N	15	17	10/12/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.20E-01	7.3E+02		1.8E+02	
SB-206	N	15	17	10/12/21	SVOC	2-Methylnaphthalene	91-57-6	7.10E-02	J	2.20E-01	3.0E+03	2.4E-05	2.4E+02	3.0E-04
SB-206	N	15	17	10/12/21	SVOC	2-Methylphenol	95-48-7		U	4.40E-01	4.1E+04		3.2E+03	
SB-206	N	15	17	10/12/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.40E-01				
SB-206	N	15	17	10/12/21	SVOC	Naphthalene	91-20-3		U	3.90E-03	8.6E+01		2.0E+01	
SB-206	N	15	17	10/12/21	SVOC	2-Nitroaniline	88-74-4		U	4.40E-01	8.0E+03		6.3E+02	
SB-206	N	15	17	10/12/21	SVOC	3-Nitroaniline	99-09-2		U	4.40E-01	1.1E+03		2.5E+02	
SB-206	N	15	17	10/12/21	SVOC	4-Nitroaniline	100-01-6		U	4.40E-01	1.1E+03		2.5E+02	
SB-206	N	15	17	10/12/21	SVOC	2-Nitrophenol	88-75-5		U	4.40E-01				
SB-206	N	15	17	10/12/21	SVOC	4-Nitrophenol	100-02-7		U	8.60E-01				
SB-206	N	15	17	10/12/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.40E-01	3.4E-01		2.0E-02	
SB-206	N	15	17	10/12/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.40E-01	4.7E+03		1.1E+03	
SB-206	N	15	17	10/12/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.40E-01	3.3E+00		7.8E-01	
SB-206	N	15	17	10/12/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.40E-01	4.7E+04		3.1E+03	
SB-206	N	15	17	10/12/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.40E-01	1.3E+02		2.7E+01	
SB-206	N	15	17	10/12/21	SVOC	Pentachlorophenol	87-86-5		U	4.40E-01	4.0E+01		1.0E+01	
SB-206	N	15	17	10/12/21	SVOC	Phenanthrene	85-01-8		U	2.20E-01	2.3E+04		1.8E+03	
SB-206	N	15	17	10/12/21	SVOC	Phenol	108-95-2		U	4.40E-01	2.5E+05		1.9E+04	
SB-206	N	15	17	10/12/21	SVOC	Pyrene	129-00-0		U	2.20E-01	2.3E+04		1.8E+03	
SB-206	N	15	17	10/12/21	SVOC	Pyridine	110-86-1		U	4.40E-01	1.2E+03		7.8E+01	
SB-206	N	15	17	10/12/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.40E-01	3.5E+01		2.3E+00	
SB-206	N	15	17	10/12/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.40E-01	8.2E+04		6.3E+03	
SB-206	N	15	17	10/12/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.40E-01	8.2E+02		6.3E+01	
SB-206	N	15	17	10/12/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.40E-01	7.4E+01		1.7E+01	
SB-206	N	15	17	10/12/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.40E-01	1.5E+01		3.6E+00	
SB-206	N	15	17	10/12/21	NITRO	Nitrobenzene	98-95-3		U	4.40E-01	2.2E+02		5.1E+01	
SB-206	N	15	17	10/12/21	INORG	Aluminum	7429-90-5	7.60E+03		2.10E+01	1.1E+06	6.9E-03	7.7E+04	9.9E-02
SB-206	N	15	17	10/12/21	INORG	Antimony	7440-36-0		U	2.10E+00	4.7E+02		3.1E+01	
SB-206	N	15	17	10/12/21	INORG	Arsenic	7440-38-2	6.30E+00		4.20E+00	3.0E+01	2.1E-01	6.8E+00	9.3E-01
SB-206	N	15	17	10/12/21	INORG	Barium	7440-39-3	4.60E+01		2.10E+00	2.2E+05	2.1E-04	1.5E+04	3.1E-03
SB-206	N	15	17	10/12/21	INORG	Beryllium	7440-41-7	7.60E-01		2.10E-01	2.3E+03	3.3E-04	1.6E+02	4.8E-03
SB-206	N	15	17	10/12/21	INORG	Cadmium	7440-43-9		U	4.20E-01	1.0E+02		7.1E+00	
SB-206	N	15	17	10/12/21	INORG	Chromium (total)	7440-47-3	1.80E+01		8.30E-01	1.8E+06	1.0E-05	1.2E+05	1.5E-04

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-206	N	15	17	10/12/21	INORG	Cobalt	7440-48-4	7.50E+00		2.10E+00	3.5E+02	2.1E-02	2.3E+01	3.3E-01
SB-206	N	15	17	10/12/21	INORG	Copper	7440-50-8	1.20E+01		8.30E-01	4.7E+04	2.6E-04	3.1E+03	3.9E-03
SB-206	N	15	17	10/12/21	INORG	Cyanide (total)	57-12-5		U	6.60E-01	1.5E+02		2.3E+01	
SB-206	N	15	17	10/12/21	INORG	Iron	7439-89-6	2.00E+04		2.10E+01	8.2E+05	2.4E-02	5.5E+04	3.6E-01
SB-206	N	15	17	10/12/21	INORG	Lead	7439-92-1	1.20E+01		6.20E-01	8.0E+02	1.5E-02	2.0E+02	6.0E-02
SB-206	N	15	17	10/12/21	INORG	Manganese	7439-96-5	1.20E+02		4.20E-01	2.6E+04	4.6E-03	1.8E+03	6.7E-02
SB-206	N	15	17	10/12/21	INORG	Mercury	7439-97-6	4.20E-02		3.30E-02	4.1E+01	1.0E-03	7.4E+00	5.6E-03
SB-206	N	15	17	10/12/21	INORG	Nickel	7440-02-0	1.20E+01		8.30E-01	2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-206	N	15	17	10/12/21	INORG	Selenium	7782-49-2		U	4.20E+00	5.8E+03		3.9E+02	
SB-206	N	15	17	10/12/21	INORG	Silver	7440-22-4		U	4.20E-01	5.8E+03		3.9E+02	
SB-206	N	15	17	10/12/21	INORG	Thallium	7440-28-0		U	2.10E+00	1.2E+01		7.8E-01	
SB-206	N	15	17	10/12/21	INORG	Vanadium	7440-62-2	2.30E+01		8.30E-01	5.8E+03	4.0E-03	3.9E+02	5.9E-02
SB-206	N	15	17	10/12/21	INORG	Zinc	7440-66-6	3.50E+01		8.30E-01	3.5E+05	1.0E-04	2.3E+04	1.5E-03
SB-207	N		1	10/13/21	VOC	Acetone	67-64-1		U	9.80E-02	1.1E+06		7.0E+04	
SB-207	N		1	10/13/21	VOC	Acrylonitrile	107-13-1		U	5.90E-03	1.1E+01		2.5E+00	
SB-207	N		1	10/13/21	VOC	Benzene	71-43-2		U	2.00E-03	5.1E+01		1.2E+01	
SB-207	N		1	10/13/21	VOC	Bromobenzene	108-86-1		U	2.00E-03	1.8E+03		2.9E+02	
SB-207	N		1	10/13/21	VOC	Bromochloromethane	74-97-5		U	2.00E-03	6.3E+02		1.5E+02	
SB-207	N		1	10/13/21	VOC	Bromodichloromethane	75-27-4		U	2.00E-03	1.3E+01		2.9E+00	
SB-207	N		1	10/13/21	VOC	Bromoform	75-25-2		U	2.00E-03	8.6E+02		1.9E+02	
SB-207	N		1	10/13/21	VOC	Bromomethane	74-83-9		U	9.80E-03	3.0E+01		6.8E+00	
SB-207	N		1	10/13/21	VOC	2-Butanone	78-93-3		U	3.90E-02	1.9E+05		2.7E+04	
SB-207	N		1	10/13/21	VOC	n-Butylbenzene	104-51-8		U	2.00E-03	5.8E+04		3.9E+03	
SB-207	N		1	10/13/21	VOC	sec-Butylbenzene	135-98-8		U	2.00E-03	1.2E+05		7.8E+03	
SB-207	N		1	10/13/21	VOC	tert-Butylbenzene	98-06-6		U	3.90E-03	1.2E+05		7.8E+03	
SB-207	N		1	10/13/21	VOC	Carbon Disulfide	75-15-0		U	9.80E-03	3.5E+03		7.7E+02	
SB-207	N		1	10/13/21	VOC	Carbon Tetrachloride	56-23-5		U	2.00E-03	2.9E+01		6.5E+00	
SB-207	N		1	10/13/21	VOC	Chlorobenzene	108-90-7		U	2.00E-03	1.3E+03		2.8E+02	
SB-207	N		1	10/13/21	VOC	Chloroethane	75-00-3		U	2.00E-02	2.3E+04		5.4E+03	
SB-207	N		1	10/13/21	VOC	Chloroform	67-66-3		U	3.90E-03	1.4E+01		3.2E+00	
SB-207	N		1	10/13/21	VOC	Chloromethane	74-87-3		U	9.80E-03	4.6E+02		1.1E+02	
SB-207	N		1	10/13/21	VOC	2-Chlorotoluene	95-49-8		U	2.00E-03	2.3E+04		1.6E+03	
SB-207	N		1	10/13/21	VOC	4-Chlorotoluene	106-43-4		U	2.00E-03	2.3E+04		1.6E+03	
SB-207	N		1	10/13/21	VOC	Cumene	98-82-8		U	2.00E-03	9.9E+03		1.9E+03	
SB-207	N		1	10/13/21	VOC	p-Cymene	99-87-6		U	2.00E-03				
SB-207	N		1	10/13/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	2.00E-03	6.4E-01		5.3E-02	
SB-207	N		1	10/13/21	VOC	Dibromochloromethane	124-48-1		U	9.80E-04	3.9E+02		8.3E+01	
SB-207	N		1	10/13/21	VOC	1,2-Dibromoethane	106-93-4		U	9.80E-04	1.6E+00		3.6E-01	
SB-207	N		1	10/13/21	VOC	Dibromomethane	74-95-3		U	2.00E-03	9.9E+01		2.4E+01	
SB-207	N		1	10/13/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.90E-03	3.2E-01		7.4E-02	
SB-207	N		1	10/13/21	VOC	1,2-Dichlorobenzene	95-50-1		U	2.00E-03	9.3E+03		1.8E+03	
SB-207	N		1	10/13/21	VOC	1,3-Dichlorobenzene	541-73-1		U	2.00E-03	1.1E+02		2.6E+01	
SB-207	N		1	10/13/21	VOC	1,4-Dichlorobenzene	106-46-7		U	2.00E-03	1.1E+02		2.6E+01	
SB-207	N		1	10/13/21	VOC	Dichlorodifluoromethane	75-71-8		U	2.00E-02	3.7E+02		8.7E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	N		1	10/13/21	VOC	1,1-Dichloroethane	75-34-3		U	2.00E-03	1.6E+02		3.6E+01	
SB-207	N		1	10/13/21	VOC	1,2-Dichloroethane	107-06-2		U	2.00E-03	2.0E+01		4.6E+00	
SB-207	N		1	10/13/21	VOC	1,1-Dichloroethene	75-35-4		U	3.90E-03	1.0E+03		2.3E+02	
SB-207	N		1	10/13/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	2.00E-03	3.7E+02		6.3E+01	
SB-207	N		1	10/13/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	2.00E-03	3.0E+02		7.0E+01	
SB-207	N		1	10/13/21	VOC	1,2-Dichloropropane	78-87-5		U	2.00E-03	6.6E+01		1.6E+01	
SB-207	N		1	10/13/21	VOC	1,3-Dichloropropane	142-28-9		U	9.80E-04	2.3E+04		1.6E+03	
SB-207	N		1	10/13/21	VOC	2,2-Dichloropropane	594-20-7		U	2.00E-03				
SB-207	N		1	10/13/21	VOC	1,1-Dichloropropene	563-58-6		U	2.00E-03				
SB-207	N		1	10/13/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	9.80E-04	8.2E+01		1.8E+01	
SB-207	N		1	10/13/21	VOC	1,4-Dioxane	123-91-1		U	9.80E-02	2.4E+02		5.3E+01	
SB-207	N		1	10/13/21	VOC	Ethyl tert-butyl ether	637-92-3		U	9.80E-04	5.6E+03		1.3E+03	
SB-207	N		1	10/13/21	VOC	Ethyl Benzene	100-41-4		U	2.00E-03	2.5E+02		5.8E+01	
SB-207	N		1	10/13/21	VOC	Diethyl ether	60-29-7		U	2.00E-02	2.3E+05		1.6E+04	
SB-207	N		1	10/13/21	VOC	2-Hexanone	591-78-6		U	2.00E-02	1.3E+03		2.0E+02	
SB-207	N		1	10/13/21	VOC	Methyl Acetate	79-20-9		U	2.00E-03	1.2E+06		7.8E+04	
SB-207	N		1	10/13/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.90E-03	2.1E+03		4.7E+02	
SB-207	N		1	10/13/21	VOC	4-Methyl-2-pentanone	108-10-1		U	2.00E-02	1.4E+05		3.3E+04	
SB-207	N		1	10/13/21	VOC	Methylcyclohexane	108-87-2		U	2.00E-03	2.7E+04		6.5E+03	
SB-207	N		1	10/13/21	VOC	Methylene Chloride	75-09-2		U	2.00E-02	3.2E+03		3.5E+02	
SB-207	N		1	10/13/21	VOC	Diisopropyl ether	108-20-3		U	9.80E-04	9.4E+03		2.2E+03	
SB-207	N		1	10/13/21	VOC	n-Propylbenzene	103-65-1		U	2.00E-03	2.4E+04		3.8E+03	
SB-207	N		1	10/13/21	VOC	Styrene	100-42-5		U	2.00E-03	3.5E+04		6.0E+03	
SB-207	N		1	10/13/21	VOC	tert-Butyl alcohol	75-65-0		U	9.80E-02	6.5E+04		1.4E+04	
SB-207	N		1	10/13/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	2.00E-03	8.8E+01		2.0E+01	
SB-207	N		1	10/13/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	9.80E-04	2.7E+01		6.0E+00	
SB-207	N		1	10/13/21	VOC	Tetrachloroethene	127-18-4		U	2.00E-03	3.9E+02		8.1E+01	
SB-207	N		1	10/13/21	VOC	Tetrahydrofuran	109-99-9		U	9.80E-03	9.5E+04		1.8E+04	
SB-207	N		1	10/13/21	VOC	Toluene	108-88-3		U	2.00E-03	4.7E+04		4.9E+03	
SB-207	N		1	10/13/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	2.00E-03	9.3E+02		6.3E+01	
SB-207	N		1	10/13/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	2.00E-03	2.6E+02		5.8E+01	
SB-207	N		1	10/13/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	2.00E-03				
SB-207	N		1	10/13/21	VOC	1,1,1-Trichloroethane	71-55-6		U	2.00E-03	3.6E+04		8.1E+03	
SB-207	N		1	10/13/21	VOC	1,1,2-Trichloroethane	79-00-5		U	2.00E-03	6.3E+00		1.5E+00	
SB-207	N		1	10/13/21	VOC	Trichloroethene	79-01-6		U	2.00E-03	1.9E+01		4.1E+00	
SB-207	N		1	10/13/21	VOC	Trichlorofluoromethane	75-69-4		U	9.80E-03	3.5E+05		2.3E+04	
SB-207	N		1	10/13/21	VOC	1,2,3-Trichloropropane	96-18-4		U	2.00E-03	1.1E+00		5.1E-02	
SB-207	N		1	10/13/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	9.80E-03	2.8E+04		6.7E+03	
SB-207	N		1	10/13/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	2.00E-03	1.8E+03		3.0E+02	
SB-207	N		1	10/13/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	2.00E-03	1.5E+03		2.7E+02	
SB-207	N		1	10/13/21	VOC	Vinyl Chloride	75-01-4		U	9.80E-03	1.7E+01		5.9E-01	
SB-207	N		1	10/13/21	VOC	Xylenes (total)	1330-20-7		U	3.90E-03	2.5E+03		5.8E+02	
SB-207	N		1	10/13/21	SVOC	Acenaphthene	83-32-9		U	2.10E-01	4.5E+04		3.6E+03	
SB-207	N		1	10/13/21	SVOC	Acenaphthylene	208-96-8		U	2.10E-01	2.3E+04		1.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	N		1	10/13/21	SVOC	Acetophenone	98-86-2		U	4.20E-01	1.2E+05		7.8E+03	
SB-207	N		1	10/13/21	SVOC	t-Amyl methyl ether	994-05-8		U	9.80E-04				
SB-207	N		1	10/13/21	SVOC	Aniline	62-53-3		U	4.20E-01	4.0E+03		4.4E+02	
SB-207	N		1	10/13/21	SVOC	Anthracene	120-12-7		U	2.10E-01	2.3E+05		1.8E+04	
SB-207	N		1	10/13/21	SVOC	Benzidine	92-87-5		U	8.20E-01	1.0E-01		5.3E-03	
SB-207	N		1	10/13/21	SVOC	Benzo(a)anthracene	56-55-3	1.10E-01	J	2.10E-01	2.1E+02	5.2E-04	1.1E+01	1.0E-02
SB-207	N		1	10/13/21	SVOC	Benzo(a)pyrene	50-32-8	8.30E-02	J	2.10E-01	2.1E+01	4.0E-03	1.1E+00	7.5E-02
SB-207	N		1	10/13/21	SVOC	Benzo(b)fluoranthene	205-99-2	1.10E-01	J	2.10E-01	2.1E+02	5.2E-04	1.1E+01	1.0E-02
SB-207	N		1	10/13/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.10E-01	2.3E+04		1.8E+03	
SB-207	N		1	10/13/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.10E-01	2.1E+03		1.1E+02	
SB-207	N		1	10/13/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-207	N		1	10/13/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.20E-01	2.5E+03		1.9E+02	
SB-207	N		1	10/13/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.20E-01	1.0E+01		2.3E+00	
SB-207	N		1	10/13/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.20E-01	1.6E+03		3.9E+02	
SB-207	N		1	10/13/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.20E-01				
SB-207	N		1	10/13/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.20E-01	1.2E+04		2.9E+03	
SB-207	N		1	10/13/21	SVOC	Carbazole	86-74-8		U	2.10E-01	3.0E+04		2.4E+03	
SB-207	N		1	10/13/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.20E-01	8.2E+04		6.3E+03	
SB-207	N		1	10/13/21	SVOC	4-Chloroaniline	106-47-8		U	8.20E-01	1.1E+02		2.7E+01	
SB-207	N		1	10/13/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.20E-01	6.0E+04		4.8E+03	
SB-207	N		1	10/13/21	SVOC	2-Chlorophenol	95-57-8		U	4.20E-01	5.8E+03		3.9E+02	
SB-207	N		1	10/13/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.20E-01				
SB-207	N		1	10/13/21	SVOC	Chrysene	218-01-9	1.20E-01	J	2.10E-01	2.1E+04	5.7E-06	1.1E+03	1.1E-04
SB-207	N		1	10/13/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.10E-01	2.1E+01		1.1E+00	
SB-207	N		1	10/13/21	SVOC	Dibenzofuran	132-64-9		U	4.20E-01	1.2E+03		7.8E+01	
SB-207	N		1	10/13/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.10E-01	5.1E+01		1.2E+01	
SB-207	N		1	10/13/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.20E-01	2.5E+03		1.9E+02	
SB-207	N		1	10/13/21	SVOC	Diethylphthalate	84-66-2		U	4.20E-01	6.6E+05		5.1E+04	
SB-207	N		1	10/13/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.20E-01	1.6E+04		1.3E+03	
SB-207	N		1	10/13/21	SVOC	Dimethylphthalate	131-11-3		U	4.20E-01	6.6E+05		5.1E+04	
SB-207	N		1	10/13/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.20E-01	8.2E+04		6.3E+03	
SB-207	N		1	10/13/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.20E-01	6.6E+01		5.1E+00	
SB-207	N		1	10/13/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.20E-01	1.6E+03		1.3E+02	
SB-207	N		1	10/13/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.20E-01	8.2E+03		6.3E+02	
SB-207	N		1	10/13/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.20E-01	2.9E+01		6.8E+00	
SB-207	N		1	10/13/21	SVOC	Fluoranthene	206-44-0	2.20E-01		2.10E-01	3.0E+04	7.3E-06	2.4E+03	9.2E-05
SB-207	N		1	10/13/21	SVOC	Fluorene	86-73-7		U	2.10E-01	3.0E+04		2.4E+03	
SB-207	N		1	10/13/21	SVOC	Hexachlorobenzene	118-74-1		U	4.20E-01	9.6E+00		7.8E-01	
SB-207	N		1	10/13/21	SVOC	Hexachlorobutadiene	87-68-3		U	2.00E-03	5.3E+01		1.2E+01	
SB-207	N		1	10/13/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.20E-01	7.5E+00		1.8E+00	
SB-207	N		1	10/13/21	SVOC	Hexachloroethane	67-72-1		U	4.20E-01	8.0E+01		1.8E+01	
SB-207	N		1	10/13/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.10E-01	2.1E+02		1.1E+01	
SB-207	N		1	10/13/21	SVOC	Isophorone	78-59-1		U	4.20E-01	2.4E+04		5.7E+03	
SB-207	N		1	10/13/21	SVOC	1-Methylnaphthalene	90-12-0	8.00E-02	J	2.10E-01	7.3E+02	1.1E-04	1.8E+02	4.4E-04

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	N		1	10/13/21	SVOC	2-Methylnaphthalene	91-57-6	1.30E-01	J	2.10E-01	3.0E+03	4.3E-05	2.4E+02	5.4E-04
SB-207	N		1	10/13/21	SVOC	2-Methylphenol	95-48-7		U	4.20E-01	4.1E+04		3.2E+03	
SB-207	N		1	10/13/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.20E-01				
SB-207	N		1	10/13/21	SVOC	Naphthalene	91-20-3	7.70E-02	J	2.10E-01	8.6E+01	9.0E-04	2.0E+01	3.9E-03
SB-207	N		1	10/13/21	SVOC	2-Nitroaniline	88-74-4		U	4.20E-01	8.0E+03		6.3E+02	
SB-207	N		1	10/13/21	SVOC	3-Nitroaniline	99-09-2		U	4.20E-01	1.1E+03		2.5E+02	
SB-207	N		1	10/13/21	SVOC	4-Nitroaniline	100-01-6		U	4.20E-01	1.1E+03		2.5E+02	
SB-207	N		1	10/13/21	SVOC	2-Nitrophenol	88-75-5		U	4.20E-01				
SB-207	N		1	10/13/21	SVOC	4-Nitrophenol	100-02-7		U	8.20E-01				
SB-207	N		1	10/13/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.20E-01	3.4E-01		2.0E-02	
SB-207	N		1	10/13/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.20E-01	4.7E+03		1.1E+03	
SB-207	N		1	10/13/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.20E-01	3.3E+00		7.8E-01	
SB-207	N		1	10/13/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.20E-01	4.7E+04		3.1E+03	
SB-207	N		1	10/13/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.20E-01	1.3E+02		2.7E+01	
SB-207	N		1	10/13/21	SVOC	Pentachlorophenol	87-86-5		U	4.20E-01	4.0E+01		1.0E+01	
SB-207	N		1	10/13/21	SVOC	Phenanthrene	85-01-8	2.50E-01		2.10E-01	2.3E+04	1.1E-05	1.8E+03	1.4E-04
SB-207	N		1	10/13/21	SVOC	Phenol	108-95-2		U	4.20E-01	2.5E+05		1.9E+04	
SB-207	N		1	10/13/21	SVOC	Pyrene	129-00-0	1.90E-01	J	2.10E-01	2.3E+04	8.3E-06	1.8E+03	1.1E-04
SB-207	N		1	10/13/21	SVOC	Pyridine	110-86-1		U	4.20E-01	1.2E+03		7.8E+01	
SB-207	N		1	10/13/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.20E-01	3.5E+01		2.3E+00	
SB-207	N		1	10/13/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.20E-01	8.2E+04		6.3E+03	
SB-207	N		1	10/13/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.20E-01	8.2E+02		6.3E+01	
SB-207	N		1	10/13/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.20E-01	7.4E+01		1.7E+01	
SB-207	N		1	10/13/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.20E-01	1.5E+01		3.6E+00	
SB-207	N		1	10/13/21	NITRO	Nitrobenzene	98-95-3		U	4.20E-01	2.2E+02		5.1E+01	
SB-207	N		1	10/13/21	INORG	Aluminum	7429-90-5	1.10E+04		2.00E+01	1.1E+06	1.0E-02	7.7E+04	1.4E-01
SB-207	N		1	10/13/21	INORG	Antimony	7440-36-0		U	2.00E+00	4.7E+02		3.1E+01	
SB-207	N		1	10/13/21	INORG	Arsenic	7440-38-2	5.00E+00		4.00E+00	3.0E+01	1.7E-01	6.8E+00	7.4E-01
SB-207	N		1	10/13/21	INORG	Barium	7440-39-3	7.90E+01		2.00E+00	2.2E+05	3.6E-04	1.5E+04	5.3E-03
SB-207	N		1	10/13/21	INORG	Beryllium	7440-41-7	8.50E-01		2.00E-01	2.3E+03	3.7E-04	1.6E+02	5.3E-03
SB-207	N		1	10/13/21	INORG	Cadmium	7440-43-9		U	4.00E-01	1.0E+02		7.1E+00	
SB-207	N		1	10/13/21	INORG	Chromium (total)	7440-47-3	1.90E+01		8.00E-01	1.8E+06	1.1E-05	1.2E+05	1.6E-04
SB-207	N		1	10/13/21	INORG	Cobalt	7440-48-4	1.40E+01		2.00E+00	3.5E+02	4.0E-02	2.3E+01	6.1E-01
SB-207	N		1	10/13/21	INORG	Copper	7440-50-8	2.00E+01		8.00E-01	4.7E+04	4.3E-04	3.1E+03	6.5E-03
SB-207	N		1	10/13/21	INORG	Cyanide (total)	57-12-5		U	6.00E-01	1.5E+02		2.3E+01	
SB-207	N		1	10/13/21	INORG	Lead	7439-92-1	2.30E+01		6.00E-01	8.0E+02	2.9E-02	2.0E+02	1.2E-01
SB-207	N		1	10/13/21	INORG	Manganese	7439-96-5	3.70E+02		4.00E-01	2.6E+04	1.4E-02	1.8E+03	2.1E-01
SB-207	N		1	10/13/21	INORG	Mercury	7439-97-6	5.30E-02		3.20E-02	4.1E+01	1.3E-03	7.4E+00	7.1E-03
SB-207	N		1	10/13/21	INORG	Nickel	7440-02-0	1.60E+01		8.00E-01	2.2E+04	7.3E-04	1.5E+03	1.1E-02
SB-207	N		1	10/13/21	INORG	Selenium	7782-49-2		U	4.00E+00	5.8E+03		3.9E+02	
SB-207	N		1	10/13/21	INORG	Silver	7440-22-4		U	4.00E-01	5.8E+03		3.9E+02	
SB-207	N		1	10/13/21	INORG	Thallium	7440-28-0		U	2.00E+00	1.2E+01		7.8E-01	
SB-207	N		1	10/13/21	INORG	Vanadium	7440-62-2	3.00E+01		8.00E-01	5.8E+03	5.2E-03	3.9E+02	7.7E-02
SB-207	N		1	10/13/21	INORG	Zinc	7440-66-6	5.40E+01		8.00E-01	3.5E+05	1.5E-04	2.3E+04	2.3E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	FD	6	8	10/13/21	VOC	Acetone	67-64-1		U	1.10E-01	1.1E+06		7.0E+04	
SB-207	N	6	8	10/13/21	VOC	Acetone	67-64-1		U	8.70E-02	1.1E+06		7.0E+04	
SB-207	FD	6	8	10/13/21	VOC	Acrylonitrile	107-13-1		U	6.30E-03	1.1E+01		2.5E+00	
SB-207	N	6	8	10/13/21	VOC	Acrylonitrile	107-13-1		U	5.20E-03	1.1E+01		2.5E+00	
SB-207	FD	6	8	10/13/21	VOC	Benzene	71-43-2		U	2.10E-03	5.1E+01		1.2E+01	
SB-207	N	6	8	10/13/21	VOC	Benzene	71-43-2		U	1.70E-03	5.1E+01		1.2E+01	
SB-207	FD	6	8	10/13/21	VOC	Bromobenzene	108-86-1		U	2.10E-03	1.8E+03		2.9E+02	
SB-207	N	6	8	10/13/21	VOC	Bromobenzene	108-86-1		U	1.70E-03	1.8E+03		2.9E+02	
SB-207	FD	6	8	10/13/21	VOC	Bromochloromethane	74-97-5		U	2.10E-03	6.3E+02		1.5E+02	
SB-207	N	6	8	10/13/21	VOC	Bromochloromethane	74-97-5		U	1.70E-03	6.3E+02		1.5E+02	
SB-207	FD	6	8	10/13/21	VOC	Bromodichloromethane	75-27-4		U	2.10E-03	1.3E+01		2.9E+00	
SB-207	N	6	8	10/13/21	VOC	Bromodichloromethane	75-27-4		U	1.70E-03	1.3E+01		2.9E+00	
SB-207	FD	6	8	10/13/21	VOC	Bromoform	75-25-2		U	2.10E-03	8.6E+02		1.9E+02	
SB-207	N	6	8	10/13/21	VOC	Bromoform	75-25-2		U	1.70E-03	8.6E+02		1.9E+02	
SB-207	FD	6	8	10/13/21	VOC	Bromomethane	74-83-9		U	1.10E-02	3.0E+01		6.8E+00	
SB-207	N	6	8	10/13/21	VOC	Bromomethane	74-83-9		U	8.70E-03	3.0E+01		6.8E+00	
SB-207	FD	6	8	10/13/21	VOC	2-Butanone	78-93-3		U	4.20E-02	1.9E+05		2.7E+04	
SB-207	N	6	8	10/13/21	VOC	2-Butanone	78-93-3		U	3.50E-02	1.9E+05		2.7E+04	
SB-207	FD	6	8	10/13/21	VOC	n-Butylbenzene	104-51-8		U	2.10E-03	5.8E+04		3.9E+03	
SB-207	N	6	8	10/13/21	VOC	n-Butylbenzene	104-51-8		U	1.70E-03	5.8E+04		3.9E+03	
SB-207	FD	6	8	10/13/21	VOC	sec-Butylbenzene	135-98-8		U	2.10E-03	1.2E+05		7.8E+03	
SB-207	N	6	8	10/13/21	VOC	sec-Butylbenzene	135-98-8		U	1.70E-03	1.2E+05		7.8E+03	
SB-207	FD	6	8	10/13/21	VOC	tert-Butylbenzene	98-06-6		U	4.20E-03	1.2E+05		7.8E+03	
SB-207	N	6	8	10/13/21	VOC	tert-Butylbenzene	98-06-6		U	3.50E-03	1.2E+05		7.8E+03	
SB-207	FD	6	8	10/13/21	VOC	Carbon Disulfide	75-15-0		U	1.10E-02	3.5E+03		7.7E+02	
SB-207	N	6	8	10/13/21	VOC	Carbon Disulfide	75-15-0		U	8.70E-03	3.5E+03		7.7E+02	
SB-207	FD	6	8	10/13/21	VOC	Carbon Tetrachloride	56-23-5		U	2.10E-03	2.9E+01		6.5E+00	
SB-207	N	6	8	10/13/21	VOC	Carbon Tetrachloride	56-23-5		U	1.70E-03	2.9E+01		6.5E+00	
SB-207	FD	6	8	10/13/21	VOC	Chlorobenzene	108-90-7		U	2.10E-03	1.3E+03		2.8E+02	
SB-207	N	6	8	10/13/21	VOC	Chlorobenzene	108-90-7		U	1.70E-03	1.3E+03		2.8E+02	
SB-207	FD	6	8	10/13/21	VOC	Chloroethane	75-00-3		U	2.10E-02	2.3E+04		5.4E+03	
SB-207	N	6	8	10/13/21	VOC	Chloroethane	75-00-3		U	1.70E-02	2.3E+04		5.4E+03	
SB-207	FD	6	8	10/13/21	VOC	Chloroform	67-66-3		U	4.20E-03	1.4E+01		3.2E+00	
SB-207	N	6	8	10/13/21	VOC	Chloroform	67-66-3		U	3.50E-03	1.4E+01		3.2E+00	
SB-207	FD	6	8	10/13/21	VOC	Chloromethane	74-87-3		U	1.10E-02	4.6E+02		1.1E+02	
SB-207	N	6	8	10/13/21	VOC	Chloromethane	74-87-3		U	8.70E-03	4.6E+02		1.1E+02	
SB-207	FD	6	8	10/13/21	VOC	2-Chlorotoluene	95-49-8		U	2.10E-03	2.3E+04		1.6E+03	
SB-207	N	6	8	10/13/21	VOC	2-Chlorotoluene	95-49-8		U	1.70E-03	2.3E+04		1.6E+03	
SB-207	FD	6	8	10/13/21	VOC	4-Chlorotoluene	106-43-4		U	2.10E-03	2.3E+04		1.6E+03	
SB-207	N	6	8	10/13/21	VOC	4-Chlorotoluene	106-43-4		U	1.70E-03	2.3E+04		1.6E+03	
SB-207	FD	6	8	10/13/21	VOC	Cumene	98-82-8		U	2.10E-03	9.9E+03		1.9E+03	
SB-207	N	6	8	10/13/21	VOC	Cumene	98-82-8		U	1.70E-03	9.9E+03		1.9E+03	
SB-207	FD	6	8	10/13/21	VOC	p-Cymene	99-87-6		U	2.10E-03				
SB-207	N	6	8	10/13/21	VOC	p-Cymene	99-87-6		U	1.70E-03				

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	FD	6	8	10/13/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	2.10E-03	6.4E-01		5.3E-02	
SB-207	N	6	8	10/13/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.70E-03	6.4E-01		5.3E-02	
SB-207	FD	6	8	10/13/21	VOC	Dibromochloromethane	124-48-1		U	1.10E-03	3.9E+02		8.3E+01	
SB-207	N	6	8	10/13/21	VOC	Dibromochloromethane	124-48-1		U	8.70E-04	3.9E+02		8.3E+01	
SB-207	FD	6	8	10/13/21	VOC	1,2-Dibromoethane	106-93-4		U	1.10E-03	1.6E+00		3.6E-01	
SB-207	N	6	8	10/13/21	VOC	1,2-Dibromoethane	106-93-4		U	8.70E-04	1.6E+00		3.6E-01	
SB-207	FD	6	8	10/13/21	VOC	Dibromomethane	74-95-3		U	2.10E-03	9.9E+01		2.4E+01	
SB-207	N	6	8	10/13/21	VOC	Dibromomethane	74-95-3		U	1.70E-03	9.9E+01		2.4E+01	
SB-207	FD	6	8	10/13/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	4.20E-03	3.2E-01		7.4E-02	
SB-207	N	6	8	10/13/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.50E-03	3.2E-01		7.4E-02	
SB-207	FD	6	8	10/13/21	VOC	1,2-Dichlorobenzene	95-50-1		U	2.10E-03	9.3E+03		1.8E+03	
SB-207	N	6	8	10/13/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.70E-03	9.3E+03		1.8E+03	
SB-207	FD	6	8	10/13/21	VOC	1,3-Dichlorobenzene	541-73-1		U	2.10E-03	1.1E+02		2.6E+01	
SB-207	N	6	8	10/13/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.70E-03	1.1E+02		2.6E+01	
SB-207	FD	6	8	10/13/21	VOC	1,4-Dichlorobenzene	106-46-7		U	2.10E-03	1.1E+02		2.6E+01	
SB-207	N	6	8	10/13/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.70E-03	1.1E+02		2.6E+01	
SB-207	FD	6	8	10/13/21	VOC	Dichlorodifluoromethane	75-71-8		U	2.10E-02	3.7E+02		8.7E+01	
SB-207	N	6	8	10/13/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.70E-02	3.7E+02		8.7E+01	
SB-207	FD	6	8	10/13/21	VOC	1,1-Dichloroethane	75-34-3		U	2.10E-03	1.6E+02		3.6E+01	
SB-207	N	6	8	10/13/21	VOC	1,1-Dichloroethane	75-34-3		U	1.70E-03	1.6E+02		3.6E+01	
SB-207	FD	6	8	10/13/21	VOC	1,2-Dichloroethane	107-06-2		U	2.10E-03	2.0E+01		4.6E+00	
SB-207	N	6	8	10/13/21	VOC	1,2-Dichloroethane	107-06-2		U	1.70E-03	2.0E+01		4.6E+00	
SB-207	FD	6	8	10/13/21	VOC	1,1-Dichloroethene	75-35-4		U	4.20E-03	1.0E+03		2.3E+02	
SB-207	N	6	8	10/13/21	VOC	1,1-Dichloroethene	75-35-4		U	3.50E-03	1.0E+03		2.3E+02	
SB-207	FD	6	8	10/13/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	2.10E-03	3.7E+02		6.3E+01	
SB-207	N	6	8	10/13/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.70E-03	3.7E+02		6.3E+01	
SB-207	FD	6	8	10/13/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	2.10E-03	3.0E+02		7.0E+01	
SB-207	N	6	8	10/13/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.70E-03	3.0E+02		7.0E+01	
SB-207	FD	6	8	10/13/21	VOC	1,2-Dichloropropane	78-87-5		U	2.10E-03	6.6E+01		1.6E+01	
SB-207	N	6	8	10/13/21	VOC	1,2-Dichloropropane	78-87-5		U	1.70E-03	6.6E+01		1.6E+01	
SB-207	FD	6	8	10/13/21	VOC	1,3-Dichloropropane	142-28-9		U	1.10E-03	2.3E+04		1.6E+03	
SB-207	N	6	8	10/13/21	VOC	1,3-Dichloropropane	142-28-9		U	8.70E-04	2.3E+04		1.6E+03	
SB-207	FD	6	8	10/13/21	VOC	2,2-Dichloropropane	594-20-7		U	2.10E-03				
SB-207	N	6	8	10/13/21	VOC	2,2-Dichloropropane	594-20-7		U	1.70E-03				
SB-207	FD	6	8	10/13/21	VOC	1,1-Dichloropropene	563-58-6		U	2.10E-03				
SB-207	N	6	8	10/13/21	VOC	1,1-Dichloropropene	563-58-6		U	1.70E-03				
SB-207	FD	6	8	10/13/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	1.10E-03	8.2E+01		1.8E+01	
SB-207	N	6	8	10/13/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	8.70E-04	8.2E+01		1.8E+01	
SB-207	FD	6	8	10/13/21	VOC	1,4-Dioxane	123-91-1		U	1.10E-01	2.4E+02		5.3E+01	
SB-207	N	6	8	10/13/21	VOC	1,4-Dioxane	123-91-1		U	8.70E-02	2.4E+02		5.3E+01	
SB-207	FD	6	8	10/13/21	VOC	Ethyl tert-butyl ether	637-92-3		U	1.10E-03	5.6E+03		1.3E+03	
SB-207	N	6	8	10/13/21	VOC	Ethyl tert-butyl ether	637-92-3		U	8.70E-04	5.6E+03		1.3E+03	
SB-207	FD	6	8	10/13/21	VOC	Ethyl Benzene	100-41-4		U	2.10E-03	2.5E+02		5.8E+01	
SB-207	N	6	8	10/13/21	VOC	Ethyl Benzene	100-41-4		U	1.70E-03	2.5E+02		5.8E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	FD	6	8	10/13/21	VOC	Diethyl ether	60-29-7		U	2.10E-02	2.3E+05		1.6E+04	
SB-207	N	6	8	10/13/21	VOC	Diethyl ether	60-29-7		U	1.70E-02	2.3E+05		1.6E+04	
SB-207	FD	6	8	10/13/21	VOC	2-Hexanone	591-78-6		U	2.10E-02	1.3E+03		2.0E+02	
SB-207	N	6	8	10/13/21	VOC	2-Hexanone	591-78-6		U	1.70E-02	1.3E+03		2.0E+02	
SB-207	FD	6	8	10/13/21	VOC	Methyl Acetate	79-20-9		U	2.10E-03	1.2E+06		7.8E+04	
SB-207	N	6	8	10/13/21	VOC	Methyl Acetate	79-20-9		U	1.70E-03	1.2E+06		7.8E+04	
SB-207	FD	6	8	10/13/21	VOC	Methyl tert-butyl ether	1634-04-4		U	4.20E-03	2.1E+03		4.7E+02	
SB-207	N	6	8	10/13/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.50E-03	2.1E+03		4.7E+02	
SB-207	FD	6	8	10/13/21	VOC	4-Methyl-2-pentanone	108-10-1		U	2.10E-02	1.4E+05		3.3E+04	
SB-207	N	6	8	10/13/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.70E-02	1.4E+05		3.3E+04	
SB-207	FD	6	8	10/13/21	VOC	Methylcyclohexane	108-87-2		U	2.10E-03	2.7E+04		6.5E+03	
SB-207	N	6	8	10/13/21	VOC	Methylcyclohexane	108-87-2		U	1.70E-03	2.7E+04		6.5E+03	
SB-207	FD	6	8	10/13/21	VOC	Methylene Chloride	75-09-2		U	2.10E-02	3.2E+03		3.5E+02	
SB-207	N	6	8	10/13/21	VOC	Methylene Chloride	75-09-2		U	1.70E-02	3.2E+03		3.5E+02	
SB-207	FD	6	8	10/13/21	VOC	Diisopropyl ether	108-20-3		U	1.10E-03	9.4E+03		2.2E+03	
SB-207	N	6	8	10/13/21	VOC	Diisopropyl ether	108-20-3		U	8.70E-04	9.4E+03		2.2E+03	
SB-207	FD	6	8	10/13/21	VOC	n-Propylbenzene	103-65-1		U	2.10E-03	2.4E+04		3.8E+03	
SB-207	N	6	8	10/13/21	VOC	n-Propylbenzene	103-65-1		U	1.70E-03	2.4E+04		3.8E+03	
SB-207	FD	6	8	10/13/21	VOC	Styrene	100-42-5		U	2.10E-03	3.5E+04		6.0E+03	
SB-207	N	6	8	10/13/21	VOC	Styrene	100-42-5		U	1.70E-03	3.5E+04		6.0E+03	
SB-207	FD	6	8	10/13/21	VOC	tert-Butyl alcohol	75-65-0		U	1.10E-01	6.5E+04		1.4E+04	
SB-207	N	6	8	10/13/21	VOC	tert-Butyl alcohol	75-65-0		U	8.70E-02	6.5E+04		1.4E+04	
SB-207	FD	6	8	10/13/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	2.10E-03	8.8E+01		2.0E+01	
SB-207	N	6	8	10/13/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.70E-03	8.8E+01		2.0E+01	
SB-207	FD	6	8	10/13/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	1.10E-03	2.7E+01		6.0E+00	
SB-207	N	6	8	10/13/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	8.70E-04	2.7E+01		6.0E+00	
SB-207	FD	6	8	10/13/21	VOC	Tetrachloroethene	127-18-4		U	2.10E-03	3.9E+02		8.1E+01	
SB-207	N	6	8	10/13/21	VOC	Tetrachloroethene	127-18-4		U	1.70E-03	3.9E+02		8.1E+01	
SB-207	FD	6	8	10/13/21	VOC	Tetrahydrofuran	109-99-9		U	1.10E-02	9.5E+04		1.8E+04	
SB-207	N	6	8	10/13/21	VOC	Tetrahydrofuran	109-99-9		U	8.70E-03	9.5E+04		1.8E+04	
SB-207	FD	6	8	10/13/21	VOC	Toluene	108-88-3		U	2.10E-03	4.7E+04		4.9E+03	
SB-207	N	6	8	10/13/21	VOC	Toluene	108-88-3		U	1.70E-03	4.7E+04		4.9E+03	
SB-207	FD	6	8	10/13/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	2.10E-03	9.3E+02		6.3E+01	
SB-207	N	6	8	10/13/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.70E-03	9.3E+02		6.3E+01	
SB-207	FD	6	8	10/13/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	2.10E-03	2.6E+02		5.8E+01	
SB-207	N	6	8	10/13/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.70E-03	2.6E+02		5.8E+01	
SB-207	FD	6	8	10/13/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	2.10E-03				
SB-207	N	6	8	10/13/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.70E-03				
SB-207	FD	6	8	10/13/21	VOC	1,1,1-Trichloroethane	71-55-6		U	2.10E-03	3.6E+04		8.1E+03	
SB-207	N	6	8	10/13/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.70E-03	3.6E+04		8.1E+03	
SB-207	FD	6	8	10/13/21	VOC	1,1,2-Trichloroethane	79-00-5		U	2.10E-03	6.3E+00		1.5E+00	
SB-207	N	6	8	10/13/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.70E-03	6.3E+00		1.5E+00	
SB-207	FD	6	8	10/13/21	VOC	Trichloroethene	79-01-6		U	2.10E-03	1.9E+01		4.1E+00	
SB-207	N	6	8	10/13/21	VOC	Trichloroethene	79-01-6		U	1.70E-03	1.9E+01		4.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	FD	6	8	10/13/21	VOC	Trichlorofluoromethane	75-69-4		U	1.10E-02	3.5E+05		2.3E+04	
SB-207	N	6	8	10/13/21	VOC	Trichlorofluoromethane	75-69-4		U	8.70E-03	3.5E+05		2.3E+04	
SB-207	FD	6	8	10/13/21	VOC	1,2,3-Trichloropropane	96-18-4		U	2.10E-03	1.1E+00		5.1E-02	
SB-207	N	6	8	10/13/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.70E-03	1.1E+00		5.1E-02	
SB-207	FD	6	8	10/13/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	1.10E-02	2.8E+04		6.7E+03	
SB-207	N	6	8	10/13/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	8.70E-03	2.8E+04		6.7E+03	
SB-207	FD	6	8	10/13/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	2.10E-03	1.8E+03		3.0E+02	
SB-207	N	6	8	10/13/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.70E-03	1.8E+03		3.0E+02	
SB-207	FD	6	8	10/13/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	2.10E-03	1.5E+03		2.7E+02	
SB-207	N	6	8	10/13/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.70E-03	1.5E+03		2.7E+02	
SB-207	FD	6	8	10/13/21	VOC	Vinyl Chloride	75-01-4		U	1.10E-02	1.7E+01		5.9E-01	
SB-207	N	6	8	10/13/21	VOC	Vinyl Chloride	75-01-4		U	8.70E-03	1.7E+01		5.9E-01	
SB-207	FD	6	8	10/13/21	VOC	Xylenes (total)	1330-20-7		U	4.20E-03	2.5E+03		5.8E+02	
SB-207	N	6	8	10/13/21	VOC	Xylenes (total)	1330-20-7		U	3.50E-03	2.5E+03		5.8E+02	
SB-207	FD	6	8	10/13/21	SVOC	Acenaphthene	83-32-9		U	2.10E-01	4.5E+04		3.6E+03	
SB-207	N	6	8	10/13/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-207	FD	6	8	10/13/21	SVOC	Acenaphthylene	208-96-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-207	N	6	8	10/13/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-207	FD	6	8	10/13/21	SVOC	Acetophenone	98-86-2		U	4.10E-01	1.2E+05		7.8E+03	
SB-207	N	6	8	10/13/21	SVOC	Acetophenone	98-86-2		U	3.80E-01	1.2E+05		7.8E+03	
SB-207	FD	6	8	10/13/21	SVOC	t-Amyl methyl ether	994-05-8		U	1.10E-03				
SB-207	N	6	8	10/13/21	SVOC	t-Amyl methyl ether	994-05-8		U	8.70E-04				
SB-207	FD	6	8	10/13/21	SVOC	Aniline	62-53-3		U	4.10E-01	4.0E+03		4.4E+02	
SB-207	N	6	8	10/13/21	SVOC	Aniline	62-53-3		U	3.80E-01	4.0E+03		4.4E+02	
SB-207	FD	6	8	10/13/21	SVOC	Anthracene	120-12-7		U	2.10E-01	2.3E+05		1.8E+04	
SB-207	N	6	8	10/13/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-207	FD	6	8	10/13/21	SVOC	Benzidine	92-87-5		U	8.00E-01	1.0E-01		5.3E-03	
SB-207	N	6	8	10/13/21	SVOC	Benzidine	92-87-5		U	7.40E-01	1.0E-01		5.3E-03	
SB-207	FD	6	8	10/13/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.10E-01	2.1E+02		1.1E+01	
SB-207	N	6	8	10/13/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.90E-01	2.1E+02		1.1E+01	
SB-207	FD	6	8	10/13/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.10E-01	2.1E+01		1.1E+00	
SB-207	N	6	8	10/13/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	
SB-207	FD	6	8	10/13/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.10E-01	2.1E+02		1.1E+01	
SB-207	N	6	8	10/13/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.90E-01	2.1E+02		1.1E+01	
SB-207	FD	6	8	10/13/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.10E-01	2.3E+04		1.8E+03	
SB-207	N	6	8	10/13/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-207	FD	6	8	10/13/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.10E-01	2.1E+03		1.1E+02	
SB-207	N	6	8	10/13/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-207	FD	6	8	10/13/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-207	N	6	8	10/13/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-207	FD	6	8	10/13/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.10E-01	2.5E+03		1.9E+02	
SB-207	N	6	8	10/13/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.80E-01	2.5E+03		1.9E+02	
SB-207	FD	6	8	10/13/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.10E-01	1.0E+01		2.3E+00	
SB-207	N	6	8	10/13/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.80E-01	1.0E+01		2.3E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	FD	6	8	10/13/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.10E-01	1.6E+03		3.9E+02	
SB-207	N	6	8	10/13/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.80E-01	1.6E+03		3.9E+02	
SB-207	FD	6	8	10/13/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.10E-01				
SB-207	N	6	8	10/13/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.80E-01				
SB-207	FD	6	8	10/13/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.10E-01	1.2E+04		2.9E+03	
SB-207	N	6	8	10/13/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.80E-01	1.2E+04		2.9E+03	
SB-207	FD	6	8	10/13/21	SVOC	Carbazole	86-74-8		U	2.10E-01	3.0E+04		2.4E+03	
SB-207	N	6	8	10/13/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-207	FD	6	8	10/13/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.00E-01	8.2E+04		6.3E+03	
SB-207	N	6	8	10/13/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.40E-01	8.2E+04		6.3E+03	
SB-207	FD	6	8	10/13/21	SVOC	4-Chloroaniline	106-47-8		U	8.00E-01	1.1E+02		2.7E+01	
SB-207	N	6	8	10/13/21	SVOC	4-Chloroaniline	106-47-8		U	7.40E-01	1.1E+02		2.7E+01	
SB-207	FD	6	8	10/13/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.10E-01	6.0E+04		4.8E+03	
SB-207	N	6	8	10/13/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.80E-01	6.0E+04		4.8E+03	
SB-207	FD	6	8	10/13/21	SVOC	2-Chlorophenol	95-57-8		U	4.10E-01	5.8E+03		3.9E+02	
SB-207	N	6	8	10/13/21	SVOC	2-Chlorophenol	95-57-8		U	3.80E-01	5.8E+03		3.9E+02	
SB-207	FD	6	8	10/13/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.10E-01				
SB-207	N	6	8	10/13/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.80E-01				
SB-207	FD	6	8	10/13/21	SVOC	Chrysene	218-01-9		U	2.10E-01	2.1E+04		1.1E+03	
SB-207	N	6	8	10/13/21	SVOC	Chrysene	218-01-9		U	1.90E-01	2.1E+04		1.1E+03	
SB-207	FD	6	8	10/13/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.10E-01	2.1E+01		1.1E+00	
SB-207	N	6	8	10/13/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-207	FD	6	8	10/13/21	SVOC	Dibenzofuran	132-64-9		U	4.10E-01	1.2E+03		7.8E+01	
SB-207	N	6	8	10/13/21	SVOC	Dibenzofuran	132-64-9		U	3.80E-01	1.2E+03		7.8E+01	
SB-207	FD	6	8	10/13/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.10E-01	5.1E+01		1.2E+01	
SB-207	N	6	8	10/13/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-207	FD	6	8	10/13/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.10E-01	2.5E+03		1.9E+02	
SB-207	N	6	8	10/13/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.80E-01	2.5E+03		1.9E+02	
SB-207	FD	6	8	10/13/21	SVOC	Diethylphthalate	84-66-2		U	4.10E-01	6.6E+05		5.1E+04	
SB-207	N	6	8	10/13/21	SVOC	Diethylphthalate	84-66-2		U	3.80E-01	6.6E+05		5.1E+04	
SB-207	FD	6	8	10/13/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.10E-01	1.6E+04		1.3E+03	
SB-207	N	6	8	10/13/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.80E-01	1.6E+04		1.3E+03	
SB-207	FD	6	8	10/13/21	SVOC	Dimethylphthalate	131-11-3		U	4.10E-01	6.6E+05		5.1E+04	
SB-207	N	6	8	10/13/21	SVOC	Dimethylphthalate	131-11-3		U	3.80E-01	6.6E+05		5.1E+04	
SB-207	FD	6	8	10/13/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.10E-01	8.2E+04		6.3E+03	
SB-207	N	6	8	10/13/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.80E-01	8.2E+04		6.3E+03	
SB-207	FD	6	8	10/13/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.10E-01	6.6E+01		5.1E+00	
SB-207	N	6	8	10/13/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.80E-01	6.6E+01		5.1E+00	
SB-207	FD	6	8	10/13/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.00E-01	1.6E+03		1.3E+02	
SB-207	N	6	8	10/13/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.40E-01	1.6E+03		1.3E+02	
SB-207	FD	6	8	10/13/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.10E-01	8.2E+03		6.3E+02	
SB-207	N	6	8	10/13/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.80E-01	8.2E+03		6.3E+02	
SB-207	FD	6	8	10/13/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.10E-01	2.9E+01		6.8E+00	
SB-207	N	6	8	10/13/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.80E-01	2.9E+01		6.8E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	FD	6	8	10/13/21	SVOC	Fluoranthene	206-44-0		U	2.10E-01	3.0E+04		2.4E+03	
SB-207	N	6	8	10/13/21	SVOC	Fluoranthene	206-44-0		U	1.90E-01	3.0E+04		2.4E+03	
SB-207	FD	6	8	10/13/21	SVOC	Fluorene	86-73-7		U	2.10E-01	3.0E+04		2.4E+03	
SB-207	N	6	8	10/13/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-207	FD	6	8	10/13/21	SVOC	Hexachlorobenzene	118-74-1		U	4.10E-01	9.6E+00		7.8E-01	
SB-207	N	6	8	10/13/21	SVOC	Hexachlorobenzene	118-74-1		U	3.80E-01	9.6E+00		7.8E-01	
SB-207	FD	6	8	10/13/21	SVOC	Hexachlorobutadiene	87-68-3		U	2.10E-03	5.3E+01		1.2E+01	
SB-207	N	6	8	10/13/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.70E-03	5.3E+01		1.2E+01	
SB-207	FD	6	8	10/13/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.10E-01	7.5E+00		1.8E+00	
SB-207	N	6	8	10/13/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.80E-01	7.5E+00		1.8E+00	
SB-207	FD	6	8	10/13/21	SVOC	Hexachloroethane	67-72-1		U	4.10E-01	8.0E+01		1.8E+01	
SB-207	N	6	8	10/13/21	SVOC	Hexachloroethane	67-72-1		U	3.80E-01	8.0E+01		1.8E+01	
SB-207	FD	6	8	10/13/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.10E-01	2.1E+02		1.1E+01	
SB-207	N	6	8	10/13/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-207	FD	6	8	10/13/21	SVOC	Isophorone	78-59-1		U	4.10E-01	2.4E+04		5.7E+03	
SB-207	N	6	8	10/13/21	SVOC	Isophorone	78-59-1		U	3.80E-01	2.4E+04		5.7E+03	
SB-207	FD	6	8	10/13/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.10E-01	7.3E+02		1.8E+02	
SB-207	N	6	8	10/13/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.90E-01	7.3E+02		1.8E+02	
SB-207	FD	6	8	10/13/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.10E-01	3.0E+03		2.4E+02	
SB-207	N	6	8	10/13/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.90E-01	3.0E+03		2.4E+02	
SB-207	FD	6	8	10/13/21	SVOC	2-Methylphenol	95-48-7		U	4.10E-01	4.1E+04		3.2E+03	
SB-207	N	6	8	10/13/21	SVOC	2-Methylphenol	95-48-7		U	3.80E-01	4.1E+04		3.2E+03	
SB-207	FD	6	8	10/13/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.10E-01				
SB-207	N	6	8	10/13/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.80E-01				
SB-207	FD	6	8	10/13/21	SVOC	Naphthalene	91-20-3		U	4.20E-03	8.6E+01		2.0E+01	
SB-207	N	6	8	10/13/21	SVOC	Naphthalene	91-20-3		U	3.50E-03	8.6E+01		2.0E+01	
SB-207	FD	6	8	10/13/21	SVOC	2-Nitroaniline	88-74-4		U	4.10E-01	8.0E+03		6.3E+02	
SB-207	N	6	8	10/13/21	SVOC	2-Nitroaniline	88-74-4		U	3.80E-01	8.0E+03		6.3E+02	
SB-207	FD	6	8	10/13/21	SVOC	3-Nitroaniline	99-09-2		U	4.10E-01	1.1E+03		2.5E+02	
SB-207	N	6	8	10/13/21	SVOC	3-Nitroaniline	99-09-2		U	3.80E-01	1.1E+03		2.5E+02	
SB-207	FD	6	8	10/13/21	SVOC	4-Nitroaniline	100-01-6		U	4.10E-01	1.1E+03		2.5E+02	
SB-207	N	6	8	10/13/21	SVOC	4-Nitroaniline	100-01-6		U	3.80E-01	1.1E+03		2.5E+02	
SB-207	FD	6	8	10/13/21	SVOC	2-Nitrophenol	88-75-5		U	4.10E-01				
SB-207	N	6	8	10/13/21	SVOC	2-Nitrophenol	88-75-5		U	3.80E-01				
SB-207	FD	6	8	10/13/21	SVOC	4-Nitrophenol	100-02-7		U	8.00E-01				
SB-207	N	6	8	10/13/21	SVOC	4-Nitrophenol	100-02-7		U	7.40E-01				
SB-207	FD	6	8	10/13/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.10E-01	3.4E-01		2.0E-02	
SB-207	N	6	8	10/13/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.80E-01	3.4E-01		2.0E-02	
SB-207	FD	6	8	10/13/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.10E-01	4.7E+03		1.1E+03	
SB-207	N	6	8	10/13/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.80E-01	4.7E+03		1.1E+03	
SB-207	FD	6	8	10/13/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.10E-01	3.3E+00		7.8E-01	
SB-207	N	6	8	10/13/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.80E-01	3.3E+00		7.8E-01	
SB-207	FD	6	8	10/13/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.10E-01	4.7E+04		3.1E+03	
SB-207	N	6	8	10/13/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.80E-01	4.7E+04		3.1E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	FD	6	8	10/13/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.10E-01	1.3E+02		2.7E+01	
SB-207	N	6	8	10/13/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.80E-01	1.3E+02		2.7E+01	
SB-207	FD	6	8	10/13/21	SVOC	Pentachlorophenol	87-86-5		U	4.10E-01	4.0E+01		1.0E+01	
SB-207	N	6	8	10/13/21	SVOC	Pentachlorophenol	87-86-5		U	3.80E-01	4.0E+01		1.0E+01	
SB-207	FD	6	8	10/13/21	SVOC	Phenanthrene	85-01-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-207	N	6	8	10/13/21	SVOC	Phenanthrene	85-01-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-207	FD	6	8	10/13/21	SVOC	Phenol	108-95-2		U	4.10E-01	2.5E+05		1.9E+04	
SB-207	N	6	8	10/13/21	SVOC	Phenol	108-95-2		U	3.80E-01	2.5E+05		1.9E+04	
SB-207	FD	6	8	10/13/21	SVOC	Pyrene	129-00-0		U	2.10E-01	2.3E+04		1.8E+03	
SB-207	N	6	8	10/13/21	SVOC	Pyrene	129-00-0		U	1.90E-01	2.3E+04		1.8E+03	
SB-207	FD	6	8	10/13/21	SVOC	Pyridine	110-86-1		U	4.10E-01	1.2E+03		7.8E+01	
SB-207	N	6	8	10/13/21	SVOC	Pyridine	110-86-1		U	3.80E-01	1.2E+03		7.8E+01	
SB-207	FD	6	8	10/13/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.10E-01	3.5E+01		2.3E+00	
SB-207	N	6	8	10/13/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.80E-01	3.5E+01		2.3E+00	
SB-207	FD	6	8	10/13/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.10E-01	8.2E+04		6.3E+03	
SB-207	N	6	8	10/13/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.80E-01	8.2E+04		6.3E+03	
SB-207	FD	6	8	10/13/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.10E-01	8.2E+02		6.3E+01	
SB-207	N	6	8	10/13/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.80E-01	8.2E+02		6.3E+01	
SB-207	FD	6	8	10/13/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.10E-01	7.4E+01		1.7E+01	
SB-207	N	6	8	10/13/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.80E-01	7.4E+01		1.7E+01	
SB-207	FD	6	8	10/13/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.10E-01	1.5E+01		3.6E+00	
SB-207	N	6	8	10/13/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.80E-01	1.5E+01		3.6E+00	
SB-207	FD	6	8	10/13/21	NITRO	Nitrobenzene	98-95-3		U	4.10E-01	2.2E+02		5.1E+01	
SB-207	N	6	8	10/13/21	NITRO	Nitrobenzene	98-95-3		U	3.80E-01	2.2E+02		5.1E+01	
SB-207	FD	6	8	10/13/21	INORG	Aluminum	7429-90-5	7.30E+03		1.90E+01	1.1E+06	6.6E-03	7.7E+04	9.5E-02
SB-207	N	6	8	10/13/21	INORG	Aluminum	7429-90-5	9.80E+03		1.90E+01	1.1E+06	8.9E-03	7.7E+04	1.3E-01
SB-207	FD	6	8	10/13/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-207	N	6	8	10/13/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-207	FD	6	8	10/13/21	INORG	Arsenic	7440-38-2	7.30E+00		3.80E+00	3.0E+01	2.4E-01	6.8E+00	1.1E+00
SB-207	N	6	8	10/13/21	INORG	Arsenic	7440-38-2	9.40E+00		3.80E+00	3.0E+01	3.1E-01	6.8E+00	1.4E+00
SB-207	FD	6	8	10/13/21	INORG	Barium	7440-39-3	5.20E+01		1.90E+00	2.2E+05	2.4E-04	1.5E+04	3.5E-03
SB-207	N	6	8	10/13/21	INORG	Barium	7440-39-3	5.90E+01		1.90E+00	2.2E+05	2.7E-04	1.5E+04	3.9E-03
SB-207	FD	6	8	10/13/21	INORG	Beryllium	7440-41-7	9.70E-01		1.90E-01	2.3E+03	4.2E-04	1.6E+02	6.1E-03
SB-207	N	6	8	10/13/21	INORG	Beryllium	7440-41-7	9.00E-01		1.90E-01	2.3E+03	3.9E-04	1.6E+02	5.6E-03
SB-207	FD	6	8	10/13/21	INORG	Cadmium	7440-43-9	3.40E-01	J	3.80E-01	1.0E+02	3.4E-03	7.1E+00	4.8E-02
SB-207	N	6	8	10/13/21	INORG	Cadmium	7440-43-9		U	3.80E-01	1.0E+02		7.1E+00	
SB-207	FD	6	8	10/13/21	INORG	Chromium (total)	7440-47-3	1.20E+01		7.70E-01	1.8E+06	6.7E-06	1.2E+05	1.0E-04
SB-207	N	6	8	10/13/21	INORG	Chromium (total)	7440-47-3	1.40E+01		7.50E-01	1.8E+06	7.8E-06	1.2E+05	1.2E-04
SB-207	FD	6	8	10/13/21	INORG	Cobalt	7440-48-4	1.30E+01		1.90E+00	3.5E+02	3.7E-02	2.3E+01	5.7E-01
SB-207	N	6	8	10/13/21	INORG	Cobalt	7440-48-4	2.50E+01		1.90E+00	3.5E+02	7.1E-02	2.3E+01	1.1E+00
SB-207	FD	6	8	10/13/21	INORG	Copper	7440-50-8	1.40E+01		7.70E-01	4.7E+04	3.0E-04	3.1E+03	4.5E-03
SB-207	N	6	8	10/13/21	INORG	Copper	7440-50-8	1.80E+01		7.50E-01	4.7E+04	3.8E-04	3.1E+03	5.8E-03
SB-207	FD	6	8	10/13/21	INORG	Cyanide (total)	57-12-5	2.20E+00		6.00E-01	1.5E+02	1.5E-02	2.3E+01	9.6E-02
SB-207	N	6	8	10/13/21	INORG	Cyanide (total)	57-12-5		U	5.60E-01	1.5E+02		2.3E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	N	6	8	10/13/21	INORG	Iron	7439-89-6	1.80E+04		1.90E+01	8.2E+05	2.2E-02	5.5E+04	3.3E-01
SB-207	FD	6	8	10/13/21	INORG	Lead	7439-92-1	6.80E+00		5.80E-01	8.0E+02	8.5E-03	2.0E+02	3.4E-02
SB-207	N	6	8	10/13/21	INORG	Lead	7439-92-1	1.30E+01		5.60E-01	8.0E+02	1.6E-02	2.0E+02	6.5E-02
SB-207	FD	6	8	10/13/21	INORG	Manganese	7439-96-5	1.10E+02		3.80E-01	2.6E+04	4.2E-03	1.8E+03	6.1E-02
SB-207	N	6	8	10/13/21	INORG	Manganese	7439-96-5	8.40E+01		3.80E-01	2.6E+04	3.2E-03	1.8E+03	4.7E-02
SB-207	FD	6	8	10/13/21	INORG	Mercury	7439-97-6		U	3.50E-02	4.1E+01		7.4E+00	
SB-207	N	6	8	10/13/21	INORG	Mercury	7439-97-6	1.90E-02	J	3.10E-02	4.1E+01	4.7E-04	7.4E+00	2.6E-03
SB-207	FD	6	8	10/13/21	INORG	Nickel	7440-02-0	2.00E+01		7.70E-01	2.2E+04	9.1E-04	1.5E+03	1.3E-02
SB-207	N	6	8	10/13/21	INORG	Nickel	7440-02-0	1.80E+01		7.50E-01	2.2E+04	8.2E-04	1.5E+03	1.2E-02
SB-207	FD	6	8	10/13/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-207	N	6	8	10/13/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-207	FD	6	8	10/13/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-207	N	6	8	10/13/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-207	FD	6	8	10/13/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-207	N	6	8	10/13/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-207	FD	6	8	10/13/21	INORG	Vanadium	7440-62-2	2.90E+01		7.70E-01	5.8E+03	5.0E-03	3.9E+02	7.4E-02
SB-207	N	6	8	10/13/21	INORG	Vanadium	7440-62-2	3.60E+01		7.50E-01	5.8E+03	6.2E-03	3.9E+02	9.2E-02
SB-207	FD	6	8	10/13/21	INORG	Zinc	7440-66-6	5.30E+01		7.70E-01	3.5E+05	1.5E-04	2.3E+04	2.3E-03
SB-207	N	6	8	10/13/21	INORG	Zinc	7440-66-6	4.10E+01		7.50E-01	3.5E+05	1.2E-04	2.3E+04	1.8E-03
SB-207	N	16	18	10/13/21	VOC	Acetone	67-64-1		U	7.80E-02	1.1E+06		7.0E+04	
SB-207	N	16	18	10/13/21	VOC	Acrylonitrile	107-13-1		U	4.70E-03	1.1E+01		2.5E+00	
SB-207	N	16	18	10/13/21	VOC	Benzene	71-43-2		U	1.60E-03	5.1E+01		1.2E+01	
SB-207	N	16	18	10/13/21	VOC	Bromobenzene	108-86-1		U	1.60E-03	1.8E+03		2.9E+02	
SB-207	N	16	18	10/13/21	VOC	Bromochloromethane	74-97-5		U	1.60E-03	6.3E+02		1.5E+02	
SB-207	N	16	18	10/13/21	VOC	Bromodichloromethane	75-27-4		U	1.60E-03	1.3E+01		2.9E+00	
SB-207	N	16	18	10/13/21	VOC	Bromoform	75-25-2		U	1.60E-03	8.6E+02		1.9E+02	
SB-207	N	16	18	10/13/21	VOC	Bromomethane	74-83-9		U	7.80E-03	3.0E+01		6.8E+00	
SB-207	N	16	18	10/13/21	VOC	2-Butanone	78-93-3		U	3.10E-02	1.9E+05		2.7E+04	
SB-207	N	16	18	10/13/21	VOC	n-Butylbenzene	104-51-8		U	1.60E-03	5.8E+04		3.9E+03	
SB-207	N	16	18	10/13/21	VOC	sec-Butylbenzene	135-98-8		U	1.60E-03	1.2E+05		7.8E+03	
SB-207	N	16	18	10/13/21	VOC	tert-Butylbenzene	98-06-6		U	3.10E-03	1.2E+05		7.8E+03	
SB-207	N	16	18	10/13/21	VOC	Carbon Disulfide	75-15-0		U	7.80E-03	3.5E+03		7.7E+02	
SB-207	N	16	18	10/13/21	VOC	Carbon Tetrachloride	56-23-5		U	1.60E-03	2.9E+01		6.5E+00	
SB-207	N	16	18	10/13/21	VOC	Chlorobenzene	108-90-7		U	1.60E-03	1.3E+03		2.8E+02	
SB-207	N	16	18	10/13/21	VOC	Chloroethane	75-00-3		U	1.60E-02	2.3E+04		5.4E+03	
SB-207	N	16	18	10/13/21	VOC	Chloroform	67-66-3		U	3.10E-03	1.4E+01		3.2E+00	
SB-207	N	16	18	10/13/21	VOC	Chloromethane	74-87-3		U	7.80E-03	4.6E+02		1.1E+02	
SB-207	N	16	18	10/13/21	VOC	2-Chlorotoluene	95-49-8		U	1.60E-03	2.3E+04		1.6E+03	
SB-207	N	16	18	10/13/21	VOC	4-Chlorotoluene	106-43-4		U	1.60E-03	2.3E+04		1.6E+03	
SB-207	N	16	18	10/13/21	VOC	Cumene	98-82-8		U	1.60E-03	9.9E+03		1.9E+03	
SB-207	N	16	18	10/13/21	VOC	p-Cymene	99-87-6		U	1.60E-03				
SB-207	N	16	18	10/13/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.60E-03	6.4E-01		5.3E-02	
SB-207	N	16	18	10/13/21	VOC	Dibromochloromethane	124-48-1		U	7.80E-04	3.9E+02		8.3E+01	
SB-207	N	16	18	10/13/21	VOC	1,2-Dibromoethane	106-93-4		U	7.80E-04	1.6E+00		3.6E-01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	N	16	18	10/13/21	VOC	Dibromomethane	74-95-3		U	1.60E-03	9.9E+01		2.4E+01	
SB-207	N	16	18	10/13/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.10E-03	3.2E-01		7.4E-02	
SB-207	N	16	18	10/13/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.60E-03	9.3E+03		1.8E+03	
SB-207	N	16	18	10/13/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.60E-03	1.1E+02		2.6E+01	
SB-207	N	16	18	10/13/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.60E-03	1.1E+02		2.6E+01	
SB-207	N	16	18	10/13/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.60E-02	3.7E+02		8.7E+01	
SB-207	N	16	18	10/13/21	VOC	1,1-Dichloroethane	75-34-3		U	1.60E-03	1.6E+02		3.6E+01	
SB-207	N	16	18	10/13/21	VOC	1,2-Dichloroethane	107-06-2		U	1.60E-03	2.0E+01		4.6E+00	
SB-207	N	16	18	10/13/21	VOC	1,1-Dichloroethene	75-35-4		U	3.10E-03	1.0E+03		2.3E+02	
SB-207	N	16	18	10/13/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.60E-03	3.7E+02		6.3E+01	
SB-207	N	16	18	10/13/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.60E-03	3.0E+02		7.0E+01	
SB-207	N	16	18	10/13/21	VOC	1,2-Dichloropropane	78-87-5		U	1.60E-03	6.6E+01		1.6E+01	
SB-207	N	16	18	10/13/21	VOC	1,3-Dichloropropane	142-28-9		U	7.80E-04	2.3E+04		1.6E+03	
SB-207	N	16	18	10/13/21	VOC	2,2-Dichloropropane	594-20-7		U	1.60E-03				
SB-207	N	16	18	10/13/21	VOC	1,1-Dichloropropene	563-58-6		U	1.60E-03				
SB-207	N	16	18	10/13/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	7.80E-04	8.2E+01		1.8E+01	
SB-207	N	16	18	10/13/21	VOC	1,4-Dioxane	123-91-1		U	7.80E-02	2.4E+02		5.3E+01	
SB-207	N	16	18	10/13/21	VOC	Ethyl tert-butyl ether	637-92-3		U	7.80E-04	5.6E+03		1.3E+03	
SB-207	N	16	18	10/13/21	VOC	Ethyl Benzene	100-41-4		U	1.60E-03	2.5E+02		5.8E+01	
SB-207	N	16	18	10/13/21	VOC	Diethyl ether	60-29-7		U	1.60E-02	2.3E+05		1.6E+04	
SB-207	N	16	18	10/13/21	VOC	2-Hexanone	591-78-6		U	1.60E-02	1.3E+03		2.0E+02	
SB-207	N	16	18	10/13/21	VOC	Methyl Acetate	79-20-9		U	1.60E-03	1.2E+06		7.8E+04	
SB-207	N	16	18	10/13/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.10E-03	2.1E+03		4.7E+02	
SB-207	N	16	18	10/13/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.60E-02	1.4E+05		3.3E+04	
SB-207	N	16	18	10/13/21	VOC	Methylcyclohexane	108-87-2		U	1.60E-03	2.7E+04		6.5E+03	
SB-207	N	16	18	10/13/21	VOC	Methylene Chloride	75-09-2		U	1.60E-02	3.2E+03		3.5E+02	
SB-207	N	16	18	10/13/21	VOC	Diisopropyl ether	108-20-3		U	7.80E-04	9.4E+03		2.2E+03	
SB-207	N	16	18	10/13/21	VOC	n-Propylbenzene	103-65-1		U	1.60E-03	2.4E+04		3.8E+03	
SB-207	N	16	18	10/13/21	VOC	Styrene	100-42-5		U	1.60E-03	3.5E+04		6.0E+03	
SB-207	N	16	18	10/13/21	VOC	tert-Butyl alcohol	75-65-0		U	7.80E-02	6.5E+04		1.4E+04	
SB-207	N	16	18	10/13/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.60E-03	8.8E+01		2.0E+01	
SB-207	N	16	18	10/13/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	7.80E-04	2.7E+01		6.0E+00	
SB-207	N	16	18	10/13/21	VOC	Tetrachloroethene	127-18-4		U	1.60E-03	3.9E+02		8.1E+01	
SB-207	N	16	18	10/13/21	VOC	Tetrahydrofuran	109-99-9		U	7.80E-03	9.5E+04		1.8E+04	
SB-207	N	16	18	10/13/21	VOC	Toluene	108-88-3		U	1.60E-03	4.7E+04		4.9E+03	
SB-207	N	16	18	10/13/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.60E-03	9.3E+02		6.3E+01	
SB-207	N	16	18	10/13/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.60E-03	2.6E+02		5.8E+01	
SB-207	N	16	18	10/13/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.60E-03				
SB-207	N	16	18	10/13/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.60E-03	3.6E+04		8.1E+03	
SB-207	N	16	18	10/13/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.60E-03	6.3E+00		1.5E+00	
SB-207	N	16	18	10/13/21	VOC	Trichloroethene	79-01-6		U	1.60E-03	1.9E+01		4.1E+00	
SB-207	N	16	18	10/13/21	VOC	Trichlorofluoromethane	75-69-4		U	7.80E-03	3.5E+05		2.3E+04	
SB-207	N	16	18	10/13/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.60E-03	1.1E+00		5.1E-02	
SB-207	N	16	18	10/13/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	7.80E-03	2.8E+04		6.7E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	N	16	18	10/13/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.60E-03	1.8E+03		3.0E+02	
SB-207	N	16	18	10/13/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.60E-03	1.5E+03		2.7E+02	
SB-207	N	16	18	10/13/21	VOC	Vinyl Chloride	75-01-4		U	7.80E-03	1.7E+01		5.9E-01	
SB-207	N	16	18	10/13/21	VOC	Xylenes (total)	1330-20-7		U	3.10E-03	2.5E+03		5.8E+02	
SB-207	N	16	18	10/13/21	SVOC	Acenaphthene	83-32-9		U	1.80E-01	4.5E+04		3.6E+03	
SB-207	N	16	18	10/13/21	SVOC	Acenaphthylene	208-96-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-207	N	16	18	10/13/21	SVOC	Acetophenone	98-86-2		U	3.60E-01	1.2E+05		7.8E+03	
SB-207	N	16	18	10/13/21	SVOC	t-Amyl methyl ether	994-05-8		U	7.80E-04				
SB-207	N	16	18	10/13/21	SVOC	Aniline	62-53-3		U	3.60E-01	4.0E+03		4.4E+02	
SB-207	N	16	18	10/13/21	SVOC	Anthracene	120-12-7		U	1.80E-01	2.3E+05		1.8E+04	
SB-207	N	16	18	10/13/21	SVOC	Benzidine	92-87-5		U	7.00E-01	1.0E-01		5.3E-03	
SB-207	N	16	18	10/13/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.80E-01	2.1E+02		1.1E+01	
SB-207	N	16	18	10/13/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.80E-01	2.1E+01		1.1E+00	
SB-207	N	16	18	10/13/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.80E-01	2.1E+02		1.1E+01	
SB-207	N	16	18	10/13/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.80E-01	2.3E+04		1.8E+03	
SB-207	N	16	18	10/13/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.80E-01	2.1E+03		1.1E+02	
SB-207	N	16	18	10/13/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-207	N	16	18	10/13/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.60E-01	2.5E+03		1.9E+02	
SB-207	N	16	18	10/13/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.60E-01	1.0E+01		2.3E+00	
SB-207	N	16	18	10/13/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.60E-01	1.6E+03		3.9E+02	
SB-207	N	16	18	10/13/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.60E-01				
SB-207	N	16	18	10/13/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.60E-01	1.2E+04		2.9E+03	
SB-207	N	16	18	10/13/21	SVOC	Carbazole	86-74-8		U	1.80E-01	3.0E+04		2.4E+03	
SB-207	N	16	18	10/13/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.00E-01	8.2E+04		6.3E+03	
SB-207	N	16	18	10/13/21	SVOC	4-Chloroaniline	106-47-8		U	7.00E-01	1.1E+02		2.7E+01	
SB-207	N	16	18	10/13/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.60E-01	6.0E+04		4.8E+03	
SB-207	N	16	18	10/13/21	SVOC	2-Chlorophenol	95-57-8		U	3.60E-01	5.8E+03		3.9E+02	
SB-207	N	16	18	10/13/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.60E-01				
SB-207	N	16	18	10/13/21	SVOC	Chrysene	218-01-9		U	1.80E-01	2.1E+04		1.1E+03	
SB-207	N	16	18	10/13/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.80E-01	2.1E+01		1.1E+00	
SB-207	N	16	18	10/13/21	SVOC	Dibenzofuran	132-64-9		U	3.60E-01	1.2E+03		7.8E+01	
SB-207	N	16	18	10/13/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.80E-01	5.1E+01		1.2E+01	
SB-207	N	16	18	10/13/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.60E-01	2.5E+03		1.9E+02	
SB-207	N	16	18	10/13/21	SVOC	Diethylphthalate	84-66-2		U	3.60E-01	6.6E+05		5.1E+04	
SB-207	N	16	18	10/13/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.60E-01	1.6E+04		1.3E+03	
SB-207	N	16	18	10/13/21	SVOC	Dimethylphthalate	131-11-3		U	3.60E-01	6.6E+05		5.1E+04	
SB-207	N	16	18	10/13/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.60E-01	8.2E+04		6.3E+03	
SB-207	N	16	18	10/13/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.60E-01	6.6E+01		5.1E+00	
SB-207	N	16	18	10/13/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.00E-01	1.6E+03		1.3E+02	
SB-207	N	16	18	10/13/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.60E-01	8.2E+03		6.3E+02	
SB-207	N	16	18	10/13/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.60E-01	2.9E+01		6.8E+00	
SB-207	N	16	18	10/13/21	SVOC	Fluoranthene	206-44-0		U	1.80E-01	3.0E+04		2.4E+03	
SB-207	N	16	18	10/13/21	SVOC	Fluorene	86-73-7		U	1.80E-01	3.0E+04		2.4E+03	
SB-207	N	16	18	10/13/21	SVOC	Hexachlorobenzene	118-74-1		U	3.60E-01	9.6E+00		7.8E-01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	N	16	18	10/13/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.60E-03	5.3E+01		1.2E+01	
SB-207	N	16	18	10/13/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.60E-01	7.5E+00		1.8E+00	
SB-207	N	16	18	10/13/21	SVOC	Hexachloroethane	67-72-1		U	3.60E-01	8.0E+01		1.8E+01	
SB-207	N	16	18	10/13/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.80E-01	2.1E+02		1.1E+01	
SB-207	N	16	18	10/13/21	SVOC	Isophorone	78-59-1		U	3.60E-01	2.4E+04		5.7E+03	
SB-207	N	16	18	10/13/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.80E-01	7.3E+02		1.8E+02	
SB-207	N	16	18	10/13/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.80E-01	3.0E+03		2.4E+02	
SB-207	N	16	18	10/13/21	SVOC	2-Methylphenol	95-48-7		U	3.60E-01	4.1E+04		3.2E+03	
SB-207	N	16	18	10/13/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.60E-01				
SB-207	N	16	18	10/13/21	SVOC	Naphthalene	91-20-3		U	3.10E-03	8.6E+01		2.0E+01	
SB-207	N	16	18	10/13/21	SVOC	2-Nitroaniline	88-74-4		U	3.60E-01	8.0E+03		6.3E+02	
SB-207	N	16	18	10/13/21	SVOC	3-Nitroaniline	99-09-2		U	3.60E-01	1.1E+03		2.5E+02	
SB-207	N	16	18	10/13/21	SVOC	4-Nitroaniline	100-01-6		U	3.60E-01	1.1E+03		2.5E+02	
SB-207	N	16	18	10/13/21	SVOC	2-Nitrophenol	88-75-5		U	3.60E-01				
SB-207	N	16	18	10/13/21	SVOC	4-Nitrophenol	100-02-7		U	7.00E-01				
SB-207	N	16	18	10/13/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.60E-01	3.4E-01		2.0E-02	
SB-207	N	16	18	10/13/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.60E-01	4.7E+03		1.1E+03	
SB-207	N	16	18	10/13/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.60E-01	3.3E+00		7.8E-01	
SB-207	N	16	18	10/13/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.60E-01	4.7E+04		3.1E+03	
SB-207	N	16	18	10/13/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.60E-01	1.3E+02		2.7E+01	
SB-207	N	16	18	10/13/21	SVOC	Pentachlorophenol	87-86-5		U	3.60E-01	4.0E+01		1.0E+01	
SB-207	N	16	18	10/13/21	SVOC	Phenanthrene	85-01-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-207	N	16	18	10/13/21	SVOC	Phenol	108-95-2		U	3.60E-01	2.5E+05		1.9E+04	
SB-207	N	16	18	10/13/21	SVOC	Pyrene	129-00-0		U	1.80E-01	2.3E+04		1.8E+03	
SB-207	N	16	18	10/13/21	SVOC	Pyridine	110-86-1		U	3.60E-01	1.2E+03		7.8E+01	
SB-207	N	16	18	10/13/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.60E-01	3.5E+01		2.3E+00	
SB-207	N	16	18	10/13/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.60E-01	8.2E+04		6.3E+03	
SB-207	N	16	18	10/13/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.60E-01	8.2E+02		6.3E+01	
SB-207	N	16	18	10/13/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.60E-01	7.4E+01		1.7E+01	
SB-207	N	16	18	10/13/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.60E-01	1.5E+01		3.6E+00	
SB-207	N	16	18	10/13/21	NITRO	Nitrobenzene	98-95-3		U	3.60E-01	2.2E+02		5.1E+01	
SB-207	N	16	18	10/13/21	INORG	Aluminum	7429-90-5	4.40E+03		1.70E+01	1.1E+06	4.0E-03	7.7E+04	5.7E-02
SB-207	N	16	18	10/13/21	INORG	Antimony	7440-36-0		U	1.70E+00	4.7E+02		3.1E+01	
SB-207	N	16	18	10/13/21	INORG	Arsenic	7440-38-2	3.50E+00		3.40E+00	3.0E+01	1.2E-01	6.8E+00	5.1E-01
SB-207	N	16	18	10/13/21	INORG	Barium	7440-39-3	3.60E+01		1.70E+00	2.2E+05	1.6E-04	1.5E+04	2.4E-03
SB-207	N	16	18	10/13/21	INORG	Beryllium	7440-41-7	4.80E-01		1.70E-01	2.3E+03	2.1E-04	1.6E+02	3.0E-03
SB-207	N	16	18	10/13/21	INORG	Cadmium	7440-43-9		U	3.40E-01	1.0E+02		7.1E+00	
SB-207	N	16	18	10/13/21	INORG	Chromium (total)	7440-47-3	1.60E+01		6.90E-01	1.8E+06	8.9E-06	1.2E+05	1.3E-04
SB-207	N	16	18	10/13/21	INORG	Cobalt	7440-48-4	7.30E+00		1.70E+00	3.5E+02	2.1E-02	2.3E+01	3.2E-01
SB-207	N	16	18	10/13/21	INORG	Copper	7440-50-8	1.00E+01		6.90E-01	4.7E+04	2.1E-04	3.1E+03	3.2E-03
SB-207	N	16	18	10/13/21	INORG	Cyanide (total)	57-12-5		U	5.00E-01	1.5E+02		2.3E+01	
SB-207	N	16	18	10/13/21	INORG	Iron	7439-89-6	1.80E+04		8.60E+01	8.2E+05	2.2E-02	5.5E+04	3.3E-01
SB-207	N	16	18	10/13/21	INORG	Lead	7439-92-1	4.50E+00		5.20E-01	8.0E+02	5.6E-03	2.0E+02	2.3E-02
SB-207	N	16	18	10/13/21	INORG	Manganese	7439-96-5	6.70E+01		3.40E-01	2.6E+04	2.6E-03	1.8E+03	3.7E-02

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-207	N	16	18	10/13/21	INORG	Mercury	7439-97-6		U	3.00E-02	4.1E+01		7.4E+00	
SB-207	N	16	18	10/13/21	INORG	Nickel	7440-02-0	1.20E+01		6.90E-01	2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-207	N	16	18	10/13/21	INORG	Selenium	7782-49-2		U	3.40E+00	5.8E+03		3.9E+02	
SB-207	N	16	18	10/13/21	INORG	Silver	7440-22-4		U	3.40E-01	5.8E+03		3.9E+02	
SB-207	N	16	18	10/13/21	INORG	Thallium	7440-28-0		U	1.70E+00	1.2E+01		7.8E-01	
SB-207	N	16	18	10/13/21	INORG	Vanadium	7440-62-2	2.40E+01		6.90E-01	5.8E+03	4.1E-03	3.9E+02	6.2E-02
SB-207	N	16	18	10/13/21	INORG	Zinc	7440-66-6	2.20E+01		6.90E-01	3.5E+05	6.3E-05	2.3E+04	9.6E-04
SB-208	N		1	10/14/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.40E-01	9.3E+03		1.8E+03	
SB-208	N		1	10/14/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.40E-01	1.1E+02		2.6E+01	
SB-208	N		1	10/14/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.40E-01	1.1E+02		2.6E+01	
SB-208	N		1	10/14/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.40E-01	2.6E+02		5.8E+01	
SB-208	N		1	10/14/21	SVOC	Acenaphthene	83-32-9		U	2.20E-01	4.5E+04		3.6E+03	
SB-208	N		1	10/14/21	SVOC	Acenaphthylene	208-96-8		U	2.20E-01	2.3E+04		1.8E+03	
SB-208	N		1	10/14/21	SVOC	Acetophenone	98-86-2		U	4.40E-01	1.2E+05		7.8E+03	
SB-208	N		1	10/14/21	SVOC	Aniline	62-53-3		U	4.40E-01	4.0E+03		4.4E+02	
SB-208	N		1	10/14/21	SVOC	Anthracene	120-12-7		U	2.20E-01	2.3E+05		1.8E+04	
SB-208	N		1	10/14/21	SVOC	Benzidine	92-87-5		U	8.50E-01	1.0E-01		5.3E-03	
SB-208	N		1	10/14/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.20E-01	2.1E+02		1.1E+01	
SB-208	N		1	10/14/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.20E-01	2.1E+01		1.1E+00	
SB-208	N		1	10/14/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.20E-01	2.1E+02		1.1E+01	
SB-208	N		1	10/14/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.20E-01	2.3E+04		1.8E+03	
SB-208	N		1	10/14/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.20E-01	2.1E+03		1.1E+02	
SB-208	N		1	10/14/21	SVOC	Benzoic Acid	65-85-0		U	1.30E+00	3.3E+06		2.5E+05	
SB-208	N		1	10/14/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.40E-01	2.5E+03		1.9E+02	
SB-208	N		1	10/14/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.40E-01	1.0E+01		2.3E+00	
SB-208	N		1	10/14/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.40E-01	1.6E+03		3.9E+02	
SB-208	N		1	10/14/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.40E-01				
SB-208	N		1	10/14/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.40E-01	1.2E+04		2.9E+03	
SB-208	N		1	10/14/21	SVOC	Carbazole	86-74-8		U	2.20E-01	3.0E+04		2.4E+03	
SB-208	N		1	10/14/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.50E-01	8.2E+04		6.3E+03	
SB-208	N		1	10/14/21	SVOC	4-Chloroaniline	106-47-8		U	8.50E-01	1.1E+02		2.7E+01	
SB-208	N		1	10/14/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.40E-01	6.0E+04		4.8E+03	
SB-208	N		1	10/14/21	SVOC	2-Chlorophenol	95-57-8		U	4.40E-01	5.8E+03		3.9E+02	
SB-208	N		1	10/14/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.40E-01				
SB-208	N		1	10/14/21	SVOC	Chrysene	218-01-9		U	2.20E-01	2.1E+04		1.1E+03	
SB-208	N		1	10/14/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.20E-01	2.1E+01		1.1E+00	
SB-208	N		1	10/14/21	SVOC	Dibenzofuran	132-64-9		U	4.40E-01	1.2E+03		7.8E+01	
SB-208	N		1	10/14/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.20E-01	5.1E+01		1.2E+01	
SB-208	N		1	10/14/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.40E-01	2.5E+03		1.9E+02	
SB-208	N		1	10/14/21	SVOC	Diethylphthalate	84-66-2		U	4.40E-01	6.6E+05		5.1E+04	
SB-208	N		1	10/14/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.40E-01	1.6E+04		1.3E+03	
SB-208	N		1	10/14/21	SVOC	Dimethylphthalate	131-11-3		U	4.40E-01	6.6E+05		5.1E+04	
SB-208	N		1	10/14/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.40E-01	8.2E+04		6.3E+03	
SB-208	N		1	10/14/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.40E-01	6.6E+01		5.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-208	N		1	10/14/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.50E-01	1.6E+03		1.3E+02	
SB-208	N		1	10/14/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.40E-01	8.2E+03		6.3E+02	
SB-208	N		1	10/14/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.40E-01	2.9E+01		6.8E+00	
SB-208	N		1	10/14/21	SVOC	Fluoranthene	206-44-0		U	2.20E-01	3.0E+04		2.4E+03	
SB-208	N		1	10/14/21	SVOC	Fluorene	86-73-7		U	2.20E-01	3.0E+04		2.4E+03	
SB-208	N		1	10/14/21	SVOC	Hexachlorobenzene	118-74-1		U	4.40E-01	9.6E+00		7.8E-01	
SB-208	N		1	10/14/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.40E-01	5.3E+01		1.2E+01	
SB-208	N		1	10/14/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.40E-01	7.5E+00		1.8E+00	
SB-208	N		1	10/14/21	SVOC	Hexachloroethane	67-72-1		U	4.40E-01	8.0E+01		1.8E+01	
SB-208	N		1	10/14/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.20E-01	2.1E+02		1.1E+01	
SB-208	N		1	10/14/21	SVOC	Isophorone	78-59-1		U	4.40E-01	2.4E+04		5.7E+03	
SB-208	N		1	10/14/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.20E-01	7.3E+02		1.8E+02	
SB-208	N		1	10/14/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.20E-01	3.0E+03		2.4E+02	
SB-208	N		1	10/14/21	SVOC	2-Methylphenol	95-48-7		U	4.40E-01	4.1E+04		3.2E+03	
SB-208	N		1	10/14/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.40E-01				
SB-208	N		1	10/14/21	SVOC	Naphthalene	91-20-3		U	2.20E-01	8.6E+01		2.0E+01	
SB-208	N		1	10/14/21	SVOC	2-Nitroaniline	88-74-4		U	4.40E-01	8.0E+03		6.3E+02	
SB-208	N		1	10/14/21	SVOC	3-Nitroaniline	99-09-2		U	4.40E-01	1.1E+03		2.5E+02	
SB-208	N		1	10/14/21	SVOC	4-Nitroaniline	100-01-6		U	4.40E-01	1.1E+03		2.5E+02	
SB-208	N		1	10/14/21	SVOC	2-Nitrophenol	88-75-5		U	4.40E-01				
SB-208	N		1	10/14/21	SVOC	4-Nitrophenol	100-02-7		U	8.50E-01				
SB-208	N		1	10/14/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.40E-01	3.4E-01		2.0E-02	
SB-208	N		1	10/14/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.40E-01	4.7E+03		1.1E+03	
SB-208	N		1	10/14/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.40E-01	3.3E+00		7.8E-01	
SB-208	N		1	10/14/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.40E-01	4.7E+04		3.1E+03	
SB-208	N		1	10/14/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.40E-01	1.3E+02		2.7E+01	
SB-208	N		1	10/14/21	SVOC	Pentachlorophenol	87-86-5		U	4.40E-01	4.0E+01		1.0E+01	
SB-208	N		1	10/14/21	SVOC	Phenanthrene	85-01-8		U	2.20E-01	2.3E+04		1.8E+03	
SB-208	N		1	10/14/21	SVOC	Phenol	108-95-2		U	4.40E-01	2.5E+05		1.9E+04	
SB-208	N		1	10/14/21	SVOC	Pyrene	129-00-0		U	2.20E-01	2.3E+04		1.8E+03	
SB-208	N		1	10/14/21	SVOC	Pyridine	110-86-1		U	4.40E-01	1.2E+03		7.8E+01	
SB-208	N		1	10/14/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.40E-01	3.5E+01		2.3E+00	
SB-208	N		1	10/14/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.40E-01	8.2E+04		6.3E+03	
SB-208	N		1	10/14/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.40E-01	8.2E+02		6.3E+01	
SB-208	N		1	10/14/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.40E-01	7.4E+01		1.7E+01	
SB-208	N		1	10/14/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.40E-01	1.5E+01		3.6E+00	
SB-208	N		1	10/14/21	NITRO	Nitrobenzene	98-95-3		U	4.40E-01	2.2E+02		5.1E+01	
SB-208	N		1	10/14/21	INORG	Aluminum	7429-90-5	1.10E+04			1.1E+06	1.0E-02	7.7E+04	1.4E-01
SB-208	N		1	10/14/21	INORG	Antimony	7440-36-0		U	8.50E-01	4.7E+02		3.1E+01	
SB-208	N		1	10/14/21	INORG	Arsenic	7440-38-2	4.20E+00			3.0E+01	1.4E-01	6.8E+00	6.2E-01
SB-208	N		1	10/14/21	INORG	Barium	7440-39-3	5.30E+01			2.2E+05	2.4E-04	1.5E+04	3.5E-03
SB-208	N		1	10/14/21	INORG	Beryllium	7440-41-7	7.70E-01			2.3E+03	3.3E-04	1.6E+02	4.8E-03
SB-208	N		1	10/14/21	INORG	Cadmium	7440-43-9		U	2.10E-01	1.0E+02		7.1E+00	
SB-208	N		1	10/14/21	INORG	Chromium (total)	7440-47-3	1.70E+01			1.8E+06	9.4E-06	1.2E+05	1.4E-04

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-208	N		1	10/14/21	INORG	Cobalt	7440-48-4	1.50E+01			3.5E+02	4.3E-02	2.3E+01	6.5E-01
SB-208	N		1	10/14/21	INORG	Copper	7440-50-8	1.40E+01			4.7E+04	3.0E-04	3.1E+03	4.5E-03
SB-208	N		1	10/14/21	INORG	Cyanide (total)	57-12-5		U	3.40E-01	1.5E+02		2.3E+01	
SB-208	N		1	10/14/21	INORG	Iron	7439-89-6	3.50E+04			8.2E+05	4.3E-02	5.5E+04	6.4E-01
SB-208	N		1	10/14/21	INORG	Lead	7439-92-1	1.20E+01			8.0E+02	1.5E-02	2.0E+02	6.0E-02
SB-208	N		1	10/14/21	INORG	Manganese	7439-96-5	1.40E+02			2.6E+04	5.4E-03	1.8E+03	7.8E-02
SB-208	N		1	10/14/21	INORG	Mercury	7439-97-6	3.40E-02			4.1E+01	8.4E-04	7.4E+00	4.6E-03
SB-208	N		1	10/14/21	INORG	Nickel	7440-02-0	1.60E+01			2.2E+04	7.3E-04	1.5E+03	1.1E-02
SB-208	N		1	10/14/21	INORG	Selenium	7782-49-2		U	1.50E+00	5.8E+03		3.9E+02	
SB-208	N		1	10/14/21	INORG	Silver	7440-22-4		U	1.90E-01	5.8E+03		3.9E+02	
SB-208	N		1	10/14/21	INORG	Thallium	7440-28-0		U	1.00E+00	1.2E+01		7.8E-01	
SB-208	N		1	10/14/21	INORG	Vanadium	7440-62-2	3.20E+01			5.8E+03	5.5E-03	3.9E+02	8.2E-02
SB-208	N		1	10/14/21	INORG	Zinc	7440-66-6	5.00E+01			3.5E+05	1.4E-04	2.3E+04	2.2E-03
SB-208	N	5	7	10/14/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.40E-01	9.3E+03		1.8E+03	
SB-208	N	5	7	10/14/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.40E-01	1.1E+02		2.6E+01	
SB-208	N	5	7	10/14/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.40E-01	1.1E+02		2.6E+01	
SB-208	N	5	7	10/14/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.40E-01	2.6E+02		5.8E+01	
SB-208	N	5	7	10/14/21	SVOC	Acenaphthene	83-32-9		U	2.20E-01	4.5E+04		3.6E+03	
SB-208	N	5	7	10/14/21	SVOC	Acenaphthylene	208-96-8		U	2.20E-01	2.3E+04		1.8E+03	
SB-208	N	5	7	10/14/21	SVOC	Acetophenone	98-86-2		U	4.40E-01	1.2E+05		7.8E+03	
SB-208	N	5	7	10/14/21	SVOC	Aniline	62-53-3		U	4.40E-01	4.0E+03		4.4E+02	
SB-208	N	5	7	10/14/21	SVOC	Anthracene	120-12-7		U	2.20E-01	2.3E+05		1.8E+04	
SB-208	N	5	7	10/14/21	SVOC	Benzidine	92-87-5		U	8.60E-01	1.0E-01		5.3E-03	
SB-208	N	5	7	10/14/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.20E-01	2.1E+02		1.1E+01	
SB-208	N	5	7	10/14/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.20E-01	2.1E+01		1.1E+00	
SB-208	N	5	7	10/14/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.20E-01	2.1E+02		1.1E+01	
SB-208	N	5	7	10/14/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.20E-01	2.3E+04		1.8E+03	
SB-208	N	5	7	10/14/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.20E-01	2.1E+03		1.1E+02	
SB-208	N	5	7	10/14/21	SVOC	Benzoic Acid	65-85-0		U	1.30E+00	3.3E+06		2.5E+05	
SB-208	N	5	7	10/14/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.40E-01	2.5E+03		1.9E+02	
SB-208	N	5	7	10/14/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.40E-01	1.0E+01		2.3E+00	
SB-208	N	5	7	10/14/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.40E-01	1.6E+03		3.9E+02	
SB-208	N	5	7	10/14/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.40E-01				
SB-208	N	5	7	10/14/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.40E-01	1.2E+04		2.9E+03	
SB-208	N	5	7	10/14/21	SVOC	Carbazole	86-74-8		U	2.20E-01	3.0E+04		2.4E+03	
SB-208	N	5	7	10/14/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.60E-01	8.2E+04		6.3E+03	
SB-208	N	5	7	10/14/21	SVOC	4-Chloroaniline	106-47-8		U	8.60E-01	1.1E+02		2.7E+01	
SB-208	N	5	7	10/14/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.40E-01	6.0E+04		4.8E+03	
SB-208	N	5	7	10/14/21	SVOC	2-Chlorophenol	95-57-8		U	4.40E-01	5.8E+03		3.9E+02	
SB-208	N	5	7	10/14/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.40E-01				
SB-208	N	5	7	10/14/21	SVOC	Chrysene	218-01-9		U	2.20E-01	2.1E+04		1.1E+03	
SB-208	N	5	7	10/14/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.20E-01	2.1E+01		1.1E+00	
SB-208	N	5	7	10/14/21	SVOC	Dibenzofuran	132-64-9		U	4.40E-01	1.2E+03		7.8E+01	
SB-208	N	5	7	10/14/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.20E-01	5.1E+01		1.2E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-208	N	5	7	10/14/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.40E-01	2.5E+03		1.9E+02	
SB-208	N	5	7	10/14/21	SVOC	Diethylphthalate	84-66-2		U	4.40E-01	6.6E+05		5.1E+04	
SB-208	N	5	7	10/14/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.40E-01	1.6E+04		1.3E+03	
SB-208	N	5	7	10/14/21	SVOC	Dimethylphthalate	131-11-3		U	4.40E-01	6.6E+05		5.1E+04	
SB-208	N	5	7	10/14/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.40E-01	8.2E+04		6.3E+03	
SB-208	N	5	7	10/14/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.40E-01	6.6E+01		5.1E+00	
SB-208	N	5	7	10/14/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.60E-01	1.6E+03		1.3E+02	
SB-208	N	5	7	10/14/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.40E-01	8.2E+03		6.3E+02	
SB-208	N	5	7	10/14/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.40E-01	2.9E+01		6.8E+00	
SB-208	N	5	7	10/14/21	SVOC	Fluoranthene	206-44-0		U	2.20E-01	3.0E+04		2.4E+03	
SB-208	N	5	7	10/14/21	SVOC	Fluorene	86-73-7		U	2.20E-01	3.0E+04		2.4E+03	
SB-208	N	5	7	10/14/21	SVOC	Hexachlorobenzene	118-74-1		U	4.40E-01	9.6E+00		7.8E-01	
SB-208	N	5	7	10/14/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.40E-01	5.3E+01		1.2E+01	
SB-208	N	5	7	10/14/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.40E-01	7.5E+00		1.8E+00	
SB-208	N	5	7	10/14/21	SVOC	Hexachloroethane	67-72-1		U	4.40E-01	8.0E+01		1.8E+01	
SB-208	N	5	7	10/14/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.20E-01	2.1E+02		1.1E+01	
SB-208	N	5	7	10/14/21	SVOC	Isophorone	78-59-1		U	4.40E-01	2.4E+04		5.7E+03	
SB-208	N	5	7	10/14/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.20E-01	7.3E+02		1.8E+02	
SB-208	N	5	7	10/14/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.20E-01	3.0E+03		2.4E+02	
SB-208	N	5	7	10/14/21	SVOC	2-Methylphenol	95-48-7		U	4.40E-01	4.1E+04		3.2E+03	
SB-208	N	5	7	10/14/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.40E-01				
SB-208	N	5	7	10/14/21	SVOC	Naphthalene	91-20-3		U	2.20E-01	8.6E+01		2.0E+01	
SB-208	N	5	7	10/14/21	SVOC	2-Nitroaniline	88-74-4		U	4.40E-01	8.0E+03		6.3E+02	
SB-208	N	5	7	10/14/21	SVOC	3-Nitroaniline	99-09-2		U	4.40E-01	1.1E+03		2.5E+02	
SB-208	N	5	7	10/14/21	SVOC	4-Nitroaniline	100-01-6		U	4.40E-01	1.1E+03		2.5E+02	
SB-208	N	5	7	10/14/21	SVOC	2-Nitrophenol	88-75-5		U	4.40E-01				
SB-208	N	5	7	10/14/21	SVOC	4-Nitrophenol	100-02-7		U	8.60E-01				
SB-208	N	5	7	10/14/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.40E-01	3.4E-01		2.0E-02	
SB-208	N	5	7	10/14/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.40E-01	4.7E+03		1.1E+03	
SB-208	N	5	7	10/14/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.40E-01	3.3E+00		7.8E-01	
SB-208	N	5	7	10/14/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.40E-01	4.7E+04		3.1E+03	
SB-208	N	5	7	10/14/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.40E-01	1.3E+02		2.7E+01	
SB-208	N	5	7	10/14/21	SVOC	Pentachlorophenol	87-86-5		U	4.40E-01	4.0E+01		1.0E+01	
SB-208	N	5	7	10/14/21	SVOC	Phenanthrene	85-01-8		U	2.20E-01	2.3E+04		1.8E+03	
SB-208	N	5	7	10/14/21	SVOC	Phenol	108-95-2		U	4.40E-01	2.5E+05		1.9E+04	
SB-208	N	5	7	10/14/21	SVOC	Pyrene	129-00-0		U	2.20E-01	2.3E+04		1.8E+03	
SB-208	N	5	7	10/14/21	SVOC	Pyridine	110-86-1		U	4.40E-01	1.2E+03		7.8E+01	
SB-208	N	5	7	10/14/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.40E-01	3.5E+01		2.3E+00	
SB-208	N	5	7	10/14/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.40E-01	8.2E+04		6.3E+03	
SB-208	N	5	7	10/14/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.40E-01	8.2E+02		6.3E+01	
SB-208	N	5	7	10/14/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.40E-01	7.4E+01		1.7E+01	
SB-208	N	5	7	10/14/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.40E-01	1.5E+01		3.6E+00	
SB-208	N	5	7	10/14/21	NITRO	Nitrobenzene	98-95-3		U	4.40E-01	2.2E+02		5.1E+01	
SB-208	N	5	7	10/14/21	INORG	Aluminum	7429-90-5	1.00E+04			1.1E+06	9.1E-03	7.7E+04	1.3E-01

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-208	N	5	7	10/14/21	INORG	Antimony	7440-36-0		U	8.40E-01	4.7E+02		3.1E+01	
SB-208	N	5	7	10/14/21	INORG	Arsenic	7440-38-2	5.80E+00			3.0E+01	1.9E-01	6.8E+00	8.5E-01
SB-208	N	5	7	10/14/21	INORG	Barium	7440-39-3	3.80E+01			2.2E+05	1.7E-04	1.5E+04	2.5E-03
SB-208	N	5	7	10/14/21	INORG	Beryllium	7440-41-7	6.20E-01			2.3E+03	2.7E-04	1.6E+02	3.9E-03
SB-208	N	5	7	10/14/21	INORG	Cadmium	7440-43-9		U	2.10E-01	1.0E+02		7.1E+00	
SB-208	N	5	7	10/14/21	INORG	Chromium (total)	7440-47-3	1.70E+01			1.8E+06	9.4E-06	1.2E+05	1.4E-04
SB-208	N	5	7	10/14/21	INORG	Cobalt	7440-48-4	6.40E+00			3.5E+02	1.8E-02	2.3E+01	2.8E-01
SB-208	N	5	7	10/14/21	INORG	Copper	7440-50-8	1.50E+01			4.7E+04	3.2E-04	3.1E+03	4.8E-03
SB-208	N	5	7	10/14/21	INORG	Cyanide (total)	57-12-5		U	3.30E-01	1.5E+02		2.3E+01	
SB-208	N	5	7	10/14/21	INORG	Iron	7439-89-6	3.30E+04			8.2E+05	4.0E-02	5.5E+04	6.0E-01
SB-208	N	5	7	10/14/21	INORG	Lead	7439-92-1	1.10E+01			8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-208	N	5	7	10/14/21	INORG	Manganese	7439-96-5	1.00E+02			2.6E+04	3.8E-03	1.8E+03	5.6E-02
SB-208	N	5	7	10/14/21	INORG	Mercury	7439-97-6		U	1.10E-02	4.1E+01		7.4E+00	
SB-208	N	5	7	10/14/21	INORG	Nickel	7440-02-0	1.20E+01			2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-208	N	5	7	10/14/21	INORG	Selenium	7782-49-2		U	1.50E+00	5.8E+03		3.9E+02	
SB-208	N	5	7	10/14/21	INORG	Silver	7440-22-4		U	1.90E-01	5.8E+03		3.9E+02	
SB-208	N	5	7	10/14/21	INORG	Thallium	7440-28-0		U	1.00E+00	1.2E+01		7.8E-01	
SB-208	N	5	7	10/14/21	INORG	Vanadium	7440-62-2	2.60E+01			5.8E+03	4.5E-03	3.9E+02	6.7E-02
SB-208	N	5	7	10/14/21	INORG	Zinc	7440-66-6	3.30E+01			3.5E+05	9.4E-05	2.3E+04	1.4E-03
SB-208	N	18	20	10/14/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.20E-01	9.3E+03		1.8E+03	
SB-208	N	18	20	10/14/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.20E-01	1.1E+02		2.6E+01	
SB-208	N	18	20	10/14/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.20E-01	1.1E+02		2.6E+01	
SB-208	N	18	20	10/14/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.20E-01	2.6E+02		5.8E+01	
SB-208	N	18	20	10/14/21	SVOC	Acenaphthene	83-32-9		U	2.10E-01	4.5E+04		3.6E+03	
SB-208	N	18	20	10/14/21	SVOC	Acenaphthylene	208-96-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-208	N	18	20	10/14/21	SVOC	Acetophenone	98-86-2		U	4.20E-01	1.2E+05		7.8E+03	
SB-208	N	18	20	10/14/21	SVOC	Aniline	62-53-3		U	4.20E-01	4.0E+03		4.4E+02	
SB-208	N	18	20	10/14/21	SVOC	Anthracene	120-12-7		U	2.10E-01	2.3E+05		1.8E+04	
SB-208	N	18	20	10/14/21	SVOC	Benzidine	92-87-5		U	8.10E-01	1.0E-01		5.3E-03	
SB-208	N	18	20	10/14/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.10E-01	2.1E+02		1.1E+01	
SB-208	N	18	20	10/14/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.10E-01	2.1E+01		1.1E+00	
SB-208	N	18	20	10/14/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.10E-01	2.1E+02		1.1E+01	
SB-208	N	18	20	10/14/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.10E-01	2.3E+04		1.8E+03	
SB-208	N	18	20	10/14/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.10E-01	2.1E+03		1.1E+02	
SB-208	N	18	20	10/14/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-208	N	18	20	10/14/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.20E-01	2.5E+03		1.9E+02	
SB-208	N	18	20	10/14/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.20E-01	1.0E+01		2.3E+00	
SB-208	N	18	20	10/14/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.20E-01	1.6E+03		3.9E+02	
SB-208	N	18	20	10/14/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.20E-01				
SB-208	N	18	20	10/14/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.20E-01	1.2E+04		2.9E+03	
SB-208	N	18	20	10/14/21	SVOC	Carbazole	86-74-8		U	2.10E-01	3.0E+04		2.4E+03	
SB-208	N	18	20	10/14/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.10E-01	8.2E+04		6.3E+03	
SB-208	N	18	20	10/14/21	SVOC	4-Chloroaniline	106-47-8		U	8.10E-01	1.1E+02		2.7E+01	
SB-208	N	18	20	10/14/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.20E-01	6.0E+04		4.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-208	N	18	20	10/14/21	SVOC	2-Chlorophenol	95-57-8		U	4.20E-01	5.8E+03		3.9E+02	
SB-208	N	18	20	10/14/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.20E-01				
SB-208	N	18	20	10/14/21	SVOC	Chrysene	218-01-9		U	2.10E-01	2.1E+04		1.1E+03	
SB-208	N	18	20	10/14/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.10E-01	2.1E+01		1.1E+00	
SB-208	N	18	20	10/14/21	SVOC	Dibenzofuran	132-64-9		U	4.20E-01	1.2E+03		7.8E+01	
SB-208	N	18	20	10/14/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.10E-01	5.1E+01		1.2E+01	
SB-208	N	18	20	10/14/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.20E-01	2.5E+03		1.9E+02	
SB-208	N	18	20	10/14/21	SVOC	Diethylphthalate	84-66-2		U	4.20E-01	6.6E+05		5.1E+04	
SB-208	N	18	20	10/14/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.20E-01	1.6E+04		1.3E+03	
SB-208	N	18	20	10/14/21	SVOC	Dimethylphthalate	131-11-3		U	4.20E-01	6.6E+05		5.1E+04	
SB-208	N	18	20	10/14/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.20E-01	8.2E+04		6.3E+03	
SB-208	N	18	20	10/14/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.20E-01	6.6E+01		5.1E+00	
SB-208	N	18	20	10/14/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.10E-01	1.6E+03		1.3E+02	
SB-208	N	18	20	10/14/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.20E-01	8.2E+03		6.3E+02	
SB-208	N	18	20	10/14/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.20E-01	2.9E+01		6.8E+00	
SB-208	N	18	20	10/14/21	SVOC	Fluoranthene	206-44-0		U	2.10E-01	3.0E+04		2.4E+03	
SB-208	N	18	20	10/14/21	SVOC	Fluorene	86-73-7		U	2.10E-01	3.0E+04		2.4E+03	
SB-208	N	18	20	10/14/21	SVOC	Hexachlorobenzene	118-74-1		U	4.20E-01	9.6E+00		7.8E-01	
SB-208	N	18	20	10/14/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.20E-01	5.3E+01		1.2E+01	
SB-208	N	18	20	10/14/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.20E-01	7.5E+00		1.8E+00	
SB-208	N	18	20	10/14/21	SVOC	Hexachloroethane	67-72-1		U	4.20E-01	8.0E+01		1.8E+01	
SB-208	N	18	20	10/14/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.10E-01	2.1E+02		1.1E+01	
SB-208	N	18	20	10/14/21	SVOC	Isophorone	78-59-1		U	4.20E-01	2.4E+04		5.7E+03	
SB-208	N	18	20	10/14/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.10E-01	7.3E+02		1.8E+02	
SB-208	N	18	20	10/14/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.10E-01	3.0E+03		2.4E+02	
SB-208	N	18	20	10/14/21	SVOC	2-Methylphenol	95-48-7		U	4.20E-01	4.1E+04		3.2E+03	
SB-208	N	18	20	10/14/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.20E-01				
SB-208	N	18	20	10/14/21	SVOC	Naphthalene	91-20-3		U	2.10E-01	8.6E+01		2.0E+01	
SB-208	N	18	20	10/14/21	SVOC	2-Nitroaniline	88-74-4		U	4.20E-01	8.0E+03		6.3E+02	
SB-208	N	18	20	10/14/21	SVOC	3-Nitroaniline	99-09-2		U	4.20E-01	1.1E+03		2.5E+02	
SB-208	N	18	20	10/14/21	SVOC	4-Nitroaniline	100-01-6		U	4.20E-01	1.1E+03		2.5E+02	
SB-208	N	18	20	10/14/21	SVOC	2-Nitrophenol	88-75-5		U	4.20E-01				
SB-208	N	18	20	10/14/21	SVOC	4-Nitrophenol	100-02-7		U	8.10E-01				
SB-208	N	18	20	10/14/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.20E-01	3.4E-01		2.0E-02	
SB-208	N	18	20	10/14/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.20E-01	4.7E+03		1.1E+03	
SB-208	N	18	20	10/14/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.20E-01	3.3E+00		7.8E-01	
SB-208	N	18	20	10/14/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.20E-01	4.7E+04		3.1E+03	
SB-208	N	18	20	10/14/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.20E-01	1.3E+02		2.7E+01	
SB-208	N	18	20	10/14/21	SVOC	Pentachlorophenol	87-86-5		U	4.20E-01	4.0E+01		1.0E+01	
SB-208	N	18	20	10/14/21	SVOC	Phenanthrene	85-01-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-208	N	18	20	10/14/21	SVOC	Phenol	108-95-2		U	4.20E-01	2.5E+05		1.9E+04	
SB-208	N	18	20	10/14/21	SVOC	Pyrene	129-00-0		U	2.10E-01	2.3E+04		1.8E+03	
SB-208	N	18	20	10/14/21	SVOC	Pyridine	110-86-1		U	4.20E-01	1.2E+03		7.8E+01	
SB-208	N	18	20	10/14/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.20E-01	3.5E+01		2.3E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-208	N	18	20	10/14/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.20E-01	8.2E+04		6.3E+03	
SB-208	N	18	20	10/14/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.20E-01	8.2E+02		6.3E+01	
SB-208	N	18	20	10/14/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.20E-01	7.4E+01		1.7E+01	
SB-208	N	18	20	10/14/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.20E-01	1.5E+01		3.6E+00	
SB-208	N	18	20	10/14/21	NITRO	Nitrobenzene	98-95-3		U	4.20E-01	2.2E+02		5.1E+01	
SB-208	N	18	20	10/14/21	INORG	Aluminum	7429-90-5	4.50E+03			1.1E+06	4.1E-03	7.7E+04	5.8E-02
SB-208	N	18	20	10/14/21	INORG	Antimony	7440-36-0		U	8.10E-01	4.7E+02		3.1E+01	
SB-208	N	18	20	10/14/21	INORG	Arsenic	7440-38-2	4.50E+00			3.0E+01	1.5E-01	6.8E+00	6.6E-01
SB-208	N	18	20	10/14/21	INORG	Barium	7440-39-3	3.20E+01			2.2E+05	1.5E-04	1.5E+04	2.1E-03
SB-208	N	18	20	10/14/21	INORG	Beryllium	7440-41-7	5.80E-01			2.3E+03	2.5E-04	1.6E+02	3.6E-03
SB-208	N	18	20	10/14/21	INORG	Cadmium	7440-43-9		U	2.00E-01	1.0E+02		7.1E+00	
SB-208	N	18	20	10/14/21	INORG	Chromium (total)	7440-47-3	1.50E+01			1.8E+06	8.3E-06	1.2E+05	1.3E-04
SB-208	N	18	20	10/14/21	INORG	Cobalt	7440-48-4	9.50E+00			3.5E+02	2.7E-02	2.3E+01	4.1E-01
SB-208	N	18	20	10/14/21	INORG	Copper	7440-50-8	1.20E+01			4.7E+04	2.6E-04	3.1E+03	3.9E-03
SB-208	N	18	20	10/14/21	INORG	Cyanide (total)	57-12-5		U	3.40E-01	1.5E+02		2.3E+01	
SB-208	N	18	20	10/14/21	INORG	Iron	7439-89-6	2.60E+04			8.2E+05	3.2E-02	5.5E+04	4.7E-01
SB-208	N	18	20	10/14/21	INORG	Lead	7439-92-1	5.50E+00			8.0E+02	6.9E-03	2.0E+02	2.8E-02
SB-208	N	18	20	10/14/21	INORG	Manganese	7439-96-5	1.10E+02			2.6E+04	4.2E-03	1.8E+03	6.1E-02
SB-208	N	18	20	10/14/21	INORG	Mercury	7439-97-6		U	1.10E-02	4.1E+01		7.4E+00	
SB-208	N	18	20	10/14/21	INORG	Nickel	7440-02-0	1.20E+01			2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-208	N	18	20	10/14/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-208	N	18	20	10/14/21	INORG	Silver	7440-22-4		U	1.80E-01	5.8E+03		3.9E+02	
SB-208	N	18	20	10/14/21	INORG	Thallium	7440-28-0		U	9.60E-01	1.2E+01		7.8E-01	
SB-208	N	18	20	10/14/21	INORG	Vanadium	7440-62-2	2.80E+01			5.8E+03	4.8E-03	3.9E+02	7.2E-02
SB-208	N	18	20	10/14/21	INORG	Zinc	7440-66-6	2.40E+01			3.5E+05	6.9E-05	2.3E+04	1.0E-03
SB-209	N		1	10/13/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	
SB-209	N		1	10/13/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-209	N		1	10/13/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-209	N		1	10/13/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-209	N		1	10/13/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-209	N		1	10/13/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-209	N		1	10/13/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-209	N		1	10/13/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-209	N		1	10/13/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-209	N		1	10/13/21	SVOC	Benzidine	92-87-5		U	7.70E-01	1.0E-01		5.3E-03	
SB-209	N		1	10/13/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-209	N		1	10/13/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-209	N		1	10/13/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-209	N		1	10/13/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-209	N		1	10/13/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-209	N		1	10/13/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-209	N		1	10/13/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-209	N		1	10/13/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-209	N		1	10/13/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-209	N		1	10/13/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-209	N		1	10/13/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-209	N		1	10/13/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-209	N		1	10/13/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.70E-01	8.2E+04		6.3E+03	
SB-209	N		1	10/13/21	SVOC	4-Chloroaniline	106-47-8		U	7.70E-01	1.1E+02		2.7E+01	
SB-209	N		1	10/13/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-209	N		1	10/13/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-209	N		1	10/13/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-209	N		1	10/13/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-209	N		1	10/13/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-209	N		1	10/13/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-209	N		1	10/13/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-209	N		1	10/13/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-209	N		1	10/13/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-209	N		1	10/13/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-209	N		1	10/13/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-209	N		1	10/13/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-209	N		1	10/13/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-209	N		1	10/13/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.70E-01	1.6E+03		1.3E+02	
SB-209	N		1	10/13/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-209	N		1	10/13/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-209	N		1	10/13/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-209	N		1	10/13/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-209	N		1	10/13/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-209	N		1	10/13/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-209	N		1	10/13/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-209	N		1	10/13/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-209	N		1	10/13/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-209	N		1	10/13/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-209	N		1	10/13/21	SVOC	1-Methylnaphthalene	90-12-0	1.10E-01	J	2.00E-01	7.3E+02	1.5E-04	1.8E+02	6.1E-04
SB-209	N		1	10/13/21	SVOC	2-Methylnaphthalene	91-57-6	1.60E-01	J	2.00E-01	3.0E+03	5.3E-05	2.4E+02	6.7E-04
SB-209	N		1	10/13/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-209	N		1	10/13/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-209	N		1	10/13/21	SVOC	Naphthalene	91-20-3	9.40E-02	J	2.00E-01	8.6E+01	1.1E-03	2.0E+01	4.7E-03
SB-209	N		1	10/13/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-209	N		1	10/13/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-209	N		1	10/13/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-209	N		1	10/13/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-209	N		1	10/13/21	SVOC	4-Nitrophenol	100-02-7		U	7.70E-01				
SB-209	N		1	10/13/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-209	N		1	10/13/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-209	N		1	10/13/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-209	N		1	10/13/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-209	N		1	10/13/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-209	N		1	10/13/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-209	N		1	10/13/21	SVOC	Phenanthrene	85-01-8	1.00E-01	J	2.00E-01	2.3E+04	4.3E-06	1.8E+03	5.6E-05
SB-209	N		1	10/13/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-209	N		1	10/13/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-209	N		1	10/13/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-209	N		1	10/13/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-209	N		1	10/13/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-209	N		1	10/13/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-209	N		1	10/13/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-209	N		1	10/13/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-209	N		1	10/13/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-209	N		1	10/13/21	INORG	Aluminum	7429-90-5	1.30E+04			1.1E+06	1.2E-02	7.7E+04	1.7E-01
SB-209	N		1	10/13/21	INORG	Antimony	7440-36-0		U	7.70E-01	4.7E+02		3.1E+01	
SB-209	N		1	10/13/21	INORG	Arsenic	7440-38-2	4.10E+00			3.0E+01	1.4E-01	6.8E+00	6.0E-01
SB-209	N		1	10/13/21	INORG	Barium	7440-39-3	7.50E+01			2.2E+05	3.4E-04	1.5E+04	5.0E-03
SB-209	N		1	10/13/21	INORG	Beryllium	7440-41-7	8.10E-01			2.3E+03	3.5E-04	1.6E+02	5.1E-03
SB-209	N		1	10/13/21	INORG	Cadmium	7440-43-9		U	1.90E-01	1.0E+02		7.1E+00	
SB-209	N		1	10/13/21	INORG	Chromium (total)	7440-47-3	2.30E+01			1.8E+06	1.3E-05	1.2E+05	1.9E-04
SB-209	N		1	10/13/21	INORG	Cobalt	7440-48-4	1.50E+01			3.5E+02	4.3E-02	2.3E+01	6.5E-01
SB-209	N		1	10/13/21	INORG	Copper	7440-50-8	1.80E+01			4.7E+04	3.8E-04	3.1E+03	5.8E-03
SB-209	N		1	10/13/21	INORG	Cyanide (total)	57-12-5		U	3.90E-01	1.5E+02		2.3E+01	
SB-209	N		1	10/13/21	INORG	Iron	7439-89-6	3.80E+04			8.2E+05	4.6E-02	5.5E+04	6.9E-01
SB-209	N		1	10/13/21	INORG	Lead	7439-92-1	1.90E+01			8.0E+02	2.4E-02	2.0E+02	9.5E-02
SB-209	N		1	10/13/21	INORG	Manganese	7439-96-5	6.00E+02			2.6E+04	2.3E-02	1.8E+03	3.3E-01
SB-209	N		1	10/13/21	INORG	Mercury	7439-97-6	4.00E-02			4.1E+01	9.8E-04	7.4E+00	5.4E-03
SB-209	N		1	10/13/21	INORG	Nickel	7440-02-0	1.30E+01			2.2E+04	5.9E-04	1.5E+03	8.7E-03
SB-209	N		1	10/13/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-209	N		1	10/13/21	INORG	Silver	7440-22-4		U	1.70E-01	5.8E+03		3.9E+02	
SB-209	N		1	10/13/21	INORG	Thallium	7440-28-0		U	9.20E-01	1.2E+01		7.8E-01	
SB-209	N		1	10/13/21	INORG	Vanadium	7440-62-2	4.00E+01			5.8E+03	6.9E-03	3.9E+02	1.0E-01
SB-209	N		1	10/13/21	INORG	Zinc	7440-66-6	5.10E+01			3.5E+05	1.5E-04	2.3E+04	2.2E-03
SB-209	N	5	7	10/13/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.10E-01	9.3E+03		1.8E+03	
SB-209	N	5	7	10/13/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.10E-01	1.1E+02		2.6E+01	
SB-209	N	5	7	10/13/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.10E-01	1.1E+02		2.6E+01	
SB-209	N	5	7	10/13/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.10E-01	2.6E+02		5.8E+01	
SB-209	N	5	7	10/13/21	SVOC	Acenaphthene	83-32-9		U	2.10E-01	4.5E+04		3.6E+03	
SB-209	N	5	7	10/13/21	SVOC	Acenaphthylene	208-96-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-209	N	5	7	10/13/21	SVOC	Acetophenone	98-86-2		U	4.10E-01	1.2E+05		7.8E+03	
SB-209	N	5	7	10/13/21	SVOC	Aniline	62-53-3		U	4.10E-01	4.0E+03		4.4E+02	
SB-209	N	5	7	10/13/21	SVOC	Anthracene	120-12-7		U	2.10E-01	2.3E+05		1.8E+04	
SB-209	N	5	7	10/13/21	SVOC	Benzidine	92-87-5		U	8.00E-01	1.0E-01		5.3E-03	
SB-209	N	5	7	10/13/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.10E-01	2.1E+02		1.1E+01	
SB-209	N	5	7	10/13/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.10E-01	2.1E+01		1.1E+00	
SB-209	N	5	7	10/13/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.10E-01	2.1E+02		1.1E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-209	N	5	7	10/13/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.10E-01	2.3E+04		1.8E+03	
SB-209	N	5	7	10/13/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.10E-01	2.1E+03		1.1E+02	
SB-209	N	5	7	10/13/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-209	N	5	7	10/13/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.10E-01	2.5E+03		1.9E+02	
SB-209	N	5	7	10/13/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.10E-01	1.0E+01		2.3E+00	
SB-209	N	5	7	10/13/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.10E-01	1.6E+03		3.9E+02	
SB-209	N	5	7	10/13/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.10E-01				
SB-209	N	5	7	10/13/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.10E-01	1.2E+04		2.9E+03	
SB-209	N	5	7	10/13/21	SVOC	Carbazole	86-74-8		U	2.10E-01	3.0E+04		2.4E+03	
SB-209	N	5	7	10/13/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.00E-01	8.2E+04		6.3E+03	
SB-209	N	5	7	10/13/21	SVOC	4-Chloroaniline	106-47-8		U	8.00E-01	1.1E+02		2.7E+01	
SB-209	N	5	7	10/13/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.10E-01	6.0E+04		4.8E+03	
SB-209	N	5	7	10/13/21	SVOC	2-Chlorophenol	95-57-8		U	4.10E-01	5.8E+03		3.9E+02	
SB-209	N	5	7	10/13/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.10E-01				
SB-209	N	5	7	10/13/21	SVOC	Chrysene	218-01-9		U	2.10E-01	2.1E+04		1.1E+03	
SB-209	N	5	7	10/13/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.10E-01	2.1E+01		1.1E+00	
SB-209	N	5	7	10/13/21	SVOC	Dibenzofuran	132-64-9		U	4.10E-01	1.2E+03		7.8E+01	
SB-209	N	5	7	10/13/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.10E-01	5.1E+01		1.2E+01	
SB-209	N	5	7	10/13/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.10E-01	2.5E+03		1.9E+02	
SB-209	N	5	7	10/13/21	SVOC	Diethylphthalate	84-66-2		U	4.10E-01	6.6E+05		5.1E+04	
SB-209	N	5	7	10/13/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.10E-01	1.6E+04		1.3E+03	
SB-209	N	5	7	10/13/21	SVOC	Dimethylphthalate	131-11-3		U	4.10E-01	6.6E+05		5.1E+04	
SB-209	N	5	7	10/13/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.10E-01	8.2E+04		6.3E+03	
SB-209	N	5	7	10/13/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.10E-01	6.6E+01		5.1E+00	
SB-209	N	5	7	10/13/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.00E-01	1.6E+03		1.3E+02	
SB-209	N	5	7	10/13/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.10E-01	8.2E+03		6.3E+02	
SB-209	N	5	7	10/13/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.10E-01	2.9E+01		6.8E+00	
SB-209	N	5	7	10/13/21	SVOC	Fluoranthene	206-44-0		U	2.10E-01	3.0E+04		2.4E+03	
SB-209	N	5	7	10/13/21	SVOC	Fluorene	86-73-7		U	2.10E-01	3.0E+04		2.4E+03	
SB-209	N	5	7	10/13/21	SVOC	Hexachlorobenzene	118-74-1		U	4.10E-01	9.6E+00		7.8E-01	
SB-209	N	5	7	10/13/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.10E-01	5.3E+01		1.2E+01	
SB-209	N	5	7	10/13/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.10E-01	7.5E+00		1.8E+00	
SB-209	N	5	7	10/13/21	SVOC	Hexachloroethane	67-72-1		U	4.10E-01	8.0E+01		1.8E+01	
SB-209	N	5	7	10/13/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.10E-01	2.1E+02		1.1E+01	
SB-209	N	5	7	10/13/21	SVOC	Isophorone	78-59-1		U	4.10E-01	2.4E+04		5.7E+03	
SB-209	N	5	7	10/13/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.10E-01	7.3E+02		1.8E+02	
SB-209	N	5	7	10/13/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.10E-01	3.0E+03		2.4E+02	
SB-209	N	5	7	10/13/21	SVOC	2-Methylphenol	95-48-7		U	4.10E-01	4.1E+04		3.2E+03	
SB-209	N	5	7	10/13/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.10E-01				
SB-209	N	5	7	10/13/21	SVOC	Naphthalene	91-20-3		U	2.10E-01	8.6E+01		2.0E+01	
SB-209	N	5	7	10/13/21	SVOC	2-Nitroaniline	88-74-4		U	4.10E-01	8.0E+03		6.3E+02	
SB-209	N	5	7	10/13/21	SVOC	3-Nitroaniline	99-09-2		U	4.10E-01	1.1E+03		2.5E+02	
SB-209	N	5	7	10/13/21	SVOC	4-Nitroaniline	100-01-6		U	4.10E-01	1.1E+03		2.5E+02	
SB-209	N	5	7	10/13/21	SVOC	2-Nitrophenol	88-75-5		U	4.10E-01				

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-209	N	5	7	10/13/21	SVOC	4-Nitrophenol	100-02-7		U	8.00E-01				
SB-209	N	5	7	10/13/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.10E-01	3.4E-01		2.0E-02	
SB-209	N	5	7	10/13/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.10E-01	4.7E+03		1.1E+03	
SB-209	N	5	7	10/13/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.10E-01	3.3E+00		7.8E-01	
SB-209	N	5	7	10/13/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.10E-01	4.7E+04		3.1E+03	
SB-209	N	5	7	10/13/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.10E-01	1.3E+02		2.7E+01	
SB-209	N	5	7	10/13/21	SVOC	Pentachlorophenol	87-86-5		U	4.10E-01	4.0E+01		1.0E+01	
SB-209	N	5	7	10/13/21	SVOC	Phenanthrene	85-01-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-209	N	5	7	10/13/21	SVOC	Phenol	108-95-2		U	4.10E-01	2.5E+05		1.9E+04	
SB-209	N	5	7	10/13/21	SVOC	Pyrene	129-00-0		U	2.10E-01	2.3E+04		1.8E+03	
SB-209	N	5	7	10/13/21	SVOC	Pyridine	110-86-1		U	4.10E-01	1.2E+03		7.8E+01	
SB-209	N	5	7	10/13/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.10E-01	3.5E+01		2.3E+00	
SB-209	N	5	7	10/13/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.10E-01	8.2E+04		6.3E+03	
SB-209	N	5	7	10/13/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.10E-01	8.2E+02		6.3E+01	
SB-209	N	5	7	10/13/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.10E-01	7.4E+01		1.7E+01	
SB-209	N	5	7	10/13/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.10E-01	1.5E+01		3.6E+00	
SB-209	N	5	7	10/13/21	NITRO	Nitrobenzene	98-95-3		U	4.10E-01	2.2E+02		5.1E+01	
SB-209	N	5	7	10/13/21	INORG	Aluminum	7429-90-5	1.30E+04			1.1E+06	1.2E-02	7.7E+04	1.7E-01
SB-209	N	5	7	10/13/21	INORG	Antimony	7440-36-0		U	8.10E-01	4.7E+02		3.1E+01	
SB-209	N	5	7	10/13/21	INORG	Arsenic	7440-38-2	4.50E+00			3.0E+01	1.5E-01	6.8E+00	6.6E-01
SB-209	N	5	7	10/13/21	INORG	Barium	7440-39-3	4.60E+01			2.2E+05	2.1E-04	1.5E+04	3.1E-03
SB-209	N	5	7	10/13/21	INORG	Beryllium	7440-41-7	6.60E-01			2.3E+03	2.9E-04	1.6E+02	4.1E-03
SB-209	N	5	7	10/13/21	INORG	Cadmium	7440-43-9		U	2.00E-01	1.0E+02		7.1E+00	
SB-209	N	5	7	10/13/21	INORG	Chromium (total)	7440-47-3	1.70E+01			1.8E+06	9.4E-06	1.2E+05	1.4E-04
SB-209	N	5	7	10/13/21	INORG	Cobalt	7440-48-4	5.50E+00			3.5E+02	1.6E-02	2.3E+01	2.4E-01
SB-209	N	5	7	10/13/21	INORG	Copper	7440-50-8	1.60E+01			4.7E+04	3.4E-04	3.1E+03	5.2E-03
SB-209	N	5	7	10/13/21	INORG	Cyanide (total)	57-12-5	1.40E+00			1.5E+02	9.3E-03	2.3E+01	6.1E-02
SB-209	N	5	7	10/13/21	INORG	Iron	7439-89-6	3.20E+04			8.2E+05	3.9E-02	5.5E+04	5.8E-01
SB-209	N	5	7	10/13/21	INORG	Lead	7439-92-1	1.10E+01			8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-209	N	5	7	10/13/21	INORG	Manganese	7439-96-5	5.30E+01			2.6E+04	2.0E-03	1.8E+03	2.9E-02
SB-209	N	5	7	10/13/21	INORG	Mercury	7439-97-6	7.90E-02			4.1E+01	1.9E-03	7.4E+00	1.1E-02
SB-209	N	5	7	10/13/21	INORG	Nickel	7440-02-0	1.60E+01			2.2E+04	7.3E-04	1.5E+03	1.1E-02
SB-209	N	5	7	10/13/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-209	N	5	7	10/13/21	INORG	Silver	7440-22-4		U	1.80E-01	5.8E+03		3.9E+02	
SB-209	N	5	7	10/13/21	INORG	Thallium	7440-28-0		U	9.60E-01	1.2E+01		7.8E-01	
SB-209	N	5	7	10/13/21	INORG	Vanadium	7440-62-2	3.10E+01			5.8E+03	5.3E-03	3.9E+02	7.9E-02
SB-209	N	5	7	10/13/21	INORG	Zinc	7440-66-6	4.10E+01			3.5E+05	1.2E-04	2.3E+04	1.8E-03
SB-209	N	15	17	10/13/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	
SB-209	N	15	17	10/13/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-209	N	15	17	10/13/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-209	N	15	17	10/13/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-209	N	15	17	10/13/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-209	N	15	17	10/13/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-209	N	15	17	10/13/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-209	N	15	17	10/13/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-209	N	15	17	10/13/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-209	N	15	17	10/13/21	SVOC	Benzidine	92-87-5		U	7.80E-01	1.0E-01		5.3E-03	
SB-209	N	15	17	10/13/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-209	N	15	17	10/13/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-209	N	15	17	10/13/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-209	N	15	17	10/13/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-209	N	15	17	10/13/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-209	N	15	17	10/13/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-209	N	15	17	10/13/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-209	N	15	17	10/13/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-209	N	15	17	10/13/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-209	N	15	17	10/13/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-209	N	15	17	10/13/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-209	N	15	17	10/13/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-209	N	15	17	10/13/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.80E-01	8.2E+04		6.3E+03	
SB-209	N	15	17	10/13/21	SVOC	4-Chloroaniline	106-47-8		U	7.80E-01	1.1E+02		2.7E+01	
SB-209	N	15	17	10/13/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-209	N	15	17	10/13/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-209	N	15	17	10/13/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-209	N	15	17	10/13/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-209	N	15	17	10/13/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-209	N	15	17	10/13/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-209	N	15	17	10/13/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-209	N	15	17	10/13/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-209	N	15	17	10/13/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-209	N	15	17	10/13/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-209	N	15	17	10/13/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-209	N	15	17	10/13/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-209	N	15	17	10/13/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-209	N	15	17	10/13/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.80E-01	1.6E+03		1.3E+02	
SB-209	N	15	17	10/13/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-209	N	15	17	10/13/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-209	N	15	17	10/13/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-209	N	15	17	10/13/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-209	N	15	17	10/13/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-209	N	15	17	10/13/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-209	N	15	17	10/13/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-209	N	15	17	10/13/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-209	N	15	17	10/13/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-209	N	15	17	10/13/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-209	N	15	17	10/13/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-209	N	15	17	10/13/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-209	N	15	17	10/13/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-209	N	15	17	10/13/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-209	N	15	17	10/13/21	SVOC	Naphthalene	91-20-3		U	2.00E-01	8.6E+01		2.0E+01	
SB-209	N	15	17	10/13/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-209	N	15	17	10/13/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-209	N	15	17	10/13/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-209	N	15	17	10/13/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-209	N	15	17	10/13/21	SVOC	4-Nitrophenol	100-02-7		U	7.80E-01				
SB-209	N	15	17	10/13/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-209	N	15	17	10/13/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-209	N	15	17	10/13/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-209	N	15	17	10/13/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-209	N	15	17	10/13/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-209	N	15	17	10/13/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-209	N	15	17	10/13/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-209	N	15	17	10/13/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-209	N	15	17	10/13/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-209	N	15	17	10/13/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-209	N	15	17	10/13/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-209	N	15	17	10/13/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-209	N	15	17	10/13/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-209	N	15	17	10/13/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-209	N	15	17	10/13/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-209	N	15	17	10/13/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-209	N	15	17	10/13/21	INORG	Aluminum	7429-90-5	8.90E+03			1.1E+06	8.1E-03	7.7E+04	1.2E-01
SB-209	N	15	17	10/13/21	INORG	Antimony	7440-36-0		U	7.80E-01	4.7E+02		3.1E+01	
SB-209	N	15	17	10/13/21	INORG	Arsenic	7440-38-2	6.30E+00			3.0E+01	2.1E-01	6.8E+00	9.3E-01
SB-209	N	15	17	10/13/21	INORG	Barium	7440-39-3	3.00E+01			2.2E+05	1.4E-04	1.5E+04	2.0E-03
SB-209	N	15	17	10/13/21	INORG	Beryllium	7440-41-7	6.80E-01			2.3E+03	3.0E-04	1.6E+02	4.3E-03
SB-209	N	15	17	10/13/21	INORG	Cadmium	7440-43-9		U	2.00E-01	1.0E+02		7.1E+00	
SB-209	N	15	17	10/13/21	INORG	Chromium (total)	7440-47-3	1.90E+01			1.8E+06	1.1E-05	1.2E+05	1.6E-04
SB-209	N	15	17	10/13/21	INORG	Cobalt	7440-48-4	5.50E+00			3.5E+02	1.6E-02	2.3E+01	2.4E-01
SB-209	N	15	17	10/13/21	INORG	Copper	7440-50-8	1.40E+01			4.7E+04	3.0E-04	3.1E+03	4.5E-03
SB-209	N	15	17	10/13/21	INORG	Cyanide (total)	57-12-5		U	3.70E-01	1.5E+02		2.3E+01	
SB-209	N	15	17	10/13/21	INORG	Iron	7439-89-6	2.80E+04			8.2E+05	3.4E-02	5.5E+04	5.1E-01
SB-209	N	15	17	10/13/21	INORG	Lead	7439-92-1	9.30E+00			8.0E+02	1.2E-02	2.0E+02	4.7E-02
SB-209	N	15	17	10/13/21	INORG	Manganese	7439-96-5	6.70E+01			2.6E+04	2.6E-03	1.8E+03	3.7E-02
SB-209	N	15	17	10/13/21	INORG	Mercury	7439-97-6		U	1.00E-02	4.1E+01		7.4E+00	
SB-209	N	15	17	10/13/21	INORG	Nickel	7440-02-0	1.10E+01			2.2E+04	5.0E-04	1.5E+03	7.3E-03
SB-209	N	15	17	10/13/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-209	N	15	17	10/13/21	INORG	Silver	7440-22-4		U	1.80E-01	5.8E+03		3.9E+02	
SB-209	N	15	17	10/13/21	INORG	Thallium	7440-28-0		U	9.20E-01	1.2E+01		7.8E-01	
SB-209	N	15	17	10/13/21	INORG	Vanadium	7440-62-2	2.40E+01			5.8E+03	4.1E-03	3.9E+02	6.2E-02
SB-209	N	15	17	10/13/21	INORG	Zinc	7440-66-6	3.50E+01			3.5E+05	1.0E-04	2.3E+04	1.5E-03
SB-210	N		1	10/28/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-210	N		1	10/28/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-210	N		1	10/28/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-210	N		1	10/28/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-210	N		1	10/28/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-210	N		1	10/28/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-210	N		1	10/28/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-210	N		1	10/28/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-210	N		1	10/28/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-210	N		1	10/28/21	SVOC	Benzidine	92-87-5		U	7.70E-01	1.0E-01		5.3E-03	
SB-210	N		1	10/28/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-210	N		1	10/28/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-210	N		1	10/28/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-210	N		1	10/28/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-210	N		1	10/28/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-210	N		1	10/28/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-210	N		1	10/28/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-210	N		1	10/28/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-210	N		1	10/28/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-210	N		1	10/28/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-210	N		1	10/28/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-210	N		1	10/28/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-210	N		1	10/28/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.70E-01	8.2E+04		6.3E+03	
SB-210	N		1	10/28/21	SVOC	4-Chloroaniline	106-47-8		U	7.70E-01	1.1E+02		2.7E+01	
SB-210	N		1	10/28/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-210	N		1	10/28/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-210	N		1	10/28/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-210	N		1	10/28/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-210	N		1	10/28/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-210	N		1	10/28/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-210	N		1	10/28/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-210	N		1	10/28/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-210	N		1	10/28/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-210	N		1	10/28/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-210	N		1	10/28/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-210	N		1	10/28/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-210	N		1	10/28/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-210	N		1	10/28/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.70E-01	1.6E+03		1.3E+02	
SB-210	N		1	10/28/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-210	N		1	10/28/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-210	N		1	10/28/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-210	N		1	10/28/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-210	N		1	10/28/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-210	N		1	10/28/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-210	N		1	10/28/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-210	N		1	10/28/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-210	N		1	10/28/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-210	N		1	10/28/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-210	N		1	10/28/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-210	N		1	10/28/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-210	N		1	10/28/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-210	N		1	10/28/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-210	N		1	10/28/21	SVOC	Naphthalene	91-20-3		U	2.00E-01	8.6E+01		2.0E+01	
SB-210	N		1	10/28/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-210	N		1	10/28/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-210	N		1	10/28/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-210	N		1	10/28/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-210	N		1	10/28/21	SVOC	4-Nitrophenol	100-02-7		U	7.70E-01				
SB-210	N		1	10/28/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-210	N		1	10/28/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-210	N		1	10/28/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-210	N		1	10/28/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-210	N		1	10/28/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-210	N		1	10/28/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-210	N		1	10/28/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-210	N		1	10/28/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-210	N		1	10/28/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-210	N		1	10/28/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-210	N		1	10/28/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-210	N		1	10/28/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-210	N		1	10/28/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-210	N		1	10/28/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-210	N		1	10/28/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-210	N		1	10/28/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-210	N		1	10/28/21	INORG	Aluminum	7429-90-5	1.30E+04		1.90E+01	1.1E+06	1.2E-02	7.7E+04	1.7E-01
SB-210	N		1	10/28/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-210	N		1	10/28/21	INORG	Arsenic	7440-38-2	3.00E+00	J	3.90E+00	3.0E+01	1.0E-01	6.8E+00	4.4E-01
SB-210	N		1	10/28/21	INORG	Barium	7440-39-3	7.80E+01		1.90E+00	2.2E+05	3.5E-04	1.5E+04	5.2E-03
SB-210	N		1	10/28/21	INORG	Beryllium	7440-41-7	8.80E-01		1.90E-01	2.3E+03	3.8E-04	1.6E+02	5.5E-03
SB-210	N		1	10/28/21	INORG	Cadmium	7440-43-9		U	3.90E-01	1.0E+02		7.1E+00	
SB-210	N		1	10/28/21	INORG	Chromium (total)	7440-47-3	2.60E+01		7.70E-01	1.8E+06	1.4E-05	1.2E+05	2.2E-04
SB-210	N		1	10/28/21	INORG	Cobalt	7440-48-4	1.30E+01		1.90E+00	3.5E+02	3.7E-02	2.3E+01	5.7E-01
SB-210	N		1	10/28/21	INORG	Copper	7440-50-8	2.50E+01		7.70E-01	4.7E+04	5.3E-04	3.1E+03	8.1E-03
SB-210	N		1	10/28/21	INORG	Cyanide (total)	57-12-5		U	5.80E-01	1.5E+02		2.3E+01	
SB-210	N		1	10/28/21	INORG	Iron	7439-89-6	2.80E+04		1.90E+02	8.2E+05	3.4E-02	5.5E+04	5.1E-01
SB-210	N		1	10/28/21	INORG	Lead	7439-92-1	1.60E+01		5.80E-01	8.0E+02	2.0E-02	2.0E+02	8.0E-02
SB-210	N		1	10/28/21	INORG	Manganese	7439-96-5	6.30E+02		3.90E-01	2.6E+04	2.4E-02	1.8E+03	3.5E-01
SB-210	N		1	10/28/21	INORG	Mercury	7439-97-6	1.50E-02	J	3.10E-02	4.1E+01	3.7E-04	7.4E+00	2.0E-03
SB-210	N		1	10/28/21	INORG	Nickel	7440-02-0	1.10E+01		7.70E-01	2.2E+04	5.0E-04	1.5E+03	7.3E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-210	N		1	10/28/21	INORG	Selenium	7782-49-2		U	3.90E+00	5.8E+03		3.9E+02	
SB-210	N		1	10/28/21	INORG	Silver	7440-22-4		U	3.90E-01	5.8E+03		3.9E+02	
SB-210	N		1	10/28/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-210	N		1	10/28/21	INORG	Vanadium	7440-62-2	5.40E+01		7.70E-01	5.8E+03	9.3E-03	3.9E+02	1.4E-01
SB-210	N		1	10/28/21	INORG	Zinc	7440-66-6	3.70E+01		7.70E-01	3.5E+05	1.1E-04	2.3E+04	1.6E-03
SB-211	N		1	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.80E-01	9.3E+03		1.8E+03	
SB-211	N		1	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.80E-01	1.1E+02		2.6E+01	
SB-211	N		1	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.80E-01	1.1E+02		2.6E+01	
SB-211	N		1	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.80E-01	2.6E+02		5.8E+01	
SB-211	N		1	10/15/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-211	N		1	10/15/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-211	N		1	10/15/21	SVOC	Acetophenone	98-86-2		U	3.80E-01	1.2E+05		7.8E+03	
SB-211	N		1	10/15/21	SVOC	Aniline	62-53-3		U	3.80E-01	4.0E+03		4.4E+02	
SB-211	N		1	10/15/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-211	N		1	10/15/21	SVOC	Benzidine	92-87-5		U	7.40E-01	1.0E-01		5.3E-03	
SB-211	N		1	10/15/21	SVOC	Benzo(a)anthracene	56-55-3	7.00E-02	J	1.90E-01	2.1E+02	3.3E-04	1.1E+01	6.4E-03
SB-211	N		1	10/15/21	SVOC	Benzo(a)pyrene	50-32-8	6.50E-02	J	1.90E-01	2.1E+01	3.1E-03	1.1E+00	5.9E-02
SB-211	N		1	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2	9.10E-02	J	1.90E-01	2.1E+02	4.3E-04	1.1E+01	8.3E-03
SB-211	N		1	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-211	N		1	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-211	N		1	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-211	N		1	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.80E-01	2.5E+03		1.9E+02	
SB-211	N		1	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.80E-01	1.0E+01		2.3E+00	
SB-211	N		1	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.80E-01	1.6E+03		3.9E+02	
SB-211	N		1	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.80E-01				
SB-211	N		1	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.80E-01	1.2E+04		2.9E+03	
SB-211	N		1	10/15/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-211	N		1	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.40E-01	8.2E+04		6.3E+03	
SB-211	N		1	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.40E-01	1.1E+02		2.7E+01	
SB-211	N		1	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.80E-01	6.0E+04		4.8E+03	
SB-211	N		1	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	3.80E-01	5.8E+03		3.9E+02	
SB-211	N		1	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.80E-01				
SB-211	N		1	10/15/21	SVOC	Chrysene	218-01-9	1.00E-01	J	1.90E-01	2.1E+04	4.8E-06	1.1E+03	9.1E-05
SB-211	N		1	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-211	N		1	10/15/21	SVOC	Dibenzofuran	132-64-9	1.00E-01	J	3.80E-01	1.2E+03	8.3E-05	7.8E+01	1.3E-03
SB-211	N		1	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-211	N		1	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.80E-01	2.5E+03		1.9E+02	
SB-211	N		1	10/15/21	SVOC	Diethylphthalate	84-66-2		U	3.80E-01	6.6E+05		5.1E+04	
SB-211	N		1	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.80E-01	1.6E+04		1.3E+03	
SB-211	N		1	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	3.80E-01	6.6E+05		5.1E+04	
SB-211	N		1	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.80E-01	8.2E+04		6.3E+03	
SB-211	N		1	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.80E-01	6.6E+01		5.1E+00	
SB-211	N		1	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.40E-01	1.6E+03		1.3E+02	
SB-211	N		1	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.80E-01	8.2E+03		6.3E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-211	N		1	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.80E-01	2.9E+01		6.8E+00	
SB-211	N		1	10/15/21	SVOC	Fluoranthene	206-44-0	1.60E-01	J	1.90E-01	3.0E+04	5.3E-06	2.4E+03	6.7E-05
SB-211	N		1	10/15/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-211	N		1	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	3.80E-01	9.6E+00		7.8E-01	
SB-211	N		1	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.80E-01	5.3E+01		1.2E+01	
SB-211	N		1	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.80E-01	7.5E+00		1.8E+00	
SB-211	N		1	10/15/21	SVOC	Hexachloroethane	67-72-1		U	3.80E-01	8.0E+01		1.8E+01	
SB-211	N		1	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-211	N		1	10/15/21	SVOC	Isophorone	78-59-1		U	3.80E-01	2.4E+04		5.7E+03	
SB-211	N		1	10/15/21	SVOC	1-Methylnaphthalene	90-12-0	3.00E-01		1.90E-01	7.3E+02	4.1E-04	1.8E+02	1.7E-03
SB-211	N		1	10/15/21	SVOC	2-Methylnaphthalene	91-57-6	5.00E-01		1.90E-01	3.0E+03	1.7E-04	2.4E+02	2.1E-03
SB-211	N		1	10/15/21	SVOC	2-Methylphenol	95-48-7		U	3.80E-01	4.1E+04		3.2E+03	
SB-211	N		1	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.80E-01				
SB-211	N		1	10/15/21	SVOC	Naphthalene	91-20-3	2.90E-01		1.90E-01	8.6E+01	3.4E-03	2.0E+01	1.5E-02
SB-211	N		1	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	3.80E-01	8.0E+03		6.3E+02	
SB-211	N		1	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	3.80E-01	1.1E+03		2.5E+02	
SB-211	N		1	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	3.80E-01	1.1E+03		2.5E+02	
SB-211	N		1	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	3.80E-01				
SB-211	N		1	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.40E-01				
SB-211	N		1	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.80E-01	3.4E-01		2.0E-02	
SB-211	N		1	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.80E-01	4.7E+03		1.1E+03	
SB-211	N		1	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.80E-01	3.3E+00		7.8E-01	
SB-211	N		1	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.80E-01	4.7E+04		3.1E+03	
SB-211	N		1	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.80E-01	1.3E+02		2.7E+01	
SB-211	N		1	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	3.80E-01	4.0E+01		1.0E+01	
SB-211	N		1	10/15/21	SVOC	Phenanthrene	85-01-8	3.10E-01		1.90E-01	2.3E+04	1.3E-05	1.8E+03	1.7E-04
SB-211	N		1	10/15/21	SVOC	Phenol	108-95-2		U	3.80E-01	2.5E+05		1.9E+04	
SB-211	N		1	10/15/21	SVOC	Pyrene	129-00-0	1.60E-01	J	1.90E-01	2.3E+04	7.0E-06	1.8E+03	8.9E-05
SB-211	N		1	10/15/21	SVOC	Pyridine	110-86-1		U	3.80E-01	1.2E+03		7.8E+01	
SB-211	N		1	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.80E-01	3.5E+01		2.3E+00	
SB-211	N		1	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.80E-01	8.2E+04		6.3E+03	
SB-211	N		1	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.80E-01	8.2E+02		6.3E+01	
SB-211	N		1	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.80E-01	7.4E+01		1.7E+01	
SB-211	N		1	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.80E-01	1.5E+01		3.6E+00	
SB-211	N		1	10/15/21	NITRO	Nitrobenzene	98-95-3		U	3.80E-01	2.2E+02		5.1E+01	
SB-211	N		1	10/15/21	INORG	Aluminum	7429-90-5	7.70E+03			1.1E+06	7.0E-03	7.7E+04	1.0E-01
SB-211	N		1	10/15/21	INORG	Antimony	7440-36-0		U	7.40E-01	4.7E+02		3.1E+01	
SB-211	N		1	10/15/21	INORG	Arsenic	7440-38-2	6.50E+00			3.0E+01	2.2E-01	6.8E+00	9.6E-01
SB-211	N		1	10/15/21	INORG	Barium	7440-39-3	6.40E+01			2.2E+05	2.9E-04	1.5E+04	4.3E-03
SB-211	N		1	10/15/21	INORG	Beryllium	7440-41-7	6.70E-01			2.3E+03	2.9E-04	1.6E+02	4.2E-03
SB-211	N		1	10/15/21	INORG	Cadmium	7440-43-9		U	1.90E-01	1.0E+02		7.1E+00	
SB-211	N		1	10/15/21	INORG	Chromium (total)	7440-47-3	1.40E+01			1.8E+06	7.8E-06	1.2E+05	1.2E-04
SB-211	N		1	10/15/21	INORG	Cobalt	7440-48-4	1.10E+01			3.5E+02	3.1E-02	2.3E+01	4.8E-01
SB-211	N		1	10/15/21	INORG	Copper	7440-50-8	1.50E+01			4.7E+04	3.2E-04	3.1E+03	4.8E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-211	N		1	10/15/21	INORG	Cyanide (total)	57-12-5		U	3.30E-01	1.5E+02		2.3E+01	
SB-211	N		1	10/15/21	INORG	Iron	7439-89-6	2.50E+04			8.2E+05	3.0E-02	5.5E+04	4.5E-01
SB-211	N		1	10/15/21	INORG	Lead	7439-92-1	1.80E+01			8.0E+02	2.3E-02	2.0E+02	9.0E-02
SB-211	N		1	10/15/21	INORG	Manganese	7439-96-5	2.10E+02			2.6E+04	8.1E-03	1.8E+03	1.2E-01
SB-211	N		1	10/15/21	INORG	Mercury	7439-97-6	4.30E-02			4.1E+01	1.1E-03	7.4E+00	5.8E-03
SB-211	N		1	10/15/21	INORG	Nickel	7440-02-0	1.20E+01			2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-211	N		1	10/15/21	INORG	Selenium	7782-49-2		U	1.30E+00	5.8E+03		3.9E+02	
SB-211	N		1	10/15/21	INORG	Silver	7440-22-4		U	1.70E-01	5.8E+03		3.9E+02	
SB-211	N		1	10/15/21	INORG	Thallium	7440-28-0		U	8.70E-01	1.2E+01		7.8E-01	
SB-211	N		1	10/15/21	INORG	Vanadium	7440-62-2	2.40E+01			5.8E+03	4.1E-03	3.9E+02	6.2E-02
SB-211	N		1	10/15/21	INORG	Zinc	7440-66-6	3.70E+01			3.5E+05	1.1E-04	2.3E+04	1.6E-03
SB-211	N	5	7	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	
SB-211	N	5	7	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-211	N	5	7	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-211	N	5	7	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-211	N	5	7	10/15/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-211	N	5	7	10/15/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-211	N	5	7	10/15/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-211	N	5	7	10/15/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-211	N	5	7	10/15/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-211	N	5	7	10/15/21	SVOC	Benzidine	92-87-5		U	7.80E-01	1.0E-01		5.3E-03	
SB-211	N	5	7	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-211	N	5	7	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-211	N	5	7	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-211	N	5	7	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-211	N	5	7	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-211	N	5	7	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-211	N	5	7	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-211	N	5	7	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-211	N	5	7	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-211	N	5	7	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-211	N	5	7	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-211	N	5	7	10/15/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-211	N	5	7	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.80E-01	8.2E+04		6.3E+03	
SB-211	N	5	7	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.80E-01	1.1E+02		2.7E+01	
SB-211	N	5	7	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-211	N	5	7	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-211	N	5	7	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-211	N	5	7	10/15/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-211	N	5	7	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-211	N	5	7	10/15/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-211	N	5	7	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-211	N	5	7	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-211	N	5	7	10/15/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-211	N	5	7	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-211	N	5	7	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-211	N	5	7	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-211	N	5	7	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-211	N	5	7	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.80E-01	1.6E+03		1.3E+02	
SB-211	N	5	7	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-211	N	5	7	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-211	N	5	7	10/15/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-211	N	5	7	10/15/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-211	N	5	7	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-211	N	5	7	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-211	N	5	7	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-211	N	5	7	10/15/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-211	N	5	7	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-211	N	5	7	10/15/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-211	N	5	7	10/15/21	SVOC	1-Methylnaphthalene	90-12-0	1.10E-01	J	2.00E-01	7.3E+02	1.5E-04	1.8E+02	6.1E-04
SB-211	N	5	7	10/15/21	SVOC	2-Methylnaphthalene	91-57-6	2.00E-01		2.00E-01	3.0E+03	6.7E-05	2.4E+02	8.3E-04
SB-211	N	5	7	10/15/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-211	N	5	7	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-211	N	5	7	10/15/21	SVOC	Naphthalene	91-20-3	1.30E-01	J	2.00E-01	8.6E+01	1.5E-03	2.0E+01	6.5E-03
SB-211	N	5	7	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-211	N	5	7	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-211	N	5	7	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-211	N	5	7	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-211	N	5	7	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.80E-01				
SB-211	N	5	7	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-211	N	5	7	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-211	N	5	7	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-211	N	5	7	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-211	N	5	7	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-211	N	5	7	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-211	N	5	7	10/15/21	SVOC	Phenanthrene	85-01-8	7.70E-02	J	2.00E-01	2.3E+04	3.3E-06	1.8E+03	4.3E-05
SB-211	N	5	7	10/15/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-211	N	5	7	10/15/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-211	N	5	7	10/15/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-211	N	5	7	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-211	N	5	7	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-211	N	5	7	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-211	N	5	7	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-211	N	5	7	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-211	N	5	7	10/15/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-211	N	5	7	10/15/21	INORG	Aluminum	7429-90-5	8.60E+03			1.1E+06	7.8E-03	7.7E+04	1.1E-01
SB-211	N	5	7	10/15/21	INORG	Antimony	7440-36-0		U	7.70E-01	4.7E+02		3.1E+01	
SB-211	N	5	7	10/15/21	INORG	Arsenic	7440-38-2	7.50E+00			3.0E+01	2.5E-01	6.8E+00	1.1E+00

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-211	N	5	7	10/15/21	INORG	Barium	7440-39-3	6.80E+01			2.2E+05	3.1E-04	1.5E+04	4.5E-03
SB-211	N	5	7	10/15/21	INORG	Beryllium	7440-41-7	7.50E-01			2.3E+03	3.3E-04	1.6E+02	4.7E-03
SB-211	N	5	7	10/15/21	INORG	Cadmium	7440-43-9		U	1.90E-01	1.0E+02		7.1E+00	
SB-211	N	5	7	10/15/21	INORG	Chromium (total)	7440-47-3	1.50E+01			1.8E+06	8.3E-06	1.2E+05	1.3E-04
SB-211	N	5	7	10/15/21	INORG	Cobalt	7440-48-4	1.20E+01			3.5E+02	3.4E-02	2.3E+01	5.2E-01
SB-211	N	5	7	10/15/21	INORG	Copper	7440-50-8	2.30E+01			4.7E+04	4.9E-04	3.1E+03	7.4E-03
SB-211	N	5	7	10/15/21	INORG	Cyanide (total)	57-12-5		U	3.00E-01	1.5E+02		2.3E+01	
SB-211	N	5	7	10/15/21	INORG	Iron	7439-89-6	3.20E+04			8.2E+05	3.9E-02	5.5E+04	5.8E-01
SB-211	N	5	7	10/15/21	INORG	Lead	7439-92-1	2.20E+01			8.0E+02	2.8E-02	2.0E+02	1.1E-01
SB-211	N	5	7	10/15/21	INORG	Manganese	7439-96-5	1.90E+02			2.6E+04	7.3E-03	1.8E+03	1.1E-01
SB-211	N	5	7	10/15/21	INORG	Mercury	7439-97-6	4.80E-02			4.1E+01	1.2E-03	7.4E+00	6.5E-03
SB-211	N	5	7	10/15/21	INORG	Nickel	7440-02-0	1.70E+01			2.2E+04	7.7E-04	1.5E+03	1.1E-02
SB-211	N	5	7	10/15/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-211	N	5	7	10/15/21	INORG	Silver	7440-22-4		U	1.70E-01	5.8E+03		3.9E+02	
SB-211	N	5	7	10/15/21	INORG	Thallium	7440-28-0		U	9.20E-01	1.2E+01		7.8E-01	
SB-211	N	5	7	10/15/21	INORG	Vanadium	7440-62-2	2.70E+01			5.8E+03	4.7E-03	3.9E+02	6.9E-02
SB-211	N	5	7	10/15/21	INORG	Zinc	7440-66-6	5.90E+01			3.5E+05	1.7E-04	2.3E+04	2.6E-03
SB-211	N	15	17	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.70E-01	9.3E+03		1.8E+03	
SB-211	N	15	17	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.70E-01	1.1E+02		2.6E+01	
SB-211	N	15	17	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.70E-01	1.1E+02		2.6E+01	
SB-211	N	15	17	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.70E-01	2.6E+02		5.8E+01	
SB-211	N	15	17	10/15/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-211	N	15	17	10/15/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-211	N	15	17	10/15/21	SVOC	Acetophenone	98-86-2		U	3.70E-01	1.2E+05		7.8E+03	
SB-211	N	15	17	10/15/21	SVOC	Aniline	62-53-3		U	3.70E-01	4.0E+03		4.4E+02	
SB-211	N	15	17	10/15/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-211	N	15	17	10/15/21	SVOC	Benzidine	92-87-5		U	7.20E-01	1.0E-01		5.3E-03	
SB-211	N	15	17	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.90E-01	2.1E+02		1.1E+01	
SB-211	N	15	17	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	
SB-211	N	15	17	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.90E-01	2.1E+02		1.1E+01	
SB-211	N	15	17	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-211	N	15	17	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-211	N	15	17	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-211	N	15	17	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.70E-01	2.5E+03		1.9E+02	
SB-211	N	15	17	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.70E-01	1.0E+01		2.3E+00	
SB-211	N	15	17	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.70E-01	1.6E+03		3.9E+02	
SB-211	N	15	17	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.70E-01				
SB-211	N	15	17	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.70E-01	1.2E+04		2.9E+03	
SB-211	N	15	17	10/15/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-211	N	15	17	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.20E-01	8.2E+04		6.3E+03	
SB-211	N	15	17	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.20E-01	1.1E+02		2.7E+01	
SB-211	N	15	17	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.70E-01	6.0E+04		4.8E+03	
SB-211	N	15	17	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	3.70E-01	5.8E+03		3.9E+02	
SB-211	N	15	17	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.70E-01				

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-211	N	15	17	10/15/21	SVOC	Chrysene	218-01-9		U	1.90E-01	2.1E+04		1.1E+03	
SB-211	N	15	17	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-211	N	15	17	10/15/21	SVOC	Dibenzofuran	132-64-9		U	3.70E-01	1.2E+03		7.8E+01	
SB-211	N	15	17	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-211	N	15	17	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.70E-01	2.5E+03		1.9E+02	
SB-211	N	15	17	10/15/21	SVOC	Diethylphthalate	84-66-2		U	3.70E-01	6.6E+05		5.1E+04	
SB-211	N	15	17	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.70E-01	1.6E+04		1.3E+03	
SB-211	N	15	17	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	3.70E-01	6.6E+05		5.1E+04	
SB-211	N	15	17	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.70E-01	8.2E+04		6.3E+03	
SB-211	N	15	17	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.70E-01	6.6E+01		5.1E+00	
SB-211	N	15	17	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.20E-01	1.6E+03		1.3E+02	
SB-211	N	15	17	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.70E-01	8.2E+03		6.3E+02	
SB-211	N	15	17	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.70E-01	2.9E+01		6.8E+00	
SB-211	N	15	17	10/15/21	SVOC	Fluoranthene	206-44-0		U	1.90E-01	3.0E+04		2.4E+03	
SB-211	N	15	17	10/15/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-211	N	15	17	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	3.70E-01	9.6E+00		7.8E-01	
SB-211	N	15	17	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.70E-01	5.3E+01		1.2E+01	
SB-211	N	15	17	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.70E-01	7.5E+00		1.8E+00	
SB-211	N	15	17	10/15/21	SVOC	Hexachloroethane	67-72-1		U	3.70E-01	8.0E+01		1.8E+01	
SB-211	N	15	17	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-211	N	15	17	10/15/21	SVOC	Isophorone	78-59-1		U	3.70E-01	2.4E+04		5.7E+03	
SB-211	N	15	17	10/15/21	SVOC	1-Methylnaphthalene	90-12-0	1.20E-01	J	1.90E-01	7.3E+02	1.6E-04	1.8E+02	6.7E-04
SB-211	N	15	17	10/15/21	SVOC	2-Methylnaphthalene	91-57-6	2.00E-01		1.90E-01	3.0E+03	6.7E-05	2.4E+02	8.3E-04
SB-211	N	15	17	10/15/21	SVOC	2-Methylphenol	95-48-7		U	3.70E-01	4.1E+04		3.2E+03	
SB-211	N	15	17	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.70E-01				
SB-211	N	15	17	10/15/21	SVOC	Naphthalene	91-20-3	1.30E-01	J	1.90E-01	8.6E+01	1.5E-03	2.0E+01	6.5E-03
SB-211	N	15	17	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	3.70E-01	8.0E+03		6.3E+02	
SB-211	N	15	17	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	3.70E-01	1.1E+03		2.5E+02	
SB-211	N	15	17	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	3.70E-01	1.1E+03		2.5E+02	
SB-211	N	15	17	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	3.70E-01				
SB-211	N	15	17	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.20E-01				
SB-211	N	15	17	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.70E-01	3.4E-01		2.0E-02	
SB-211	N	15	17	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.70E-01	4.7E+03		1.1E+03	
SB-211	N	15	17	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.70E-01	3.3E+00		7.8E-01	
SB-211	N	15	17	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.70E-01	4.7E+04		3.1E+03	
SB-211	N	15	17	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.70E-01	1.3E+02		2.7E+01	
SB-211	N	15	17	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	3.70E-01	4.0E+01		1.0E+01	
SB-211	N	15	17	10/15/21	SVOC	Phenanthrene	85-01-8	7.40E-02	J	1.90E-01	2.3E+04	3.2E-06	1.8E+03	4.1E-05
SB-211	N	15	17	10/15/21	SVOC	Phenol	108-95-2		U	3.70E-01	2.5E+05		1.9E+04	
SB-211	N	15	17	10/15/21	SVOC	Pyrene	129-00-0		U	1.90E-01	2.3E+04		1.8E+03	
SB-211	N	15	17	10/15/21	SVOC	Pyridine	110-86-1		U	3.70E-01	1.2E+03		7.8E+01	
SB-211	N	15	17	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.70E-01	3.5E+01		2.3E+00	
SB-211	N	15	17	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.70E-01	8.2E+04		6.3E+03	
SB-211	N	15	17	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.70E-01	8.2E+02		6.3E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-211	N	15	17	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.70E-01	7.4E+01		1.7E+01	
SB-211	N	15	17	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.70E-01	1.5E+01		3.6E+00	
SB-211	N	15	17	10/15/21	NITRO	Nitrobenzene	98-95-3		U	3.70E-01	2.2E+02		5.1E+01	
SB-211	N	15	17	10/15/21	INORG	Aluminum	7429-90-5	3.90E+03			1.1E+06	3.5E-03	7.7E+04	5.1E-02
SB-211	N	15	17	10/15/21	INORG	Antimony	7440-36-0		U	7.00E-01	4.7E+02		3.1E+01	
SB-211	N	15	17	10/15/21	INORG	Arsenic	7440-38-2	5.60E+00			3.0E+01	1.9E-01	6.8E+00	8.2E-01
SB-211	N	15	17	10/15/21	INORG	Barium	7440-39-3	2.40E+01			2.2E+05	1.1E-04	1.5E+04	1.6E-03
SB-211	N	15	17	10/15/21	INORG	Beryllium	7440-41-7	5.30E-01			2.3E+03	2.3E-04	1.6E+02	3.3E-03
SB-211	N	15	17	10/15/21	INORG	Cadmium	7440-43-9		U	1.80E-01	1.0E+02		7.1E+00	
SB-211	N	15	17	10/15/21	INORG	Chromium (total)	7440-47-3	1.20E+01			1.8E+06	6.7E-06	1.2E+05	1.0E-04
SB-211	N	15	17	10/15/21	INORG	Cobalt	7440-48-4	7.70E+00			3.5E+02	2.2E-02	2.3E+01	3.3E-01
SB-211	N	15	17	10/15/21	INORG	Copper	7440-50-8	8.30E+00			4.7E+04	1.8E-04	3.1E+03	2.7E-03
SB-211	N	15	17	10/15/21	INORG	Cyanide (total)	57-12-5		U	3.70E-01	1.5E+02		2.3E+01	
SB-211	N	15	17	10/15/21	INORG	Iron	7439-89-6	2.90E+04			8.2E+05	3.5E-02	5.5E+04	5.3E-01
SB-211	N	15	17	10/15/21	INORG	Lead	7439-92-1	5.10E+00			8.0E+02	6.4E-03	2.0E+02	2.6E-02
SB-211	N	15	17	10/15/21	INORG	Manganese	7439-96-5	1.40E+02			2.6E+04	5.4E-03	1.8E+03	7.8E-02
SB-211	N	15	17	10/15/21	INORG	Mercury	7439-97-6	1.40E-02			4.1E+01	3.4E-04	7.4E+00	1.9E-03
SB-211	N	15	17	10/15/21	INORG	Nickel	7440-02-0	1.10E+01			2.2E+04	5.0E-04	1.5E+03	7.3E-03
SB-211	N	15	17	10/15/21	INORG	Selenium	7782-49-2		U	1.20E+00	5.8E+03		3.9E+02	
SB-211	N	15	17	10/15/21	INORG	Silver	7440-22-4		U	1.60E-01	5.8E+03		3.9E+02	
SB-211	N	15	17	10/15/21	INORG	Thallium	7440-28-0		U	8.40E-01	1.2E+01		7.8E-01	
SB-211	N	15	17	10/15/21	INORG	Vanadium	7440-62-2	1.70E+01			5.8E+03	2.9E-03	3.9E+02	4.4E-02
SB-211	N	15	17	10/15/21	INORG	Zinc	7440-66-6	2.10E+01			3.5E+05	6.0E-05	2.3E+04	9.1E-04
SB-212	FD		2	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.90E-01	9.3E+03		1.8E+03	
SB-212	N		2	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.80E-01	9.3E+03		1.8E+03	
SB-212	FD		2	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.90E-01	1.1E+02		2.6E+01	
SB-212	N		2	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.80E-01	1.1E+02		2.6E+01	
SB-212	FD		2	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.90E-01	1.1E+02		2.6E+01	
SB-212	N		2	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.80E-01	1.1E+02		2.6E+01	
SB-212	FD		2	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.90E-01	2.6E+02		5.8E+01	
SB-212	N		2	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.80E-01	2.6E+02		5.8E+01	
SB-212	FD		2	10/15/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-212	N		2	10/15/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-212	FD		2	10/15/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-212	N		2	10/15/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-212	FD		2	10/15/21	SVOC	Acetophenone	98-86-2		U	3.90E-01	1.2E+05		7.8E+03	
SB-212	N		2	10/15/21	SVOC	Acetophenone	98-86-2		U	3.80E-01	1.2E+05		7.8E+03	
SB-212	FD		2	10/15/21	SVOC	Aniline	62-53-3		U	3.90E-01	4.0E+03		4.4E+02	
SB-212	N		2	10/15/21	SVOC	Aniline	62-53-3		U	3.80E-01	4.0E+03		4.4E+02	
SB-212	FD		2	10/15/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-212	N		2	10/15/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-212	FD		2	10/15/21	SVOC	Benzidine	92-87-5		U	7.60E-01	1.0E-01		5.3E-03	
SB-212	N		2	10/15/21	SVOC	Benzidine	92-87-5		U	7.40E-01	1.0E-01		5.3E-03	
SB-212	FD		2	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N		2	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.90E-01	2.1E+02		1.1E+01	
SB-212	FD		2	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-212	N		2	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	
SB-212	FD		2	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-212	N		2	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.90E-01	2.1E+02		1.1E+01	
SB-212	FD		2	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-212	N		2	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-212	FD		2	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-212	N		2	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-212	FD		2	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-212	N		2	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-212	FD		2	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.90E-01	2.5E+03		1.9E+02	
SB-212	N		2	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.80E-01	2.5E+03		1.9E+02	
SB-212	FD		2	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.90E-01	1.0E+01		2.3E+00	
SB-212	N		2	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.80E-01	1.0E+01		2.3E+00	
SB-212	FD		2	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.90E-01	1.6E+03		3.9E+02	
SB-212	N		2	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.80E-01	1.6E+03		3.9E+02	
SB-212	FD		2	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.90E-01				
SB-212	N		2	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.80E-01				
SB-212	FD		2	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.90E-01	1.2E+04		2.9E+03	
SB-212	N		2	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.80E-01	1.2E+04		2.9E+03	
SB-212	FD		2	10/15/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-212	N		2	10/15/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-212	FD		2	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.60E-01	8.2E+04		6.3E+03	
SB-212	N		2	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.40E-01	8.2E+04		6.3E+03	
SB-212	FD		2	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.60E-01	1.1E+02		2.7E+01	
SB-212	N		2	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.40E-01	1.1E+02		2.7E+01	
SB-212	FD		2	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.90E-01	6.0E+04		4.8E+03	
SB-212	N		2	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.80E-01	6.0E+04		4.8E+03	
SB-212	FD		2	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	3.90E-01	5.8E+03		3.9E+02	
SB-212	N		2	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	3.80E-01	5.8E+03		3.9E+02	
SB-212	FD		2	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.90E-01				
SB-212	N		2	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.80E-01				
SB-212	FD		2	10/15/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-212	N		2	10/15/21	SVOC	Chrysene	218-01-9		U	1.90E-01	2.1E+04		1.1E+03	
SB-212	FD		2	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-212	N		2	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-212	FD		2	10/15/21	SVOC	Dibenzofuran	132-64-9		U	3.90E-01	1.2E+03		7.8E+01	
SB-212	N		2	10/15/21	SVOC	Dibenzofuran	132-64-9		U	3.80E-01	1.2E+03		7.8E+01	
SB-212	FD		2	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-212	N		2	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-212	FD		2	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.90E-01	2.5E+03		1.9E+02	
SB-212	N		2	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.80E-01	2.5E+03		1.9E+02	
SB-212	FD		2	10/15/21	SVOC	Diethylphthalate	84-66-2		U	3.90E-01	6.6E+05		5.1E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N		2	10/15/21	SVOC	Diethylphthalate	84-66-2		U	3.80E-01	6.6E+05		5.1E+04	
SB-212	FD		2	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.90E-01	1.6E+04		1.3E+03	
SB-212	N		2	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.80E-01	1.6E+04		1.3E+03	
SB-212	FD		2	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	3.90E-01	6.6E+05		5.1E+04	
SB-212	N		2	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	3.80E-01	6.6E+05		5.1E+04	
SB-212	FD		2	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.90E-01	8.2E+04		6.3E+03	
SB-212	N		2	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.80E-01	8.2E+04		6.3E+03	
SB-212	FD		2	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.90E-01	6.6E+01		5.1E+00	
SB-212	N		2	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.80E-01	6.6E+01		5.1E+00	
SB-212	FD		2	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.60E-01	1.6E+03		1.3E+02	
SB-212	N		2	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.40E-01	1.6E+03		1.3E+02	
SB-212	FD		2	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.90E-01	8.2E+03		6.3E+02	
SB-212	N		2	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.80E-01	8.2E+03		6.3E+02	
SB-212	FD		2	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.90E-01	2.9E+01		6.8E+00	
SB-212	N		2	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.80E-01	2.9E+01		6.8E+00	
SB-212	FD		2	10/15/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-212	N		2	10/15/21	SVOC	Fluoranthene	206-44-0		U	1.90E-01	3.0E+04		2.4E+03	
SB-212	FD		2	10/15/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-212	N		2	10/15/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-212	FD		2	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	3.90E-01	9.6E+00		7.8E-01	
SB-212	N		2	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	3.80E-01	9.6E+00		7.8E-01	
SB-212	FD		2	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.90E-01	5.3E+01		1.2E+01	
SB-212	N		2	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.80E-01	5.3E+01		1.2E+01	
SB-212	FD		2	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.90E-01	7.5E+00		1.8E+00	
SB-212	N		2	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.80E-01	7.5E+00		1.8E+00	
SB-212	FD		2	10/15/21	SVOC	Hexachloroethane	67-72-1		U	3.90E-01	8.0E+01		1.8E+01	
SB-212	N		2	10/15/21	SVOC	Hexachloroethane	67-72-1		U	3.80E-01	8.0E+01		1.8E+01	
SB-212	FD		2	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-212	N		2	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-212	FD		2	10/15/21	SVOC	Isophorone	78-59-1		U	3.90E-01	2.4E+04		5.7E+03	
SB-212	N		2	10/15/21	SVOC	Isophorone	78-59-1		U	3.80E-01	2.4E+04		5.7E+03	
SB-212	FD		2	10/15/21	SVOC	1-Methylnaphthalene	90-12-0	5.60E-02	J	2.00E-01	7.3E+02	7.7E-05	1.8E+02	3.1E-04
SB-212	N		2	10/15/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.90E-01	7.3E+02		1.8E+02	
SB-212	FD		2	10/15/21	SVOC	2-Methylnaphthalene	91-57-6	8.40E-02	J	2.00E-01	3.0E+03	2.8E-05	2.4E+02	3.5E-04
SB-212	N		2	10/15/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.90E-01	3.0E+03		2.4E+02	
SB-212	FD		2	10/15/21	SVOC	2-Methylphenol	95-48-7		U	3.90E-01	4.1E+04		3.2E+03	
SB-212	N		2	10/15/21	SVOC	2-Methylphenol	95-48-7		U	3.80E-01	4.1E+04		3.2E+03	
SB-212	FD		2	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.90E-01				
SB-212	N		2	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.80E-01				
SB-212	FD		2	10/15/21	SVOC	Naphthalene	91-20-3	5.60E-02	J	2.00E-01	8.6E+01	6.5E-04	2.0E+01	2.8E-03
SB-212	N		2	10/15/21	SVOC	Naphthalene	91-20-3		U	1.90E-01	8.6E+01		2.0E+01	
SB-212	FD		2	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	3.90E-01	8.0E+03		6.3E+02	
SB-212	N		2	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	3.80E-01	8.0E+03		6.3E+02	
SB-212	FD		2	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	3.90E-01	1.1E+03		2.5E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N		2	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	3.80E-01	1.1E+03		2.5E+02	
SB-212	FD		2	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	3.90E-01	1.1E+03		2.5E+02	
SB-212	N		2	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	3.80E-01	1.1E+03		2.5E+02	
SB-212	FD		2	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	3.90E-01				
SB-212	N		2	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	3.80E-01				
SB-212	FD		2	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.60E-01				
SB-212	N		2	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.40E-01				
SB-212	FD		2	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.90E-01	3.4E-01		2.0E-02	
SB-212	N		2	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.80E-01	3.4E-01		2.0E-02	
SB-212	FD		2	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.90E-01	4.7E+03		1.1E+03	
SB-212	N		2	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.80E-01	4.7E+03		1.1E+03	
SB-212	FD		2	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.90E-01	3.3E+00		7.8E-01	
SB-212	N		2	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.80E-01	3.3E+00		7.8E-01	
SB-212	FD		2	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.90E-01	4.7E+04		3.1E+03	
SB-212	N		2	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.80E-01	4.7E+04		3.1E+03	
SB-212	FD		2	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.90E-01	1.3E+02		2.7E+01	
SB-212	N		2	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.80E-01	1.3E+02		2.7E+01	
SB-212	FD		2	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	3.90E-01	4.0E+01		1.0E+01	
SB-212	N		2	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	3.80E-01	4.0E+01		1.0E+01	
SB-212	FD		2	10/15/21	SVOC	Phenanthrene	85-01-8	7.10E-02	J	2.00E-01	2.3E+04	3.1E-06	1.8E+03	3.9E-05
SB-212	N		2	10/15/21	SVOC	Phenanthrene	85-01-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-212	FD		2	10/15/21	SVOC	Phenol	108-95-2		U	3.90E-01	2.5E+05		1.9E+04	
SB-212	N		2	10/15/21	SVOC	Phenol	108-95-2		U	3.80E-01	2.5E+05		1.9E+04	
SB-212	FD		2	10/15/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-212	N		2	10/15/21	SVOC	Pyrene	129-00-0		U	1.90E-01	2.3E+04		1.8E+03	
SB-212	FD		2	10/15/21	SVOC	Pyridine	110-86-1		U	3.90E-01	1.2E+03		7.8E+01	
SB-212	N		2	10/15/21	SVOC	Pyridine	110-86-1		U	3.80E-01	1.2E+03		7.8E+01	
SB-212	FD		2	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.90E-01	3.5E+01		2.3E+00	
SB-212	N		2	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.80E-01	3.5E+01		2.3E+00	
SB-212	FD		2	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.90E-01	8.2E+04		6.3E+03	
SB-212	N		2	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.80E-01	8.2E+04		6.3E+03	
SB-212	FD		2	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.90E-01	8.2E+02		6.3E+01	
SB-212	N		2	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.80E-01	8.2E+02		6.3E+01	
SB-212	FD		2	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.90E-01	7.4E+01		1.7E+01	
SB-212	N		2	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.80E-01	7.4E+01		1.7E+01	
SB-212	FD		2	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.90E-01	1.5E+01		3.6E+00	
SB-212	N		2	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.80E-01	1.5E+01		3.6E+00	
SB-212	FD		2	10/15/21	NITRO	Nitrobenzene	98-95-3		U	3.90E-01	2.2E+02		5.1E+01	
SB-212	N		2	10/15/21	NITRO	Nitrobenzene	98-95-3		U	3.80E-01	2.2E+02		5.1E+01	
SB-212	FD		2	10/15/21	INORG	Aluminum	7429-90-5	8.30E+03			1.1E+06	7.5E-03	7.7E+04	1.1E-01
SB-212	N		2	10/15/21	INORG	Aluminum	7429-90-5	9.50E+03			1.1E+06	8.6E-03	7.7E+04	1.2E-01
SB-212	FD		2	10/15/21	INORG	Antimony	7440-36-0	1.50E+00			4.7E+02	3.2E-03	3.1E+01	4.8E-02
SB-212	N		2	10/15/21	INORG	Antimony	7440-36-0	1.50E+00			4.7E+02	3.2E-03	3.1E+01	4.8E-02
SB-212	FD		2	10/15/21	INORG	Arsenic	7440-38-2	5.50E+00			3.0E+01	1.8E-01	6.8E+00	8.1E-01

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N		2	10/15/21	INORG	Arsenic	7440-38-2	4.70E+00			3.0E+01	1.6E-01	6.8E+00	6.9E-01
SB-212	FD		2	10/15/21	INORG	Barium	7440-39-3	8.60E+01			2.2E+05	3.9E-04	1.5E+04	5.7E-03
SB-212	N		2	10/15/21	INORG	Barium	7440-39-3	5.70E+01			2.2E+05	2.6E-04	1.5E+04	3.8E-03
SB-212	FD		2	10/15/21	INORG	Beryllium	7440-41-7	8.10E-01			2.3E+03	3.5E-04	1.6E+02	5.1E-03
SB-212	N		2	10/15/21	INORG	Beryllium	7440-41-7	7.70E-01			2.3E+03	3.3E-04	1.6E+02	4.8E-03
SB-212	FD		2	10/15/21	INORG	Cadmium	7440-43-9	3.90E-01			1.0E+02	3.9E-03	7.1E+00	5.5E-02
SB-212	N		2	10/15/21	INORG	Cadmium	7440-43-9	3.20E-01			1.0E+02	3.2E-03	7.1E+00	4.5E-02
SB-212	FD		2	10/15/21	INORG	Chromium (total)	7440-47-3	1.40E+01			1.8E+06	7.8E-06	1.2E+05	1.2E-04
SB-212	N		2	10/15/21	INORG	Chromium (total)	7440-47-3	1.70E+01			1.8E+06	9.4E-06	1.2E+05	1.4E-04
SB-212	FD		2	10/15/21	INORG	Cobalt	7440-48-4	1.30E+01			3.5E+02	3.7E-02	2.3E+01	5.7E-01
SB-212	N		2	10/15/21	INORG	Cobalt	7440-48-4	1.10E+01			3.5E+02	3.1E-02	2.3E+01	4.8E-01
SB-212	FD		2	10/15/21	INORG	Copper	7440-50-8	1.80E+01			4.7E+04	3.8E-04	3.1E+03	5.8E-03
SB-212	N		2	10/15/21	INORG	Copper	7440-50-8	1.70E+01			4.7E+04	3.6E-04	3.1E+03	5.5E-03
SB-212	FD		2	10/15/21	INORG	Cyanide (total)	57-12-5		U	3.50E-01	1.5E+02		2.3E+01	
SB-212	N		2	10/15/21	INORG	Cyanide (total)	57-12-5		U	3.30E-01	1.5E+02		2.3E+01	
SB-212	FD		2	10/15/21	INORG	Iron	7439-89-6	2.40E+04			8.2E+05	2.9E-02	5.5E+04	4.4E-01
SB-212	N		2	10/15/21	INORG	Iron	7439-89-6	2.30E+04			8.2E+05	2.8E-02	5.5E+04	4.2E-01
SB-212	FD		2	10/15/21	INORG	Lead	7439-92-1	1.40E+01			8.0E+02	1.8E-02	2.0E+02	7.0E-02
SB-212	N		2	10/15/21	INORG	Lead	7439-92-1	1.10E+01			8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-212	FD		2	10/15/21	INORG	Manganese	7439-96-5	1.70E+02			2.6E+04	6.5E-03	1.8E+03	9.4E-02
SB-212	N		2	10/15/21	INORG	Manganese	7439-96-5	2.00E+02			2.6E+04	7.7E-03	1.8E+03	1.1E-01
SB-212	FD		2	10/15/21	INORG	Mercury	7439-97-6	4.10E-02			4.1E+01	1.0E-03	7.4E+00	5.5E-03
SB-212	N		2	10/15/21	INORG	Mercury	7439-97-6	3.70E-02			4.1E+01	9.1E-04	7.4E+00	5.0E-03
SB-212	FD		2	10/15/21	INORG	Nickel	7440-02-0	1.30E+01			2.2E+04	5.9E-04	1.5E+03	8.7E-03
SB-212	N		2	10/15/21	INORG	Nickel	7440-02-0	1.20E+01			2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-212	FD		2	10/15/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-212	N		2	10/15/21	INORG	Selenium	7782-49-2		U	1.30E+00	5.8E+03		3.9E+02	
SB-212	FD		2	10/15/21	INORG	Silver	7440-22-4		U	1.70E-01	5.8E+03		3.9E+02	
SB-212	N		2	10/15/21	INORG	Silver	7440-22-4		U	1.70E-01	5.8E+03		3.9E+02	
SB-212	FD		2	10/15/21	INORG	Thallium	7440-28-0		U	9.10E-01	1.2E+01		7.8E-01	
SB-212	N		2	10/15/21	INORG	Thallium	7440-28-0		U	8.90E-01	1.2E+01		7.8E-01	
SB-212	FD		2	10/15/21	INORG	Vanadium	7440-62-2	2.40E+01			5.8E+03	4.1E-03	3.9E+02	6.2E-02
SB-212	N		2	10/15/21	INORG	Vanadium	7440-62-2	2.70E+01			5.8E+03	4.7E-03	3.9E+02	6.9E-02
SB-212	FD		2	10/15/21	INORG	Zinc	7440-66-6	4.00E+01			3.5E+05	1.1E-04	2.3E+04	1.7E-03
SB-212	N		2	10/15/21	INORG	Zinc	7440-66-6	3.30E+01			3.5E+05	9.4E-05	2.3E+04	1.4E-03
SB-212	N	5	7	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	
SB-212	N	5	7	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-212	N	5	7	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-212	N	5	7	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-212	N	5	7	10/15/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-212	N	5	7	10/15/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-212	N	5	7	10/15/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-212	N	5	7	10/15/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-212	N	5	7	10/15/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N	5	7	10/15/21	SVOC	Benzidine	92-87-5		U	7.90E-01	1.0E-01		5.3E-03	
SB-212	N	5	7	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-212	N	5	7	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-212	N	5	7	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-212	N	5	7	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-212	N	5	7	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-212	N	5	7	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-212	N	5	7	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-212	N	5	7	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-212	N	5	7	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-212	N	5	7	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-212	N	5	7	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-212	N	5	7	10/15/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-212	N	5	7	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.90E-01	8.2E+04		6.3E+03	
SB-212	N	5	7	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.90E-01	1.1E+02		2.7E+01	
SB-212	N	5	7	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-212	N	5	7	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-212	N	5	7	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-212	N	5	7	10/15/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-212	N	5	7	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-212	N	5	7	10/15/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-212	N	5	7	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-212	N	5	7	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-212	N	5	7	10/15/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-212	N	5	7	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-212	N	5	7	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-212	N	5	7	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-212	N	5	7	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-212	N	5	7	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.90E-01	1.6E+03		1.3E+02	
SB-212	N	5	7	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-212	N	5	7	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-212	N	5	7	10/15/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-212	N	5	7	10/15/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-212	N	5	7	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-212	N	5	7	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-212	N	5	7	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-212	N	5	7	10/15/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-212	N	5	7	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-212	N	5	7	10/15/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-212	N	5	7	10/15/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-212	N	5	7	10/15/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-212	N	5	7	10/15/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-212	N	5	7	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-212	N	5	7	10/15/21	SVOC	Naphthalene	91-20-3		U	2.00E-01	8.6E+01		2.0E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N	5	7	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-212	N	5	7	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-212	N	5	7	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-212	N	5	7	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-212	N	5	7	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.90E-01				
SB-212	N	5	7	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-212	N	5	7	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-212	N	5	7	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-212	N	5	7	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-212	N	5	7	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-212	N	5	7	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-212	N	5	7	10/15/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-212	N	5	7	10/15/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-212	N	5	7	10/15/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-212	N	5	7	10/15/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-212	N	5	7	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-212	N	5	7	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-212	N	5	7	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-212	N	5	7	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-212	N	5	7	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-212	N	5	7	10/15/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-212	N	5	7	10/15/21	INORG	Aluminum	7429-90-5	1.40E+04			1.1E+06	1.3E-02	7.7E+04	1.8E-01
SB-212	N	5	7	10/15/21	INORG	Antimony	7440-36-0	1.70E+00			4.7E+02	3.6E-03	3.1E+01	5.5E-02
SB-212	N	5	7	10/15/21	INORG	Arsenic	7440-38-2	9.50E+00			3.0E+01	3.2E-01	6.8E+00	1.4E+00
SB-212	N	5	7	10/15/21	INORG	Barium	7440-39-3	4.20E+01			2.2E+05	1.9E-04	1.5E+04	2.8E-03
SB-212	N	5	7	10/15/21	INORG	Beryllium	7440-41-7	9.40E-01			2.3E+03	4.1E-04	1.6E+02	5.9E-03
SB-212	N	5	7	10/15/21	INORG	Cadmium	7440-43-9	4.00E-01			1.0E+02	4.0E-03	7.1E+00	5.6E-02
SB-212	N	5	7	10/15/21	INORG	Chromium (total)	7440-47-3	2.00E+01			1.8E+06	1.1E-05	1.2E+05	1.7E-04
SB-212	N	5	7	10/15/21	INORG	Cobalt	7440-48-4	7.30E+00			3.5E+02	2.1E-02	2.3E+01	3.2E-01
SB-212	N	5	7	10/15/21	INORG	Copper	7440-50-8	2.30E+01			4.7E+04	4.9E-04	3.1E+03	7.4E-03
SB-212	N	5	7	10/15/21	INORG	Cyanide (total)	57-12-5		U	4.00E-01	1.5E+02		2.3E+01	
SB-212	N	5	7	10/15/21	INORG	Iron	7439-89-6	3.60E+04			8.2E+05	4.4E-02	5.5E+04	6.5E-01
SB-212	N	5	7	10/15/21	INORG	Lead	7439-92-1	1.10E+01			8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-212	N	5	7	10/15/21	INORG	Manganese	7439-96-5	9.80E+01			2.6E+04	3.8E-03	1.8E+03	5.4E-02
SB-212	N	5	7	10/15/21	INORG	Mercury	7439-97-6	4.70E-02			4.1E+01	1.2E-03	7.4E+00	6.3E-03
SB-212	N	5	7	10/15/21	INORG	Nickel	7440-02-0	1.20E+01			2.2E+04	5.5E-04	1.5E+03	8.0E-03
SB-212	N	5	7	10/15/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-212	N	5	7	10/15/21	INORG	Silver	7440-22-4		U	1.80E-01	5.8E+03		3.9E+02	
SB-212	N	5	7	10/15/21	INORG	Thallium	7440-28-0		U	9.40E-01	1.2E+01		7.8E-01	
SB-212	N	5	7	10/15/21	INORG	Vanadium	7440-62-2	3.60E+01			5.8E+03	6.2E-03	3.9E+02	9.2E-02
SB-212	N	5	7	10/15/21	INORG	Zinc	7440-66-6	5.30E+01			3.5E+05	1.5E-04	2.3E+04	2.3E-03
SB-212	N	15	17	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.60E-01	9.3E+03		1.8E+03	
SB-212	N	15	17	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.60E-01	1.1E+02		2.6E+01	
SB-212	N	15	17	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.60E-01	1.1E+02		2.6E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N	15	17	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.60E-01	2.6E+02		5.8E+01	
SB-212	N	15	17	10/15/21	SVOC	Acenaphthene	83-32-9		U	1.80E-01	4.5E+04		3.6E+03	
SB-212	N	15	17	10/15/21	SVOC	Acenaphthylene	208-96-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-212	N	15	17	10/15/21	SVOC	Acetophenone	98-86-2		U	3.60E-01	1.2E+05		7.8E+03	
SB-212	N	15	17	10/15/21	SVOC	Aniline	62-53-3		U	3.60E-01	4.0E+03		4.4E+02	
SB-212	N	15	17	10/15/21	SVOC	Anthracene	120-12-7		U	1.80E-01	2.3E+05		1.8E+04	
SB-212	N	15	17	10/15/21	SVOC	Benzidine	92-87-5		U	7.00E-01	1.0E-01		5.3E-03	
SB-212	N	15	17	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.80E-01	2.1E+02		1.1E+01	
SB-212	N	15	17	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.80E-01	2.1E+01		1.1E+00	
SB-212	N	15	17	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.80E-01	2.1E+02		1.1E+01	
SB-212	N	15	17	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.80E-01	2.3E+04		1.8E+03	
SB-212	N	15	17	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.80E-01	2.1E+03		1.1E+02	
SB-212	N	15	17	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-212	N	15	17	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.60E-01	2.5E+03		1.9E+02	
SB-212	N	15	17	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.60E-01	1.0E+01		2.3E+00	
SB-212	N	15	17	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.60E-01	1.6E+03		3.9E+02	
SB-212	N	15	17	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.60E-01				
SB-212	N	15	17	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.60E-01	1.2E+04		2.9E+03	
SB-212	N	15	17	10/15/21	SVOC	Carbazole	86-74-8		U	1.80E-01	3.0E+04		2.4E+03	
SB-212	N	15	17	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.00E-01	8.2E+04		6.3E+03	
SB-212	N	15	17	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.00E-01	1.1E+02		2.7E+01	
SB-212	N	15	17	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.60E-01	6.0E+04		4.8E+03	
SB-212	N	15	17	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	3.60E-01	5.8E+03		3.9E+02	
SB-212	N	15	17	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.60E-01				
SB-212	N	15	17	10/15/21	SVOC	Chrysene	218-01-9		U	1.80E-01	2.1E+04		1.1E+03	
SB-212	N	15	17	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.80E-01	2.1E+01		1.1E+00	
SB-212	N	15	17	10/15/21	SVOC	Dibenzofuran	132-64-9		U	3.60E-01	1.2E+03		7.8E+01	
SB-212	N	15	17	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.80E-01	5.1E+01		1.2E+01	
SB-212	N	15	17	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.60E-01	2.5E+03		1.9E+02	
SB-212	N	15	17	10/15/21	SVOC	Diethylphthalate	84-66-2		U	3.60E-01	6.6E+05		5.1E+04	
SB-212	N	15	17	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.60E-01	1.6E+04		1.3E+03	
SB-212	N	15	17	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	3.60E-01	6.6E+05		5.1E+04	
SB-212	N	15	17	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.60E-01	8.2E+04		6.3E+03	
SB-212	N	15	17	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.60E-01	6.6E+01		5.1E+00	
SB-212	N	15	17	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.00E-01	1.6E+03		1.3E+02	
SB-212	N	15	17	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.60E-01	8.2E+03		6.3E+02	
SB-212	N	15	17	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.60E-01	2.9E+01		6.8E+00	
SB-212	N	15	17	10/15/21	SVOC	Fluoranthene	206-44-0		U	1.80E-01	3.0E+04		2.4E+03	
SB-212	N	15	17	10/15/21	SVOC	Fluorene	86-73-7		U	1.80E-01	3.0E+04		2.4E+03	
SB-212	N	15	17	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	3.60E-01	9.6E+00		7.8E-01	
SB-212	N	15	17	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.60E-01	5.3E+01		1.2E+01	
SB-212	N	15	17	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.60E-01	7.5E+00		1.8E+00	
SB-212	N	15	17	10/15/21	SVOC	Hexachloroethane	67-72-1		U	3.60E-01	8.0E+01		1.8E+01	
SB-212	N	15	17	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.80E-01	2.1E+02		1.1E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N	15	17	10/15/21	SVOC	Isophorone	78-59-1		U	3.60E-01	2.4E+04		5.7E+03	
SB-212	N	15	17	10/15/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.80E-01	7.3E+02		1.8E+02	
SB-212	N	15	17	10/15/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.80E-01	3.0E+03		2.4E+02	
SB-212	N	15	17	10/15/21	SVOC	2-Methylphenol	95-48-7		U	3.60E-01	4.1E+04		3.2E+03	
SB-212	N	15	17	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.60E-01				
SB-212	N	15	17	10/15/21	SVOC	Naphthalene	91-20-3		U	1.80E-01	8.6E+01		2.0E+01	
SB-212	N	15	17	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	3.60E-01	8.0E+03		6.3E+02	
SB-212	N	15	17	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	3.60E-01	1.1E+03		2.5E+02	
SB-212	N	15	17	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	3.60E-01	1.1E+03		2.5E+02	
SB-212	N	15	17	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	3.60E-01				
SB-212	N	15	17	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.00E-01				
SB-212	N	15	17	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.60E-01	3.4E-01		2.0E-02	
SB-212	N	15	17	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.60E-01	4.7E+03		1.1E+03	
SB-212	N	15	17	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.60E-01	3.3E+00		7.8E-01	
SB-212	N	15	17	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.60E-01	4.7E+04		3.1E+03	
SB-212	N	15	17	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.60E-01	1.3E+02		2.7E+01	
SB-212	N	15	17	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	3.60E-01	4.0E+01		1.0E+01	
SB-212	N	15	17	10/15/21	SVOC	Phenanthrene	85-01-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-212	N	15	17	10/15/21	SVOC	Phenol	108-95-2		U	3.60E-01	2.5E+05		1.9E+04	
SB-212	N	15	17	10/15/21	SVOC	Pyrene	129-00-0		U	1.80E-01	2.3E+04		1.8E+03	
SB-212	N	15	17	10/15/21	SVOC	Pyridine	110-86-1		U	3.60E-01	1.2E+03		7.8E+01	
SB-212	N	15	17	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.60E-01	3.5E+01		2.3E+00	
SB-212	N	15	17	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.60E-01	8.2E+04		6.3E+03	
SB-212	N	15	17	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.60E-01	8.2E+02		6.3E+01	
SB-212	N	15	17	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.60E-01	7.4E+01		1.7E+01	
SB-212	N	15	17	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.60E-01	1.5E+01		3.6E+00	
SB-212	N	15	17	10/15/21	NITRO	Nitrobenzene	98-95-3		U	3.60E-01	2.2E+02		5.1E+01	
SB-212	N	15	17	10/15/21	INORG	Aluminum	7429-90-5	3.30E+03			1.1E+06	3.0E-03	7.7E+04	4.3E-02
SB-212	N	15	17	10/15/21	INORG	Antimony	7440-36-0		U	7.10E-01	4.7E+02		3.1E+01	
SB-212	N	15	17	10/15/21	INORG	Arsenic	7440-38-2	3.60E+00			3.0E+01	1.2E-01	6.8E+00	5.3E-01
SB-212	N	15	17	10/15/21	INORG	Barium	7440-39-3	2.80E+01			2.2E+05	1.3E-04	1.5E+04	1.9E-03
SB-212	N	15	17	10/15/21	INORG	Beryllium	7440-41-7	4.70E-01			2.3E+03	2.0E-04	1.6E+02	2.9E-03
SB-212	N	15	17	10/15/21	INORG	Cadmium	7440-43-9		U	1.80E-01	1.0E+02		7.1E+00	
SB-212	N	15	17	10/15/21	INORG	Chromium (total)	7440-47-3	3.10E+01			1.8E+06	1.7E-05	1.2E+05	2.6E-04
SB-212	N	15	17	10/15/21	INORG	Cobalt	7440-48-4	5.50E+00			3.5E+02	1.6E-02	2.3E+01	2.4E-01
SB-212	N	15	17	10/15/21	INORG	Copper	7440-50-8	7.80E+00			4.7E+04	1.7E-04	3.1E+03	2.5E-03
SB-212	N	15	17	10/15/21	INORG	Cyanide (total)	57-12-5		U	3.30E-01	1.5E+02		2.3E+01	
SB-212	N	15	17	10/15/21	INORG	Iron	7439-89-6	1.30E+04			8.2E+05	1.6E-02	5.5E+04	2.4E-01
SB-212	N	15	17	10/15/21	INORG	Lead	7439-92-1	7.50E+00			8.0E+02	9.4E-03	2.0E+02	3.8E-02
SB-212	N	15	17	10/15/21	INORG	Manganese	7439-96-5	6.50E+01			2.6E+04	2.5E-03	1.8E+03	3.6E-02
SB-212	N	15	17	10/15/21	INORG	Mercury	7439-97-6	1.80E-02			4.1E+01	4.4E-04	7.4E+00	2.4E-03
SB-212	N	15	17	10/15/21	INORG	Nickel	7440-02-0	7.90E+00			2.2E+04	3.6E-04	1.5E+03	5.3E-03
SB-212	N	15	17	10/15/21	INORG	Selenium	7782-49-2		U	1.30E+00	5.8E+03		3.9E+02	
SB-212	N	15	17	10/15/21	INORG	Silver	7440-22-4		U	1.60E-01	5.8E+03		3.9E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-212	N	15	17	10/15/21	INORG	Thallium	7440-28-0		U	8.50E-01	1.2E+01		7.8E-01	
SB-212	N	15	17	10/15/21	INORG	Vanadium	7440-62-2	2.00E+01			5.8E+03	3.4E-03	3.9E+02	5.1E-02
SB-212	N	15	17	10/15/21	INORG	Zinc	7440-66-6	1.50E+01			3.5E+05	4.3E-05	2.3E+04	6.5E-04
SB-213	N		1	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-01	9.3E+03		1.8E+03	
SB-213	N		1	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.00E-01	1.1E+02		2.6E+01	
SB-213	N		1	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.00E-01	1.1E+02		2.6E+01	
SB-213	N		1	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.00E-01	2.6E+02		5.8E+01	
SB-213	N		1	10/15/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-213	N		1	10/15/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-213	N		1	10/15/21	SVOC	Acetophenone	98-86-2		U	4.00E-01	1.2E+05		7.8E+03	
SB-213	N		1	10/15/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-213	N		1	10/15/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-213	N		1	10/15/21	SVOC	Benzidine	92-87-5		U	7.70E-01	1.0E-01		5.3E-03	
SB-213	N		1	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-213	N		1	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-213	N		1	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-213	N		1	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-213	N		1	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-213	N		1	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-213	N		1	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-213	N		1	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-213	N		1	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-213	N		1	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-213	N		1	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-213	N		1	10/15/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-213	N		1	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.70E-01	8.2E+04		6.3E+03	
SB-213	N		1	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.70E-01	1.1E+02		2.7E+01	
SB-213	N		1	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	
SB-213	N		1	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-213	N		1	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-213	N		1	10/15/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-213	N		1	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-213	N		1	10/15/21	SVOC	Dibenzofuran	132-64-9		U	4.00E-01	1.2E+03		7.8E+01	
SB-213	N		1	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-213	N		1	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-213	N		1	10/15/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-213	N		1	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-213	N		1	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-213	N		1	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-213	N		1	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-213	N		1	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.70E-01	1.6E+03		1.3E+02	
SB-213	N		1	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-213	N		1	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-213	N		1	10/15/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-213	N		1	10/15/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-213	N		1	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-213	N		1	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.00E-01	5.3E+01		1.2E+01	
SB-213	N		1	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-213	N		1	10/15/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-213	N		1	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-213	N		1	10/15/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-213	N		1	10/15/21	SVOC	1-Methylnaphthalene	90-12-0	8.30E-02	J	2.00E-01	7.3E+02	1.1E-04	1.8E+02	4.6E-04
SB-213	N		1	10/15/21	SVOC	2-Methylnaphthalene	91-57-6	1.30E-01	J	2.00E-01	3.0E+03	4.3E-05	2.4E+02	5.4E-04
SB-213	N		1	10/15/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-213	N		1	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-213	N		1	10/15/21	SVOC	Naphthalene	91-20-3	7.60E-02	J	2.00E-01	8.6E+01	8.8E-04	2.0E+01	3.8E-03
SB-213	N		1	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-213	N		1	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-213	N		1	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-213	N		1	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-213	N		1	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.70E-01				
SB-213	N		1	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-213	N		1	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-213	N		1	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-213	N		1	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-213	N		1	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-213	N		1	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-213	N		1	10/15/21	SVOC	Phenanthrene	85-01-8	6.70E-02	J	2.00E-01	2.3E+04	2.9E-06	1.8E+03	3.7E-05
SB-213	N		1	10/15/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-213	N		1	10/15/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-213	N		1	10/15/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-213	N		1	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	
SB-213	N		1	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-213	N		1	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-213	N		1	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-213	N		1	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-213	N		1	10/15/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-213	N		1	10/15/21	INORG	Aluminum	7429-90-5	1.10E+04			1.1E+06	1.0E-02	7.7E+04	1.4E-01
SB-213	N		1	10/15/21	INORG	Antimony	7440-36-0	1.40E+00			4.7E+02	3.0E-03	3.1E+01	4.5E-02
SB-213	N		1	10/15/21	INORG	Arsenic	7440-38-2	5.80E+00			3.0E+01	1.9E-01	6.8E+00	8.5E-01
SB-213	N		1	10/15/21	INORG	Barium	7440-39-3	4.00E+01			2.2E+05	1.8E-04	1.5E+04	2.7E-03
SB-213	N		1	10/15/21	INORG	Beryllium	7440-41-7	6.00E-01			2.3E+03	2.6E-04	1.6E+02	3.8E-03
SB-213	N		1	10/15/21	INORG	Cadmium	7440-43-9	2.80E-01			1.0E+02	2.8E-03	7.1E+00	3.9E-02
SB-213	N		1	10/15/21	INORG	Chromium (total)	7440-47-3	1.70E+01			1.8E+06	9.4E-06	1.2E+05	1.4E-04
SB-213	N		1	10/15/21	INORG	Cobalt	7440-48-4	7.50E+00			3.5E+02	2.1E-02	2.3E+01	3.3E-01
SB-213	N		1	10/15/21	INORG	Copper	7440-50-8	1.40E+01			4.7E+04	3.0E-04	3.1E+03	4.5E-03
SB-213	N		1	10/15/21	INORG	Cyanide (total)	57-12-5		U	3.80E-01	1.5E+02		2.3E+01	
SB-213	N		1	10/15/21	INORG	Iron	7439-89-6	2.20E+04			8.2E+05	2.7E-02	5.5E+04	4.0E-01

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-213	N		1	10/15/21	INORG	Lead	7439-92-1	9.50E+00			8.0E+02	1.2E-02	2.0E+02	4.8E-02
SB-213	N		1	10/15/21	INORG	Manganese	7439-96-5	8.90E+01			2.6E+04	3.4E-03	1.8E+03	4.9E-02
SB-213	N		1	10/15/21	INORG	Mercury	7439-97-6	2.70E-02			4.1E+01	6.6E-04	7.4E+00	3.6E-03
SB-213	N		1	10/15/21	INORG	Nickel	7440-02-0	1.00E+01			2.2E+04	4.5E-04	1.5E+03	6.7E-03
SB-213	N		1	10/15/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-213	N		1	10/15/21	INORG	Silver	7440-22-4		U	1.70E-01	5.8E+03		3.9E+02	
SB-213	N		1	10/15/21	INORG	Thallium	7440-28-0		U	9.10E-01	1.2E+01		7.8E-01	
SB-213	N		1	10/15/21	INORG	Vanadium	7440-62-2	3.10E+01			5.8E+03	5.3E-03	3.9E+02	7.9E-02
SB-213	N		1	10/15/21	INORG	Zinc	7440-66-6	3.50E+01			3.5E+05	1.0E-04	2.3E+04	1.5E-03
SB-213	N	5	7	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.10E-01	9.3E+03		1.8E+03	
SB-213	N	5	7	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.10E-01	1.1E+02		2.6E+01	
SB-213	N	5	7	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.10E-01	1.1E+02		2.6E+01	
SB-213	N	5	7	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.10E-01	2.6E+02		5.8E+01	
SB-213	N	5	7	10/15/21	SVOC	Acenaphthene	83-32-9		U	2.00E-01	4.5E+04		3.6E+03	
SB-213	N	5	7	10/15/21	SVOC	Acenaphthylene	208-96-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-213	N	5	7	10/15/21	SVOC	Acetophenone	98-86-2		U	4.10E-01	1.2E+05		7.8E+03	
SB-213	N	5	7	10/15/21	SVOC	Aniline	62-53-3		U	4.10E-01	4.0E+03		4.4E+02	
SB-213	N	5	7	10/15/21	SVOC	Anthracene	120-12-7		U	2.00E-01	2.3E+05		1.8E+04	
SB-213	N	5	7	10/15/21	SVOC	Benzidine	92-87-5		U	8.00E-01	1.0E-01		5.3E-03	
SB-213	N	5	7	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.00E-01	2.1E+02		1.1E+01	
SB-213	N	5	7	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.00E-01	2.1E+01		1.1E+00	
SB-213	N	5	7	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.00E-01	2.1E+02		1.1E+01	
SB-213	N	5	7	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.00E-01	2.3E+04		1.8E+03	
SB-213	N	5	7	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.00E-01	2.1E+03		1.1E+02	
SB-213	N	5	7	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-213	N	5	7	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.10E-01	2.5E+03		1.9E+02	
SB-213	N	5	7	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.10E-01	1.0E+01		2.3E+00	
SB-213	N	5	7	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.10E-01	1.6E+03		3.9E+02	
SB-213	N	5	7	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.10E-01				
SB-213	N	5	7	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.10E-01	1.2E+04		2.9E+03	
SB-213	N	5	7	10/15/21	SVOC	Carbazole	86-74-8		U	2.00E-01	3.0E+04		2.4E+03	
SB-213	N	5	7	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.00E-01	8.2E+04		6.3E+03	
SB-213	N	5	7	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	8.00E-01	1.1E+02		2.7E+01	
SB-213	N	5	7	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.10E-01	6.0E+04		4.8E+03	
SB-213	N	5	7	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	4.10E-01	5.8E+03		3.9E+02	
SB-213	N	5	7	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.10E-01				
SB-213	N	5	7	10/15/21	SVOC	Chrysene	218-01-9		U	2.00E-01	2.1E+04		1.1E+03	
SB-213	N	5	7	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-213	N	5	7	10/15/21	SVOC	Dibenzofuran	132-64-9		U	4.10E-01	1.2E+03		7.8E+01	
SB-213	N	5	7	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-213	N	5	7	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.10E-01	2.5E+03		1.9E+02	
SB-213	N	5	7	10/15/21	SVOC	Diethylphthalate	84-66-2		U	4.10E-01	6.6E+05		5.1E+04	
SB-213	N	5	7	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.10E-01	1.6E+04		1.3E+03	
SB-213	N	5	7	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	4.10E-01	6.6E+05		5.1E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-213	N	5	7	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.10E-01	8.2E+04		6.3E+03	
SB-213	N	5	7	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.10E-01	6.6E+01		5.1E+00	
SB-213	N	5	7	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.00E-01	1.6E+03		1.3E+02	
SB-213	N	5	7	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.10E-01	8.2E+03		6.3E+02	
SB-213	N	5	7	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.10E-01	2.9E+01		6.8E+00	
SB-213	N	5	7	10/15/21	SVOC	Fluoranthene	206-44-0		U	2.00E-01	3.0E+04		2.4E+03	
SB-213	N	5	7	10/15/21	SVOC	Fluorene	86-73-7		U	2.00E-01	3.0E+04		2.4E+03	
SB-213	N	5	7	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	4.10E-01	9.6E+00		7.8E-01	
SB-213	N	5	7	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.10E-01	5.3E+01		1.2E+01	
SB-213	N	5	7	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.10E-01	7.5E+00		1.8E+00	
SB-213	N	5	7	10/15/21	SVOC	Hexachloroethane	67-72-1		U	4.10E-01	8.0E+01		1.8E+01	
SB-213	N	5	7	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.00E-01	2.1E+02		1.1E+01	
SB-213	N	5	7	10/15/21	SVOC	Isophorone	78-59-1		U	4.10E-01	2.4E+04		5.7E+03	
SB-213	N	5	7	10/15/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.00E-01	7.3E+02		1.8E+02	
SB-213	N	5	7	10/15/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.00E-01	3.0E+03		2.4E+02	
SB-213	N	5	7	10/15/21	SVOC	2-Methylphenol	95-48-7		U	4.10E-01	4.1E+04		3.2E+03	
SB-213	N	5	7	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.10E-01				
SB-213	N	5	7	10/15/21	SVOC	Naphthalene	91-20-3		U	2.00E-01	8.6E+01		2.0E+01	
SB-213	N	5	7	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	4.10E-01	8.0E+03		6.3E+02	
SB-213	N	5	7	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	4.10E-01	1.1E+03		2.5E+02	
SB-213	N	5	7	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	4.10E-01	1.1E+03		2.5E+02	
SB-213	N	5	7	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	4.10E-01				
SB-213	N	5	7	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	8.00E-01				
SB-213	N	5	7	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.10E-01	3.4E-01		2.0E-02	
SB-213	N	5	7	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.10E-01	4.7E+03		1.1E+03	
SB-213	N	5	7	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.10E-01	3.3E+00		7.8E-01	
SB-213	N	5	7	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.10E-01	4.7E+04		3.1E+03	
SB-213	N	5	7	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.10E-01	1.3E+02		2.7E+01	
SB-213	N	5	7	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	4.10E-01	4.0E+01		1.0E+01	
SB-213	N	5	7	10/15/21	SVOC	Phenanthrene	85-01-8		U	2.00E-01	2.3E+04		1.8E+03	
SB-213	N	5	7	10/15/21	SVOC	Phenol	108-95-2		U	4.10E-01	2.5E+05		1.9E+04	
SB-213	N	5	7	10/15/21	SVOC	Pyrene	129-00-0		U	2.00E-01	2.3E+04		1.8E+03	
SB-213	N	5	7	10/15/21	SVOC	Pyridine	110-86-1		U	4.10E-01	1.2E+03		7.8E+01	
SB-213	N	5	7	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.10E-01	3.5E+01		2.3E+00	
SB-213	N	5	7	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.10E-01	8.2E+04		6.3E+03	
SB-213	N	5	7	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.10E-01	8.2E+02		6.3E+01	
SB-213	N	5	7	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.10E-01	7.4E+01		1.7E+01	
SB-213	N	5	7	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.10E-01	1.5E+01		3.6E+00	
SB-213	N	5	7	10/15/21	NITRO	Nitrobenzene	98-95-3		U	4.10E-01	2.2E+02		5.1E+01	
SB-213	N	5	7	10/15/21	INORG	Aluminum	7429-90-5	1.30E+04			1.1E+06	1.2E-02	7.7E+04	1.7E-01
SB-213	N	5	7	10/15/21	INORG	Antimony	7440-36-0	1.50E+00			4.7E+02	3.2E-03	3.1E+01	4.8E-02
SB-213	N	5	7	10/15/21	INORG	Arsenic	7440-38-2	4.20E+00			3.0E+01	1.4E-01	6.8E+00	6.2E-01
SB-213	N	5	7	10/15/21	INORG	Barium	7440-39-3	8.90E+01			2.2E+05	4.0E-04	1.5E+04	5.9E-03
SB-213	N	5	7	10/15/21	INORG	Beryllium	7440-41-7	9.90E-01			2.3E+03	4.3E-04	1.6E+02	6.2E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-213	N	5	7	10/15/21	INORG	Cadmium	7440-43-9	3.10E-01			1.0E+02	3.1E-03	7.1E+00	4.4E-02
SB-213	N	5	7	10/15/21	INORG	Chromium (total)	7440-47-3	1.80E+01			1.8E+06	1.0E-05	1.2E+05	1.5E-04
SB-213	N	5	7	10/15/21	INORG	Cobalt	7440-48-4	9.80E+00			3.5E+02	2.8E-02	2.3E+01	4.3E-01
SB-213	N	5	7	10/15/21	INORG	Copper	7440-50-8	2.40E+01			4.7E+04	5.1E-04	3.1E+03	7.7E-03
SB-213	N	5	7	10/15/21	INORG	Cyanide (total)	57-12-5		U	3.10E-01	1.5E+02		2.3E+01	
SB-213	N	5	7	10/15/21	INORG	Iron	7439-89-6	2.80E+04			8.2E+05	3.4E-02	5.5E+04	5.1E-01
SB-213	N	5	7	10/15/21	INORG	Lead	7439-92-1	1.20E+01			8.0E+02	1.5E-02	2.0E+02	6.0E-02
SB-213	N	5	7	10/15/21	INORG	Manganese	7439-96-5	8.10E+01			2.6E+04	3.1E-03	1.8E+03	4.5E-02
SB-213	N	5	7	10/15/21	INORG	Mercury	7439-97-6		U	1.10E-02	4.1E+01		7.4E+00	
SB-213	N	5	7	10/15/21	INORG	Nickel	7440-02-0	1.40E+01			2.2E+04	6.4E-04	1.5E+03	9.3E-03
SB-213	N	5	7	10/15/21	INORG	Selenium	7782-49-2		U	1.30E+00	5.8E+03		3.9E+02	
SB-213	N	5	7	10/15/21	INORG	Silver	7440-22-4		U	1.70E-01	5.8E+03		3.9E+02	
SB-213	N	5	7	10/15/21	INORG	Thallium	7440-28-0		U	9.10E-01	1.2E+01		7.8E-01	
SB-213	N	5	7	10/15/21	INORG	Vanadium	7440-62-2	2.90E+01			5.8E+03	5.0E-03	3.9E+02	7.4E-02
SB-213	N	5	7	10/15/21	INORG	Zinc	7440-66-6	4.10E+01			3.5E+05	1.2E-04	2.3E+04	1.8E-03
SB-213	N	16	18	10/15/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.70E-01	9.3E+03		1.8E+03	
SB-213	N	16	18	10/15/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.70E-01	1.1E+02		2.6E+01	
SB-213	N	16	18	10/15/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.70E-01	1.1E+02		2.6E+01	
SB-213	N	16	18	10/15/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.70E-01	2.6E+02		5.8E+01	
SB-213	N	16	18	10/15/21	SVOC	Acenaphthene	83-32-9		U	1.80E-01	4.5E+04		3.6E+03	
SB-213	N	16	18	10/15/21	SVOC	Acenaphthylene	208-96-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-213	N	16	18	10/15/21	SVOC	Acetophenone	98-86-2		U	3.70E-01	1.2E+05		7.8E+03	
SB-213	N	16	18	10/15/21	SVOC	Aniline	62-53-3		U	3.70E-01	4.0E+03		4.4E+02	
SB-213	N	16	18	10/15/21	SVOC	Anthracene	120-12-7		U	1.80E-01	2.3E+05		1.8E+04	
SB-213	N	16	18	10/15/21	SVOC	Benzidine	92-87-5		U	7.10E-01	1.0E-01		5.3E-03	
SB-213	N	16	18	10/15/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.80E-01	2.1E+02		1.1E+01	
SB-213	N	16	18	10/15/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.80E-01	2.1E+01		1.1E+00	
SB-213	N	16	18	10/15/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.80E-01	2.1E+02		1.1E+01	
SB-213	N	16	18	10/15/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.80E-01	2.3E+04		1.8E+03	
SB-213	N	16	18	10/15/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.80E-01	2.1E+03		1.1E+02	
SB-213	N	16	18	10/15/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-213	N	16	18	10/15/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.70E-01	2.5E+03		1.9E+02	
SB-213	N	16	18	10/15/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.70E-01	1.0E+01		2.3E+00	
SB-213	N	16	18	10/15/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.70E-01	1.6E+03		3.9E+02	
SB-213	N	16	18	10/15/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.70E-01				
SB-213	N	16	18	10/15/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.70E-01	1.2E+04		2.9E+03	
SB-213	N	16	18	10/15/21	SVOC	Carbazole	86-74-8		U	1.80E-01	3.0E+04		2.4E+03	
SB-213	N	16	18	10/15/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.10E-01	8.2E+04		6.3E+03	
SB-213	N	16	18	10/15/21	SVOC	4-Chloroaniline	106-47-8		U	7.10E-01	1.1E+02		2.7E+01	
SB-213	N	16	18	10/15/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.70E-01	6.0E+04		4.8E+03	
SB-213	N	16	18	10/15/21	SVOC	2-Chlorophenol	95-57-8		U	3.70E-01	5.8E+03		3.9E+02	
SB-213	N	16	18	10/15/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.70E-01				
SB-213	N	16	18	10/15/21	SVOC	Chrysene	218-01-9		U	1.80E-01	2.1E+04		1.1E+03	
SB-213	N	16	18	10/15/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.80E-01	2.1E+01		1.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-213	N	16	18	10/15/21	SVOC	Dibenzofuran	132-64-9		U	3.70E-01	1.2E+03		7.8E+01	
SB-213	N	16	18	10/15/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.80E-01	5.1E+01		1.2E+01	
SB-213	N	16	18	10/15/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.70E-01	2.5E+03		1.9E+02	
SB-213	N	16	18	10/15/21	SVOC	Diethylphthalate	84-66-2		U	3.70E-01	6.6E+05		5.1E+04	
SB-213	N	16	18	10/15/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.70E-01	1.6E+04		1.3E+03	
SB-213	N	16	18	10/15/21	SVOC	Dimethylphthalate	131-11-3		U	3.70E-01	6.6E+05		5.1E+04	
SB-213	N	16	18	10/15/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.70E-01	8.2E+04		6.3E+03	
SB-213	N	16	18	10/15/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.70E-01	6.6E+01		5.1E+00	
SB-213	N	16	18	10/15/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.10E-01	1.6E+03		1.3E+02	
SB-213	N	16	18	10/15/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.70E-01	8.2E+03		6.3E+02	
SB-213	N	16	18	10/15/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.70E-01	2.9E+01		6.8E+00	
SB-213	N	16	18	10/15/21	SVOC	Fluoranthene	206-44-0		U	1.80E-01	3.0E+04		2.4E+03	
SB-213	N	16	18	10/15/21	SVOC	Fluorene	86-73-7		U	1.80E-01	3.0E+04		2.4E+03	
SB-213	N	16	18	10/15/21	SVOC	Hexachlorobenzene	118-74-1		U	3.70E-01	9.6E+00		7.8E-01	
SB-213	N	16	18	10/15/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.70E-01	5.3E+01		1.2E+01	
SB-213	N	16	18	10/15/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.70E-01	7.5E+00		1.8E+00	
SB-213	N	16	18	10/15/21	SVOC	Hexachloroethane	67-72-1		U	3.70E-01	8.0E+01		1.8E+01	
SB-213	N	16	18	10/15/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.80E-01	2.1E+02		1.1E+01	
SB-213	N	16	18	10/15/21	SVOC	Isophorone	78-59-1		U	3.70E-01	2.4E+04		5.7E+03	
SB-213	N	16	18	10/15/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.80E-01	7.3E+02		1.8E+02	
SB-213	N	16	18	10/15/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.80E-01	3.0E+03		2.4E+02	
SB-213	N	16	18	10/15/21	SVOC	2-Methylphenol	95-48-7		U	3.70E-01	4.1E+04		3.2E+03	
SB-213	N	16	18	10/15/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.70E-01				
SB-213	N	16	18	10/15/21	SVOC	Naphthalene	91-20-3		U	1.80E-01	8.6E+01		2.0E+01	
SB-213	N	16	18	10/15/21	SVOC	2-Nitroaniline	88-74-4		U	3.70E-01	8.0E+03		6.3E+02	
SB-213	N	16	18	10/15/21	SVOC	3-Nitroaniline	99-09-2		U	3.70E-01	1.1E+03		2.5E+02	
SB-213	N	16	18	10/15/21	SVOC	4-Nitroaniline	100-01-6		U	3.70E-01	1.1E+03		2.5E+02	
SB-213	N	16	18	10/15/21	SVOC	2-Nitrophenol	88-75-5		U	3.70E-01				
SB-213	N	16	18	10/15/21	SVOC	4-Nitrophenol	100-02-7		U	7.10E-01				
SB-213	N	16	18	10/15/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.70E-01	3.4E-01		2.0E-02	
SB-213	N	16	18	10/15/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.70E-01	4.7E+03		1.1E+03	
SB-213	N	16	18	10/15/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.70E-01	3.3E+00		7.8E-01	
SB-213	N	16	18	10/15/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.70E-01	4.7E+04		3.1E+03	
SB-213	N	16	18	10/15/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.70E-01	1.3E+02		2.7E+01	
SB-213	N	16	18	10/15/21	SVOC	Pentachlorophenol	87-86-5		U	3.70E-01	4.0E+01		1.0E+01	
SB-213	N	16	18	10/15/21	SVOC	Phenanthrene	85-01-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-213	N	16	18	10/15/21	SVOC	Phenol	108-95-2		U	3.70E-01	2.5E+05		1.9E+04	
SB-213	N	16	18	10/15/21	SVOC	Pyrene	129-00-0		U	1.80E-01	2.3E+04		1.8E+03	
SB-213	N	16	18	10/15/21	SVOC	Pyridine	110-86-1		U	3.70E-01	1.2E+03		7.8E+01	
SB-213	N	16	18	10/15/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.70E-01	3.5E+01		2.3E+00	
SB-213	N	16	18	10/15/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.70E-01	8.2E+04		6.3E+03	
SB-213	N	16	18	10/15/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.70E-01	8.2E+02		6.3E+01	
SB-213	N	16	18	10/15/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.70E-01	7.4E+01		1.7E+01	
SB-213	N	16	18	10/15/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.70E-01	1.5E+01		3.6E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-213	N	16	18	10/15/21	NITRO	Nitrobenzene	98-95-3		U	3.70E-01	2.2E+02		5.1E+01	
SB-213	N	16	18	10/15/21	INORG	Aluminum	7429-90-5	2.60E+03			1.1E+06	2.4E-03	7.7E+04	3.4E-02
SB-213	N	16	18	10/15/21	INORG	Antimony	7440-36-0	1.20E+00			4.7E+02	2.6E-03	3.1E+01	3.9E-02
SB-213	N	16	18	10/15/21	INORG	Arsenic	7440-38-2	6.00E+00			3.0E+01	2.0E-01	6.8E+00	8.8E-01
SB-213	N	16	18	10/15/21	INORG	Barium	7440-39-3	1.80E+01			2.2E+05	8.2E-05	1.5E+04	1.2E-03
SB-213	N	16	18	10/15/21	INORG	Beryllium	7440-41-7	2.70E-01			2.3E+03	1.2E-04	1.6E+02	1.7E-03
SB-213	N	16	18	10/15/21	INORG	Cadmium	7440-43-9	2.80E-01			1.0E+02	2.8E-03	7.1E+00	3.9E-02
SB-213	N	16	18	10/15/21	INORG	Chromium (total)	7440-47-3	7.40E+00			1.8E+06	4.1E-06	1.2E+05	6.2E-05
SB-213	N	16	18	10/15/21	INORG	Cobalt	7440-48-4	4.90E+00			3.5E+02	1.4E-02	2.3E+01	2.1E-01
SB-213	N	16	18	10/15/21	INORG	Copper	7440-50-8	6.90E+00			4.7E+04	1.5E-04	3.1E+03	2.2E-03
SB-213	N	16	18	10/15/21	INORG	Cyanide (total)	57-12-5		U	2.90E-01	1.5E+02		2.3E+01	
SB-213	N	16	18	10/15/21	INORG	Iron	7439-89-6	2.00E+04			8.2E+05	2.4E-02	5.5E+04	3.6E-01
SB-213	N	16	18	10/15/21	INORG	Lead	7439-92-1	1.70E+00			8.0E+02	2.1E-03	2.0E+02	8.5E-03
SB-213	N	16	18	10/15/21	INORG	Manganese	7439-96-5	7.60E+01			2.6E+04	2.9E-03	1.8E+03	4.2E-02
SB-213	N	16	18	10/15/21	INORG	Mercury	7439-97-6		U	9.30E-03	4.1E+01		7.4E+00	
SB-213	N	16	18	10/15/21	INORG	Nickel	7440-02-0	6.40E+00			2.2E+04	2.9E-04	1.5E+03	4.3E-03
SB-213	N	16	18	10/15/21	INORG	Selenium	7782-49-2		U	1.20E+00	5.8E+03		3.9E+02	
SB-213	N	16	18	10/15/21	INORG	Silver	7440-22-4		U	1.60E-01	5.8E+03		3.9E+02	
SB-213	N	16	18	10/15/21	INORG	Thallium	7440-28-0		U	8.20E-01	1.2E+01		7.8E-01	
SB-213	N	16	18	10/15/21	INORG	Vanadium	7440-62-2	8.70E+00			5.8E+03	1.5E-03	3.9E+02	2.2E-02
SB-213	N	16	18	10/15/21	INORG	Zinc	7440-66-6	1.50E+01			3.5E+05	4.3E-05	2.3E+04	6.5E-04
SB-214	N		2	10/14/21	VOC	Acetone	67-64-1		U	3.70E-02	1.1E+06		7.0E+04	
SB-214	N		2	10/14/21	VOC	Acrylonitrile	107-13-1		U	1.10E-03	1.1E+01		2.5E+00	
SB-214	N		2	10/14/21	VOC	Benzene	71-43-2		U	5.30E-04	5.1E+01		1.2E+01	
SB-214	N		2	10/14/21	VOC	Bromobenzene	108-86-1		U	3.80E-04	1.8E+03		2.9E+02	
SB-214	N		2	10/14/21	VOC	Bromochloromethane	74-97-5		U	1.10E-03	6.3E+02		1.5E+02	
SB-214	N		2	10/14/21	VOC	Bromodichloromethane	75-27-4		U	5.40E-04	1.3E+01		2.9E+00	
SB-214	N		2	10/14/21	VOC	Bromoform	75-25-2		U	6.90E-04	8.6E+02		1.9E+02	
SB-214	N		2	10/14/21	VOC	Bromomethane	74-83-9		U	4.20E-03	3.0E+01		6.8E+00	
SB-214	N		2	10/14/21	VOC	2-Butanone	78-93-3		U	1.40E-02	1.9E+05		2.7E+04	
SB-214	N		2	10/14/21	VOC	n-Butylbenzene	104-51-8		U	5.80E-04	5.8E+04		3.9E+03	
SB-214	N		2	10/14/21	VOC	sec-Butylbenzene	135-98-8		U	1.10E-03	1.2E+05		7.8E+03	
SB-214	N		2	10/14/21	VOC	tert-Butylbenzene	98-06-6		U	9.60E-04	1.2E+05		7.8E+03	
SB-214	N		2	10/14/21	VOC	Carbon Disulfide	75-15-0		U	8.10E-03	3.5E+03		7.7E+02	
SB-214	N		2	10/14/21	VOC	Carbon Tetrachloride	56-23-5		U	8.80E-04	2.9E+01		6.5E+00	
SB-214	N		2	10/14/21	VOC	Chlorobenzene	108-90-7		U	6.10E-04	1.3E+03		2.8E+02	
SB-214	N		2	10/14/21	VOC	Chloroethane	75-00-3		U	4.00E-03	2.3E+04		5.4E+03	
SB-214	N		2	10/14/21	VOC	Chloroform	67-66-3		U	1.10E-03	1.4E+01		3.2E+00	
SB-214	N		2	10/14/21	VOC	Chloromethane	74-87-3		U	3.70E-03	4.6E+02		1.1E+02	
SB-214	N		2	10/14/21	VOC	2-Chlorotoluene	95-49-8		U	5.20E-04	2.3E+04		1.6E+03	
SB-214	N		2	10/14/21	VOC	4-Chlorotoluene	106-43-4		U	4.00E-04	2.3E+04		1.6E+03	
SB-214	N		2	10/14/21	VOC	Cumene	98-82-8		U	8.10E-04	9.9E+03		1.9E+03	
SB-214	N		2	10/14/21	VOC	p-Cymene	99-87-6		U	5.20E-04				
SB-214	N		2	10/14/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	7.60E-04	6.4E-01		5.3E-02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N		2	10/14/21	VOC	Dibromochloromethane	124-48-1		U	5.80E-04	3.9E+02		8.3E+01	
SB-214	N		2	10/14/21	VOC	1,2-Dibromoethane	106-93-4		U	7.10E-04	1.6E+00		3.6E-01	
SB-214	N		2	10/14/21	VOC	Dibromomethane	74-95-3		U	8.30E-04	9.9E+01		2.4E+01	
SB-214	N		2	10/14/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	6.40E-04	3.2E-01		7.4E-02	
SB-214	N		2	10/14/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.50E-04	9.3E+03		1.8E+03	
SB-214	N		2	10/14/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.80E-04	1.1E+02		2.6E+01	
SB-214	N		2	10/14/21	VOC	1,4-Dichlorobenzene	106-46-7		U	5.80E-04	1.1E+02		2.6E+01	
SB-214	N		2	10/14/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.30E-03	3.7E+02		8.7E+01	
SB-214	N		2	10/14/21	VOC	1,1-Dichloroethane	75-34-3		U	5.70E-04	1.6E+02		3.6E+01	
SB-214	N		2	10/14/21	VOC	1,2-Dichloroethane	107-06-2		U	7.00E-04	2.0E+01		4.6E+00	
SB-214	N		2	10/14/21	VOC	1,1-Dichloroethene	75-35-4		U	1.40E-03	1.0E+03		2.3E+02	
SB-214	N		2	10/14/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	6.00E-04	3.7E+02		6.3E+01	
SB-214	N		2	10/14/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	6.40E-04	3.0E+02		7.0E+01	
SB-214	N		2	10/14/21	VOC	1,2-Dichloropropane	78-87-5		U	5.40E-04	6.6E+01		1.6E+01	
SB-214	N		2	10/14/21	VOC	1,3-Dichloropropane	142-28-9		U	5.50E-04	2.3E+04		1.6E+03	
SB-214	N		2	10/14/21	VOC	2,2-Dichloropropane	594-20-7		U	8.70E-04				
SB-214	N		2	10/14/21	VOC	1,1-Dichloropropene	563-58-6		U	8.90E-04				
SB-214	N		2	10/14/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	5.60E-04	8.2E+01		1.8E+01	
SB-214	N		2	10/14/21	VOC	1,4-Dioxane	123-91-1		U	2.50E-02	2.4E+02		5.3E+01	
SB-214	N		2	10/14/21	VOC	Ethyl tert-butyl ether	637-92-3		U	5.90E-04	5.6E+03		1.3E+03	
SB-214	N		2	10/14/21	VOC	Ethyl Benzene	100-41-4		U	5.10E-04	2.5E+02		5.8E+01	
SB-214	N		2	10/14/21	VOC	Diethyl ether	60-29-7		U	2.50E-03	2.3E+05		1.6E+04	
SB-214	N		2	10/14/21	VOC	2-Hexanone	591-78-6		U	6.60E-03	1.3E+03		2.0E+02	
SB-214	N		2	10/14/21	VOC	Methyl Acetate	79-20-9		U	1.50E-03	1.2E+06		7.8E+04	
SB-214	N		2	10/14/21	VOC	Methyl tert-butyl ether	1634-04-4		U	4.30E-04	2.1E+03		4.7E+02	
SB-214	N		2	10/14/21	VOC	4-Methyl-2-pentanone	108-10-1		U	5.00E-03	1.4E+05		3.3E+04	
SB-214	N		2	10/14/21	VOC	Methylcyclohexane	108-87-2		U	8.30E-04	2.7E+04		6.5E+03	
SB-214	N		2	10/14/21	VOC	Methylene Chloride	75-09-2		U	6.40E-04	3.2E+03		3.5E+02	
SB-214	N		2	10/14/21	VOC	Diisopropyl ether	108-20-3		U	6.10E-04	9.4E+03		2.2E+03	
SB-214	N		2	10/14/21	VOC	n-Propylbenzene	103-65-1		U	4.40E-04	2.4E+04		3.8E+03	
SB-214	N		2	10/14/21	VOC	Styrene	100-42-5		U	4.80E-04	3.5E+04		6.0E+03	
SB-214	N		2	10/14/21	VOC	tert-Butyl alcohol	75-65-0		U	5.50E-02	6.5E+04		1.4E+04	
SB-214	N		2	10/14/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	6.30E-04	8.8E+01		2.0E+01	
SB-214	N		2	10/14/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	6.20E-04	2.7E+01		6.0E+00	
SB-214	N		2	10/14/21	VOC	Tetrachloroethene	127-18-4		U	6.20E-04	3.9E+02		8.1E+01	
SB-214	N		2	10/14/21	VOC	Tetrahydrofuran	109-99-9		U	2.90E-03	9.5E+04		1.8E+04	
SB-214	N		2	10/14/21	VOC	Toluene	108-88-3		U	6.40E-04	4.7E+04		4.9E+03	
SB-214	N		2	10/14/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	6.20E-04	9.3E+02		6.3E+01	
SB-214	N		2	10/14/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	5.50E-04	2.6E+02		5.8E+01	
SB-214	N		2	10/14/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	5.50E-04				
SB-214	N		2	10/14/21	VOC	1,1,1-Trichloroethane	71-55-6		U	7.70E-04	3.6E+04		8.1E+03	
SB-214	N		2	10/14/21	VOC	1,1,2-Trichloroethane	79-00-5		U	5.30E-04	6.3E+00		1.5E+00	
SB-214	N		2	10/14/21	VOC	Trichloroethene	79-01-6		U	5.60E-04	1.9E+01		4.1E+00	
SB-214	N		2	10/14/21	VOC	Trichlorofluoromethane	75-69-4		U	4.10E-03	3.5E+05		2.3E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N		2	10/14/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.10E-03	1.1E+00		5.1E-02	
SB-214	N		2	10/14/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	3.10E-03	2.8E+04		6.7E+03	
SB-214	N		2	10/14/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	7.30E-04	1.8E+03		3.0E+02	
SB-214	N		2	10/14/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	5.00E-04	1.5E+03		2.7E+02	
SB-214	N		2	10/14/21	VOC	Vinyl Chloride	75-01-4		U	3.40E-03	1.7E+01		5.9E-01	
SB-214	N		2	10/14/21	VOC	Xylenes (total)	1330-20-7		U	8.60E-04	2.5E+03		5.8E+02	
SB-214	N		2	10/14/21	SVOC	Acenaphthene	83-32-9	6.50E-02	J	1.90E-01	4.5E+04	1.4E-06	3.6E+03	1.8E-05
SB-214	N		2	10/14/21	SVOC	Acenaphthylene	208-96-8	6.70E-02	J	1.90E-01	2.3E+04	2.9E-06	1.8E+03	3.7E-05
SB-214	N		2	10/14/21	SVOC	Acetophenone	98-86-2		U	3.90E-01	1.2E+05		7.8E+03	
SB-214	N		2	10/14/21	SVOC	t-Amyl methyl ether	994-05-8		U	5.10E-04				
SB-214	N		2	10/14/21	SVOC	Aniline	62-53-3		U	3.90E-01	4.0E+03		4.4E+02	
SB-214	N		2	10/14/21	SVOC	Anthracene	120-12-7	3.70E-01		1.90E-01	2.3E+05	1.6E-06	1.8E+04	2.1E-05
SB-214	N		2	10/14/21	SVOC	Benzidine	92-87-5		U	7.50E-01	1.0E-01		5.3E-03	
SB-214	N		2	10/14/21	SVOC	Benzo(a)anthracene	56-55-3	1.80E+00		1.90E-01	2.1E+02	8.6E-03	1.1E+01	1.6E-01
SB-214	N		2	10/14/21	SVOC	Benzo(a)pyrene	50-32-8	1.50E+00		1.90E-01	2.1E+01	7.1E-02	1.1E+00	1.4E+00
SB-214	N		2	10/14/21	SVOC	Benzo(b)fluoranthene	205-99-2	1.90E+00		1.90E-01	2.1E+02	9.0E-03	1.1E+01	1.7E-01
SB-214	N		2	10/14/21	SVOC	Benzo(g,h,i)perylene	191-24-2	6.40E-01		1.90E-01	2.3E+04	2.8E-05	1.8E+03	3.6E-04
SB-214	N		2	10/14/21	SVOC	Benzo(k)fluoranthene	207-08-9	8.40E-01		1.90E-01	2.1E+03	4.0E-04	1.1E+02	7.6E-03
SB-214	N		2	10/14/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-214	N		2	10/14/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.90E-01	2.5E+03		1.9E+02	
SB-214	N		2	10/14/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.90E-01	1.0E+01		2.3E+00	
SB-214	N		2	10/14/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.90E-01	1.6E+03		3.9E+02	
SB-214	N		2	10/14/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.90E-01				
SB-214	N		2	10/14/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.90E-01	1.2E+04		2.9E+03	
SB-214	N		2	10/14/21	SVOC	Carbazole	86-74-8	2.30E-01		1.90E-01	3.0E+04	7.7E-06	2.4E+03	9.6E-05
SB-214	N		2	10/14/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.50E-01	8.2E+04		6.3E+03	
SB-214	N		2	10/14/21	SVOC	4-Chloroaniline	106-47-8		U	7.50E-01	1.1E+02		2.7E+01	
SB-214	N		2	10/14/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.90E-01	6.0E+04		4.8E+03	
SB-214	N		2	10/14/21	SVOC	2-Chlorophenol	95-57-8		U	3.90E-01	5.8E+03		3.9E+02	
SB-214	N		2	10/14/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.90E-01				
SB-214	N		2	10/14/21	SVOC	Chrysene	218-01-9	1.60E+00		1.90E-01	2.1E+04	7.6E-05	1.1E+03	1.5E-03
SB-214	N		2	10/14/21	SVOC	Dibenz(a,h)anthracene	53-70-3	2.10E-01		1.90E-01	2.1E+01	1.0E-02	1.1E+00	1.9E-01
SB-214	N		2	10/14/21	SVOC	Dibenzofuran	132-64-9	9.90E-02	J	3.90E-01	1.2E+03	8.3E-05	7.8E+01	1.3E-03
SB-214	N		2	10/14/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-214	N		2	10/14/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.90E-01	2.5E+03		1.9E+02	
SB-214	N		2	10/14/21	SVOC	Diethylphthalate	84-66-2		U	3.90E-01	6.6E+05		5.1E+04	
SB-214	N		2	10/14/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.90E-01	1.6E+04		1.3E+03	
SB-214	N		2	10/14/21	SVOC	Dimethylphthalate	131-11-3		U	3.90E-01	6.6E+05		5.1E+04	
SB-214	N		2	10/14/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.90E-01	8.2E+04		6.3E+03	
SB-214	N		2	10/14/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.90E-01	6.6E+01		5.1E+00	
SB-214	N		2	10/14/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.50E-01	1.6E+03		1.3E+02	
SB-214	N		2	10/14/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.90E-01	8.2E+03		6.3E+02	
SB-214	N		2	10/14/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.90E-01	2.9E+01		6.8E+00	
SB-214	N		2	10/14/21	SVOC	Fluoranthene	206-44-0	3.00E+00		1.90E-01	3.0E+04	1.0E-04	2.4E+03	1.3E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N		2	10/14/21	SVOC	Fluorene	86-73-7	1.10E-01	J	1.90E-01	3.0E+04	3.7E-06	2.4E+03	4.6E-05
SB-214	N		2	10/14/21	SVOC	Hexachlorobenzene	118-74-1		U	3.90E-01	9.6E+00		7.8E-01	
SB-214	N		2	10/14/21	SVOC	Hexachlorobutadiene	87-68-3		U	8.10E-04	5.3E+01		1.2E+01	
SB-214	N		2	10/14/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.90E-01	7.5E+00		1.8E+00	
SB-214	N		2	10/14/21	SVOC	Hexachloroethane	67-72-1		U	3.90E-01	8.0E+01		1.8E+01	
SB-214	N		2	10/14/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	7.30E-01		1.90E-01	2.1E+02	3.5E-03	1.1E+01	6.6E-02
SB-214	N		2	10/14/21	SVOC	Isophorone	78-59-1		U	3.90E-01	2.4E+04		5.7E+03	
SB-214	N		2	10/14/21	SVOC	1-Methylnaphthalene	90-12-0	5.80E-02	J	1.90E-01	7.3E+02	7.9E-05	1.8E+02	3.2E-04
SB-214	N		2	10/14/21	SVOC	2-Methylnaphthalene	91-57-6	1.00E-01	J	1.90E-01	3.0E+03	3.3E-05	2.4E+02	4.2E-04
SB-214	N		2	10/14/21	SVOC	2-Methylphenol	95-48-7		U	3.90E-01	4.1E+04		3.2E+03	
SB-214	N		2	10/14/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.90E-01				
SB-214	N		2	10/14/21	SVOC	Naphthalene	91-20-3	1.50E-01	J	1.90E-01	8.6E+01	1.7E-03	2.0E+01	7.5E-03
SB-214	N		2	10/14/21	SVOC	2-Nitroaniline	88-74-4		U	3.90E-01	8.0E+03		6.3E+02	
SB-214	N		2	10/14/21	SVOC	3-Nitroaniline	99-09-2		U	3.90E-01	1.1E+03		2.5E+02	
SB-214	N		2	10/14/21	SVOC	4-Nitroaniline	100-01-6		U	3.90E-01	1.1E+03		2.5E+02	
SB-214	N		2	10/14/21	SVOC	2-Nitrophenol	88-75-5		U	3.90E-01				
SB-214	N		2	10/14/21	SVOC	4-Nitrophenol	100-02-7		U	7.50E-01				
SB-214	N		2	10/14/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.90E-01	3.4E-01		2.0E-02	
SB-214	N		2	10/14/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.90E-01	4.7E+03		1.1E+03	
SB-214	N		2	10/14/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.90E-01	3.3E+00		7.8E-01	
SB-214	N		2	10/14/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.90E-01	4.7E+04		3.1E+03	
SB-214	N		2	10/14/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.90E-01	1.3E+02		2.7E+01	
SB-214	N		2	10/14/21	SVOC	Pentachlorophenol	87-86-5		U	3.90E-01	4.0E+01		1.0E+01	
SB-214	N		2	10/14/21	SVOC	Phenanthrene	85-01-8	1.60E+00		1.90E-01	2.3E+04	7.0E-05	1.8E+03	8.9E-04
SB-214	N		2	10/14/21	SVOC	Phenol	108-95-2		U	3.90E-01	2.5E+05		1.9E+04	
SB-214	N		2	10/14/21	SVOC	Pyrene	129-00-0	2.90E+00		1.90E-01	2.3E+04	1.3E-04	1.8E+03	1.6E-03
SB-214	N		2	10/14/21	SVOC	Pyridine	110-86-1		U	3.90E-01	1.2E+03		7.8E+01	
SB-214	N		2	10/14/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.90E-01	3.5E+01		2.3E+00	
SB-214	N		2	10/14/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.90E-01	8.2E+04		6.3E+03	
SB-214	N		2	10/14/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.90E-01	8.2E+02		6.3E+01	
SB-214	N		2	10/14/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.90E-01	7.4E+01		1.7E+01	
SB-214	N		2	10/14/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.90E-01	1.5E+01		3.6E+00	
SB-214	N		2	10/14/21	NITRO	Nitrobenzene	98-95-3		U	3.90E-01	2.2E+02		5.1E+01	
SB-214	N		2	10/14/21	INORG	Aluminum	7429-90-5	8.30E+03			1.1E+06	7.5E-03	7.7E+04	1.1E-01
SB-214	N		2	10/14/21	INORG	Antimony	7440-36-0		U	7.60E-01	4.7E+02		3.1E+01	
SB-214	N		2	10/14/21	INORG	Arsenic	7440-38-2	6.00E+00			3.0E+01	2.0E-01	6.8E+00	8.8E-01
SB-214	N		2	10/14/21	INORG	Barium	7440-39-3	1.30E+02			2.2E+05	5.9E-04	1.5E+04	8.7E-03
SB-214	N		2	10/14/21	INORG	Beryllium	7440-41-7	6.50E-01			2.3E+03	2.8E-04	1.6E+02	4.1E-03
SB-214	N		2	10/14/21	INORG	Cadmium	7440-43-9	3.10E-01			1.0E+02	3.1E-03	7.1E+00	4.4E-02
SB-214	N		2	10/14/21	INORG	Chromium (total)	7440-47-3	1.60E+01			1.8E+06	8.9E-06	1.2E+05	1.3E-04
SB-214	N		2	10/14/21	INORG	Cobalt	7440-48-4	9.60E+00			3.5E+02	2.7E-02	2.3E+01	4.2E-01
SB-214	N		2	10/14/21	INORG	Copper	7440-50-8	4.00E+01			4.7E+04	8.5E-04	3.1E+03	1.3E-02
SB-214	N		2	10/14/21	INORG	Cyanide (total)	57-12-5		U	3.80E-01	1.5E+02		2.3E+01	
SB-214	N		2	10/14/21	INORG	Iron	7439-89-6	2.50E+04			8.2E+05	3.0E-02	5.5E+04	4.5E-01

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N		2	10/14/21	INORG	Lead	7439-92-1	1.80E+02			8.0E+02	2.3E-01	2.0E+02	9.0E-01
SB-214	N		2	10/14/21	INORG	Manganese	7439-96-5	4.00E+02			2.6E+04	1.5E-02	1.8E+03	2.2E-01
SB-214	N		2	10/14/21	INORG	Mercury	7439-97-6	2.60E-01			4.1E+01	6.4E-03	7.4E+00	3.5E-02
SB-214	N		2	10/14/21	INORG	Nickel	7440-02-0	9.20E+00			2.2E+04	4.2E-04	1.5E+03	6.1E-03
SB-214	N		2	10/14/21	INORG	Selenium	7782-49-2		U	1.30E+00	5.8E+03		3.9E+02	
SB-214	N		2	10/14/21	INORG	Silver	7440-22-4		U	1.70E-01	5.8E+03		3.9E+02	
SB-214	N		2	10/14/21	INORG	Thallium	7440-28-0		U	8.90E-01	1.2E+01		7.8E-01	
SB-214	N		2	10/14/21	INORG	Vanadium	7440-62-2	2.50E+01			5.8E+03	4.3E-03	3.9E+02	6.4E-02
SB-214	N		2	10/14/21	INORG	Zinc	7440-66-6	1.50E+02			3.5E+05	4.3E-04	2.3E+04	6.5E-03
SB-214	N	5	7	10/14/21	VOC	Acetone	67-64-1		U	3.20E-02	1.1E+06		7.0E+04	
SB-214	N	5	7	10/14/21	VOC	Acrylonitrile	107-13-1		U	9.70E-04	1.1E+01		2.5E+00	
SB-214	N	5	7	10/14/21	VOC	Benzene	71-43-2		U	4.70E-04	5.1E+01		1.2E+01	
SB-214	N	5	7	10/14/21	VOC	Bromobenzene	108-86-1		U	3.30E-04	1.8E+03		2.9E+02	
SB-214	N	5	7	10/14/21	VOC	Bromochloromethane	74-97-5		U	9.40E-04	6.3E+02		1.5E+02	
SB-214	N	5	7	10/14/21	VOC	Bromodichloromethane	75-27-4		U	4.70E-04	1.3E+01		2.9E+00	
SB-214	N	5	7	10/14/21	VOC	Bromoform	75-25-2		U	6.00E-04	8.6E+02		1.9E+02	
SB-214	N	5	7	10/14/21	VOC	Bromomethane	74-83-9		U	3.60E-03	3.0E+01		6.8E+00	
SB-214	N	5	7	10/14/21	VOC	2-Butanone	78-93-3		U	1.20E-02	1.9E+05		2.7E+04	
SB-214	N	5	7	10/14/21	VOC	n-Butylbenzene	104-51-8		U	5.10E-04	5.8E+04		3.9E+03	
SB-214	N	5	7	10/14/21	VOC	sec-Butylbenzene	135-98-8		U	9.60E-04	1.2E+05		7.8E+03	
SB-214	N	5	7	10/14/21	VOC	tert-Butylbenzene	98-06-6		U	8.40E-04	1.2E+05		7.8E+03	
SB-214	N	5	7	10/14/21	VOC	Carbon Disulfide	75-15-0		U	7.10E-03	3.5E+03		7.7E+02	
SB-214	N	5	7	10/14/21	VOC	Carbon Tetrachloride	56-23-5		U	7.70E-04	2.9E+01		6.5E+00	
SB-214	N	5	7	10/14/21	VOC	Chlorobenzene	108-90-7		U	5.30E-04	1.3E+03		2.8E+02	
SB-214	N	5	7	10/14/21	VOC	Chloroethane	75-00-3		U	3.50E-03	2.3E+04		5.4E+03	
SB-214	N	5	7	10/14/21	VOC	Chloroform	67-66-3		U	9.90E-04	1.4E+01		3.2E+00	
SB-214	N	5	7	10/14/21	VOC	Chloromethane	74-87-3		U	3.20E-03	4.6E+02		1.1E+02	
SB-214	N	5	7	10/14/21	VOC	2-Chlorotoluene	95-49-8		U	4.50E-04	2.3E+04		1.6E+03	
SB-214	N	5	7	10/14/21	VOC	4-Chlorotoluene	106-43-4		U	3.50E-04	2.3E+04		1.6E+03	
SB-214	N	5	7	10/14/21	VOC	Cumene	98-82-8		U	7.10E-04	9.9E+03		1.9E+03	
SB-214	N	5	7	10/14/21	VOC	p-Cymene	99-87-6		U	4.60E-04				
SB-214	N	5	7	10/14/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	6.60E-04	6.4E-01		5.3E-02	
SB-214	N	5	7	10/14/21	VOC	Dibromochloromethane	124-48-1		U	5.10E-04	3.9E+02		8.3E+01	
SB-214	N	5	7	10/14/21	VOC	1,2-Dibromoethane	106-93-4		U	6.20E-04	1.6E+00		3.6E-01	
SB-214	N	5	7	10/14/21	VOC	Dibromomethane	74-95-3		U	7.20E-04	9.9E+01		2.4E+01	
SB-214	N	5	7	10/14/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	5.60E-04	3.2E-01		7.4E-02	
SB-214	N	5	7	10/14/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.00E-04	9.3E+03		1.8E+03	
SB-214	N	5	7	10/14/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.20E-04	1.1E+02		2.6E+01	
SB-214	N	5	7	10/14/21	VOC	1,4-Dichlorobenzene	106-46-7		U	5.10E-04	1.1E+02		2.6E+01	
SB-214	N	5	7	10/14/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.10E-03	3.7E+02		8.7E+01	
SB-214	N	5	7	10/14/21	VOC	1,1-Dichloroethane	75-34-3		U	5.00E-04	1.6E+02		3.6E+01	
SB-214	N	5	7	10/14/21	VOC	1,2-Dichloroethane	107-06-2		U	6.10E-04	2.0E+01		4.6E+00	
SB-214	N	5	7	10/14/21	VOC	1,1-Dichloroethene	75-35-4		U	1.20E-03	1.0E+03		2.3E+02	
SB-214	N	5	7	10/14/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	5.20E-04	3.7E+02		6.3E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N	5	7	10/14/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	5.50E-04	3.0E+02		7.0E+01	
SB-214	N	5	7	10/14/21	VOC	1,2-Dichloropropane	78-87-5		U	4.70E-04	6.6E+01		1.6E+01	
SB-214	N	5	7	10/14/21	VOC	1,3-Dichloropropane	142-28-9		U	4.80E-04	2.3E+04		1.6E+03	
SB-214	N	5	7	10/14/21	VOC	2,2-Dichloropropane	594-20-7		U	7.60E-04				
SB-214	N	5	7	10/14/21	VOC	1,1-Dichloropropene	563-58-6		U	7.80E-04				
SB-214	N	5	7	10/14/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	4.80E-04	8.2E+01		1.8E+01	
SB-214	N	5	7	10/14/21	VOC	1,4-Dioxane	123-91-1		U	2.20E-02	2.4E+02		5.3E+01	
SB-214	N	5	7	10/14/21	VOC	Ethyl tert-butyl ether	637-92-3		U	5.10E-04	5.6E+03		1.3E+03	
SB-214	N	5	7	10/14/21	VOC	Ethyl Benzene	100-41-4		U	4.40E-04	2.5E+02		5.8E+01	
SB-214	N	5	7	10/14/21	VOC	Diethyl ether	60-29-7		U	2.20E-03	2.3E+05		1.6E+04	
SB-214	N	5	7	10/14/21	VOC	2-Hexanone	591-78-6		U	5.70E-03	1.3E+03		2.0E+02	
SB-214	N	5	7	10/14/21	VOC	Methyl Acetate	79-20-9		U	1.30E-03	1.2E+06		7.8E+04	
SB-214	N	5	7	10/14/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.70E-04	2.1E+03		4.7E+02	
SB-214	N	5	7	10/14/21	VOC	4-Methyl-2-pentanone	108-10-1		U	4.40E-03	1.4E+05		3.3E+04	
SB-214	N	5	7	10/14/21	VOC	Methylcyclohexane	108-87-2		U	7.20E-04	2.7E+04		6.5E+03	
SB-214	N	5	7	10/14/21	VOC	Methylene Chloride	75-09-2		U	5.60E-04	3.2E+03		3.5E+02	
SB-214	N	5	7	10/14/21	VOC	Diisopropyl ether	108-20-3		U	5.30E-04	9.4E+03		2.2E+03	
SB-214	N	5	7	10/14/21	VOC	n-Propylbenzene	103-65-1		U	3.80E-04	2.4E+04		3.8E+03	
SB-214	N	5	7	10/14/21	VOC	Styrene	100-42-5		U	4.20E-04	3.5E+04		6.0E+03	
SB-214	N	5	7	10/14/21	VOC	tert-Butyl alcohol	75-65-0		U	4.80E-02	6.5E+04		1.4E+04	
SB-214	N	5	7	10/14/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	5.50E-04	8.8E+01		2.0E+01	
SB-214	N	5	7	10/14/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	5.40E-04	2.7E+01		6.0E+00	
SB-214	N	5	7	10/14/21	VOC	Tetrachloroethene	127-18-4		U	5.40E-04	3.9E+02		8.1E+01	
SB-214	N	5	7	10/14/21	VOC	Tetrahydrofuran	109-99-9		U	2.50E-03	9.5E+04		1.8E+04	
SB-214	N	5	7	10/14/21	VOC	Toluene	108-88-3		U	5.50E-04	4.7E+04		4.9E+03	
SB-214	N	5	7	10/14/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	5.40E-04	9.3E+02		6.3E+01	
SB-214	N	5	7	10/14/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.80E-04	2.6E+02		5.8E+01	
SB-214	N	5	7	10/14/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	4.80E-04				
SB-214	N	5	7	10/14/21	VOC	1,1,1-Trichloroethane	71-55-6		U	6.80E-04	3.6E+04		8.1E+03	
SB-214	N	5	7	10/14/21	VOC	1,1,2-Trichloroethane	79-00-5		U	4.60E-04	6.3E+00		1.5E+00	
SB-214	N	5	7	10/14/21	VOC	Trichloroethene	79-01-6		U	4.90E-04	1.9E+01		4.1E+00	
SB-214	N	5	7	10/14/21	VOC	Trichlorofluoromethane	75-69-4		U	3.60E-03	3.5E+05		2.3E+04	
SB-214	N	5	7	10/14/21	VOC	1,2,3-Trichloropropane	96-18-4		U	9.50E-04	1.1E+00		5.1E-02	
SB-214	N	5	7	10/14/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	2.70E-03	2.8E+04		6.7E+03	
SB-214	N	5	7	10/14/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	6.40E-04	1.8E+03		3.0E+02	
SB-214	N	5	7	10/14/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	4.30E-04	1.5E+03		2.7E+02	
SB-214	N	5	7	10/14/21	VOC	Vinyl Chloride	75-01-4		U	3.00E-03	1.7E+01		5.9E-01	
SB-214	N	5	7	10/14/21	VOC	Xylenes (total)	1330-20-7		U	7.50E-04	2.5E+03		5.8E+02	
SB-214	N	5	7	10/14/21	SVOC	Acenaphthene	83-32-9		U	2.10E-01	4.5E+04		3.6E+03	
SB-214	N	5	7	10/14/21	SVOC	Acenaphthylene	208-96-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-214	N	5	7	10/14/21	SVOC	Acetophenone	98-86-2		U	4.30E-01	1.2E+05		7.8E+03	
SB-214	N	5	7	10/14/21	SVOC	t-Amyl methyl ether	994-05-8		U	4.50E-04				
SB-214	N	5	7	10/14/21	SVOC	Aniline	62-53-3		U	4.30E-01	4.0E+03		4.4E+02	
SB-214	N	5	7	10/14/21	SVOC	Anthracene	120-12-7		U	2.10E-01	2.3E+05		1.8E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N	5	7	10/14/21	SVOC	Benzidine	92-87-5		U	8.30E-01	1.0E-01		5.3E-03	
SB-214	N	5	7	10/14/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.10E-01	2.1E+02		1.1E+01	
SB-214	N	5	7	10/14/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.10E-01	2.1E+01		1.1E+00	
SB-214	N	5	7	10/14/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.10E-01	2.1E+02		1.1E+01	
SB-214	N	5	7	10/14/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.10E-01	2.3E+04		1.8E+03	
SB-214	N	5	7	10/14/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.10E-01	2.1E+03		1.1E+02	
SB-214	N	5	7	10/14/21	SVOC	Benzoic Acid	65-85-0		U	1.30E+00	3.3E+06		2.5E+05	
SB-214	N	5	7	10/14/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.30E-01	2.5E+03		1.9E+02	
SB-214	N	5	7	10/14/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.30E-01	1.0E+01		2.3E+00	
SB-214	N	5	7	10/14/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.30E-01	1.6E+03		3.9E+02	
SB-214	N	5	7	10/14/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.30E-01				
SB-214	N	5	7	10/14/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.30E-01	1.2E+04		2.9E+03	
SB-214	N	5	7	10/14/21	SVOC	Carbazole	86-74-8		U	2.10E-01	3.0E+04		2.4E+03	
SB-214	N	5	7	10/14/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.30E-01	8.2E+04		6.3E+03	
SB-214	N	5	7	10/14/21	SVOC	4-Chloroaniline	106-47-8		U	8.30E-01	1.1E+02		2.7E+01	
SB-214	N	5	7	10/14/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.30E-01	6.0E+04		4.8E+03	
SB-214	N	5	7	10/14/21	SVOC	2-Chlorophenol	95-57-8		U	4.30E-01	5.8E+03		3.9E+02	
SB-214	N	5	7	10/14/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.30E-01				
SB-214	N	5	7	10/14/21	SVOC	Chrysene	218-01-9		U	2.10E-01	2.1E+04		1.1E+03	
SB-214	N	5	7	10/14/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.10E-01	2.1E+01		1.1E+00	
SB-214	N	5	7	10/14/21	SVOC	Dibenzofuran	132-64-9		U	4.30E-01	1.2E+03		7.8E+01	
SB-214	N	5	7	10/14/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.10E-01	5.1E+01		1.2E+01	
SB-214	N	5	7	10/14/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.30E-01	2.5E+03		1.9E+02	
SB-214	N	5	7	10/14/21	SVOC	Diethylphthalate	84-66-2		U	4.30E-01	6.6E+05		5.1E+04	
SB-214	N	5	7	10/14/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.30E-01	1.6E+04		1.3E+03	
SB-214	N	5	7	10/14/21	SVOC	Dimethylphthalate	131-11-3		U	4.30E-01	6.6E+05		5.1E+04	
SB-214	N	5	7	10/14/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.30E-01	8.2E+04		6.3E+03	
SB-214	N	5	7	10/14/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.30E-01	6.6E+01		5.1E+00	
SB-214	N	5	7	10/14/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.30E-01	1.6E+03		1.3E+02	
SB-214	N	5	7	10/14/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.30E-01	8.2E+03		6.3E+02	
SB-214	N	5	7	10/14/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.30E-01	2.9E+01		6.8E+00	
SB-214	N	5	7	10/14/21	SVOC	Fluoranthene	206-44-0		U	2.10E-01	3.0E+04		2.4E+03	
SB-214	N	5	7	10/14/21	SVOC	Fluorene	86-73-7		U	2.10E-01	3.0E+04		2.4E+03	
SB-214	N	5	7	10/14/21	SVOC	Hexachlorobenzene	118-74-1		U	4.30E-01	9.6E+00		7.8E-01	
SB-214	N	5	7	10/14/21	SVOC	Hexachlorobutadiene	87-68-3		U	7.10E-04	5.3E+01		1.2E+01	
SB-214	N	5	7	10/14/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.30E-01	7.5E+00		1.8E+00	
SB-214	N	5	7	10/14/21	SVOC	Hexachloroethane	67-72-1		U	4.30E-01	8.0E+01		1.8E+01	
SB-214	N	5	7	10/14/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.10E-01	2.1E+02		1.1E+01	
SB-214	N	5	7	10/14/21	SVOC	Isophorone	78-59-1		U	4.30E-01	2.4E+04		5.7E+03	
SB-214	N	5	7	10/14/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.10E-01	7.3E+02		1.8E+02	
SB-214	N	5	7	10/14/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.10E-01	3.0E+03		2.4E+02	
SB-214	N	5	7	10/14/21	SVOC	2-Methylphenol	95-48-7		U	4.30E-01	4.1E+04		3.2E+03	
SB-214	N	5	7	10/14/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.30E-01				
SB-214	N	5	7	10/14/21	SVOC	Naphthalene	91-20-3		U	5.10E-04	8.6E+01		2.0E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N	5	7	10/14/21	SVOC	2-Nitroaniline	88-74-4		U	4.30E-01	8.0E+03		6.3E+02	
SB-214	N	5	7	10/14/21	SVOC	3-Nitroaniline	99-09-2		U	4.30E-01	1.1E+03		2.5E+02	
SB-214	N	5	7	10/14/21	SVOC	4-Nitroaniline	100-01-6		U	4.30E-01	1.1E+03		2.5E+02	
SB-214	N	5	7	10/14/21	SVOC	2-Nitrophenol	88-75-5		U	4.30E-01				
SB-214	N	5	7	10/14/21	SVOC	4-Nitrophenol	100-02-7		U	8.30E-01				
SB-214	N	5	7	10/14/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.30E-01	3.4E-01		2.0E-02	
SB-214	N	5	7	10/14/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.30E-01	4.7E+03		1.1E+03	
SB-214	N	5	7	10/14/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.30E-01	3.3E+00		7.8E-01	
SB-214	N	5	7	10/14/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.30E-01	4.7E+04		3.1E+03	
SB-214	N	5	7	10/14/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.30E-01	1.3E+02		2.7E+01	
SB-214	N	5	7	10/14/21	SVOC	Pentachlorophenol	87-86-5		U	4.30E-01	4.0E+01		1.0E+01	
SB-214	N	5	7	10/14/21	SVOC	Phenanthrene	85-01-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-214	N	5	7	10/14/21	SVOC	Phenol	108-95-2		U	4.30E-01	2.5E+05		1.9E+04	
SB-214	N	5	7	10/14/21	SVOC	Pyrene	129-00-0		U	2.10E-01	2.3E+04		1.8E+03	
SB-214	N	5	7	10/14/21	SVOC	Pyridine	110-86-1		U	4.30E-01	1.2E+03		7.8E+01	
SB-214	N	5	7	10/14/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.30E-01	3.5E+01		2.3E+00	
SB-214	N	5	7	10/14/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.30E-01	8.2E+04		6.3E+03	
SB-214	N	5	7	10/14/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.30E-01	8.2E+02		6.3E+01	
SB-214	N	5	7	10/14/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.30E-01	7.4E+01		1.7E+01	
SB-214	N	5	7	10/14/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.30E-01	1.5E+01		3.6E+00	
SB-214	N	5	7	10/14/21	NITRO	Nitrobenzene	98-95-3		U	4.30E-01	2.2E+02		5.1E+01	
SB-214	N	5	7	10/14/21	INORG	Aluminum	7429-90-5	9.60E+03			1.1E+06	8.7E-03	7.7E+04	1.2E-01
SB-214	N	5	7	10/14/21	INORG	Antimony	7440-36-0		U	8.00E-01	4.7E+02		3.1E+01	
SB-214	N	5	7	10/14/21	INORG	Arsenic	7440-38-2	5.60E+00			3.0E+01	1.9E-01	6.8E+00	8.2E-01
SB-214	N	5	7	10/14/21	INORG	Barium	7440-39-3	4.30E+01			2.2E+05	2.0E-04	1.5E+04	2.9E-03
SB-214	N	5	7	10/14/21	INORG	Beryllium	7440-41-7	6.00E-01			2.3E+03	2.6E-04	1.6E+02	3.8E-03
SB-214	N	5	7	10/14/21	INORG	Cadmium	7440-43-9		U	2.00E-01	1.0E+02		7.1E+00	
SB-214	N	5	7	10/14/21	INORG	Chromium (total)	7440-47-3	1.50E+01			1.8E+06	8.3E-06	1.2E+05	1.3E-04
SB-214	N	5	7	10/14/21	INORG	Cobalt	7440-48-4	6.20E+00			3.5E+02	1.8E-02	2.3E+01	2.7E-01
SB-214	N	5	7	10/14/21	INORG	Copper	7440-50-8	1.50E+01			4.7E+04	3.2E-04	3.1E+03	4.8E-03
SB-214	N	5	7	10/14/21	INORG	Cyanide (total)	57-12-5		U	4.20E-01	1.5E+02		2.3E+01	
SB-214	N	5	7	10/14/21	INORG	Iron	7439-89-6	2.60E+04			8.2E+05	3.2E-02	5.5E+04	4.7E-01
SB-214	N	5	7	10/14/21	INORG	Lead	7439-92-1	1.20E+01			8.0E+02	1.5E-02	2.0E+02	6.0E-02
SB-214	N	5	7	10/14/21	INORG	Manganese	7439-96-5	1.70E+02			2.6E+04	6.5E-03	1.8E+03	9.4E-02
SB-214	N	5	7	10/14/21	INORG	Mercury	7439-97-6	6.00E-02			4.1E+01	1.5E-03	7.4E+00	8.1E-03
SB-214	N	5	7	10/14/21	INORG	Nickel	7440-02-0	1.30E+01			2.2E+04	5.9E-04	1.5E+03	8.7E-03
SB-214	N	5	7	10/14/21	INORG	Selenium	7782-49-2		U	1.40E+00	5.8E+03		3.9E+02	
SB-214	N	5	7	10/14/21	INORG	Silver	7440-22-4		U	1.80E-01	5.8E+03		3.9E+02	
SB-214	N	5	7	10/14/21	INORG	Thallium	7440-28-0		U	9.50E-01	1.2E+01		7.8E-01	
SB-214	N	5	7	10/14/21	INORG	Vanadium	7440-62-2	2.70E+01			5.8E+03	4.7E-03	3.9E+02	6.9E-02
SB-214	N	5	7	10/14/21	INORG	Zinc	7440-66-6	3.60E+01			3.5E+05	1.0E-04	2.3E+04	1.6E-03
SB-214	N	14	16	10/14/21	VOC	Acetone	67-64-1		U	2.70E-02	1.1E+06		7.0E+04	
SB-214	N	14	16	10/14/21	VOC	Acrylonitrile	107-13-1		U	8.30E-04	1.1E+01		2.5E+00	
SB-214	N	14	16	10/14/21	VOC	Benzene	71-43-2		U	4.00E-04	5.1E+01		1.2E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N	14	16	10/14/21	VOC	Bromobenzene	108-86-1		U	2.90E-04	1.8E+03		2.9E+02	
SB-214	N	14	16	10/14/21	VOC	Bromochloromethane	74-97-5		U	8.10E-04	6.3E+02		1.5E+02	
SB-214	N	14	16	10/14/21	VOC	Bromodichloromethane	75-27-4		U	4.10E-04	1.3E+01		2.9E+00	
SB-214	N	14	16	10/14/21	VOC	Bromoform	75-25-2		U	5.20E-04	8.6E+02		1.9E+02	
SB-214	N	14	16	10/14/21	VOC	Bromomethane	74-83-9		U	3.10E-03	3.0E+01		6.8E+00	
SB-214	N	14	16	10/14/21	VOC	2-Butanone	78-93-3		U	1.00E-02	1.9E+05		2.7E+04	
SB-214	N	14	16	10/14/21	VOC	n-Butylbenzene	104-51-8		U	4.40E-04	5.8E+04		3.9E+03	
SB-214	N	14	16	10/14/21	VOC	sec-Butylbenzene	135-98-8		U	8.30E-04	1.2E+05		7.8E+03	
SB-214	N	14	16	10/14/21	VOC	tert-Butylbenzene	98-06-6		U	7.20E-04	1.2E+05		7.8E+03	
SB-214	N	14	16	10/14/21	VOC	Carbon Disulfide	75-15-0		U	6.10E-03	3.5E+03		7.7E+02	
SB-214	N	14	16	10/14/21	VOC	Carbon Tetrachloride	56-23-5		U	6.60E-04	2.9E+01		6.5E+00	
SB-214	N	14	16	10/14/21	VOC	Chlorobenzene	108-90-7		U	4.60E-04	1.3E+03		2.8E+02	
SB-214	N	14	16	10/14/21	VOC	Chloroethane	75-00-3		U	3.00E-03	2.3E+04		5.4E+03	
SB-214	N	14	16	10/14/21	VOC	Chloroform	67-66-3		U	8.50E-04	1.4E+01		3.2E+00	
SB-214	N	14	16	10/14/21	VOC	Chloromethane	74-87-3		U	2.80E-03	4.6E+02		1.1E+02	
SB-214	N	14	16	10/14/21	VOC	2-Chlorotoluene	95-49-8		U	3.90E-04	2.3E+04		1.6E+03	
SB-214	N	14	16	10/14/21	VOC	4-Chlorotoluene	106-43-4		U	3.00E-04	2.3E+04		1.6E+03	
SB-214	N	14	16	10/14/21	VOC	Cumene	98-82-8		U	6.10E-04	9.9E+03		1.9E+03	
SB-214	N	14	16	10/14/21	VOC	p-Cymene	99-87-6		U	3.90E-04				
SB-214	N	14	16	10/14/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	5.70E-04	6.4E-01		5.3E-02	
SB-214	N	14	16	10/14/21	VOC	Dibromochloromethane	124-48-1		U	4.40E-04	3.9E+02		8.3E+01	
SB-214	N	14	16	10/14/21	VOC	1,2-Dibromoethane	106-93-4		U	5.30E-04	1.6E+00		3.6E-01	
SB-214	N	14	16	10/14/21	VOC	Dibromomethane	74-95-3		U	6.20E-04	9.9E+01		2.4E+01	
SB-214	N	14	16	10/14/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	4.80E-04	3.2E-01		7.4E-02	
SB-214	N	14	16	10/14/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.40E-04	9.3E+03		1.8E+03	
SB-214	N	14	16	10/14/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.60E-04	1.1E+02		2.6E+01	
SB-214	N	14	16	10/14/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.40E-04	1.1E+02		2.6E+01	
SB-214	N	14	16	10/14/21	VOC	Dichlorodifluoromethane	75-71-8		U	9.90E-04	3.7E+02		8.7E+01	
SB-214	N	14	16	10/14/21	VOC	1,1-Dichloroethane	75-34-3		U	4.30E-04	1.6E+02		3.6E+01	
SB-214	N	14	16	10/14/21	VOC	1,2-Dichloroethane	107-06-2		U	5.20E-04	2.0E+01		4.6E+00	
SB-214	N	14	16	10/14/21	VOC	1,1-Dichloroethene	75-35-4		U	1.10E-03	1.0E+03		2.3E+02	
SB-214	N	14	16	10/14/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	4.50E-04	3.7E+02		6.3E+01	
SB-214	N	14	16	10/14/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	4.80E-04	3.0E+02		7.0E+01	
SB-214	N	14	16	10/14/21	VOC	1,2-Dichloropropane	78-87-5		U	4.00E-04	6.6E+01		1.6E+01	
SB-214	N	14	16	10/14/21	VOC	1,3-Dichloropropane	142-28-9		U	4.10E-04	2.3E+04		1.6E+03	
SB-214	N	14	16	10/14/21	VOC	2,2-Dichloropropane	594-20-7		U	6.60E-04				
SB-214	N	14	16	10/14/21	VOC	1,1-Dichloropropene	563-58-6		U	6.70E-04				
SB-214	N	14	16	10/14/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	4.20E-04	8.2E+01		1.8E+01	
SB-214	N	14	16	10/14/21	VOC	1,4-Dioxane	123-91-1		U	1.90E-02	2.4E+02		5.3E+01	
SB-214	N	14	16	10/14/21	VOC	Ethyl tert-butyl ether	637-92-3		U	4.40E-04	5.6E+03		1.3E+03	
SB-214	N	14	16	10/14/21	VOC	Ethyl Benzene	100-41-4		U	3.80E-04	2.5E+02		5.8E+01	
SB-214	N	14	16	10/14/21	VOC	Diethyl ether	60-29-7		U	1.90E-03	2.3E+05		1.6E+04	
SB-214	N	14	16	10/14/21	VOC	2-Hexanone	591-78-6		U	5.00E-03	1.3E+03		2.0E+02	
SB-214	N	14	16	10/14/21	VOC	Methyl Acetate	79-20-9		U	1.20E-03	1.2E+06		7.8E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N	14	16	10/14/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.20E-04	2.1E+03		4.7E+02	
SB-214	N	14	16	10/14/21	VOC	4-Methyl-2-pentanone	108-10-1		U	3.80E-03	1.4E+05		3.3E+04	
SB-214	N	14	16	10/14/21	VOC	Methylcyclohexane	108-87-2		U	6.20E-04	2.7E+04		6.5E+03	
SB-214	N	14	16	10/14/21	VOC	Methylene Chloride	75-09-2		U	4.80E-04	3.2E+03		3.5E+02	
SB-214	N	14	16	10/14/21	VOC	Diisopropyl ether	108-20-3		U	4.60E-04	9.4E+03		2.2E+03	
SB-214	N	14	16	10/14/21	VOC	n-Propylbenzene	103-65-1		U	3.30E-04	2.4E+04		3.8E+03	
SB-214	N	14	16	10/14/21	VOC	Styrene	100-42-5		U	3.60E-04	3.5E+04		6.0E+03	
SB-214	N	14	16	10/14/21	VOC	tert-Butyl alcohol	75-65-0		U	4.10E-02	6.5E+04		1.4E+04	
SB-214	N	14	16	10/14/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	4.70E-04	8.8E+01		2.0E+01	
SB-214	N	14	16	10/14/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	4.70E-04	2.7E+01		6.0E+00	
SB-214	N	14	16	10/14/21	VOC	Tetrachloroethene	127-18-4		U	4.70E-04	3.9E+02		8.1E+01	
SB-214	N	14	16	10/14/21	VOC	Tetrahydrofuran	109-99-9		U	2.20E-03	9.5E+04		1.8E+04	
SB-214	N	14	16	10/14/21	VOC	Toluene	108-88-3		U	4.80E-04	4.7E+04		4.9E+03	
SB-214	N	14	16	10/14/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	4.70E-04	9.3E+02		6.3E+01	
SB-214	N	14	16	10/14/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.10E-04	2.6E+02		5.8E+01	
SB-214	N	14	16	10/14/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	4.20E-04				
SB-214	N	14	16	10/14/21	VOC	1,1,1-Trichloroethane	71-55-6		U	5.80E-04	3.6E+04		8.1E+03	
SB-214	N	14	16	10/14/21	VOC	1,1,2-Trichloroethane	79-00-5		U	4.00E-04	6.3E+00		1.5E+00	
SB-214	N	14	16	10/14/21	VOC	Trichloroethene	79-01-6		U	4.20E-04	1.9E+01		4.1E+00	
SB-214	N	14	16	10/14/21	VOC	Trichlorofluoromethane	75-69-4		U	3.10E-03	3.5E+05		2.3E+04	
SB-214	N	14	16	10/14/21	VOC	1,2,3-Trichloropropane	96-18-4		U	8.20E-04	1.1E+00		5.1E-02	
SB-214	N	14	16	10/14/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	2.30E-03	2.8E+04		6.7E+03	
SB-214	N	14	16	10/14/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	5.50E-04	1.8E+03		3.0E+02	
SB-214	N	14	16	10/14/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	3.70E-04	1.5E+03		2.7E+02	
SB-214	N	14	16	10/14/21	VOC	Vinyl Chloride	75-01-4		U	2.60E-03	1.7E+01		5.9E-01	
SB-214	N	14	16	10/14/21	VOC	Xylenes (total)	1330-20-7		U	6.50E-04	2.5E+03		5.8E+02	
SB-214	N	14	16	10/14/21	SVOC	Acenaphthene	83-32-9		U	1.80E-01	4.5E+04		3.6E+03	
SB-214	N	14	16	10/14/21	SVOC	Acenaphthylene	208-96-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-214	N	14	16	10/14/21	SVOC	Acetophenone	98-86-2		U	3.50E-01	1.2E+05		7.8E+03	
SB-214	N	14	16	10/14/21	SVOC	t-Amyl methyl ether	994-05-8		U	3.90E-04				
SB-214	N	14	16	10/14/21	SVOC	Aniline	62-53-3		U	3.50E-01	4.0E+03		4.4E+02	
SB-214	N	14	16	10/14/21	SVOC	Anthracene	120-12-7		U	1.80E-01	2.3E+05		1.8E+04	
SB-214	N	14	16	10/14/21	SVOC	Benzidine	92-87-5		U	6.80E-01	1.0E-01		5.3E-03	
SB-214	N	14	16	10/14/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.80E-01	2.1E+02		1.1E+01	
SB-214	N	14	16	10/14/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.80E-01	2.1E+01		1.1E+00	
SB-214	N	14	16	10/14/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.80E-01	2.1E+02		1.1E+01	
SB-214	N	14	16	10/14/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.80E-01	2.3E+04		1.8E+03	
SB-214	N	14	16	10/14/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.80E-01	2.1E+03		1.1E+02	
SB-214	N	14	16	10/14/21	SVOC	Benzoic Acid	65-85-0		U	1.00E+00	3.3E+06		2.5E+05	
SB-214	N	14	16	10/14/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.50E-01	2.5E+03		1.9E+02	
SB-214	N	14	16	10/14/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.50E-01	1.0E+01		2.3E+00	
SB-214	N	14	16	10/14/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.50E-01	1.6E+03		3.9E+02	
SB-214	N	14	16	10/14/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.50E-01				
SB-214	N	14	16	10/14/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.50E-01	1.2E+04		2.9E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N	14	16	10/14/21	SVOC	Carbazole	86-74-8		U	1.80E-01	3.0E+04		2.4E+03	
SB-214	N	14	16	10/14/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	6.80E-01	8.2E+04		6.3E+03	
SB-214	N	14	16	10/14/21	SVOC	4-Chloroaniline	106-47-8		U	6.80E-01	1.1E+02		2.7E+01	
SB-214	N	14	16	10/14/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.50E-01	6.0E+04		4.8E+03	
SB-214	N	14	16	10/14/21	SVOC	2-Chlorophenol	95-57-8		U	3.50E-01	5.8E+03		3.9E+02	
SB-214	N	14	16	10/14/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.50E-01				
SB-214	N	14	16	10/14/21	SVOC	Chrysene	218-01-9		U	1.80E-01	2.1E+04		1.1E+03	
SB-214	N	14	16	10/14/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.80E-01	2.1E+01		1.1E+00	
SB-214	N	14	16	10/14/21	SVOC	Dibenzofuran	132-64-9		U	3.50E-01	1.2E+03		7.8E+01	
SB-214	N	14	16	10/14/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.80E-01	5.1E+01		1.2E+01	
SB-214	N	14	16	10/14/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.50E-01	2.5E+03		1.9E+02	
SB-214	N	14	16	10/14/21	SVOC	Diethylphthalate	84-66-2		U	3.50E-01	6.6E+05		5.1E+04	
SB-214	N	14	16	10/14/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.50E-01	1.6E+04		1.3E+03	
SB-214	N	14	16	10/14/21	SVOC	Dimethylphthalate	131-11-3		U	3.50E-01	6.6E+05		5.1E+04	
SB-214	N	14	16	10/14/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.50E-01	8.2E+04		6.3E+03	
SB-214	N	14	16	10/14/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.50E-01	6.6E+01		5.1E+00	
SB-214	N	14	16	10/14/21	SVOC	2,4-Dinitrophenol	51-28-5		U	6.80E-01	1.6E+03		1.3E+02	
SB-214	N	14	16	10/14/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.50E-01	8.2E+03		6.3E+02	
SB-214	N	14	16	10/14/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.50E-01	2.9E+01		6.8E+00	
SB-214	N	14	16	10/14/21	SVOC	Fluoranthene	206-44-0		U	1.80E-01	3.0E+04		2.4E+03	
SB-214	N	14	16	10/14/21	SVOC	Fluorene	86-73-7		U	1.80E-01	3.0E+04		2.4E+03	
SB-214	N	14	16	10/14/21	SVOC	Hexachlorobenzene	118-74-1		U	3.50E-01	9.6E+00		7.8E-01	
SB-214	N	14	16	10/14/21	SVOC	Hexachlorobutadiene	87-68-3		U	6.10E-04	5.3E+01		1.2E+01	
SB-214	N	14	16	10/14/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.50E-01	7.5E+00		1.8E+00	
SB-214	N	14	16	10/14/21	SVOC	Hexachloroethane	67-72-1		U	3.50E-01	8.0E+01		1.8E+01	
SB-214	N	14	16	10/14/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.80E-01	2.1E+02		1.1E+01	
SB-214	N	14	16	10/14/21	SVOC	Isophorone	78-59-1		U	3.50E-01	2.4E+04		5.7E+03	
SB-214	N	14	16	10/14/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.80E-01	7.3E+02		1.8E+02	
SB-214	N	14	16	10/14/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.80E-01	3.0E+03		2.4E+02	
SB-214	N	14	16	10/14/21	SVOC	2-Methylphenol	95-48-7		U	3.50E-01	4.1E+04		3.2E+03	
SB-214	N	14	16	10/14/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.50E-01				
SB-214	N	14	16	10/14/21	SVOC	Naphthalene	91-20-3		U	4.40E-04	8.6E+01		2.0E+01	
SB-214	N	14	16	10/14/21	SVOC	2-Nitroaniline	88-74-4		U	3.50E-01	8.0E+03		6.3E+02	
SB-214	N	14	16	10/14/21	SVOC	3-Nitroaniline	99-09-2		U	3.50E-01	1.1E+03		2.5E+02	
SB-214	N	14	16	10/14/21	SVOC	4-Nitroaniline	100-01-6		U	3.50E-01	1.1E+03		2.5E+02	
SB-214	N	14	16	10/14/21	SVOC	2-Nitrophenol	88-75-5		U	3.50E-01				
SB-214	N	14	16	10/14/21	SVOC	4-Nitrophenol	100-02-7		U	6.80E-01				
SB-214	N	14	16	10/14/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.50E-01	3.4E-01		2.0E-02	
SB-214	N	14	16	10/14/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.50E-01	4.7E+03		1.1E+03	
SB-214	N	14	16	10/14/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.50E-01	3.3E+00		7.8E-01	
SB-214	N	14	16	10/14/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.50E-01	4.7E+04		3.1E+03	
SB-214	N	14	16	10/14/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.50E-01	1.3E+02		2.7E+01	
SB-214	N	14	16	10/14/21	SVOC	Pentachlorophenol	87-86-5		U	3.50E-01	4.0E+01		1.0E+01	
SB-214	N	14	16	10/14/21	SVOC	Phenanthrene	85-01-8		U	1.80E-01	2.3E+04		1.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-214	N	14	16	10/14/21	SVOC	Phenol	108-95-2		U	3.50E-01	2.5E+05		1.9E+04	
SB-214	N	14	16	10/14/21	SVOC	Pyrene	129-00-0		U	1.80E-01	2.3E+04		1.8E+03	
SB-214	N	14	16	10/14/21	SVOC	Pyridine	110-86-1		U	3.50E-01	1.2E+03		7.8E+01	
SB-214	N	14	16	10/14/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.50E-01	3.5E+01		2.3E+00	
SB-214	N	14	16	10/14/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.50E-01	8.2E+04		6.3E+03	
SB-214	N	14	16	10/14/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.50E-01	8.2E+02		6.3E+01	
SB-214	N	14	16	10/14/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.50E-01	7.4E+01		1.7E+01	
SB-214	N	14	16	10/14/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.50E-01	1.5E+01		3.6E+00	
SB-214	N	14	16	10/14/21	NITRO	Nitrobenzene	98-95-3		U	3.50E-01	2.2E+02		5.1E+01	
SB-214	N	14	16	10/14/21	INORG	Aluminum	7429-90-5	2.20E+03			1.1E+06	2.0E-03	7.7E+04	2.9E-02
SB-214	N	14	16	10/14/21	INORG	Antimony	7440-36-0		U	7.00E-01	4.7E+02		3.1E+01	
SB-214	N	14	16	10/14/21	INORG	Arsenic	7440-38-2	2.40E+00			3.0E+01	8.0E-02	6.8E+00	3.5E-01
SB-214	N	14	16	10/14/21	INORG	Barium	7440-39-3	1.10E+01			2.2E+05	5.0E-05	1.5E+04	7.3E-04
SB-214	N	14	16	10/14/21	INORG	Beryllium	7440-41-7	1.40E-01			2.3E+03	6.1E-05	1.6E+02	8.8E-04
SB-214	N	14	16	10/14/21	INORG	Cadmium	7440-43-9		U	1.80E-01	1.0E+02		7.1E+00	
SB-214	N	14	16	10/14/21	INORG	Chromium (total)	7440-47-3	3.30E+00			1.8E+06	1.8E-06	1.2E+05	2.8E-05
SB-214	N	14	16	10/14/21	INORG	Cobalt	7440-48-4	2.90E+00			3.5E+02	8.3E-03	2.3E+01	1.3E-01
SB-214	N	14	16	10/14/21	INORG	Copper	7440-50-8	2.90E+00			4.7E+04	6.2E-05	3.1E+03	9.4E-04
SB-214	N	14	16	10/14/21	INORG	Cyanide (total)	57-12-5		U	3.40E-01	1.5E+02		2.3E+01	
SB-214	N	14	16	10/14/21	INORG	Iron	7439-89-6	1.20E+04			8.2E+05	1.5E-02	5.5E+04	2.2E-01
SB-214	N	14	16	10/14/21	INORG	Lead	7439-92-1	1.90E+00			8.0E+02	2.4E-03	2.0E+02	9.5E-03
SB-214	N	14	16	10/14/21	INORG	Manganese	7439-96-5	5.60E+01			2.6E+04	2.2E-03	1.8E+03	3.1E-02
SB-214	N	14	16	10/14/21	INORG	Mercury	7439-97-6		U	1.00E-02	4.1E+01		7.4E+00	
SB-214	N	14	16	10/14/21	INORG	Nickel	7440-02-0	3.20E+00			2.2E+04	1.5E-04	1.5E+03	2.1E-03
SB-214	N	14	16	10/14/21	INORG	Selenium	7782-49-2		U	1.20E+00	5.8E+03		3.9E+02	
SB-214	N	14	16	10/14/21	INORG	Silver	7440-22-4		U	1.60E-01	5.8E+03		3.9E+02	
SB-214	N	14	16	10/14/21	INORG	Thallium	7440-28-0		U	8.30E-01	1.2E+01		7.8E-01	
SB-214	N	14	16	10/14/21	INORG	Vanadium	7440-62-2	5.20E+00			5.8E+03	9.0E-04	3.9E+02	1.3E-02
SB-214	N	14	16	10/14/21	INORG	Zinc	7440-66-6	7.70E+00			3.5E+05	2.2E-05	2.3E+04	3.3E-04
SB-215	N		2	10/18/21	VOC	Acetone	67-64-1		U	1.10E-01	1.1E+06		7.0E+04	
SB-215	N		2	10/18/21	VOC	Acrylonitrile	107-13-1		U	6.50E-03	1.1E+01		2.5E+00	
SB-215	N		2	10/18/21	VOC	Benzene	71-43-2		U	2.20E-03	5.1E+01		1.2E+01	
SB-215	N		2	10/18/21	VOC	Bromobenzene	108-86-1		U	2.20E-03	1.8E+03		2.9E+02	
SB-215	N		2	10/18/21	VOC	Bromochloromethane	74-97-5		U	2.20E-03	6.3E+02		1.5E+02	
SB-215	N		2	10/18/21	VOC	Bromodichloromethane	75-27-4		U	2.20E-03	1.3E+01		2.9E+00	
SB-215	N		2	10/18/21	VOC	Bromoform	75-25-2		U	2.20E-03	8.6E+02		1.9E+02	
SB-215	N		2	10/18/21	VOC	Bromomethane	74-83-9		U	1.10E-02	3.0E+01		6.8E+00	
SB-215	N		2	10/18/21	VOC	2-Butanone	78-93-3		U	4.40E-02	1.9E+05		2.7E+04	
SB-215	N		2	10/18/21	VOC	n-Butylbenzene	104-51-8		U	2.20E-03	5.8E+04		3.9E+03	
SB-215	N		2	10/18/21	VOC	sec-Butylbenzene	135-98-8		U	2.20E-03	1.2E+05		7.8E+03	
SB-215	N		2	10/18/21	VOC	tert-Butylbenzene	98-06-6		U	2.20E-03	1.2E+05		7.8E+03	
SB-215	N		2	10/18/21	VOC	Carbon Disulfide	75-15-0		U	1.10E-02	3.5E+03		7.7E+02	
SB-215	N		2	10/18/21	VOC	Carbon Tetrachloride	56-23-5		U	2.20E-03	2.9E+01		6.5E+00	
SB-215	N		2	10/18/21	VOC	Chlorobenzene	108-90-7		U	2.20E-03	1.3E+03		2.8E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N		2	10/18/21	VOC	Chloroethane	75-00-3		U	2.20E-02	2.3E+04		5.4E+03	
SB-215	N		2	10/18/21	VOC	Chloroform	67-66-3		U	4.40E-03	1.4E+01		3.2E+00	
SB-215	N		2	10/18/21	VOC	Chloromethane	74-87-3		U	1.10E-02	4.6E+02		1.1E+02	
SB-215	N		2	10/18/21	VOC	2-Chlorotoluene	95-49-8		U	2.20E-03	2.3E+04		1.6E+03	
SB-215	N		2	10/18/21	VOC	4-Chlorotoluene	106-43-4		U	2.20E-03	2.3E+04		1.6E+03	
SB-215	N		2	10/18/21	VOC	Cumene	98-82-8		U	2.20E-03	9.9E+03		1.9E+03	
SB-215	N		2	10/18/21	VOC	p-Cymene	99-87-6		U	2.20E-03				
SB-215	N		2	10/18/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	2.20E-03	6.4E-01		5.3E-02	
SB-215	N		2	10/18/21	VOC	Dibromochloromethane	124-48-1		U	1.10E-03	3.9E+02		8.3E+01	
SB-215	N		2	10/18/21	VOC	1,2-Dibromoethane	106-93-4		U	1.10E-03	1.6E+00		3.6E-01	
SB-215	N		2	10/18/21	VOC	Dibromomethane	74-95-3		U	2.20E-03	9.9E+01		2.4E+01	
SB-215	N		2	10/18/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	4.40E-03	3.2E-01		7.4E-02	
SB-215	N		2	10/18/21	VOC	1,2-Dichlorobenzene	95-50-1		U	2.20E-03	9.3E+03		1.8E+03	
SB-215	N		2	10/18/21	VOC	1,3-Dichlorobenzene	541-73-1		U	2.20E-03	1.1E+02		2.6E+01	
SB-215	N		2	10/18/21	VOC	1,4-Dichlorobenzene	106-46-7		U	2.20E-03	1.1E+02		2.6E+01	
SB-215	N		2	10/18/21	VOC	Dichlorodifluoromethane	75-71-8		U	2.20E-02	3.7E+02		8.7E+01	
SB-215	N		2	10/18/21	VOC	1,1-Dichloroethane	75-34-3		U	2.20E-03	1.6E+02		3.6E+01	
SB-215	N		2	10/18/21	VOC	1,2-Dichloroethane	107-06-2		U	2.20E-03	2.0E+01		4.6E+00	
SB-215	N		2	10/18/21	VOC	1,1-Dichloroethene	75-35-4		U	4.40E-03	1.0E+03		2.3E+02	
SB-215	N		2	10/18/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	2.20E-03	3.7E+02		6.3E+01	
SB-215	N		2	10/18/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	2.20E-03	3.0E+02		7.0E+01	
SB-215	N		2	10/18/21	VOC	1,2-Dichloropropane	78-87-5		U	2.20E-03	6.6E+01		1.6E+01	
SB-215	N		2	10/18/21	VOC	1,3-Dichloropropane	142-28-9		U	1.10E-03	2.3E+04		1.6E+03	
SB-215	N		2	10/18/21	VOC	2,2-Dichloropropane	594-20-7		U	2.20E-03				
SB-215	N		2	10/18/21	VOC	1,1-Dichloropropene	563-58-6		U	2.20E-03				
SB-215	N		2	10/18/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	1.10E-03	8.2E+01		1.8E+01	
SB-215	N		2	10/18/21	VOC	1,4-Dioxane	123-91-1		U	1.10E-01	2.4E+02		5.3E+01	
SB-215	N		2	10/18/21	VOC	Ethyl tert-butyl ether	637-92-3		U	1.10E-03	5.6E+03		1.3E+03	
SB-215	N		2	10/18/21	VOC	Ethyl Benzene	100-41-4		U	2.20E-03	2.5E+02		5.8E+01	
SB-215	N		2	10/18/21	VOC	Diethyl ether	60-29-7		U	2.20E-02	2.3E+05		1.6E+04	
SB-215	N		2	10/18/21	VOC	2-Hexanone	591-78-6		U	2.20E-02	1.3E+03		2.0E+02	
SB-215	N		2	10/18/21	VOC	Methyl Acetate	79-20-9		U	2.20E-03	1.2E+06		7.8E+04	
SB-215	N		2	10/18/21	VOC	Methyl tert-butyl ether	1634-04-4		U	4.40E-03	2.1E+03		4.7E+02	
SB-215	N		2	10/18/21	VOC	4-Methyl-2-pentanone	108-10-1		U	2.20E-02	1.4E+05		3.3E+04	
SB-215	N		2	10/18/21	VOC	Methylcyclohexane	108-87-2		U	2.20E-03	2.7E+04		6.5E+03	
SB-215	N		2	10/18/21	VOC	Methylene Chloride	75-09-2		U	2.20E-02	3.2E+03		3.5E+02	
SB-215	N		2	10/18/21	VOC	Diisopropyl ether	108-20-3		U	1.10E-03	9.4E+03		2.2E+03	
SB-215	N		2	10/18/21	VOC	n-Propylbenzene	103-65-1		U	2.20E-03	2.4E+04		3.8E+03	
SB-215	N		2	10/18/21	VOC	Styrene	100-42-5		U	2.20E-03	3.5E+04		6.0E+03	
SB-215	N		2	10/18/21	VOC	tert-Butyl alcohol	75-65-0		U	1.10E-01	6.5E+04		1.4E+04	
SB-215	N		2	10/18/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	2.20E-03	8.8E+01		2.0E+01	
SB-215	N		2	10/18/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	1.10E-03	2.7E+01		6.0E+00	
SB-215	N		2	10/18/21	VOC	Tetrachloroethene	127-18-4		U	2.20E-03	3.9E+02		8.1E+01	
SB-215	N		2	10/18/21	VOC	Tetrahydrofuran	109-99-9		U	1.10E-02	9.5E+04		1.8E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N		2	10/18/21	VOC	Toluene	108-88-3		U	2.20E-03	4.7E+04		4.9E+03	
SB-215	N		2	10/18/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	2.20E-03	9.3E+02		6.3E+01	
SB-215	N		2	10/18/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	2.20E-03	2.6E+02		5.8E+01	
SB-215	N		2	10/18/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	2.20E-03				
SB-215	N		2	10/18/21	VOC	1,1,1-Trichloroethane	71-55-6		U	2.20E-03	3.6E+04		8.1E+03	
SB-215	N		2	10/18/21	VOC	1,1,2-Trichloroethane	79-00-5		U	2.20E-03	6.3E+00		1.5E+00	
SB-215	N		2	10/18/21	VOC	Trichloroethene	79-01-6		U	2.20E-03	1.9E+01		4.1E+00	
SB-215	N		2	10/18/21	VOC	Trichlorofluoromethane	75-69-4		U	1.10E-02	3.5E+05		2.3E+04	
SB-215	N		2	10/18/21	VOC	1,2,3-Trichloropropane	96-18-4		U	2.20E-03	1.1E+00		5.1E-02	
SB-215	N		2	10/18/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	1.10E-02	2.8E+04		6.7E+03	
SB-215	N		2	10/18/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	2.20E-03	1.8E+03		3.0E+02	
SB-215	N		2	10/18/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	2.20E-03	1.5E+03		2.7E+02	
SB-215	N		2	10/18/21	VOC	Vinyl Chloride	75-01-4		U	1.10E-02	1.7E+01		5.9E-01	
SB-215	N		2	10/18/21	VOC	Xylenes (total)	1330-20-7		U	4.40E-03	2.5E+03		5.8E+02	
SB-215	N		2	10/18/21	SVOC	Acenaphthene	83-32-9		U	1.80E-01	4.5E+04		3.6E+03	
SB-215	N		2	10/18/21	SVOC	Acenaphthylene	208-96-8		U	1.80E-01	2.3E+04		1.8E+03	
SB-215	N		2	10/18/21	SVOC	Acetophenone	98-86-2		U	3.60E-01	1.2E+05		7.8E+03	
SB-215	N		2	10/18/21	SVOC	t-Amyl methyl ether	994-05-8		U	1.10E-03				
SB-215	N		2	10/18/21	SVOC	Aniline	62-53-3		U	3.60E-01	4.0E+03		4.4E+02	
SB-215	N		2	10/18/21	SVOC	Anthracene	120-12-7		U	1.80E-01	2.3E+05		1.8E+04	
SB-215	N		2	10/18/21	SVOC	Benzidine	92-87-5		U	6.90E-01	1.0E-01		5.3E-03	
SB-215	N		2	10/18/21	SVOC	Benzo(a)anthracene	56-55-3	7.80E-02	J	1.80E-01	2.1E+02	3.7E-04	1.1E+01	7.1E-03
SB-215	N		2	10/18/21	SVOC	Benzo(a)pyrene	50-32-8	6.50E-02	J	1.80E-01	2.1E+01	3.1E-03	1.1E+00	5.9E-02
SB-215	N		2	10/18/21	SVOC	Benzo(b)fluoranthene	205-99-2	1.10E-01	J	1.80E-01	2.1E+02	5.2E-04	1.1E+01	1.0E-02
SB-215	N		2	10/18/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.80E-01	2.3E+04		1.8E+03	
SB-215	N		2	10/18/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.80E-01	2.1E+03		1.1E+02	
SB-215	N		2	10/18/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-215	N		2	10/18/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.60E-01	2.5E+03		1.9E+02	
SB-215	N		2	10/18/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.60E-01	1.0E+01		2.3E+00	
SB-215	N		2	10/18/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.60E-01	1.6E+03		3.9E+02	
SB-215	N		2	10/18/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.60E-01				
SB-215	N		2	10/18/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.60E-01	1.2E+04		2.9E+03	
SB-215	N		2	10/18/21	SVOC	Carbazole	86-74-8		U	1.80E-01	3.0E+04		2.4E+03	
SB-215	N		2	10/18/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	6.90E-01	8.2E+04		6.3E+03	
SB-215	N		2	10/18/21	SVOC	4-Chloroaniline	106-47-8		U	6.90E-01	1.1E+02		2.7E+01	
SB-215	N		2	10/18/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.60E-01	6.0E+04		4.8E+03	
SB-215	N		2	10/18/21	SVOC	2-Chlorophenol	95-57-8		U	3.60E-01	5.8E+03		3.9E+02	
SB-215	N		2	10/18/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.60E-01				
SB-215	N		2	10/18/21	SVOC	Chrysene	218-01-9	1.20E-01	J	1.80E-01	2.1E+04	5.7E-06	1.1E+03	1.1E-04
SB-215	N		2	10/18/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.80E-01	2.1E+01		1.1E+00	
SB-215	N		2	10/18/21	SVOC	Dibenzofuran	132-64-9	7.70E-02	J	3.60E-01	1.2E+03	6.4E-05	7.8E+01	9.9E-04
SB-215	N		2	10/18/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.80E-01	5.1E+01		1.2E+01	
SB-215	N		2	10/18/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.60E-01	2.5E+03		1.9E+02	
SB-215	N		2	10/18/21	SVOC	Diethylphthalate	84-66-2		U	3.60E-01	6.6E+05		5.1E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N		2	10/18/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.60E-01	1.6E+04		1.3E+03	
SB-215	N		2	10/18/21	SVOC	Dimethylphthalate	131-11-3		U	3.60E-01	6.6E+05		5.1E+04	
SB-215	N		2	10/18/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.60E-01	8.2E+04		6.3E+03	
SB-215	N		2	10/18/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.60E-01	6.6E+01		5.1E+00	
SB-215	N		2	10/18/21	SVOC	2,4-Dinitrophenol	51-28-5		U	6.90E-01	1.6E+03		1.3E+02	
SB-215	N		2	10/18/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.60E-01	8.2E+03		6.3E+02	
SB-215	N		2	10/18/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.60E-01	2.9E+01		6.8E+00	
SB-215	N		2	10/18/21	SVOC	Fluoranthene	206-44-0	1.00E-01	J	1.80E-01	3.0E+04	3.3E-06	2.4E+03	4.2E-05
SB-215	N		2	10/18/21	SVOC	Fluorene	86-73-7		U	1.80E-01	3.0E+04		2.4E+03	
SB-215	N		2	10/18/21	SVOC	Hexachlorobenzene	118-74-1		U	3.60E-01	9.6E+00		7.8E-01	
SB-215	N		2	10/18/21	SVOC	Hexachlorobutadiene	87-68-3		U	2.20E-03	5.3E+01		1.2E+01	
SB-215	N		2	10/18/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.60E-01	7.5E+00		1.8E+00	
SB-215	N		2	10/18/21	SVOC	Hexachloroethane	67-72-1		U	3.60E-01	8.0E+01		1.8E+01	
SB-215	N		2	10/18/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.80E-01	2.1E+02		1.1E+01	
SB-215	N		2	10/18/21	SVOC	Isophorone	78-59-1		U	3.60E-01	2.4E+04		5.7E+03	
SB-215	N		2	10/18/21	SVOC	1-Methylnaphthalene	90-12-0	2.30E-01		1.80E-01	7.3E+02	3.2E-04	1.8E+02	1.3E-03
SB-215	N		2	10/18/21	SVOC	2-Methylnaphthalene	91-57-6	2.80E-01		1.80E-01	3.0E+03	9.3E-05	2.4E+02	1.2E-03
SB-215	N		2	10/18/21	SVOC	2-Methylphenol	95-48-7		U	3.60E-01	4.1E+04		3.2E+03	
SB-215	N		2	10/18/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.60E-01				
SB-215	N		2	10/18/21	SVOC	Naphthalene	91-20-3	9.80E-02	J	1.80E-01	8.6E+01	1.1E-03	2.0E+01	4.9E-03
SB-215	N		2	10/18/21	SVOC	2-Nitroaniline	88-74-4		U	3.60E-01	8.0E+03		6.3E+02	
SB-215	N		2	10/18/21	SVOC	3-Nitroaniline	99-09-2		U	3.60E-01	1.1E+03		2.5E+02	
SB-215	N		2	10/18/21	SVOC	4-Nitroaniline	100-01-6		U	3.60E-01	1.1E+03		2.5E+02	
SB-215	N		2	10/18/21	SVOC	2-Nitrophenol	88-75-5		U	3.60E-01				
SB-215	N		2	10/18/21	SVOC	4-Nitrophenol	100-02-7		U	6.90E-01				
SB-215	N		2	10/18/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.60E-01	3.4E-01		2.0E-02	
SB-215	N		2	10/18/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.60E-01	4.7E+03		1.1E+03	
SB-215	N		2	10/18/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.60E-01	3.3E+00		7.8E-01	
SB-215	N		2	10/18/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.60E-01	4.7E+04		3.1E+03	
SB-215	N		2	10/18/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.60E-01	1.3E+02		2.7E+01	
SB-215	N		2	10/18/21	SVOC	Pentachlorophenol	87-86-5		U	3.60E-01	4.0E+01		1.0E+01	
SB-215	N		2	10/18/21	SVOC	Phenanthrene	85-01-8	3.00E-01		1.80E-01	2.3E+04	1.3E-05	1.8E+03	1.7E-04
SB-215	N		2	10/18/21	SVOC	Phenol	108-95-2		U	3.60E-01	2.5E+05		1.9E+04	
SB-215	N		2	10/18/21	SVOC	Pyrene	129-00-0	1.10E-01	J	1.80E-01	2.3E+04	4.8E-06	1.8E+03	6.1E-05
SB-215	N		2	10/18/21	SVOC	Pyridine	110-86-1		U	3.60E-01	1.2E+03		7.8E+01	
SB-215	N		2	10/18/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.60E-01	3.5E+01		2.3E+00	
SB-215	N		2	10/18/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.60E-01	8.2E+04		6.3E+03	
SB-215	N		2	10/18/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.60E-01	8.2E+02		6.3E+01	
SB-215	N		2	10/18/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.60E-01	7.4E+01		1.7E+01	
SB-215	N		2	10/18/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.60E-01	1.5E+01		3.6E+00	
SB-215	N		2	10/18/21	NITRO	Nitrobenzene	98-95-3		U	3.60E-01	2.2E+02		5.1E+01	
SB-215	N		2	10/18/21	INORG	Aluminum	7429-90-5	1.30E+04		1.70E+01	1.1E+06	1.2E-02	7.7E+04	1.7E-01
SB-215	N		2	10/18/21	INORG	Antimony	7440-36-0		U	1.70E+00	4.7E+02		3.1E+01	
SB-215	N		2	10/18/21	INORG	Arsenic	7440-38-2	3.70E+00		3.50E+00	3.0E+01	1.2E-01	6.8E+00	5.4E-01

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N		2	10/18/21	INORG	Barium	7440-39-3	2.90E+01		1.70E+00	2.2E+05	1.3E-04	1.5E+04	1.9E-03
SB-215	N		2	10/18/21	INORG	Beryllium	7440-41-7	3.40E-01		1.70E-01	2.3E+03	1.5E-04	1.6E+02	2.1E-03
SB-215	N		2	10/18/21	INORG	Cadmium	7440-43-9		U	3.50E-01	1.0E+02		7.1E+00	
SB-215	N		2	10/18/21	INORG	Chromium (total)	7440-47-3	8.40E+00		6.90E-01	1.8E+06	4.7E-06	1.2E+05	7.0E-05
SB-215	N		2	10/18/21	INORG	Cobalt	7440-48-4	2.00E+01		1.70E+00	3.5E+02	5.7E-02	2.3E+01	8.7E-01
SB-215	N		2	10/18/21	INORG	Copper	7440-50-8	1.20E+02		6.90E-01	4.7E+04	2.6E-03	3.1E+03	3.9E-02
SB-215	N		2	10/18/21	INORG	Cyanide (total)	57-12-5		U	5.30E-01	1.5E+02		2.3E+01	
SB-215	N		2	10/18/21	INORG	Iron	7439-89-6	3.60E+04		1.70E+03	8.2E+05	4.4E-02	5.5E+04	6.5E-01
SB-215	N		2	10/18/21	INORG	Lead	7439-92-1	2.50E+01		5.20E-01	8.0E+02	3.1E-02	2.0E+02	1.3E-01
SB-215	N		2	10/18/21	INORG	Manganese	7439-96-5	2.70E+02		3.50E-01	2.6E+04	1.0E-02	1.8E+03	1.5E-01
SB-215	N		2	10/18/21	INORG	Mercury	7439-97-6	1.60E-02	J	3.00E-02	4.1E+01	3.9E-04	7.4E+00	2.2E-03
SB-215	N		2	10/18/21	INORG	Nickel	7440-02-0	2.20E+01		6.90E-01	2.2E+04	1.0E-03	1.5E+03	1.5E-02
SB-215	N		2	10/18/21	INORG	Selenium	7782-49-2		U	3.50E+00	5.8E+03		3.9E+02	
SB-215	N		2	10/18/21	INORG	Silver	7440-22-4		U	3.50E-01	5.8E+03		3.9E+02	
SB-215	N		2	10/18/21	INORG	Thallium	7440-28-0		U	1.70E+00	1.2E+01		7.8E-01	
SB-215	N		2	10/18/21	INORG	Vanadium	7440-62-2	8.90E+01		6.90E-01	5.8E+03	1.5E-02	3.9E+02	2.3E-01
SB-215	N		2	10/18/21	INORG	Zinc	7440-66-6	6.20E+01		6.90E-01	3.5E+05	1.8E-04	2.3E+04	2.7E-03
SB-215	N	5	7	10/18/21	VOC	Acetone	67-64-1		U	9.10E-02	1.1E+06		7.0E+04	
SB-215	N	5	7	10/18/21	VOC	Acrylonitrile	107-13-1		U	5.40E-03	1.1E+01		2.5E+00	
SB-215	N	5	7	10/18/21	VOC	Benzene	71-43-2		U	1.80E-03	5.1E+01		1.2E+01	
SB-215	N	5	7	10/18/21	VOC	Bromobenzene	108-86-1		U	1.80E-03	1.8E+03		2.9E+02	
SB-215	N	5	7	10/18/21	VOC	Bromochloromethane	74-97-5		U	1.80E-03	6.3E+02		1.5E+02	
SB-215	N	5	7	10/18/21	VOC	Bromodichloromethane	75-27-4		U	1.80E-03	1.3E+01		2.9E+00	
SB-215	N	5	7	10/18/21	VOC	Bromoform	75-25-2		U	1.80E-03	8.6E+02		1.9E+02	
SB-215	N	5	7	10/18/21	VOC	Bromomethane	74-83-9		U	9.10E-03	3.0E+01		6.8E+00	
SB-215	N	5	7	10/18/21	VOC	2-Butanone	78-93-3		U	3.60E-02	1.9E+05		2.7E+04	
SB-215	N	5	7	10/18/21	VOC	n-Butylbenzene	104-51-8		U	1.80E-03	5.8E+04		3.9E+03	
SB-215	N	5	7	10/18/21	VOC	sec-Butylbenzene	135-98-8		U	1.80E-03	1.2E+05		7.8E+03	
SB-215	N	5	7	10/18/21	VOC	tert-Butylbenzene	98-06-6		U	1.80E-03	1.2E+05		7.8E+03	
SB-215	N	5	7	10/18/21	VOC	Carbon Disulfide	75-15-0		U	9.10E-03	3.5E+03		7.7E+02	
SB-215	N	5	7	10/18/21	VOC	Carbon Tetrachloride	56-23-5		U	1.80E-03	2.9E+01		6.5E+00	
SB-215	N	5	7	10/18/21	VOC	Chlorobenzene	108-90-7		U	1.80E-03	1.3E+03		2.8E+02	
SB-215	N	5	7	10/18/21	VOC	Chloroethane	75-00-3		U	1.80E-02	2.3E+04		5.4E+03	
SB-215	N	5	7	10/18/21	VOC	Chloroform	67-66-3		U	3.60E-03	1.4E+01		3.2E+00	
SB-215	N	5	7	10/18/21	VOC	Chloromethane	74-87-3		U	9.10E-03	4.6E+02		1.1E+02	
SB-215	N	5	7	10/18/21	VOC	2-Chlorotoluene	95-49-8		U	1.80E-03	2.3E+04		1.6E+03	
SB-215	N	5	7	10/18/21	VOC	4-Chlorotoluene	106-43-4		U	1.80E-03	2.3E+04		1.6E+03	
SB-215	N	5	7	10/18/21	VOC	Cumene	98-82-8		U	1.80E-03	9.9E+03		1.9E+03	
SB-215	N	5	7	10/18/21	VOC	p-Cymene	99-87-6		U	1.80E-03				
SB-215	N	5	7	10/18/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.80E-03	6.4E-01		5.3E-02	
SB-215	N	5	7	10/18/21	VOC	Dibromochloromethane	124-48-1		U	9.10E-04	3.9E+02		8.3E+01	
SB-215	N	5	7	10/18/21	VOC	1,2-Dibromoethane	106-93-4		U	9.10E-04	1.6E+00		3.6E-01	
SB-215	N	5	7	10/18/21	VOC	Dibromomethane	74-95-3		U	1.80E-03	9.9E+01		2.4E+01	
SB-215	N	5	7	10/18/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.60E-03	3.2E-01		7.4E-02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N	5	7	10/18/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.80E-03	9.3E+03		1.8E+03	
SB-215	N	5	7	10/18/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.80E-03	1.1E+02		2.6E+01	
SB-215	N	5	7	10/18/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.80E-03	1.1E+02		2.6E+01	
SB-215	N	5	7	10/18/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.80E-02	3.7E+02		8.7E+01	
SB-215	N	5	7	10/18/21	VOC	1,1-Dichloroethane	75-34-3		U	1.80E-03	1.6E+02		3.6E+01	
SB-215	N	5	7	10/18/21	VOC	1,2-Dichloroethane	107-06-2		U	1.80E-03	2.0E+01		4.6E+00	
SB-215	N	5	7	10/18/21	VOC	1,1-Dichloroethene	75-35-4		U	3.60E-03	1.0E+03		2.3E+02	
SB-215	N	5	7	10/18/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.80E-03	3.7E+02		6.3E+01	
SB-215	N	5	7	10/18/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.80E-03	3.0E+02		7.0E+01	
SB-215	N	5	7	10/18/21	VOC	1,2-Dichloropropane	78-87-5		U	1.80E-03	6.6E+01		1.6E+01	
SB-215	N	5	7	10/18/21	VOC	1,3-Dichloropropane	142-28-9		U	9.10E-04	2.3E+04		1.6E+03	
SB-215	N	5	7	10/18/21	VOC	2,2-Dichloropropane	594-20-7		U	1.80E-03				
SB-215	N	5	7	10/18/21	VOC	1,1-Dichloropropene	563-58-6		U	1.80E-03				
SB-215	N	5	7	10/18/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	9.10E-04	8.2E+01		1.8E+01	
SB-215	N	5	7	10/18/21	VOC	1,4-Dioxane	123-91-1		U	9.10E-02	2.4E+02		5.3E+01	
SB-215	N	5	7	10/18/21	VOC	Ethyl tert-butyl ether	637-92-3		U	9.10E-04	5.6E+03		1.3E+03	
SB-215	N	5	7	10/18/21	VOC	Ethyl Benzene	100-41-4		U	1.80E-03	2.5E+02		5.8E+01	
SB-215	N	5	7	10/18/21	VOC	Diethyl ether	60-29-7		U	1.80E-02	2.3E+05		1.6E+04	
SB-215	N	5	7	10/18/21	VOC	2-Hexanone	591-78-6		U	1.80E-02	1.3E+03		2.0E+02	
SB-215	N	5	7	10/18/21	VOC	Methyl Acetate	79-20-9		U	1.80E-03	1.2E+06		7.8E+04	
SB-215	N	5	7	10/18/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.60E-03	2.1E+03		4.7E+02	
SB-215	N	5	7	10/18/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.80E-02	1.4E+05		3.3E+04	
SB-215	N	5	7	10/18/21	VOC	Methylcyclohexane	108-87-2		U	1.80E-03	2.7E+04		6.5E+03	
SB-215	N	5	7	10/18/21	VOC	Methylene Chloride	75-09-2		U	1.80E-02	3.2E+03		3.5E+02	
SB-215	N	5	7	10/18/21	VOC	Diisopropyl ether	108-20-3		U	9.10E-04	9.4E+03		2.2E+03	
SB-215	N	5	7	10/18/21	VOC	n-Propylbenzene	103-65-1		U	1.80E-03	2.4E+04		3.8E+03	
SB-215	N	5	7	10/18/21	VOC	Styrene	100-42-5		U	1.80E-03	3.5E+04		6.0E+03	
SB-215	N	5	7	10/18/21	VOC	tert-Butyl alcohol	75-65-0		U	9.10E-02	6.5E+04		1.4E+04	
SB-215	N	5	7	10/18/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.80E-03	8.8E+01		2.0E+01	
SB-215	N	5	7	10/18/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	9.10E-04	2.7E+01		6.0E+00	
SB-215	N	5	7	10/18/21	VOC	Tetrachloroethene	127-18-4		U	1.80E-03	3.9E+02		8.1E+01	
SB-215	N	5	7	10/18/21	VOC	Tetrahydrofuran	109-99-9		U	9.10E-03	9.5E+04		1.8E+04	
SB-215	N	5	7	10/18/21	VOC	Toluene	108-88-3		U	1.80E-03	4.7E+04		4.9E+03	
SB-215	N	5	7	10/18/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.80E-03	9.3E+02		6.3E+01	
SB-215	N	5	7	10/18/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.80E-03	2.6E+02		5.8E+01	
SB-215	N	5	7	10/18/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.80E-03				
SB-215	N	5	7	10/18/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.80E-03	3.6E+04		8.1E+03	
SB-215	N	5	7	10/18/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.80E-03	6.3E+00		1.5E+00	
SB-215	N	5	7	10/18/21	VOC	Trichloroethene	79-01-6		U	1.80E-03	1.9E+01		4.1E+00	
SB-215	N	5	7	10/18/21	VOC	Trichlorofluoromethane	75-69-4		U	9.10E-03	3.5E+05		2.3E+04	
SB-215	N	5	7	10/18/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.80E-03	1.1E+00		5.1E-02	
SB-215	N	5	7	10/18/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	9.10E-03	2.8E+04		6.7E+03	
SB-215	N	5	7	10/18/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.80E-03	1.8E+03		3.0E+02	
SB-215	N	5	7	10/18/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.80E-03	1.5E+03		2.7E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N	5	7	10/18/21	VOC	Vinyl Chloride	75-01-4		U	9.10E-03	1.7E+01		5.9E-01	
SB-215	N	5	7	10/18/21	VOC	Xylenes (total)	1330-20-7		U	3.60E-03	2.5E+03		5.8E+02	
SB-215	N	5	7	10/18/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-215	N	5	7	10/18/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-215	N	5	7	10/18/21	SVOC	Acetophenone	98-86-2		U	3.90E-01	1.2E+05		7.8E+03	
SB-215	N	5	7	10/18/21	SVOC	t-Amyl methyl ether	994-05-8		U	9.10E-04				
SB-215	N	5	7	10/18/21	SVOC	Aniline	62-53-3		U	3.90E-01	4.0E+03		4.4E+02	
SB-215	N	5	7	10/18/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-215	N	5	7	10/18/21	SVOC	Benzidine	92-87-5		U	7.50E-01	1.0E-01		5.3E-03	
SB-215	N	5	7	10/18/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.90E-01	2.1E+02		1.1E+01	
SB-215	N	5	7	10/18/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	
SB-215	N	5	7	10/18/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.90E-01	2.1E+02		1.1E+01	
SB-215	N	5	7	10/18/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-215	N	5	7	10/18/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-215	N	5	7	10/18/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-215	N	5	7	10/18/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.90E-01	2.5E+03		1.9E+02	
SB-215	N	5	7	10/18/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.90E-01	1.0E+01		2.3E+00	
SB-215	N	5	7	10/18/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.90E-01	1.6E+03		3.9E+02	
SB-215	N	5	7	10/18/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.90E-01				
SB-215	N	5	7	10/18/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.90E-01	1.2E+04		2.9E+03	
SB-215	N	5	7	10/18/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-215	N	5	7	10/18/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.50E-01	8.2E+04		6.3E+03	
SB-215	N	5	7	10/18/21	SVOC	4-Chloroaniline	106-47-8		U	7.50E-01	1.1E+02		2.7E+01	
SB-215	N	5	7	10/18/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.90E-01	6.0E+04		4.8E+03	
SB-215	N	5	7	10/18/21	SVOC	2-Chlorophenol	95-57-8		U	3.90E-01	5.8E+03		3.9E+02	
SB-215	N	5	7	10/18/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.90E-01				
SB-215	N	5	7	10/18/21	SVOC	Chrysene	218-01-9		U	1.90E-01	2.1E+04		1.1E+03	
SB-215	N	5	7	10/18/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-215	N	5	7	10/18/21	SVOC	Dibenzofuran	132-64-9		U	3.90E-01	1.2E+03		7.8E+01	
SB-215	N	5	7	10/18/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-215	N	5	7	10/18/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.90E-01	2.5E+03		1.9E+02	
SB-215	N	5	7	10/18/21	SVOC	Diethylphthalate	84-66-2		U	3.90E-01	6.6E+05		5.1E+04	
SB-215	N	5	7	10/18/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.90E-01	1.6E+04		1.3E+03	
SB-215	N	5	7	10/18/21	SVOC	Dimethylphthalate	131-11-3		U	3.90E-01	6.6E+05		5.1E+04	
SB-215	N	5	7	10/18/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.90E-01	8.2E+04		6.3E+03	
SB-215	N	5	7	10/18/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.90E-01	6.6E+01		5.1E+00	
SB-215	N	5	7	10/18/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.50E-01	1.6E+03		1.3E+02	
SB-215	N	5	7	10/18/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.90E-01	8.2E+03		6.3E+02	
SB-215	N	5	7	10/18/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.90E-01	2.9E+01		6.8E+00	
SB-215	N	5	7	10/18/21	SVOC	Fluoranthene	206-44-0		U	1.90E-01	3.0E+04		2.4E+03	
SB-215	N	5	7	10/18/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-215	N	5	7	10/18/21	SVOC	Hexachlorobenzene	118-74-1		U	3.90E-01	9.6E+00		7.8E-01	
SB-215	N	5	7	10/18/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.80E-03	5.3E+01		1.2E+01	
SB-215	N	5	7	10/18/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.90E-01	7.5E+00		1.8E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N	5	7	10/18/21	SVOC	Hexachloroethane	67-72-1		U	3.90E-01	8.0E+01		1.8E+01	
SB-215	N	5	7	10/18/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-215	N	5	7	10/18/21	SVOC	Isophorone	78-59-1		U	3.90E-01	2.4E+04		5.7E+03	
SB-215	N	5	7	10/18/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.90E-01	7.3E+02		1.8E+02	
SB-215	N	5	7	10/18/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.90E-01	3.0E+03		2.4E+02	
SB-215	N	5	7	10/18/21	SVOC	2-Methylphenol	95-48-7		U	3.90E-01	4.1E+04		3.2E+03	
SB-215	N	5	7	10/18/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.90E-01				
SB-215	N	5	7	10/18/21	SVOC	Naphthalene	91-20-3		U	3.60E-03	8.6E+01		2.0E+01	
SB-215	N	5	7	10/18/21	SVOC	2-Nitroaniline	88-74-4		U	3.90E-01	8.0E+03		6.3E+02	
SB-215	N	5	7	10/18/21	SVOC	3-Nitroaniline	99-09-2		U	3.90E-01	1.1E+03		2.5E+02	
SB-215	N	5	7	10/18/21	SVOC	4-Nitroaniline	100-01-6		U	3.90E-01	1.1E+03		2.5E+02	
SB-215	N	5	7	10/18/21	SVOC	2-Nitrophenol	88-75-5		U	3.90E-01				
SB-215	N	5	7	10/18/21	SVOC	4-Nitrophenol	100-02-7		U	7.50E-01				
SB-215	N	5	7	10/18/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.90E-01	3.4E-01		2.0E-02	
SB-215	N	5	7	10/18/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.90E-01	4.7E+03		1.1E+03	
SB-215	N	5	7	10/18/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.90E-01	3.3E+00		7.8E-01	
SB-215	N	5	7	10/18/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.90E-01	4.7E+04		3.1E+03	
SB-215	N	5	7	10/18/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.90E-01	1.3E+02		2.7E+01	
SB-215	N	5	7	10/18/21	SVOC	Pentachlorophenol	87-86-5		U	3.90E-01	4.0E+01		1.0E+01	
SB-215	N	5	7	10/18/21	SVOC	Phenanthrene	85-01-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-215	N	5	7	10/18/21	SVOC	Phenol	108-95-2		U	3.90E-01	2.5E+05		1.9E+04	
SB-215	N	5	7	10/18/21	SVOC	Pyrene	129-00-0		U	1.90E-01	2.3E+04		1.8E+03	
SB-215	N	5	7	10/18/21	SVOC	Pyridine	110-86-1		U	3.90E-01	1.2E+03		7.8E+01	
SB-215	N	5	7	10/18/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.90E-01	3.5E+01		2.3E+00	
SB-215	N	5	7	10/18/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.90E-01	8.2E+04		6.3E+03	
SB-215	N	5	7	10/18/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.90E-01	8.2E+02		6.3E+01	
SB-215	N	5	7	10/18/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.90E-01	7.4E+01		1.7E+01	
SB-215	N	5	7	10/18/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.90E-01	1.5E+01		3.6E+00	
SB-215	N	5	7	10/18/21	NITRO	Nitrobenzene	98-95-3		U	3.90E-01	2.2E+02		5.1E+01	
SB-215	N	5	7	10/18/21	INORG	Aluminum	7429-90-5	1.20E+04		1.90E+01	1.1E+06	1.1E-02	7.7E+04	1.6E-01
SB-215	N	5	7	10/18/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-215	N	5	7	10/18/21	INORG	Arsenic	7440-38-2	2.60E+00	J	3.80E+00	3.0E+01	8.7E-02	6.8E+00	3.8E-01
SB-215	N	5	7	10/18/21	INORG	Barium	7440-39-3	5.80E+01		1.90E+00	2.2E+05	2.6E-04	1.5E+04	3.9E-03
SB-215	N	5	7	10/18/21	INORG	Beryllium	7440-41-7	9.60E-01		1.90E-01	2.3E+03	4.2E-04	1.6E+02	6.0E-03
SB-215	N	5	7	10/18/21	INORG	Cadmium	7440-43-9		U	3.80E-01	1.0E+02		7.1E+00	
SB-215	N	5	7	10/18/21	INORG	Chromium (total)	7440-47-3	1.50E+01		7.70E-01	1.8E+06	8.3E-06	1.2E+05	1.3E-04
SB-215	N	5	7	10/18/21	INORG	Cobalt	7440-48-4	1.10E+01		1.90E+00	3.5E+02	3.1E-02	2.3E+01	4.8E-01
SB-215	N	5	7	10/18/21	INORG	Copper	7440-50-8	2.00E+01		7.70E-01	4.7E+04	4.3E-04	3.1E+03	6.5E-03
SB-215	N	5	7	10/18/21	INORG	Cyanide (total)	57-12-5		U	5.70E-01	1.5E+02		2.3E+01	
SB-215	N	5	7	10/18/21	INORG	Iron	7439-89-6	1.90E+04		1.90E+03	8.2E+05	2.3E-02	5.5E+04	3.5E-01
SB-215	N	5	7	10/18/21	INORG	Lead	7439-92-1	1.10E+01		5.80E-01	8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-215	N	5	7	10/18/21	INORG	Manganese	7439-96-5	1.90E+02		3.80E-01	2.6E+04	7.3E-03	1.8E+03	1.1E-01
SB-215	N	5	7	10/18/21	INORG	Mercury	7439-97-6		U	3.20E-02	4.1E+01		7.4E+00	
SB-215	N	5	7	10/18/21	INORG	Nickel	7440-02-0	1.40E+01		7.70E-01	2.2E+04	6.4E-04	1.5E+03	9.3E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N	5	7	10/18/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-215	N	5	7	10/18/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-215	N	5	7	10/18/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-215	N	5	7	10/18/21	INORG	Vanadium	7440-62-2	4.00E+01		7.70E-01	5.8E+03	6.9E-03	3.9E+02	1.0E-01
SB-215	N	5	7	10/18/21	INORG	Zinc	7440-66-6	3.90E+01		7.70E-01	3.5E+05	1.1E-04	2.3E+04	1.7E-03
SB-215	N	16	18	10/18/21	VOC	Acetone	67-64-1		U	7.50E-02	1.1E+06		7.0E+04	
SB-215	N	16	18	10/18/21	VOC	Acrylonitrile	107-13-1		U	4.50E-03	1.1E+01		2.5E+00	
SB-215	N	16	18	10/18/21	VOC	Benzene	71-43-2		U	1.50E-03	5.1E+01		1.2E+01	
SB-215	N	16	18	10/18/21	VOC	Bromobenzene	108-86-1		U	1.50E-03	1.8E+03		2.9E+02	
SB-215	N	16	18	10/18/21	VOC	Bromochloromethane	74-97-5		U	1.50E-03	6.3E+02		1.5E+02	
SB-215	N	16	18	10/18/21	VOC	Bromodichloromethane	75-27-4		U	1.50E-03	1.3E+01		2.9E+00	
SB-215	N	16	18	10/18/21	VOC	Bromoform	75-25-2		U	1.50E-03	8.6E+02		1.9E+02	
SB-215	N	16	18	10/18/21	VOC	Bromomethane	74-83-9		U	7.50E-03	3.0E+01		6.8E+00	
SB-215	N	16	18	10/18/21	VOC	2-Butanone	78-93-3		U	3.00E-02	1.9E+05		2.7E+04	
SB-215	N	16	18	10/18/21	VOC	n-Butylbenzene	104-51-8		U	1.50E-03	5.8E+04		3.9E+03	
SB-215	N	16	18	10/18/21	VOC	sec-Butylbenzene	135-98-8		U	1.50E-03	1.2E+05		7.8E+03	
SB-215	N	16	18	10/18/21	VOC	tert-Butylbenzene	98-06-6		U	1.50E-03	1.2E+05		7.8E+03	
SB-215	N	16	18	10/18/21	VOC	Carbon Disulfide	75-15-0		U	7.50E-03	3.5E+03		7.7E+02	
SB-215	N	16	18	10/18/21	VOC	Carbon Tetrachloride	56-23-5		U	1.50E-03	2.9E+01		6.5E+00	
SB-215	N	16	18	10/18/21	VOC	Chlorobenzene	108-90-7		U	1.50E-03	1.3E+03		2.8E+02	
SB-215	N	16	18	10/18/21	VOC	Chloroethane	75-00-3		U	1.50E-02	2.3E+04		5.4E+03	
SB-215	N	16	18	10/18/21	VOC	Chloroform	67-66-3		U	3.00E-03	1.4E+01		3.2E+00	
SB-215	N	16	18	10/18/21	VOC	Chloromethane	74-87-3		U	7.50E-03	4.6E+02		1.1E+02	
SB-215	N	16	18	10/18/21	VOC	2-Chlorotoluene	95-49-8		U	1.50E-03	2.3E+04		1.6E+03	
SB-215	N	16	18	10/18/21	VOC	4-Chlorotoluene	106-43-4		U	1.50E-03	2.3E+04		1.6E+03	
SB-215	N	16	18	10/18/21	VOC	Cumene	98-82-8		U	1.50E-03	9.9E+03		1.9E+03	
SB-215	N	16	18	10/18/21	VOC	p-Cymene	99-87-6		U	1.50E-03				
SB-215	N	16	18	10/18/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.50E-03	6.4E-01		5.3E-02	
SB-215	N	16	18	10/18/21	VOC	Dibromochloromethane	124-48-1		U	7.50E-04	3.9E+02		8.3E+01	
SB-215	N	16	18	10/18/21	VOC	1,2-Dibromoethane	106-93-4		U	7.50E-04	1.6E+00		3.6E-01	
SB-215	N	16	18	10/18/21	VOC	Dibromomethane	74-95-3		U	1.50E-03	9.9E+01		2.4E+01	
SB-215	N	16	18	10/18/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.00E-03	3.2E-01		7.4E-02	
SB-215	N	16	18	10/18/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.50E-03	9.3E+03		1.8E+03	
SB-215	N	16	18	10/18/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.50E-03	1.1E+02		2.6E+01	
SB-215	N	16	18	10/18/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.50E-03	1.1E+02		2.6E+01	
SB-215	N	16	18	10/18/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.50E-02	3.7E+02		8.7E+01	
SB-215	N	16	18	10/18/21	VOC	1,1-Dichloroethane	75-34-3		U	1.50E-03	1.6E+02		3.6E+01	
SB-215	N	16	18	10/18/21	VOC	1,2-Dichloroethane	107-06-2		U	1.50E-03	2.0E+01		4.6E+00	
SB-215	N	16	18	10/18/21	VOC	1,1-Dichloroethene	75-35-4		U	3.00E-03	1.0E+03		2.3E+02	
SB-215	N	16	18	10/18/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.50E-03	3.7E+02		6.3E+01	
SB-215	N	16	18	10/18/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.50E-03	3.0E+02		7.0E+01	
SB-215	N	16	18	10/18/21	VOC	1,2-Dichloropropane	78-87-5		U	1.50E-03	6.6E+01		1.6E+01	
SB-215	N	16	18	10/18/21	VOC	1,3-Dichloropropane	142-28-9		U	7.50E-04	2.3E+04		1.6E+03	
SB-215	N	16	18	10/18/21	VOC	2,2-Dichloropropane	594-20-7		U	1.50E-03				

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N	16	18	10/18/21	VOC	1,1-Dichloropropene	563-58-6		U	1.50E-03				
SB-215	N	16	18	10/18/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	7.50E-04	8.2E+01		1.8E+01	
SB-215	N	16	18	10/18/21	VOC	1,4-Dioxane	123-91-1		U	7.50E-02	2.4E+02		5.3E+01	
SB-215	N	16	18	10/18/21	VOC	Ethyl tert-butyl ether	637-92-3		U	7.50E-04	5.6E+03		1.3E+03	
SB-215	N	16	18	10/18/21	VOC	Ethyl Benzene	100-41-4		U	1.50E-03	2.5E+02		5.8E+01	
SB-215	N	16	18	10/18/21	VOC	Diethyl ether	60-29-7		U	1.50E-02	2.3E+05		1.6E+04	
SB-215	N	16	18	10/18/21	VOC	2-Hexanone	591-78-6		U	1.50E-02	1.3E+03		2.0E+02	
SB-215	N	16	18	10/18/21	VOC	Methyl Acetate	79-20-9		U	1.50E-03	1.2E+06		7.8E+04	
SB-215	N	16	18	10/18/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.00E-03	2.1E+03		4.7E+02	
SB-215	N	16	18	10/18/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.50E-02	1.4E+05		3.3E+04	
SB-215	N	16	18	10/18/21	VOC	Methylcyclohexane	108-87-2		U	1.50E-03	2.7E+04		6.5E+03	
SB-215	N	16	18	10/18/21	VOC	Methylene Chloride	75-09-2		U	1.50E-02	3.2E+03		3.5E+02	
SB-215	N	16	18	10/18/21	VOC	Diisopropyl ether	108-20-3		U	7.50E-04	9.4E+03		2.2E+03	
SB-215	N	16	18	10/18/21	VOC	n-Propylbenzene	103-65-1		U	1.50E-03	2.4E+04		3.8E+03	
SB-215	N	16	18	10/18/21	VOC	Styrene	100-42-5		U	1.50E-03	3.5E+04		6.0E+03	
SB-215	N	16	18	10/18/21	VOC	tert-Butyl alcohol	75-65-0		U	7.50E-02	6.5E+04		1.4E+04	
SB-215	N	16	18	10/18/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.50E-03	8.8E+01		2.0E+01	
SB-215	N	16	18	10/18/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	7.50E-04	2.7E+01		6.0E+00	
SB-215	N	16	18	10/18/21	VOC	Tetrachloroethene	127-18-4		U	1.50E-03	3.9E+02		8.1E+01	
SB-215	N	16	18	10/18/21	VOC	Tetrahydrofuran	109-99-9		U	7.50E-03	9.5E+04		1.8E+04	
SB-215	N	16	18	10/18/21	VOC	Toluene	108-88-3		U	1.50E-03	4.7E+04		4.9E+03	
SB-215	N	16	18	10/18/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.50E-03	9.3E+02		6.3E+01	
SB-215	N	16	18	10/18/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.50E-03	2.6E+02		5.8E+01	
SB-215	N	16	18	10/18/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.50E-03				
SB-215	N	16	18	10/18/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.50E-03	3.6E+04		8.1E+03	
SB-215	N	16	18	10/18/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.50E-03	6.3E+00		1.5E+00	
SB-215	N	16	18	10/18/21	VOC	Trichloroethene	79-01-6		U	1.50E-03	1.9E+01		4.1E+00	
SB-215	N	16	18	10/18/21	VOC	Trichlorofluoromethane	75-69-4		U	7.50E-03	3.5E+05		2.3E+04	
SB-215	N	16	18	10/18/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.50E-03	1.1E+00		5.1E-02	
SB-215	N	16	18	10/18/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	7.50E-03	2.8E+04		6.7E+03	
SB-215	N	16	18	10/18/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.50E-03	1.8E+03		3.0E+02	
SB-215	N	16	18	10/18/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.50E-03	1.5E+03		2.7E+02	
SB-215	N	16	18	10/18/21	VOC	Vinyl Chloride	75-01-4		U	7.50E-03	1.7E+01		5.9E-01	
SB-215	N	16	18	10/18/21	VOC	Xylenes (total)	1330-20-7		U	3.00E-03	2.5E+03		5.8E+02	
SB-215	N	16	18	10/18/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	
SB-215	N	16	18	10/18/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-215	N	16	18	10/18/21	SVOC	Acetophenone	98-86-2		U	3.90E-01	1.2E+05		7.8E+03	
SB-215	N	16	18	10/18/21	SVOC	t-Amyl methyl ether	994-05-8		U	7.50E-04				
SB-215	N	16	18	10/18/21	SVOC	Aniline	62-53-3		U	3.90E-01	4.0E+03		4.4E+02	
SB-215	N	16	18	10/18/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-215	N	16	18	10/18/21	SVOC	Benzidine	92-87-5		U	7.50E-01	1.0E-01		5.3E-03	
SB-215	N	16	18	10/18/21	SVOC	Benzo(a)anthracene	56-55-3		U	1.90E-01	2.1E+02		1.1E+01	
SB-215	N	16	18	10/18/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	
SB-215	N	16	18	10/18/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	1.90E-01	2.1E+02		1.1E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N	16	18	10/18/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-215	N	16	18	10/18/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-215	N	16	18	10/18/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-215	N	16	18	10/18/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.90E-01	2.5E+03		1.9E+02	
SB-215	N	16	18	10/18/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.90E-01	1.0E+01		2.3E+00	
SB-215	N	16	18	10/18/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.90E-01	1.6E+03		3.9E+02	
SB-215	N	16	18	10/18/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.90E-01				
SB-215	N	16	18	10/18/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.90E-01	1.2E+04		2.9E+03	
SB-215	N	16	18	10/18/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-215	N	16	18	10/18/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.50E-01	8.2E+04		6.3E+03	
SB-215	N	16	18	10/18/21	SVOC	4-Chloroaniline	106-47-8		U	7.50E-01	1.1E+02		2.7E+01	
SB-215	N	16	18	10/18/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.90E-01	6.0E+04		4.8E+03	
SB-215	N	16	18	10/18/21	SVOC	2-Chlorophenol	95-57-8		U	3.90E-01	5.8E+03		3.9E+02	
SB-215	N	16	18	10/18/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.90E-01				
SB-215	N	16	18	10/18/21	SVOC	Chrysene	218-01-9		U	1.90E-01	2.1E+04		1.1E+03	
SB-215	N	16	18	10/18/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-215	N	16	18	10/18/21	SVOC	Dibenzofuran	132-64-9		U	3.90E-01	1.2E+03		7.8E+01	
SB-215	N	16	18	10/18/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-215	N	16	18	10/18/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.90E-01	2.5E+03		1.9E+02	
SB-215	N	16	18	10/18/21	SVOC	Diethylphthalate	84-66-2		U	3.90E-01	6.6E+05		5.1E+04	
SB-215	N	16	18	10/18/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.90E-01	1.6E+04		1.3E+03	
SB-215	N	16	18	10/18/21	SVOC	Dimethylphthalate	131-11-3		U	3.90E-01	6.6E+05		5.1E+04	
SB-215	N	16	18	10/18/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.90E-01	8.2E+04		6.3E+03	
SB-215	N	16	18	10/18/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.90E-01	6.6E+01		5.1E+00	
SB-215	N	16	18	10/18/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.50E-01	1.6E+03		1.3E+02	
SB-215	N	16	18	10/18/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.90E-01	8.2E+03		6.3E+02	
SB-215	N	16	18	10/18/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.90E-01	2.9E+01		6.8E+00	
SB-215	N	16	18	10/18/21	SVOC	Fluoranthene	206-44-0		U	1.90E-01	3.0E+04		2.4E+03	
SB-215	N	16	18	10/18/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-215	N	16	18	10/18/21	SVOC	Hexachlorobenzene	118-74-1		U	3.90E-01	9.6E+00		7.8E-01	
SB-215	N	16	18	10/18/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.50E-03	5.3E+01		1.2E+01	
SB-215	N	16	18	10/18/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.90E-01	7.5E+00		1.8E+00	
SB-215	N	16	18	10/18/21	SVOC	Hexachloroethane	67-72-1		U	3.90E-01	8.0E+01		1.8E+01	
SB-215	N	16	18	10/18/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-215	N	16	18	10/18/21	SVOC	Isophorone	78-59-1		U	3.90E-01	2.4E+04		5.7E+03	
SB-215	N	16	18	10/18/21	SVOC	1-Methylnaphthalene	90-12-0		U	1.90E-01	7.3E+02		1.8E+02	
SB-215	N	16	18	10/18/21	SVOC	2-Methylnaphthalene	91-57-6		U	1.90E-01	3.0E+03		2.4E+02	
SB-215	N	16	18	10/18/21	SVOC	2-Methylphenol	95-48-7		U	3.90E-01	4.1E+04		3.2E+03	
SB-215	N	16	18	10/18/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.90E-01				
SB-215	N	16	18	10/18/21	SVOC	Naphthalene	91-20-3		U	3.00E-03	8.6E+01		2.0E+01	
SB-215	N	16	18	10/18/21	SVOC	2-Nitroaniline	88-74-4		U	3.90E-01	8.0E+03		6.3E+02	
SB-215	N	16	18	10/18/21	SVOC	3-Nitroaniline	99-09-2		U	3.90E-01	1.1E+03		2.5E+02	
SB-215	N	16	18	10/18/21	SVOC	4-Nitroaniline	100-01-6		U	3.90E-01	1.1E+03		2.5E+02	
SB-215	N	16	18	10/18/21	SVOC	2-Nitrophenol	88-75-5		U	3.90E-01				

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-215	N	16	18	10/18/21	SVOC	4-Nitrophenol	100-02-7		U	7.50E-01				
SB-215	N	16	18	10/18/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.90E-01	3.4E-01		2.0E-02	
SB-215	N	16	18	10/18/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.90E-01	4.7E+03		1.1E+03	
SB-215	N	16	18	10/18/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.90E-01	3.3E+00		7.8E-01	
SB-215	N	16	18	10/18/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.90E-01	4.7E+04		3.1E+03	
SB-215	N	16	18	10/18/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.90E-01	1.3E+02		2.7E+01	
SB-215	N	16	18	10/18/21	SVOC	Pentachlorophenol	87-86-5		U	3.90E-01	4.0E+01		1.0E+01	
SB-215	N	16	18	10/18/21	SVOC	Phenanthrene	85-01-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-215	N	16	18	10/18/21	SVOC	Phenol	108-95-2		U	3.90E-01	2.5E+05		1.9E+04	
SB-215	N	16	18	10/18/21	SVOC	Pyrene	129-00-0		U	1.90E-01	2.3E+04		1.8E+03	
SB-215	N	16	18	10/18/21	SVOC	Pyridine	110-86-1		U	3.90E-01	1.2E+03		7.8E+01	
SB-215	N	16	18	10/18/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.90E-01	3.5E+01		2.3E+00	
SB-215	N	16	18	10/18/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.90E-01	8.2E+04		6.3E+03	
SB-215	N	16	18	10/18/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.90E-01	8.2E+02		6.3E+01	
SB-215	N	16	18	10/18/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.90E-01	7.4E+01		1.7E+01	
SB-215	N	16	18	10/18/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.90E-01	1.5E+01		3.6E+00	
SB-215	N	16	18	10/18/21	NITRO	Nitrobenzene	98-95-3		U	3.90E-01	2.2E+02		5.1E+01	
SB-215	N	16	18	10/18/21	INORG	Aluminum	7429-90-5	9.60E+03		1.90E+01	1.1E+06	8.7E-03	7.7E+04	1.2E-01
SB-215	N	16	18	10/18/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-215	N	16	18	10/18/21	INORG	Arsenic	7440-38-2	4.40E+00		3.80E+00	3.0E+01	1.5E-01	6.8E+00	6.5E-01
SB-215	N	16	18	10/18/21	INORG	Barium	7440-39-3	6.70E+01		1.90E+00	2.2E+05	3.0E-04	1.5E+04	4.5E-03
SB-215	N	16	18	10/18/21	INORG	Beryllium	7440-41-7	7.10E-01		1.90E-01	2.3E+03	3.1E-04	1.6E+02	4.4E-03
SB-215	N	16	18	10/18/21	INORG	Cadmium	7440-43-9		U	3.80E-01	1.0E+02		7.1E+00	
SB-215	N	16	18	10/18/21	INORG	Chromium (total)	7440-47-3	1.80E+01		7.70E-01	1.8E+06	1.0E-05	1.2E+05	1.5E-04
SB-215	N	16	18	10/18/21	INORG	Cobalt	7440-48-4	7.00E+00		1.90E+00	3.5E+02	2.0E-02	2.3E+01	3.0E-01
SB-215	N	16	18	10/18/21	INORG	Copper	7440-50-8	1.60E+01		7.70E-01	4.7E+04	3.4E-04	3.1E+03	5.2E-03
SB-215	N	16	18	10/18/21	INORG	Cyanide (total)	57-12-5		U	5.80E-01	1.5E+02		2.3E+01	
SB-215	N	16	18	10/18/21	INORG	Iron	7439-89-6	2.60E+04		1.90E+03	8.2E+05	3.2E-02	5.5E+04	4.7E-01
SB-215	N	16	18	10/18/21	INORG	Lead	7439-92-1	1.10E+01		5.80E-01	8.0E+02	1.4E-02	2.0E+02	5.5E-02
SB-215	N	16	18	10/18/21	INORG	Manganese	7439-96-5	7.70E+01		3.80E-01	2.6E+04	3.0E-03	1.8E+03	4.3E-02
SB-215	N	16	18	10/18/21	INORG	Mercury	7439-97-6		U	3.10E-02	4.1E+01		7.4E+00	
SB-215	N	16	18	10/18/21	INORG	Nickel	7440-02-0	1.50E+01		7.70E-01	2.2E+04	6.8E-04	1.5E+03	1.0E-02
SB-215	N	16	18	10/18/21	INORG	Selenium	7782-49-2		U	3.80E+00	5.8E+03		3.9E+02	
SB-215	N	16	18	10/18/21	INORG	Silver	7440-22-4		U	3.80E-01	5.8E+03		3.9E+02	
SB-215	N	16	18	10/18/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-215	N	16	18	10/18/21	INORG	Vanadium	7440-62-2	2.70E+01		7.70E-01	5.8E+03	4.7E-03	3.9E+02	6.9E-02
SB-215	N	16	18	10/18/21	INORG	Zinc	7440-66-6	4.00E+01		7.70E-01	3.5E+05	1.1E-04	2.3E+04	1.7E-03
SB-216	N	1	3	10/18/21	VOC	Acetone	67-64-1		U	7.80E-02	1.1E+06		7.0E+04	
SB-216	N	1	3	10/18/21	VOC	Acrylonitrile	107-13-1		U	4.70E-03	1.1E+01		2.5E+00	
SB-216	N	1	3	10/18/21	VOC	Benzene	71-43-2		U	1.60E-03	5.1E+01		1.2E+01	
SB-216	N	1	3	10/18/21	VOC	Bromobenzene	108-86-1		U	1.60E-03	1.8E+03		2.9E+02	
SB-216	N	1	3	10/18/21	VOC	Bromochloromethane	74-97-5		U	1.60E-03	6.3E+02		1.5E+02	
SB-216	N	1	3	10/18/21	VOC	Bromodichloromethane	75-27-4		U	1.60E-03	1.3E+01		2.9E+00	
SB-216	N	1	3	10/18/21	VOC	Bromoform	75-25-2		U	1.60E-03	8.6E+02		1.9E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-216	N	1	3	10/18/21	VOC	Bromomethane	74-83-9		U	7.80E-03	3.0E+01		6.8E+00	
SB-216	N	1	3	10/18/21	VOC	2-Butanone	78-93-3		U	3.10E-02	1.9E+05		2.7E+04	
SB-216	N	1	3	10/18/21	VOC	n-Butylbenzene	104-51-8		U	1.60E-03	5.8E+04		3.9E+03	
SB-216	N	1	3	10/18/21	VOC	sec-Butylbenzene	135-98-8		U	1.60E-03	1.2E+05		7.8E+03	
SB-216	N	1	3	10/18/21	VOC	tert-Butylbenzene	98-06-6		U	1.60E-03	1.2E+05		7.8E+03	
SB-216	N	1	3	10/18/21	VOC	Carbon Disulfide	75-15-0		U	7.80E-03	3.5E+03		7.7E+02	
SB-216	N	1	3	10/18/21	VOC	Carbon Tetrachloride	56-23-5		U	1.60E-03	2.9E+01		6.5E+00	
SB-216	N	1	3	10/18/21	VOC	Chlorobenzene	108-90-7		U	1.60E-03	1.3E+03		2.8E+02	
SB-216	N	1	3	10/18/21	VOC	Chloroethane	75-00-3		U	1.60E-02	2.3E+04		5.4E+03	
SB-216	N	1	3	10/18/21	VOC	Chloroform	67-66-3		U	3.10E-03	1.4E+01		3.2E+00	
SB-216	N	1	3	10/18/21	VOC	Chloromethane	74-87-3		U	7.80E-03	4.6E+02		1.1E+02	
SB-216	N	1	3	10/18/21	VOC	2-Chlorotoluene	95-49-8		U	1.60E-03	2.3E+04		1.6E+03	
SB-216	N	1	3	10/18/21	VOC	4-Chlorotoluene	106-43-4		U	1.60E-03	2.3E+04		1.6E+03	
SB-216	N	1	3	10/18/21	VOC	Cumene	98-82-8		U	1.60E-03	9.9E+03		1.9E+03	
SB-216	N	1	3	10/18/21	VOC	p-Cymene	99-87-6		U	1.60E-03				
SB-216	N	1	3	10/18/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.60E-03	6.4E-01		5.3E-02	
SB-216	N	1	3	10/18/21	VOC	Dibromochloromethane	124-48-1		U	7.80E-04	3.9E+02		8.3E+01	
SB-216	N	1	3	10/18/21	VOC	1,2-Dibromoethane	106-93-4		U	7.80E-04	1.6E+00		3.6E-01	
SB-216	N	1	3	10/18/21	VOC	Dibromomethane	74-95-3		U	1.60E-03	9.9E+01		2.4E+01	
SB-216	N	1	3	10/18/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.10E-03	3.2E-01		7.4E-02	
SB-216	N	1	3	10/18/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.60E-03	9.3E+03		1.8E+03	
SB-216	N	1	3	10/18/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.60E-03	1.1E+02		2.6E+01	
SB-216	N	1	3	10/18/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.60E-03	1.1E+02		2.6E+01	
SB-216	N	1	3	10/18/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.60E-02	3.7E+02		8.7E+01	
SB-216	N	1	3	10/18/21	VOC	1,1-Dichloroethane	75-34-3		U	1.60E-03	1.6E+02		3.6E+01	
SB-216	N	1	3	10/18/21	VOC	1,2-Dichloroethane	107-06-2		U	1.60E-03	2.0E+01		4.6E+00	
SB-216	N	1	3	10/18/21	VOC	1,1-Dichloroethene	75-35-4		U	3.10E-03	1.0E+03		2.3E+02	
SB-216	N	1	3	10/18/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.60E-03	3.7E+02		6.3E+01	
SB-216	N	1	3	10/18/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.60E-03	3.0E+02		7.0E+01	
SB-216	N	1	3	10/18/21	VOC	1,2-Dichloropropane	78-87-5		U	1.60E-03	6.6E+01		1.6E+01	
SB-216	N	1	3	10/18/21	VOC	1,3-Dichloropropane	142-28-9		U	7.80E-04	2.3E+04		1.6E+03	
SB-216	N	1	3	10/18/21	VOC	2,2-Dichloropropane	594-20-7		U	1.60E-03				
SB-216	N	1	3	10/18/21	VOC	1,1-Dichloropropene	563-58-6		U	1.60E-03				
SB-216	N	1	3	10/18/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	7.80E-04	8.2E+01		1.8E+01	
SB-216	N	1	3	10/18/21	VOC	1,4-Dioxane	123-91-1		U	7.80E-02	2.4E+02		5.3E+01	
SB-216	N	1	3	10/18/21	VOC	Ethyl tert-butyl ether	637-92-3		U	7.80E-04	5.6E+03		1.3E+03	
SB-216	N	1	3	10/18/21	VOC	Ethyl Benzene	100-41-4		U	1.60E-03	2.5E+02		5.8E+01	
SB-216	N	1	3	10/18/21	VOC	Diethyl ether	60-29-7		U	1.60E-02	2.3E+05		1.6E+04	
SB-216	N	1	3	10/18/21	VOC	2-Hexanone	591-78-6		U	1.60E-02	1.3E+03		2.0E+02	
SB-216	N	1	3	10/18/21	VOC	Methyl Acetate	79-20-9		U	1.60E-03	1.2E+06		7.8E+04	
SB-216	N	1	3	10/18/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.10E-03	2.1E+03		4.7E+02	
SB-216	N	1	3	10/18/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.60E-02	1.4E+05		3.3E+04	
SB-216	N	1	3	10/18/21	VOC	Methylcyclohexane	108-87-2		U	1.60E-03	2.7E+04		6.5E+03	
SB-216	N	1	3	10/18/21	VOC	Methylene Chloride	75-09-2		U	1.60E-02	3.2E+03		3.5E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-216	N	1	3	10/18/21	VOC	Diisopropyl ether	108-20-3		U	7.80E-04	9.4E+03		2.2E+03	
SB-216	N	1	3	10/18/21	VOC	n-Propylbenzene	103-65-1		U	1.60E-03	2.4E+04		3.8E+03	
SB-216	N	1	3	10/18/21	VOC	Styrene	100-42-5		U	1.60E-03	3.5E+04		6.0E+03	
SB-216	N	1	3	10/18/21	VOC	tert-Butyl alcohol	75-65-0		U	7.80E-02	6.5E+04		1.4E+04	
SB-216	N	1	3	10/18/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.60E-03	8.8E+01		2.0E+01	
SB-216	N	1	3	10/18/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	7.80E-04	2.7E+01		6.0E+00	
SB-216	N	1	3	10/18/21	VOC	Tetrachloroethene	127-18-4		U	1.60E-03	3.9E+02		8.1E+01	
SB-216	N	1	3	10/18/21	VOC	Tetrahydrofuran	109-99-9		U	7.80E-03	9.5E+04		1.8E+04	
SB-216	N	1	3	10/18/21	VOC	Toluene	108-88-3		U	1.60E-03	4.7E+04		4.9E+03	
SB-216	N	1	3	10/18/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.60E-03	9.3E+02		6.3E+01	
SB-216	N	1	3	10/18/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.60E-03	2.6E+02		5.8E+01	
SB-216	N	1	3	10/18/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.60E-03				
SB-216	N	1	3	10/18/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.60E-03	3.6E+04		8.1E+03	
SB-216	N	1	3	10/18/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.60E-03	6.3E+00		1.5E+00	
SB-216	N	1	3	10/18/21	VOC	Trichloroethene	79-01-6		U	1.60E-03	1.9E+01		4.1E+00	
SB-216	N	1	3	10/18/21	VOC	Trichlorofluoromethane	75-69-4		U	7.80E-03	3.5E+05		2.3E+04	
SB-216	N	1	3	10/18/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.60E-03	1.1E+00		5.1E-02	
SB-216	N	1	3	10/18/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	7.80E-03	2.8E+04		6.7E+03	
SB-216	N	1	3	10/18/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.60E-03	1.8E+03		3.0E+02	
SB-216	N	1	3	10/18/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.60E-03	1.5E+03		2.7E+02	
SB-216	N	1	3	10/18/21	VOC	Vinyl Chloride	75-01-4		U	7.80E-03	1.7E+01		5.9E-01	
SB-216	N	1	3	10/18/21	VOC	Xylenes (total)	1330-20-7		U	3.10E-03	2.5E+03		5.8E+02	
SB-216	N	1	3	10/18/21	SVOC	Acenaphthene	83-32-9	5.50E-01		2.00E-01	4.5E+04	1.2E-05	3.6E+03	1.5E-04
SB-216	N	1	3	10/18/21	SVOC	Acenaphthylene	208-96-8	1.20E-01	J	2.00E-01	2.3E+04	5.2E-06	1.8E+03	6.7E-05
SB-216	N	1	3	10/18/21	SVOC	Acetophenone	98-86-2	6.80E-02	J	4.00E-01	1.2E+05	5.7E-07	7.8E+03	8.7E-06
SB-216	N	1	3	10/18/21	SVOC	t-Amyl methyl ether	994-05-8		U	7.80E-04				
SB-216	N	1	3	10/18/21	SVOC	Aniline	62-53-3		U	4.00E-01	4.0E+03		4.4E+02	
SB-216	N	1	3	10/18/21	SVOC	Anthracene	120-12-7	6.90E-01		2.00E-01	2.3E+05	3.0E-06	1.8E+04	3.8E-05
SB-216	N	1	3	10/18/21	SVOC	Benzidine	92-87-5		U	7.80E-01	1.0E-01		5.3E-03	
SB-216	N	1	3	10/18/21	SVOC	Benzo(a)anthracene	56-55-3	4.90E-01		2.00E-01	2.1E+02	2.3E-03	1.1E+01	4.5E-02
SB-216	N	1	3	10/18/21	SVOC	Benzo(a)pyrene	50-32-8	3.30E-01		2.00E-01	2.1E+01	1.6E-02	1.1E+00	3.0E-01
SB-216	N	1	3	10/18/21	SVOC	Benzo(b)fluoranthene	205-99-2	4.90E-01		2.00E-01	2.1E+02	2.3E-03	1.1E+01	4.5E-02
SB-216	N	1	3	10/18/21	SVOC	Benzo(g,h,i)perylene	191-24-2	1.40E-01	J	2.00E-01	2.3E+04	6.1E-06	1.8E+03	7.8E-05
SB-216	N	1	3	10/18/21	SVOC	Benzo(k)fluoranthene	207-08-9	2.00E-01	J	2.00E-01	2.1E+03	9.5E-05	1.1E+02	1.8E-03
SB-216	N	1	3	10/18/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-216	N	1	3	10/18/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.00E-01	2.5E+03		1.9E+02	
SB-216	N	1	3	10/18/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.00E-01	1.0E+01		2.3E+00	
SB-216	N	1	3	10/18/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.00E-01	1.6E+03		3.9E+02	
SB-216	N	1	3	10/18/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.00E-01				
SB-216	N	1	3	10/18/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.00E-01	1.2E+04		2.9E+03	
SB-216	N	1	3	10/18/21	SVOC	Carbazole	86-74-8	2.50E-01		2.00E-01	3.0E+04	8.3E-06	2.4E+03	1.0E-04
SB-216	N	1	3	10/18/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.80E-01	8.2E+04		6.3E+03	
SB-216	N	1	3	10/18/21	SVOC	4-Chloroaniline	106-47-8		U	7.80E-01	1.1E+02		2.7E+01	
SB-216	N	1	3	10/18/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.00E-01	6.0E+04		4.8E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-216	N	1	3	10/18/21	SVOC	2-Chlorophenol	95-57-8		U	4.00E-01	5.8E+03		3.9E+02	
SB-216	N	1	3	10/18/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.00E-01				
SB-216	N	1	3	10/18/21	SVOC	Chrysene	218-01-9	4.50E-01		2.00E-01	2.1E+04	2.1E-05	1.1E+03	4.1E-04
SB-216	N	1	3	10/18/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.00E-01	2.1E+01		1.1E+00	
SB-216	N	1	3	10/18/21	SVOC	Dibenzofuran	132-64-9	6.90E-01		4.00E-01	1.2E+03	5.8E-04	7.8E+01	8.8E-03
SB-216	N	1	3	10/18/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.00E-01	5.1E+01		1.2E+01	
SB-216	N	1	3	10/18/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.00E-01	2.5E+03		1.9E+02	
SB-216	N	1	3	10/18/21	SVOC	Diethylphthalate	84-66-2		U	4.00E-01	6.6E+05		5.1E+04	
SB-216	N	1	3	10/18/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.00E-01	1.6E+04		1.3E+03	
SB-216	N	1	3	10/18/21	SVOC	Dimethylphthalate	131-11-3		U	4.00E-01	6.6E+05		5.1E+04	
SB-216	N	1	3	10/18/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.00E-01	8.2E+04		6.3E+03	
SB-216	N	1	3	10/18/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.00E-01	6.6E+01		5.1E+00	
SB-216	N	1	3	10/18/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.80E-01	1.6E+03		1.3E+02	
SB-216	N	1	3	10/18/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.00E-01	8.2E+03		6.3E+02	
SB-216	N	1	3	10/18/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.00E-01	2.9E+01		6.8E+00	
SB-216	N	1	3	10/18/21	SVOC	Fluoranthene	206-44-0	2.00E+00		2.00E-01	3.0E+04	6.7E-05	2.4E+03	8.3E-04
SB-216	N	1	3	10/18/21	SVOC	Fluorene	86-73-7	8.00E-01		2.00E-01	3.0E+04	2.7E-05	2.4E+03	3.3E-04
SB-216	N	1	3	10/18/21	SVOC	Hexachlorobenzene	118-74-1		U	4.00E-01	9.6E+00		7.8E-01	
SB-216	N	1	3	10/18/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.60E-03	5.3E+01		1.2E+01	
SB-216	N	1	3	10/18/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.00E-01	7.5E+00		1.8E+00	
SB-216	N	1	3	10/18/21	SVOC	Hexachloroethane	67-72-1		U	4.00E-01	8.0E+01		1.8E+01	
SB-216	N	1	3	10/18/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	1.70E-01	J	2.00E-01	2.1E+02	8.1E-04	1.1E+01	1.5E-02
SB-216	N	1	3	10/18/21	SVOC	Isophorone	78-59-1		U	4.00E-01	2.4E+04		5.7E+03	
SB-216	N	1	3	10/18/21	SVOC	1-Methylnaphthalene	90-12-0	5.90E-01		2.00E-01	7.3E+02	8.1E-04	1.8E+02	3.3E-03
SB-216	N	1	3	10/18/21	SVOC	2-Methylnaphthalene	91-57-6	1.10E+00		2.00E-01	3.0E+03	3.7E-04	2.4E+02	4.6E-03
SB-216	N	1	3	10/18/21	SVOC	2-Methylphenol	95-48-7		U	4.00E-01	4.1E+04		3.2E+03	
SB-216	N	1	3	10/18/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.00E-01				
SB-216	N	1	3	10/18/21	SVOC	Naphthalene	91-20-3	1.00E+00		2.00E-01	8.6E+01	1.2E-02	2.0E+01	5.0E-02
SB-216	N	1	3	10/18/21	SVOC	2-Nitroaniline	88-74-4		U	4.00E-01	8.0E+03		6.3E+02	
SB-216	N	1	3	10/18/21	SVOC	3-Nitroaniline	99-09-2		U	4.00E-01	1.1E+03		2.5E+02	
SB-216	N	1	3	10/18/21	SVOC	4-Nitroaniline	100-01-6		U	4.00E-01	1.1E+03		2.5E+02	
SB-216	N	1	3	10/18/21	SVOC	2-Nitrophenol	88-75-5		U	4.00E-01				
SB-216	N	1	3	10/18/21	SVOC	4-Nitrophenol	100-02-7		U	7.80E-01				
SB-216	N	1	3	10/18/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.00E-01	3.4E-01		2.0E-02	
SB-216	N	1	3	10/18/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.00E-01	4.7E+03		1.1E+03	
SB-216	N	1	3	10/18/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.00E-01	3.3E+00		7.8E-01	
SB-216	N	1	3	10/18/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.00E-01	4.7E+04		3.1E+03	
SB-216	N	1	3	10/18/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.00E-01	1.3E+02		2.7E+01	
SB-216	N	1	3	10/18/21	SVOC	Pentachlorophenol	87-86-5		U	4.00E-01	4.0E+01		1.0E+01	
SB-216	N	1	3	10/18/21	SVOC	Phenanthrene	85-01-8	3.00E+00		2.00E-01	2.3E+04	1.3E-04	1.8E+03	1.7E-03
SB-216	N	1	3	10/18/21	SVOC	Phenol	108-95-2		U	4.00E-01	2.5E+05		1.9E+04	
SB-216	N	1	3	10/18/21	SVOC	Pyrene	129-00-0	1.40E+00		2.00E-01	2.3E+04	6.1E-05	1.8E+03	7.8E-04
SB-216	N	1	3	10/18/21	SVOC	Pyridine	110-86-1		U	4.00E-01	1.2E+03		7.8E+01	
SB-216	N	1	3	10/18/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.00E-01	3.5E+01		2.3E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-216	N	1	3	10/18/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.00E-01	8.2E+04		6.3E+03	
SB-216	N	1	3	10/18/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.00E-01	8.2E+02		6.3E+01	
SB-216	N	1	3	10/18/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.00E-01	7.4E+01		1.7E+01	
SB-216	N	1	3	10/18/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.00E-01	1.5E+01		3.6E+00	
SB-216	N	1	3	10/18/21	NITRO	Nitrobenzene	98-95-3		U	4.00E-01	2.2E+02		5.1E+01	
SB-216	N	1	3	10/18/21	INORG	Aluminum	7429-90-5	6.10E+03		1.90E+01	1.1E+06	5.5E-03	7.7E+04	7.9E-02
SB-216	N	1	3	10/18/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-216	N	1	3	10/18/21	INORG	Arsenic	7440-38-2	7.70E+00		3.90E+00	3.0E+01	2.6E-01	6.8E+00	1.1E+00
SB-216	N	1	3	10/18/21	INORG	Barium	7440-39-3	6.40E+01		1.90E+00	2.2E+05	2.9E-04	1.5E+04	4.3E-03
SB-216	N	1	3	10/18/21	INORG	Beryllium	7440-41-7	3.10E-01		1.90E-01	2.3E+03	1.3E-04	1.6E+02	1.9E-03
SB-216	N	1	3	10/18/21	INORG	Cadmium	7440-43-9		U	3.90E-01	1.0E+02		7.1E+00	
SB-216	N	1	3	10/18/21	INORG	Chromium (total)	7440-47-3	1.50E+01		7.80E-01	1.8E+06	8.3E-06	1.2E+05	1.3E-04
SB-216	N	1	3	10/18/21	INORG	Cobalt	7440-48-4	4.20E+00		1.90E+00	3.5E+02	1.2E-02	2.3E+01	1.8E-01
SB-216	N	1	3	10/18/21	INORG	Copper	7440-50-8	2.90E+01		7.80E-01	4.7E+04	6.2E-04	3.1E+03	9.4E-03
SB-216	N	1	3	10/18/21	INORG	Cyanide (total)	57-12-5	6.60E-01		5.80E-01	1.5E+02	4.4E-03	2.3E+01	2.9E-02
SB-216	N	1	3	10/18/21	INORG	Iron	7439-89-6	2.50E+04		1.90E+03	8.2E+05	3.0E-02	5.5E+04	4.5E-01
SB-216	N	1	3	10/18/21	INORG	Lead	7439-92-1	7.20E+00		5.80E-01	8.0E+02	9.0E-03	2.0E+02	3.6E-02
SB-216	N	1	3	10/18/21	INORG	Manganese	7439-96-5	6.10E+01		3.90E-01	2.6E+04	2.3E-03	1.8E+03	3.4E-02
SB-216	N	1	3	10/18/21	INORG	Mercury	7439-97-6	1.10E-02	J	3.10E-02	4.1E+01	2.7E-04	7.4E+00	1.5E-03
SB-216	N	1	3	10/18/21	INORG	Nickel	7440-02-0	9.20E+00		7.80E-01	2.2E+04	4.2E-04	1.5E+03	6.1E-03
SB-216	N	1	3	10/18/21	INORG	Selenium	7782-49-2		U	3.90E+00	5.8E+03		3.9E+02	
SB-216	N	1	3	10/18/21	INORG	Silver	7440-22-4		U	3.90E-01	5.8E+03		3.9E+02	
SB-216	N	1	3	10/18/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-216	N	1	3	10/18/21	INORG	Vanadium	7440-62-2	3.00E+01		7.80E-01	5.8E+03	5.2E-03	3.9E+02	7.7E-02
SB-216	N	1	3	10/18/21	INORG	Zinc	7440-66-6	2.50E+01		7.80E-01	3.5E+05	7.1E-05	2.3E+04	1.1E-03
SB-221	N		1	10/05/21	PCB	PCBs (total)	1336-36-3		U	9.00E-02	9.7E+00		1.2E+00	
SB-221	N	4	5	10/05/21	PCB	PCBs (total)	1336-36-3		U	9.40E-02	9.7E+00		1.2E+00	
SB-222	N		1	10/19/21	PCB	PCBs (total)	1336-36-3		U	9.00E-02	9.7E+00		1.2E+00	
SB-222	N	2	5	10/19/21	PCB	PCBs (total)	1336-36-3		U	9.10E-02	9.7E+00		1.2E+00	
SB-224	N		1	10/21/21	VOC	Acetone	67-64-1	4.90E+00	J	1.60E+01	1.1E+06	4.5E-06	7.0E+04	7.0E-05
SB-224	N		1	10/21/21	VOC	Acrylonitrile	107-13-1		U	1.60E+00	1.1E+01		2.5E+00	
SB-224	N		1	10/21/21	VOC	Benzene	71-43-2	1.50E+00		3.20E-01	5.1E+01	2.9E-02	1.2E+01	1.3E-01
SB-224	N		1	10/21/21	VOC	Bromobenzene	108-86-1		U	3.20E-01	1.8E+03		2.9E+02	
SB-224	N		1	10/21/21	VOC	Bromochloromethane	74-97-5		U	3.20E-01	6.3E+02		1.5E+02	
SB-224	N		1	10/21/21	VOC	Bromodichloromethane	75-27-4		U	3.20E-01	1.3E+01		2.9E+00	
SB-224	N		1	10/21/21	VOC	Bromoform	75-25-2		U	3.20E-01	8.6E+02		1.9E+02	
SB-224	N		1	10/21/21	VOC	Bromomethane	74-83-9		U	6.50E-01	3.0E+01		6.8E+00	
SB-224	N		1	10/21/21	VOC	2-Butanone	78-93-3	1.80E+00	J	6.50E+00	1.9E+05	9.5E-06	2.7E+04	6.7E-05
SB-224	N		1	10/21/21	VOC	n-Butylbenzene	104-51-8	4.30E-01		3.20E-01	5.8E+04	7.4E-06	3.9E+03	1.1E-04
SB-224	N		1	10/21/21	VOC	sec-Butylbenzene	135-98-8	1.90E-01	J	3.20E-01	1.2E+05	1.6E-06	7.8E+03	2.4E-05
SB-224	N		1	10/21/21	VOC	tert-Butylbenzene	98-06-6		U	3.20E-01	1.2E+05		7.8E+03	
SB-224	N		1	10/21/21	VOC	Carbon Disulfide	75-15-0		U	1.60E+00	3.5E+03		7.7E+02	
SB-224	N		1	10/21/21	VOC	Carbon Tetrachloride	56-23-5		U	3.20E-01	2.9E+01		6.5E+00	
SB-224	N		1	10/21/21	VOC	Chlorobenzene	108-90-7		U	3.20E-01	1.3E+03		2.8E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-224	N		1	10/21/21	VOC	Chloroethane	75-00-3		U	6.50E-01	2.3E+04		5.4E+03	
SB-224	N		1	10/21/21	VOC	Chloroform	67-66-3		U	6.50E-01	1.4E+01		3.2E+00	
SB-224	N		1	10/21/21	VOC	Chloromethane	74-87-3		U	6.50E-01	4.6E+02		1.1E+02	
SB-224	N		1	10/21/21	VOC	2-Chlorotoluene	95-49-8		U	3.20E-01	2.3E+04		1.6E+03	
SB-224	N		1	10/21/21	VOC	4-Chlorotoluene	106-43-4		U	3.20E-01	2.3E+04		1.6E+03	
SB-224	N		1	10/21/21	VOC	Cumene	98-82-8	4.90E-01		3.20E-01	9.9E+03	4.9E-05	1.9E+03	2.6E-04
SB-224	N		1	10/21/21	VOC	p-Cymene	99-87-6	3.00E-01	J	3.20E-01				
SB-224	N		1	10/21/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.60E+00	6.4E-01		5.3E-02	
SB-224	N		1	10/21/21	VOC	Dibromochloromethane	124-48-1		U	1.60E-01	3.9E+02		8.3E+01	
SB-224	N		1	10/21/21	VOC	1,2-Dibromoethane	106-93-4		U	1.60E-01	1.6E+00		3.6E-01	
SB-224	N		1	10/21/21	VOC	Dibromomethane	74-95-3		U	3.20E-01	9.9E+01		2.4E+01	
SB-224	N		1	10/21/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	6.50E-01	3.2E-01		7.4E-02	
SB-224	N		1	10/21/21	VOC	1,2-Dichlorobenzene	95-50-1		U	3.20E-01	9.3E+03		1.8E+03	
SB-224	N		1	10/21/21	VOC	1,3-Dichlorobenzene	541-73-1		U	3.20E-01	1.1E+02		2.6E+01	
SB-224	N		1	10/21/21	VOC	1,4-Dichlorobenzene	106-46-7		U	3.20E-01	1.1E+02		2.6E+01	
SB-224	N		1	10/21/21	VOC	Dichlorodifluoromethane	75-71-8		U	6.50E-01	3.7E+02		8.7E+01	
SB-224	N		1	10/21/21	VOC	1,1-Dichloroethane	75-34-3		U	3.20E-01	1.6E+02		3.6E+01	
SB-224	N		1	10/21/21	VOC	1,2-Dichloroethane	107-06-2		U	3.20E-01	2.0E+01		4.6E+00	
SB-224	N		1	10/21/21	VOC	1,1-Dichloroethene	75-35-4		U	3.20E-01	1.0E+03		2.3E+02	
SB-224	N		1	10/21/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	3.20E-01	3.7E+02		6.3E+01	
SB-224	N		1	10/21/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	3.20E-01	3.0E+02		7.0E+01	
SB-224	N		1	10/21/21	VOC	1,2-Dichloropropane	78-87-5		U	3.20E-01	6.6E+01		1.6E+01	
SB-224	N		1	10/21/21	VOC	1,3-Dichloropropane	142-28-9		U	1.60E-01	2.3E+04		1.6E+03	
SB-224	N		1	10/21/21	VOC	2,2-Dichloropropane	594-20-7		U	3.20E-01				
SB-224	N		1	10/21/21	VOC	1,1-Dichloropropene	563-58-6		U	6.50E-01				
SB-224	N		1	10/21/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	1.60E-01	8.2E+01		1.8E+01	
SB-224	N		1	10/21/21	VOC	1,4-Dioxane	123-91-1		U	1.60E+01	2.4E+02		5.3E+01	
SB-224	N		1	10/21/21	VOC	Ethyl tert-butyl ether	637-92-3		U	1.60E-01	5.6E+03		1.3E+03	
SB-224	N		1	10/21/21	VOC	Ethyl Benzene	100-41-4	1.40E+00		3.20E-01	2.5E+02	5.6E-03	5.8E+01	2.4E-02
SB-224	N		1	10/21/21	VOC	Diethyl ether	60-29-7		U	6.50E-01	2.3E+05		1.6E+04	
SB-224	N		1	10/21/21	VOC	2-Hexanone	591-78-6		U	3.20E+00	1.3E+03		2.0E+02	
SB-224	N		1	10/21/21	VOC	Methyl Acetate	79-20-9	9.50E-01	J	3.20E+00	1.2E+06	7.9E-07	7.8E+04	1.2E-05
SB-224	N		1	10/21/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.20E-01	2.1E+03		4.7E+02	
SB-224	N		1	10/21/21	VOC	4-Methyl-2-pentanone	108-10-1		U	3.20E+00	1.4E+05		3.3E+04	
SB-224	N		1	10/21/21	VOC	Methylcyclohexane	108-87-2	2.20E+01		3.20E-01	2.7E+04	8.1E-04	6.5E+03	3.4E-03
SB-224	N		1	10/21/21	VOC	Methylene Chloride	75-09-2		U	1.60E+00	3.2E+03		3.5E+02	
SB-224	N		1	10/21/21	VOC	Diisopropyl ether	108-20-3		U	1.60E-01	9.4E+03		2.2E+03	
SB-224	N		1	10/21/21	VOC	n-Propylbenzene	103-65-1	7.00E-01		3.20E-01	2.4E+04	2.9E-05	3.8E+03	1.8E-04
SB-224	N		1	10/21/21	VOC	Styrene	100-42-5		U	3.20E-01	3.5E+04		6.0E+03	
SB-224	N		1	10/21/21	VOC	tert-Butyl alcohol	75-65-0		U	6.50E+00	6.5E+04		1.4E+04	
SB-224	N		1	10/21/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	3.20E-01	8.8E+01		2.0E+01	
SB-224	N		1	10/21/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	1.60E-01	2.7E+01		6.0E+00	
SB-224	N		1	10/21/21	VOC	Tetrachloroethene	127-18-4		U	3.20E-01	3.9E+02		8.1E+01	
SB-224	N		1	10/21/21	VOC	Tetrahydrofuran	109-99-9		U	3.20E+00	9.5E+04		1.8E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-224	N		1	10/21/21	VOC	Toluene	108-88-3	1.30E+01		3.20E-01	4.7E+04	2.8E-04	4.9E+03	2.7E-03
SB-224	N		1	10/21/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.60E+00	9.3E+02		6.3E+01	
SB-224	N		1	10/21/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	3.20E-01	2.6E+02		5.8E+01	
SB-224	N		1	10/21/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	3.20E-01				
SB-224	N		1	10/21/21	VOC	1,1,1-Trichloroethane	71-55-6		U	3.20E-01	3.6E+04		8.1E+03	
SB-224	N		1	10/21/21	VOC	1,1,2-Trichloroethane	79-00-5		U	3.20E-01	6.3E+00		1.5E+00	
SB-224	N		1	10/21/21	VOC	Trichloroethene	79-01-6		U	3.20E-01	1.9E+01		4.1E+00	
SB-224	N		1	10/21/21	VOC	Trichlorofluoromethane	75-69-4		U	6.50E-01	3.5E+05		2.3E+04	
SB-224	N		1	10/21/21	VOC	1,2,3-Trichloropropane	96-18-4		U	6.50E-01	1.1E+00		5.1E-02	
SB-224	N		1	10/21/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	3.20E-01	2.8E+04		6.7E+03	
SB-224	N		1	10/21/21	VOC	1,2,4-Trimethylbenzene	95-63-6	4.40E+00		3.20E-01	1.8E+03	2.4E-03	3.0E+02	1.5E-02
SB-224	N		1	10/21/21	VOC	1,3,5-Trimethylbenzene	108-67-8	1.30E+00		3.20E-01	1.5E+03	8.7E-04	2.7E+02	4.8E-03
SB-224	N		1	10/21/21	VOC	Vinyl Chloride	75-01-4		U	6.50E-01	1.7E+01		5.9E-01	
SB-224	N		1	10/21/21	VOC	Xylenes (total)	1330-20-7	1.95E+01		6.50E-01	2.5E+03	7.8E-03	5.8E+02	3.4E-02
SB-224	N		1	10/21/21	SVOC	Acenaphthene	83-32-9	1.70E-01	J	1.90E-01	4.5E+04	3.8E-06	3.6E+03	4.7E-05
SB-224	N		1	10/21/21	SVOC	Acenaphthylene	208-96-8	2.90E-01		1.90E-01	2.3E+04	1.3E-05	1.8E+03	1.6E-04
SB-224	N		1	10/21/21	SVOC	Acetophenone	98-86-2	5.60E-01		3.80E-01	1.2E+05	4.7E-06	7.8E+03	7.2E-05
SB-224	N		1	10/21/21	SVOC	t-Amyl methyl ether	994-05-8		U	1.60E-01				
SB-224	N		1	10/21/21	SVOC	Aniline	62-53-3		U	3.80E-01	4.0E+03		4.4E+02	
SB-224	N		1	10/21/21	SVOC	Anthracene	120-12-7	4.10E-01		1.90E-01	2.3E+05	1.8E-06	1.8E+04	2.3E-05
SB-224	N		1	10/21/21	SVOC	Benzidine	92-87-5		U	7.40E-01	1.0E-01		5.3E-03	
SB-224	N		1	10/21/21	SVOC	Benzo(a)anthracene	56-55-3	1.50E+00		1.90E-01	2.1E+02	7.1E-03	1.1E+01	1.4E-01
SB-224	N		1	10/21/21	SVOC	Benzo(a)pyrene	50-32-8	7.10E-01		1.90E-01	2.1E+01	3.4E-02	1.1E+00	6.5E-01
SB-224	N		1	10/21/21	SVOC	Benzo(b)fluoranthene	205-99-2	2.80E+00		1.90E-01	2.1E+02	1.3E-02	1.1E+01	2.5E-01
SB-224	N		1	10/21/21	SVOC	Benzo(g,h,i)perylene	191-24-2	5.00E-01		1.90E-01	2.3E+04	2.2E-05	1.8E+03	2.8E-04
SB-224	N		1	10/21/21	SVOC	Benzo(k)fluoranthene	207-08-9	1.00E+00		1.90E-01	2.1E+03	4.8E-04	1.1E+02	9.1E-03
SB-224	N		1	10/21/21	SVOC	Benzoic Acid	65-85-0	1.20E+00		1.10E+00	3.3E+06	3.6E-07	2.5E+05	4.8E-06
SB-224	N		1	10/21/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.80E-01	2.5E+03		1.9E+02	
SB-224	N		1	10/21/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.80E-01	1.0E+01		2.3E+00	
SB-224	N		1	10/21/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	1.20E-01	J	3.80E-01	1.6E+03	7.5E-05	3.9E+02	3.1E-04
SB-224	N		1	10/21/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.80E-01				
SB-224	N		1	10/21/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.80E-01	1.2E+04		2.9E+03	
SB-224	N		1	10/21/21	SVOC	Carbazole	86-74-8	4.60E-01		1.90E-01	3.0E+04	1.5E-05	2.4E+03	1.9E-04
SB-224	N		1	10/21/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.40E-01	8.2E+04		6.3E+03	
SB-224	N		1	10/21/21	SVOC	4-Chloroaniline	106-47-8		U	7.40E-01	1.1E+02		2.7E+01	
SB-224	N		1	10/21/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.80E-01	6.0E+04		4.8E+03	
SB-224	N		1	10/21/21	SVOC	2-Chlorophenol	95-57-8		U	3.80E-01	5.8E+03		3.9E+02	
SB-224	N		1	10/21/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.80E-01				
SB-224	N		1	10/21/21	SVOC	Chrysene	218-01-9	2.90E+00		1.90E-01	2.1E+04	1.4E-04	1.1E+03	2.6E-03
SB-224	N		1	10/21/21	SVOC	Dibenz(a,h)anthracene	53-70-3	2.40E-01		1.90E-01	2.1E+01	1.1E-02	1.1E+00	2.2E-01
SB-224	N		1	10/21/21	SVOC	Dibenzofuran	132-64-9	3.60E+00		3.80E-01	1.2E+03	3.0E-03	7.8E+01	4.6E-02
SB-224	N		1	10/21/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-224	N		1	10/21/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.80E-01	2.5E+03		1.9E+02	
SB-224	N		1	10/21/21	SVOC	Diethylphthalate	84-66-2		U	3.80E-01	6.6E+05		5.1E+04	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-224	N		1	10/21/21	SVOC	2,4-Dimethylphenol	105-67-9	1.40E-01	J	3.80E-01	1.6E+04	8.8E-06	1.3E+03	1.1E-04
SB-224	N		1	10/21/21	SVOC	Dimethylphthalate	131-11-3		U	3.80E-01	6.6E+05		5.1E+04	
SB-224	N		1	10/21/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.80E-01	8.2E+04		6.3E+03	
SB-224	N		1	10/21/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.80E-01	6.6E+01		5.1E+00	
SB-224	N		1	10/21/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.40E-01	1.6E+03		1.3E+02	
SB-224	N		1	10/21/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.80E-01	8.2E+03		6.3E+02	
SB-224	N		1	10/21/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.80E-01	2.9E+01		6.8E+00	
SB-224	N		1	10/21/21	SVOC	Fluoranthene	206-44-0	2.60E+00		1.90E-01	3.0E+04	8.7E-05	2.4E+03	1.1E-03
SB-224	N		1	10/21/21	SVOC	Fluorene	86-73-7	2.20E-01		1.90E-01	3.0E+04	7.3E-06	2.4E+03	9.2E-05
SB-224	N		1	10/21/21	SVOC	Hexachlorobenzene	118-74-1		U	3.80E-01	9.6E+00		7.8E-01	
SB-224	N		1	10/21/21	SVOC	Hexachlorobutadiene	87-68-3		U	3.20E-01	5.3E+01		1.2E+01	
SB-224	N		1	10/21/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.80E-01	7.5E+00		1.8E+00	
SB-224	N		1	10/21/21	SVOC	Hexachloroethane	67-72-1		U	3.80E-01	8.0E+01		1.8E+01	
SB-224	N		1	10/21/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	6.20E-01		1.90E-01	2.1E+02	3.0E-03	1.1E+01	5.6E-02
SB-224	N		1	10/21/21	SVOC	Isophorone	78-59-1		U	3.80E-01	2.4E+04		5.7E+03	
SB-224	N		1	10/21/21	SVOC	1-Methylnaphthalene	90-12-0	9.80E+00		9.60E-01	7.3E+02	1.3E-02	1.8E+02	5.4E-02
SB-224	N		1	10/21/21	SVOC	2-Methylnaphthalene	91-57-6	1.60E+01		9.60E-01	3.0E+03	5.3E-03	2.4E+02	6.7E-02
SB-224	N		1	10/21/21	SVOC	2-Methylphenol	95-48-7	8.50E-02	J	3.80E-01	4.1E+04	2.1E-06	3.2E+03	2.7E-05
SB-224	N		1	10/21/21	SVOC	3&4-Methylphenol	65794-96-9	8.80E-02	J	3.80E-01				
SB-224	N		1	10/21/21	SVOC	Naphthalene	91-20-3	1.10E+01		9.60E-01	8.6E+01	1.3E-01	2.0E+01	5.5E-01
SB-224	N		1	10/21/21	SVOC	2-Nitroaniline	88-74-4		U	3.80E-01	8.0E+03		6.3E+02	
SB-224	N		1	10/21/21	SVOC	3-Nitroaniline	99-09-2		U	3.80E-01	1.1E+03		2.5E+02	
SB-224	N		1	10/21/21	SVOC	4-Nitroaniline	100-01-6		U	3.80E-01	1.1E+03		2.5E+02	
SB-224	N		1	10/21/21	SVOC	2-Nitrophenol	88-75-5		U	3.80E-01				
SB-224	N		1	10/21/21	SVOC	4-Nitrophenol	100-02-7		U	7.40E-01				
SB-224	N		1	10/21/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.80E-01	3.4E-01		2.0E-02	
SB-224	N		1	10/21/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.80E-01	4.7E+03		1.1E+03	
SB-224	N		1	10/21/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.80E-01	3.3E+00		7.8E-01	
SB-224	N		1	10/21/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.80E-01	4.7E+04		3.1E+03	
SB-224	N		1	10/21/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.80E-01	1.3E+02		2.7E+01	
SB-224	N		1	10/21/21	SVOC	Pentachlorophenol	87-86-5		U	3.80E-01	4.0E+01		1.0E+01	
SB-224	N		1	10/21/21	SVOC	Phenanthrene	85-01-8	7.00E+00		9.60E-01	2.3E+04	3.0E-04	1.8E+03	3.9E-03
SB-224	N		1	10/21/21	SVOC	Phenol	108-95-2		U	3.80E-01	2.5E+05		1.9E+04	
SB-224	N		1	10/21/21	SVOC	Pyrene	129-00-0	2.90E+00		1.90E-01	2.3E+04	1.3E-04	1.8E+03	1.6E-03
SB-224	N		1	10/21/21	SVOC	Pyridine	110-86-1		U	3.80E-01	1.2E+03		7.8E+01	
SB-224	N		1	10/21/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.80E-01	3.5E+01		2.3E+00	
SB-224	N		1	10/21/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.80E-01	8.2E+04		6.3E+03	
SB-224	N		1	10/21/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.80E-01	8.2E+02		6.3E+01	
SB-224	N		1	10/21/21	PCB	PCBs (total)	1336-36-3		U	9.00E-02	9.7E+00		1.2E+00	
SB-224	N		1	10/21/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.80E-01	7.4E+01		1.7E+01	
SB-224	N		1	10/21/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.80E-01	1.5E+01		3.6E+00	
SB-224	N		1	10/21/21	NITRO	Nitrobenzene	98-95-3		U	3.80E-01	2.2E+02		5.1E+01	
SB-224	N		1	10/21/21	INORG	Aluminum	7429-90-5	1.20E+03		1.80E+01	1.1E+06	1.1E-03	7.7E+04	1.6E-02
SB-224	N		1	10/21/21	INORG	Antimony	7440-36-0		U	1.80E+00	4.7E+02		3.1E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-224	N		1	10/21/21	INORG	Arsenic	7440-38-2	9.90E+00		3.70E+00	3.0E+01	3.3E-01	6.8E+00	1.5E+00
SB-224	N		1	10/21/21	INORG	Barium	7440-39-3	8.10E+01		1.80E+00	2.2E+05	3.7E-04	1.5E+04	5.4E-03
SB-224	N		1	10/21/21	INORG	Beryllium	7440-41-7	1.50E+00		1.80E-01	2.3E+03	6.5E-04	1.6E+02	9.4E-03
SB-224	N		1	10/21/21	INORG	Cadmium	7440-43-9	2.10E-01	J	3.70E-01	1.0E+02	2.1E-03	7.1E+00	3.0E-02
SB-224	N		1	10/21/21	INORG	Chromium (total)	7440-47-3	1.40E+01		7.30E-01	1.8E+06	7.8E-06	1.2E+05	1.2E-04
SB-224	N		1	10/21/21	INORG	Cobalt	7440-48-4	5.90E+00		1.80E+00	3.5E+02	1.7E-02	2.3E+01	2.6E-01
SB-224	N		1	10/21/21	INORG	Copper	7440-50-8	2.70E+01		7.30E-01	4.7E+04	5.7E-04	3.1E+03	8.7E-03
SB-224	N		1	10/21/21	INORG	Cyanide (total)	57-12-5		U	5.20E-01	1.5E+02		2.3E+01	
SB-224	N		1	10/21/21	INORG	Iron	7439-89-6	1.10E+04		1.80E+01	8.2E+05	1.3E-02	5.5E+04	2.0E-01
SB-224	N		1	10/21/21	INORG	Lead	7439-92-1	2.80E+01		5.50E-01	8.0E+02	3.5E-02	2.0E+02	1.4E-01
SB-224	N		1	10/21/21	INORG	Manganese	7439-96-5	7.60E+01		3.70E-01	2.6E+04	2.9E-03	1.8E+03	4.2E-02
SB-224	N		1	10/21/21	INORG	Mercury	7439-97-6	2.30E-02	J	2.90E-02	4.1E+01	5.7E-04	7.4E+00	3.1E-03
SB-224	N		1	10/21/21	INORG	Nickel	7440-02-0	1.30E+01		7.30E-01	2.2E+04	5.9E-04	1.5E+03	8.7E-03
SB-224	N		1	10/21/21	INORG	Selenium	7782-49-2		U	3.70E+00	5.8E+03		3.9E+02	
SB-224	N		1	10/21/21	INORG	Silver	7440-22-4		U	3.70E-01	5.8E+03		3.9E+02	
SB-224	N		1	10/21/21	INORG	Thallium	7440-28-0		U	1.80E+00	1.2E+01		7.8E-01	
SB-224	N		1	10/21/21	INORG	Vanadium	7440-62-2	1.50E+01		7.30E-01	5.8E+03	2.6E-03	3.9E+02	3.8E-02
SB-224	N		1	10/21/21	INORG	Zinc	7440-66-6	5.40E+01		7.30E-01	3.5E+05	1.5E-04	2.3E+04	2.3E-03
SB-225	N		1	10/21/21	VOC	Acetone	67-64-1	1.60E+00	J	5.40E+00	1.1E+06	1.5E-06	7.0E+04	2.3E-05
SB-225	N		1	10/21/21	VOC	Acrylonitrile	107-13-1		U	5.40E-01	1.1E+01		2.5E+00	
SB-225	N		1	10/21/21	VOC	Benzene	71-43-2	3.80E-01		1.10E-01	5.1E+01	7.5E-03	1.2E+01	3.2E-02
SB-225	N		1	10/21/21	VOC	Bromobenzene	108-86-1		U	1.10E-01	1.8E+03		2.9E+02	
SB-225	N		1	10/21/21	VOC	Bromochloromethane	74-97-5		U	1.10E-01	6.3E+02		1.5E+02	
SB-225	N		1	10/21/21	VOC	Bromodichloromethane	75-27-4		U	1.10E-01	1.3E+01		2.9E+00	
SB-225	N		1	10/21/21	VOC	Bromoform	75-25-2		U	1.10E-01	8.6E+02		1.9E+02	
SB-225	N		1	10/21/21	VOC	Bromomethane	74-83-9		U	2.20E-01	3.0E+01		6.8E+00	
SB-225	N		1	10/21/21	VOC	2-Butanone	78-93-3	5.10E-01	J	2.20E+00	1.9E+05	2.7E-06	2.7E+04	1.9E-05
SB-225	N		1	10/21/21	VOC	n-Butylbenzene	104-51-8	5.60E-02	J	1.10E-01	5.8E+04	9.7E-07	3.9E+03	1.4E-05
SB-225	N		1	10/21/21	VOC	sec-Butylbenzene	135-98-8	4.10E-02	J	1.10E-01	1.2E+05	3.4E-07	7.8E+03	5.3E-06
SB-225	N		1	10/21/21	VOC	tert-Butylbenzene	98-06-6		U	1.10E-01	1.2E+05		7.8E+03	
SB-225	N		1	10/21/21	VOC	Carbon Disulfide	75-15-0		U	5.40E-01	3.5E+03		7.7E+02	
SB-225	N		1	10/21/21	VOC	Carbon Tetrachloride	56-23-5		U	1.10E-01	2.9E+01		6.5E+00	
SB-225	N		1	10/21/21	VOC	Chlorobenzene	108-90-7		U	1.10E-01	1.3E+03		2.8E+02	
SB-225	N		1	10/21/21	VOC	Chloroethane	75-00-3		U	2.20E-01	2.3E+04		5.4E+03	
SB-225	N		1	10/21/21	VOC	Chloroform	67-66-3		U	2.20E-01	1.4E+01		3.2E+00	
SB-225	N		1	10/21/21	VOC	Chloromethane	74-87-3		U	2.20E-01	4.6E+02		1.1E+02	
SB-225	N		1	10/21/21	VOC	2-Chlorotoluene	95-49-8		U	1.10E-01	2.3E+04		1.6E+03	
SB-225	N		1	10/21/21	VOC	4-Chlorotoluene	106-43-4		U	1.10E-01	2.3E+04		1.6E+03	
SB-225	N		1	10/21/21	VOC	Cumene	98-82-8	1.40E-01		1.10E-01	9.9E+03	1.4E-05	1.9E+03	7.4E-05
SB-225	N		1	10/21/21	VOC	p-Cymene	99-87-6	5.70E-02	J	1.10E-01				
SB-225	N		1	10/21/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	5.40E-01	6.4E-01		5.3E-02	
SB-225	N		1	10/21/21	VOC	Dibromochloromethane	124-48-1		U	5.40E-02	3.9E+02		8.3E+01	
SB-225	N		1	10/21/21	VOC	1,2-Dibromoethane	106-93-4		U	5.40E-02	1.6E+00		3.6E-01	
SB-225	N		1	10/21/21	VOC	Dibromomethane	74-95-3		U	1.10E-01	9.9E+01		2.4E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-225	N		1	10/21/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	2.20E-01	3.2E-01		7.4E-02	
SB-225	N		1	10/21/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.10E-01	9.3E+03		1.8E+03	
SB-225	N		1	10/21/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.10E-01	1.1E+02		2.6E+01	
SB-225	N		1	10/21/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.10E-01	1.1E+02		2.6E+01	
SB-225	N		1	10/21/21	VOC	Dichlorodifluoromethane	75-71-8		U	2.20E-01	3.7E+02		8.7E+01	
SB-225	N		1	10/21/21	VOC	1,1-Dichloroethane	75-34-3		U	1.10E-01	1.6E+02		3.6E+01	
SB-225	N		1	10/21/21	VOC	1,2-Dichloroethane	107-06-2		U	1.10E-01	2.0E+01		4.6E+00	
SB-225	N		1	10/21/21	VOC	1,1-Dichloroethene	75-35-4		U	1.10E-01	1.0E+03		2.3E+02	
SB-225	N		1	10/21/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.10E-01	3.7E+02		6.3E+01	
SB-225	N		1	10/21/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.10E-01	3.0E+02		7.0E+01	
SB-225	N		1	10/21/21	VOC	1,2-Dichloropropane	78-87-5		U	1.10E-01	6.6E+01		1.6E+01	
SB-225	N		1	10/21/21	VOC	1,3-Dichloropropane	142-28-9		U	5.40E-02	2.3E+04		1.6E+03	
SB-225	N		1	10/21/21	VOC	2,2-Dichloropropane	594-20-7		U	1.10E-01				
SB-225	N		1	10/21/21	VOC	1,1-Dichloropropene	563-58-6		U	2.20E-01				
SB-225	N		1	10/21/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	5.40E-02	8.2E+01		1.8E+01	
SB-225	N		1	10/21/21	VOC	1,4-Dioxane	123-91-1		U	5.40E+00	2.4E+02		5.3E+01	
SB-225	N		1	10/21/21	VOC	Ethyl tert-butyl ether	637-92-3		U	5.40E-02	5.6E+03		1.3E+03	
SB-225	N		1	10/21/21	VOC	Ethyl Benzene	100-41-4	4.70E-01		1.10E-01	2.5E+02	1.9E-03	5.8E+01	8.1E-03
SB-225	N		1	10/21/21	VOC	Diethyl ether	60-29-7		U	2.20E-01	2.3E+05		1.6E+04	
SB-225	N		1	10/21/21	VOC	2-Hexanone	591-78-6		U	1.10E+00	1.3E+03		2.0E+02	
SB-225	N		1	10/21/21	VOC	Methyl Acetate	79-20-9	6.50E-01	J	1.10E+00	1.2E+06	5.4E-07	7.8E+04	8.3E-06
SB-225	N		1	10/21/21	VOC	Methyl tert-butyl ether	1634-04-4		U	1.10E-01	2.1E+03		4.7E+02	
SB-225	N		1	10/21/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.10E+00	1.4E+05		3.3E+04	
SB-225	N		1	10/21/21	VOC	Methylcyclohexane	108-87-2	5.30E+00		1.10E-01	2.7E+04	2.0E-04	6.5E+03	8.2E-04
SB-225	N		1	10/21/21	VOC	Methylene Chloride	75-09-2		U	5.40E-01	3.2E+03		3.5E+02	
SB-225	N		1	10/21/21	VOC	Diisopropyl ether	108-20-3		U	5.40E-02	9.4E+03		2.2E+03	
SB-225	N		1	10/21/21	VOC	n-Propylbenzene	103-65-1	1.30E-01		1.10E-01	2.4E+04	5.4E-06	3.8E+03	3.4E-05
SB-225	N		1	10/21/21	VOC	Styrene	100-42-5		U	1.10E-01	3.5E+04		6.0E+03	
SB-225	N		1	10/21/21	VOC	tert-Butyl alcohol	75-65-0		U	2.20E+00	6.5E+04		1.4E+04	
SB-225	N		1	10/21/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.10E-01	8.8E+01		2.0E+01	
SB-225	N		1	10/21/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	5.40E-02	2.7E+01		6.0E+00	
SB-225	N		1	10/21/21	VOC	Tetrachloroethene	127-18-4		U	1.10E-01	3.9E+02		8.1E+01	
SB-225	N		1	10/21/21	VOC	Tetrahydrofuran	109-99-9		U	1.10E+00	9.5E+04		1.8E+04	
SB-225	N		1	10/21/21	VOC	Toluene	108-88-3	3.20E+00		1.10E-01	4.7E+04	6.8E-05	4.9E+03	6.5E-04
SB-225	N		1	10/21/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	5.40E-01	9.3E+02		6.3E+01	
SB-225	N		1	10/21/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.10E-01	2.6E+02		5.8E+01	
SB-225	N		1	10/21/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.10E-01				
SB-225	N		1	10/21/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.10E-01	3.6E+04		8.1E+03	
SB-225	N		1	10/21/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.10E-01	6.3E+00		1.5E+00	
SB-225	N		1	10/21/21	VOC	Trichloroethene	79-01-6		U	1.10E-01	1.9E+01		4.1E+00	
SB-225	N		1	10/21/21	VOC	Trichlorofluoromethane	75-69-4		U	2.20E-01	3.5E+05		2.3E+04	
SB-225	N		1	10/21/21	VOC	1,2,3-Trichloropropane	96-18-4		U	2.20E-01	1.1E+00		5.1E-02	
SB-225	N		1	10/21/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	1.10E-01	2.8E+04		6.7E+03	
SB-225	N		1	10/21/21	VOC	1,2,4-Trimethylbenzene	95-63-6	9.60E-01		1.10E-01	1.8E+03	5.3E-04	3.0E+02	3.2E-03

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-225	N		1	10/21/21	VOC	1,3,5-Trimethylbenzene	108-67-8	3.10E-01		1.10E-01	1.5E+03	2.1E-04	2.7E+02	1.1E-03
SB-225	N		1	10/21/21	VOC	Vinyl Chloride	75-01-4		U	2.20E-01	1.7E+01		5.9E-01	
SB-225	N		1	10/21/21	VOC	Xylenes (total)	1330-20-7	4.40E+00		2.20E-01	2.5E+03	1.8E-03	5.8E+02	7.6E-03
SB-225	N		1	10/21/21	SVOC	Acenaphthene	83-32-9	1.30E-01	J	2.60E-01	4.5E+04	2.9E-06	3.6E+03	3.6E-05
SB-225	N		1	10/21/21	SVOC	Acenaphthylene	208-96-8	1.10E-01	J	2.60E-01	2.3E+04	4.8E-06	1.8E+03	6.1E-05
SB-225	N		1	10/21/21	SVOC	Acetophenone	98-86-2		U	5.10E-01	1.2E+05		7.8E+03	
SB-225	N		1	10/21/21	SVOC	t-Amyl methyl ether	994-05-8		U	5.40E-02				
SB-225	N		1	10/21/21	SVOC	Aniline	62-53-3		U	5.10E-01	4.0E+03		4.4E+02	
SB-225	N		1	10/21/21	SVOC	Anthracene	120-12-7	1.40E-01	J	2.60E-01	2.3E+05	6.1E-07	1.8E+04	7.8E-06
SB-225	N		1	10/21/21	SVOC	Benzidine	92-87-5		U	9.90E-01	1.0E-01		5.3E-03	
SB-225	N		1	10/21/21	SVOC	Benzo(a)anthracene	56-55-3	5.80E-01		2.60E-01	2.1E+02	2.8E-03	1.1E+01	5.3E-02
SB-225	N		1	10/21/21	SVOC	Benzo(a)pyrene	50-32-8	2.50E-01	J	2.60E-01	2.1E+01	1.2E-02	1.1E+00	2.3E-01
SB-225	N		1	10/21/21	SVOC	Benzo(b)fluoranthene	205-99-2	7.90E-01		2.60E-01	2.1E+02	3.8E-03	1.1E+01	7.2E-02
SB-225	N		1	10/21/21	SVOC	Benzo(g,h,i)perylene	191-24-2	2.50E-01	J	2.60E-01	2.3E+04	1.1E-05	1.8E+03	1.4E-04
SB-225	N		1	10/21/21	SVOC	Benzo(k)fluoranthene	207-08-9	2.00E-01	J	2.60E-01	2.1E+03	9.5E-05	1.1E+02	1.8E-03
SB-225	N		1	10/21/21	SVOC	Benzoic Acid	65-85-0		U	1.50E+00	3.3E+06		2.5E+05	
SB-225	N		1	10/21/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	5.10E-01	2.5E+03		1.9E+02	
SB-225	N		1	10/21/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	5.10E-01	1.0E+01		2.3E+00	
SB-225	N		1	10/21/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	3.90E-01	J	5.10E-01	1.6E+03	2.4E-04	3.9E+02	1.0E-03
SB-225	N		1	10/21/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	5.10E-01				
SB-225	N		1	10/21/21	SVOC	Butylbenzylphthalate	85-68-7		U	5.10E-01	1.2E+04		2.9E+03	
SB-225	N		1	10/21/21	SVOC	Carbazole	86-74-8	3.30E-01		2.60E-01	3.0E+04	1.1E-05	2.4E+03	1.4E-04
SB-225	N		1	10/21/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	9.90E-01	8.2E+04		6.3E+03	
SB-225	N		1	10/21/21	SVOC	4-Chloroaniline	106-47-8		U	9.90E-01	1.1E+02		2.7E+01	
SB-225	N		1	10/21/21	SVOC	2-Chloronaphthalene	91-58-7		U	5.10E-01	6.0E+04		4.8E+03	
SB-225	N		1	10/21/21	SVOC	2-Chlorophenol	95-57-8		U	5.10E-01	5.8E+03		3.9E+02	
SB-225	N		1	10/21/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	5.10E-01				
SB-225	N		1	10/21/21	SVOC	Chrysene	218-01-9	1.30E+00		2.60E-01	2.1E+04	6.2E-05	1.1E+03	1.2E-03
SB-225	N		1	10/21/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.60E-01	2.1E+01		1.1E+00	
SB-225	N		1	10/21/21	SVOC	Dibenzofuran	132-64-9	2.70E+00		5.10E-01	1.2E+03	2.3E-03	7.8E+01	3.5E-02
SB-225	N		1	10/21/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.60E-01	5.1E+01		1.2E+01	
SB-225	N		1	10/21/21	SVOC	2,4-Dichlorophenol	120-83-2		U	5.10E-01	2.5E+03		1.9E+02	
SB-225	N		1	10/21/21	SVOC	Diethylphthalate	84-66-2		U	5.10E-01	6.6E+05		5.1E+04	
SB-225	N		1	10/21/21	SVOC	2,4-Dimethylphenol	105-67-9	2.00E-01	J	5.10E-01	1.6E+04	1.3E-05	1.3E+03	1.5E-04
SB-225	N		1	10/21/21	SVOC	Dimethylphthalate	131-11-3		U	5.10E-01	6.6E+05		5.1E+04	
SB-225	N		1	10/21/21	SVOC	Di-n-butylphthalate	84-74-2		U	5.10E-01	8.2E+04		6.3E+03	
SB-225	N		1	10/21/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	5.10E-01	6.6E+01		5.1E+00	
SB-225	N		1	10/21/21	SVOC	2,4-Dinitrophenol	51-28-5		U	9.90E-01	1.6E+03		1.3E+02	
SB-225	N		1	10/21/21	SVOC	Di-n-octylphthalate	117-84-0		U	5.10E-01	8.2E+03		6.3E+02	
SB-225	N		1	10/21/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	5.10E-01	2.9E+01		6.8E+00	
SB-225	N		1	10/21/21	SVOC	Fluoranthene	206-44-0	1.10E+00		2.60E-01	3.0E+04	3.7E-05	2.4E+03	4.6E-04
SB-225	N		1	10/21/21	SVOC	Fluorene	86-73-7	3.20E-01		2.60E-01	3.0E+04	1.1E-05	2.4E+03	1.3E-04
SB-225	N		1	10/21/21	SVOC	Hexachlorobenzene	118-74-1		U	5.10E-01	9.6E+00		7.8E-01	
SB-225	N		1	10/21/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.10E-01	5.3E+01		1.2E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-225	N		1	10/21/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	5.10E-01	7.5E+00		1.8E+00	
SB-225	N		1	10/21/21	SVOC	Hexachloroethane	67-72-1		U	5.10E-01	8.0E+01		1.8E+01	
SB-225	N		1	10/21/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	1.50E-01	J	2.60E-01	2.1E+02	7.1E-04	1.1E+01	1.4E-02
SB-225	N		1	10/21/21	SVOC	Isophorone	78-59-1		U	5.10E-01	2.4E+04		5.7E+03	
SB-225	N		1	10/21/21	SVOC	1-Methylnaphthalene	90-12-0	8.80E+00		1.30E+00	7.3E+02	1.2E-02	1.8E+02	4.9E-02
SB-225	N		1	10/21/21	SVOC	2-Methylnaphthalene	91-57-6	1.40E+01		1.30E+00	3.0E+03	4.7E-03	2.4E+02	5.8E-02
SB-225	N		1	10/21/21	SVOC	2-Methylphenol	95-48-7	1.30E-01	J	5.10E-01	4.1E+04	3.2E-06	3.2E+03	4.1E-05
SB-225	N		1	10/21/21	SVOC	3&4-Methylphenol	65794-96-9	1.20E-01	J	5.10E-01				
SB-225	N		1	10/21/21	SVOC	Naphthalene	91-20-3	8.20E+00		1.30E+00	8.6E+01	9.5E-02	2.0E+01	4.1E-01
SB-225	N		1	10/21/21	SVOC	2-Nitroaniline	88-74-4		U	5.10E-01	8.0E+03		6.3E+02	
SB-225	N		1	10/21/21	SVOC	3-Nitroaniline	99-09-2		U	5.10E-01	1.1E+03		2.5E+02	
SB-225	N		1	10/21/21	SVOC	4-Nitroaniline	100-01-6		U	5.10E-01	1.1E+03		2.5E+02	
SB-225	N		1	10/21/21	SVOC	2-Nitrophenol	88-75-5		U	5.10E-01				
SB-225	N		1	10/21/21	SVOC	4-Nitrophenol	100-02-7		U	9.90E-01				
SB-225	N		1	10/21/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	5.10E-01	3.4E-01		2.0E-02	
SB-225	N		1	10/21/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	5.10E-01	4.7E+03		1.1E+03	
SB-225	N		1	10/21/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	5.10E-01	3.3E+00		7.8E-01	
SB-225	N		1	10/21/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	5.10E-01	4.7E+04		3.1E+03	
SB-225	N		1	10/21/21	SVOC	Pentachloronitrobenzene	82-68-8		U	5.10E-01	1.3E+02		2.7E+01	
SB-225	N		1	10/21/21	SVOC	Pentachlorophenol	87-86-5		U	5.10E-01	4.0E+01		1.0E+01	
SB-225	N		1	10/21/21	SVOC	Phenanthrene	85-01-8	5.10E+00		2.60E-01	2.3E+04	2.2E-04	1.8E+03	2.8E-03
SB-225	N		1	10/21/21	SVOC	Phenol	108-95-2		U	5.10E-01	2.5E+05		1.9E+04	
SB-225	N		1	10/21/21	SVOC	Pyrene	129-00-0	1.10E+00		2.60E-01	2.3E+04	4.8E-05	1.8E+03	6.1E-04
SB-225	N		1	10/21/21	SVOC	Pyridine	110-86-1		U	5.10E-01	1.2E+03		7.8E+01	
SB-225	N		1	10/21/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	5.10E-01	3.5E+01		2.3E+00	
SB-225	N		1	10/21/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	5.10E-01	8.2E+04		6.3E+03	
SB-225	N		1	10/21/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	5.10E-01	8.2E+02		6.3E+01	
SB-225	N		1	10/21/21	PCB	PCBs (total)	1336-36-3		U	1.20E-01	9.7E+00		1.2E+00	
SB-225	N		1	10/21/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	5.10E-01	7.4E+01		1.7E+01	
SB-225	N		1	10/21/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	5.10E-01	1.5E+01		3.6E+00	
SB-225	N		1	10/21/21	NITRO	Nitrobenzene	98-95-3		U	5.10E-01	2.2E+02		5.1E+01	
SB-225	N		1	10/21/21	INORG	Aluminum	7429-90-5	2.30E+03		2.50E+01	1.1E+06	2.1E-03	7.7E+04	3.0E-02
SB-225	N		1	10/21/21	INORG	Antimony	7440-36-0		U	2.50E+00	4.7E+02		3.1E+01	
SB-225	N		1	10/21/21	INORG	Arsenic	7440-38-2	6.50E+00		5.00E+00	3.0E+01	2.2E-01	6.8E+00	9.6E-01
SB-225	N		1	10/21/21	INORG	Barium	7440-39-3	1.00E+02		2.50E+00	2.2E+05	4.5E-04	1.5E+04	6.7E-03
SB-225	N		1	10/21/21	INORG	Beryllium	7440-41-7	2.00E+00		2.50E-01	2.3E+03	8.7E-04	1.6E+02	1.3E-02
SB-225	N		1	10/21/21	INORG	Cadmium	7440-43-9		U	5.00E-01	1.0E+02		7.1E+00	
SB-225	N		1	10/21/21	INORG	Chromium (total)	7440-47-3	2.70E+01		9.90E-01	1.8E+06	1.5E-05	1.2E+05	2.3E-04
SB-225	N		1	10/21/21	INORG	Cobalt	7440-48-4	8.60E+00		2.50E+00	3.5E+02	2.5E-02	2.3E+01	3.7E-01
SB-225	N		1	10/21/21	INORG	Copper	7440-50-8	3.90E+01		9.90E-01	4.7E+04	8.3E-04	3.1E+03	1.3E-02
SB-225	N		1	10/21/21	INORG	Cyanide (total)	57-12-5		U	6.50E-01	1.5E+02		2.3E+01	
SB-225	N		1	10/21/21	INORG	Iron	7439-89-6	1.10E+04		2.50E+01	8.2E+05	1.3E-02	5.5E+04	2.0E-01
SB-225	N		1	10/21/21	INORG	Lead	7439-92-1	1.20E+01		7.50E-01	8.0E+02	1.5E-02	2.0E+02	6.0E-02
SB-225	N		1	10/21/21	INORG	Manganese	7439-96-5	9.90E+01		5.00E-01	2.6E+04	3.8E-03	1.8E+03	5.5E-02

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-225	N		1	10/21/21	INORG	Mercury	7439-97-6	2.70E-02	J	4.20E-02	4.1E+01	6.6E-04	7.4E+00	3.6E-03
SB-225	N		1	10/21/21	INORG	Nickel	7440-02-0	2.20E+01		9.90E-01	2.2E+04	1.0E-03	1.5E+03	1.5E-02
SB-225	N		1	10/21/21	INORG	Selenium	7782-49-2		U	5.00E+00	5.8E+03		3.9E+02	
SB-225	N		1	10/21/21	INORG	Silver	7440-22-4		U	5.00E-01	5.8E+03		3.9E+02	
SB-225	N		1	10/21/21	INORG	Thallium	7440-28-0		U	2.50E+00	1.2E+01		7.8E-01	
SB-225	N		1	10/21/21	INORG	Vanadium	7440-62-2	2.50E+01		9.90E-01	5.8E+03	4.3E-03	3.9E+02	6.4E-02
SB-225	N		1	10/21/21	INORG	Zinc	7440-66-6	4.80E+01		9.90E-01	3.5E+05	1.4E-04	2.3E+04	2.1E-03
SB-226	N		1	10/05/21	VOC	1,2-Dichlorobenzene	95-50-1		U	4.10E-01	9.3E+03		1.8E+03	
SB-226	N		1	10/05/21	VOC	1,3-Dichlorobenzene	541-73-1		U	4.10E-01	1.1E+02		2.6E+01	
SB-226	N		1	10/05/21	VOC	1,4-Dichlorobenzene	106-46-7		U	4.10E-01	1.1E+02		2.6E+01	
SB-226	N		1	10/05/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	4.10E-01	2.6E+02		5.8E+01	
SB-226	N		1	10/05/21	SVOC	Acenaphthene	83-32-9		U	2.10E-01	4.5E+04		3.6E+03	
SB-226	N		1	10/05/21	SVOC	Acenaphthylene	208-96-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-226	N		1	10/05/21	SVOC	Acetophenone	98-86-2		U	4.10E-01	1.2E+05		7.8E+03	
SB-226	N		1	10/05/21	SVOC	Aniline	62-53-3		U	4.10E-01	4.0E+03		4.4E+02	
SB-226	N		1	10/05/21	SVOC	Anthracene	120-12-7		U	2.10E-01	2.3E+05		1.8E+04	
SB-226	N		1	10/05/21	SVOC	Benzidine	92-87-5		U	8.00E-01	1.0E-01		5.3E-03	
SB-226	N		1	10/05/21	SVOC	Benzo(a)anthracene	56-55-3		U	2.10E-01	2.1E+02		1.1E+01	
SB-226	N		1	10/05/21	SVOC	Benzo(a)pyrene	50-32-8		U	2.10E-01	2.1E+01		1.1E+00	
SB-226	N		1	10/05/21	SVOC	Benzo(b)fluoranthene	205-99-2		U	2.10E-01	2.1E+02		1.1E+01	
SB-226	N		1	10/05/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	2.10E-01	2.3E+04		1.8E+03	
SB-226	N		1	10/05/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	2.10E-01	2.1E+03		1.1E+02	
SB-226	N		1	10/05/21	SVOC	Benzoic Acid	65-85-0		U	1.20E+00	3.3E+06		2.5E+05	
SB-226	N		1	10/05/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	4.10E-01	2.5E+03		1.9E+02	
SB-226	N		1	10/05/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	4.10E-01	1.0E+01		2.3E+00	
SB-226	N		1	10/05/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	4.10E-01	1.6E+03		3.9E+02	
SB-226	N		1	10/05/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	4.10E-01				
SB-226	N		1	10/05/21	SVOC	Butylbenzylphthalate	85-68-7		U	4.10E-01	1.2E+04		2.9E+03	
SB-226	N		1	10/05/21	SVOC	Carbazole	86-74-8		U	2.10E-01	3.0E+04		2.4E+03	
SB-226	N		1	10/05/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	8.00E-01	8.2E+04		6.3E+03	
SB-226	N		1	10/05/21	SVOC	4-Chloroaniline	106-47-8		U	8.00E-01	1.1E+02		2.7E+01	
SB-226	N		1	10/05/21	SVOC	2-Chloronaphthalene	91-58-7		U	4.10E-01	6.0E+04		4.8E+03	
SB-226	N		1	10/05/21	SVOC	2-Chlorophenol	95-57-8		U	4.10E-01	5.8E+03		3.9E+02	
SB-226	N		1	10/05/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	4.10E-01				
SB-226	N		1	10/05/21	SVOC	Chrysene	218-01-9		U	2.10E-01	2.1E+04		1.1E+03	
SB-226	N		1	10/05/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	2.10E-01	2.1E+01		1.1E+00	
SB-226	N		1	10/05/21	SVOC	Dibenzofuran	132-64-9		U	4.10E-01	1.2E+03		7.8E+01	
SB-226	N		1	10/05/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	2.10E-01	5.1E+01		1.2E+01	
SB-226	N		1	10/05/21	SVOC	2,4-Dichlorophenol	120-83-2		U	4.10E-01	2.5E+03		1.9E+02	
SB-226	N		1	10/05/21	SVOC	Diethylphthalate	84-66-2		U	4.10E-01	6.6E+05		5.1E+04	
SB-226	N		1	10/05/21	SVOC	2,4-Dimethylphenol	105-67-9		U	4.10E-01	1.6E+04		1.3E+03	
SB-226	N		1	10/05/21	SVOC	Dimethylphthalate	131-11-3		U	4.10E-01	6.6E+05		5.1E+04	
SB-226	N		1	10/05/21	SVOC	Di-n-butylphthalate	84-74-2		U	4.10E-01	8.2E+04		6.3E+03	
SB-226	N		1	10/05/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	4.10E-01	6.6E+01		5.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-226	N		1	10/05/21	SVOC	2,4-Dinitrophenol	51-28-5		U	8.00E-01	1.6E+03		1.3E+02	
SB-226	N		1	10/05/21	SVOC	Di-n-octylphthalate	117-84-0		U	4.10E-01	8.2E+03		6.3E+02	
SB-226	N		1	10/05/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	4.10E-01	2.9E+01		6.8E+00	
SB-226	N		1	10/05/21	SVOC	Fluoranthene	206-44-0		U	2.10E-01	3.0E+04		2.4E+03	
SB-226	N		1	10/05/21	SVOC	Fluorene	86-73-7		U	2.10E-01	3.0E+04		2.4E+03	
SB-226	N		1	10/05/21	SVOC	Hexachlorobenzene	118-74-1		U	4.10E-01	9.6E+00		7.8E-01	
SB-226	N		1	10/05/21	SVOC	Hexachlorobutadiene	87-68-3		U	4.10E-01	5.3E+01		1.2E+01	
SB-226	N		1	10/05/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	4.10E-01	7.5E+00		1.8E+00	
SB-226	N		1	10/05/21	SVOC	Hexachloroethane	67-72-1		U	4.10E-01	8.0E+01		1.8E+01	
SB-226	N		1	10/05/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	2.10E-01	2.1E+02		1.1E+01	
SB-226	N		1	10/05/21	SVOC	Isophorone	78-59-1		U	4.10E-01	2.4E+04		5.7E+03	
SB-226	N		1	10/05/21	SVOC	1-Methylnaphthalene	90-12-0		U	2.10E-01	7.3E+02		1.8E+02	
SB-226	N		1	10/05/21	SVOC	2-Methylnaphthalene	91-57-6		U	2.10E-01	3.0E+03		2.4E+02	
SB-226	N		1	10/05/21	SVOC	2-Methylphenol	95-48-7		U	4.10E-01	4.1E+04		3.2E+03	
SB-226	N		1	10/05/21	SVOC	3&4-Methylphenol	65794-96-9		U	4.10E-01				
SB-226	N		1	10/05/21	SVOC	Naphthalene	91-20-3		U	2.10E-01	8.6E+01		2.0E+01	
SB-226	N		1	10/05/21	SVOC	2-Nitroaniline	88-74-4		U	4.10E-01	8.0E+03		6.3E+02	
SB-226	N		1	10/05/21	SVOC	3-Nitroaniline	99-09-2		U	4.10E-01	1.1E+03		2.5E+02	
SB-226	N		1	10/05/21	SVOC	4-Nitroaniline	100-01-6		U	4.10E-01	1.1E+03		2.5E+02	
SB-226	N		1	10/05/21	SVOC	2-Nitrophenol	88-75-5		U	4.10E-01				
SB-226	N		1	10/05/21	SVOC	4-Nitrophenol	100-02-7		U	8.00E-01				
SB-226	N		1	10/05/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	4.10E-01	3.4E-01		2.0E-02	
SB-226	N		1	10/05/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	4.10E-01	4.7E+03		1.1E+03	
SB-226	N		1	10/05/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	4.10E-01	3.3E+00		7.8E-01	
SB-226	N		1	10/05/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	4.10E-01	4.7E+04		3.1E+03	
SB-226	N		1	10/05/21	SVOC	Pentachloronitrobenzene	82-68-8		U	4.10E-01	1.3E+02		2.7E+01	
SB-226	N		1	10/05/21	SVOC	Pentachlorophenol	87-86-5		U	4.10E-01	4.0E+01		1.0E+01	
SB-226	N		1	10/05/21	SVOC	Phenanthrene	85-01-8		U	2.10E-01	2.3E+04		1.8E+03	
SB-226	N		1	10/05/21	SVOC	Phenol	108-95-2		U	4.10E-01	2.5E+05		1.9E+04	
SB-226	N		1	10/05/21	SVOC	Pyrene	129-00-0		U	2.10E-01	2.3E+04		1.8E+03	
SB-226	N		1	10/05/21	SVOC	Pyridine	110-86-1		U	4.10E-01	1.2E+03		7.8E+01	
SB-226	N		1	10/05/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	4.10E-01	3.5E+01		2.3E+00	
SB-226	N		1	10/05/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	4.10E-01	8.2E+04		6.3E+03	
SB-226	N		1	10/05/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	4.10E-01	8.2E+02		6.3E+01	
SB-226	N		1	10/05/21	PCB	PCBs (total)	1336-36-3		U	9.70E-02	9.7E+00		1.2E+00	
SB-226	N		1	10/05/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	4.10E-01	7.4E+01		1.7E+01	
SB-226	N		1	10/05/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	4.10E-01	1.5E+01		3.6E+00	
SB-226	N		1	10/05/21	NITRO	Nitrobenzene	98-95-3		U	4.10E-01	2.2E+02		5.1E+01	
SB-226	N		1	10/05/21	INORG	Aluminum	7429-90-5	1.10E+04		2.00E+01	1.1E+06	1.0E-02	7.7E+04	1.4E-01
SB-226	N		1	10/05/21	INORG	Antimony	7440-36-0		U	2.00E+00	4.7E+02		3.1E+01	
SB-226	N		1	10/05/21	INORG	Arsenic	7440-38-2	4.50E+00		4.00E+00	3.0E+01	1.5E-01	6.8E+00	6.6E-01
SB-226	N		1	10/05/21	INORG	Barium	7440-39-3	5.60E+01		2.00E+00	2.2E+05	2.5E-04	1.5E+04	3.7E-03
SB-226	N		1	10/05/21	INORG	Beryllium	7440-41-7	5.30E-01		2.00E-01	2.3E+03	2.3E-04	1.6E+02	3.3E-03
SB-226	N		1	10/05/21	INORG	Cadmium	7440-43-9		U	4.00E-01	1.0E+02		7.1E+00	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-226	N		1	10/05/21	INORG	Chromium (total)	7440-47-3	1.50E+01		7.90E-01	1.8E+06	8.3E-06	1.2E+05	1.3E-04
SB-226	N		1	10/05/21	INORG	Cobalt	7440-48-4	6.50E+00		2.00E+00	3.5E+02	1.9E-02	2.3E+01	2.8E-01
SB-226	N		1	10/05/21	INORG	Copper	7440-50-8	1.10E+01		7.90E-01	4.7E+04	2.3E-04	3.1E+03	3.5E-03
SB-226	N		1	10/05/21	INORG	Cyanide (total)	57-12-5		U	6.00E-01	1.5E+02		2.3E+01	
SB-226	N		1	10/05/21	INORG	Iron	7439-89-6	2.20E+04		4.00E+02	8.2E+05	2.7E-02	5.5E+04	4.0E-01
SB-226	N		1	10/05/21	INORG	Lead	7439-92-1	1.20E+01		5.90E-01	8.0E+02	1.5E-02	2.0E+02	6.0E-02
SB-226	N		1	10/05/21	INORG	Manganese	7439-96-5	9.60E+01		4.00E-01	2.6E+04	3.7E-03	1.8E+03	5.3E-02
SB-226	N		1	10/05/21	INORG	Mercury	7439-97-6	1.20E-02	J	3.20E-02	4.1E+01	3.0E-04	7.4E+00	1.6E-03
SB-226	N		1	10/05/21	INORG	Nickel	7440-02-0	9.20E+00		7.90E-01	2.2E+04	4.2E-04	1.5E+03	6.1E-03
SB-226	N		1	10/05/21	INORG	Selenium	7782-49-2		U	4.00E+00	5.8E+03		3.9E+02	
SB-226	N		1	10/05/21	INORG	Silver	7440-22-4		U	4.00E-01	5.8E+03		3.9E+02	
SB-226	N		1	10/05/21	INORG	Thallium	7440-28-0	1.40E+00	J	2.00E+00	1.2E+01	1.2E-01	7.8E-01	1.8E+00
SB-226	N		1	10/05/21	INORG	Vanadium	7440-62-2	2.80E+01		7.90E-01	5.8E+03	4.8E-03	3.9E+02	7.2E-02
SB-226	N		1	10/05/21	INORG	Zinc	7440-66-6	3.00E+01		7.90E-01	3.5E+05	8.6E-05	2.3E+04	1.3E-03
SB-227	N		1	10/21/21	VOC	Acetone	67-64-1		U	8.60E-02	1.1E+06		7.0E+04	
SB-227	N		1	10/21/21	VOC	Acrylonitrile	107-13-1		U	5.10E-03	1.1E+01		2.5E+00	
SB-227	N		1	10/21/21	VOC	Benzene	71-43-2		U	1.70E-03	5.1E+01		1.2E+01	
SB-227	N		1	10/21/21	VOC	Bromobenzene	108-86-1		U	1.70E-03	1.8E+03		2.9E+02	
SB-227	N		1	10/21/21	VOC	Bromochloromethane	74-97-5		U	1.70E-03	6.3E+02		1.5E+02	
SB-227	N		1	10/21/21	VOC	Bromodichloromethane	75-27-4		U	1.70E-03	1.3E+01		2.9E+00	
SB-227	N		1	10/21/21	VOC	Bromoform	75-25-2		U	1.70E-03	8.6E+02		1.9E+02	
SB-227	N		1	10/21/21	VOC	Bromomethane	74-83-9		U	8.60E-03	3.0E+01		6.8E+00	
SB-227	N		1	10/21/21	VOC	2-Butanone	78-93-3		U	3.40E-02	1.9E+05		2.7E+04	
SB-227	N		1	10/21/21	VOC	n-Butylbenzene	104-51-8		U	1.70E-03	5.8E+04		3.9E+03	
SB-227	N		1	10/21/21	VOC	sec-Butylbenzene	135-98-8		U	1.70E-03	1.2E+05		7.8E+03	
SB-227	N		1	10/21/21	VOC	tert-Butylbenzene	98-06-6		U	3.40E-03	1.2E+05		7.8E+03	
SB-227	N		1	10/21/21	VOC	Carbon Disulfide	75-15-0		U	8.60E-03	3.5E+03		7.7E+02	
SB-227	N		1	10/21/21	VOC	Carbon Tetrachloride	56-23-5		U	1.70E-03	2.9E+01		6.5E+00	
SB-227	N		1	10/21/21	VOC	Chlorobenzene	108-90-7		U	1.70E-03	1.3E+03		2.8E+02	
SB-227	N		1	10/21/21	VOC	Chloroethane	75-00-3		U	1.70E-02	2.3E+04		5.4E+03	
SB-227	N		1	10/21/21	VOC	Chloroform	67-66-3		U	3.40E-03	1.4E+01		3.2E+00	
SB-227	N		1	10/21/21	VOC	Chloromethane	74-87-3		U	8.60E-03	4.6E+02		1.1E+02	
SB-227	N		1	10/21/21	VOC	2-Chlorotoluene	95-49-8		U	1.70E-03	2.3E+04		1.6E+03	
SB-227	N		1	10/21/21	VOC	4-Chlorotoluene	106-43-4		U	1.70E-03	2.3E+04		1.6E+03	
SB-227	N		1	10/21/21	VOC	Cumene	98-82-8		U	1.70E-03	9.9E+03		1.9E+03	
SB-227	N		1	10/21/21	VOC	p-Cymene	99-87-6		U	1.70E-03				
SB-227	N		1	10/21/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8		U	1.70E-03	6.4E-01		5.3E-02	
SB-227	N		1	10/21/21	VOC	Dibromochloromethane	124-48-1		U	8.60E-04	3.9E+02		8.3E+01	
SB-227	N		1	10/21/21	VOC	1,2-Dibromoethane	106-93-4		U	8.60E-04	1.6E+00		3.6E-01	
SB-227	N		1	10/21/21	VOC	Dibromomethane	74-95-3		U	1.70E-03	9.9E+01		2.4E+01	
SB-227	N		1	10/21/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6		U	3.40E-03	3.2E-01		7.4E-02	
SB-227	N		1	10/21/21	VOC	1,2-Dichlorobenzene	95-50-1		U	1.70E-03	9.3E+03		1.8E+03	
SB-227	N		1	10/21/21	VOC	1,3-Dichlorobenzene	541-73-1		U	1.70E-03	1.1E+02		2.6E+01	
SB-227	N		1	10/21/21	VOC	1,4-Dichlorobenzene	106-46-7		U	1.70E-03	1.1E+02		2.6E+01	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-227	N		1	10/21/21	VOC	Dichlorodifluoromethane	75-71-8		U	1.70E-02	3.7E+02		8.7E+01	
SB-227	N		1	10/21/21	VOC	1,1-Dichloroethane	75-34-3		U	1.70E-03	1.6E+02		3.6E+01	
SB-227	N		1	10/21/21	VOC	1,2-Dichloroethane	107-06-2		U	1.70E-03	2.0E+01		4.6E+00	
SB-227	N		1	10/21/21	VOC	1,1-Dichloroethene	75-35-4		U	3.40E-03	1.0E+03		2.3E+02	
SB-227	N		1	10/21/21	VOC	cis-1,2-Dichloroethene	156-59-2		U	1.70E-03	3.7E+02		6.3E+01	
SB-227	N		1	10/21/21	VOC	trans-1,2-Dichloroethene	156-60-5		U	1.70E-03	3.0E+02		7.0E+01	
SB-227	N		1	10/21/21	VOC	1,2-Dichloropropane	78-87-5		U	1.70E-03	6.6E+01		1.6E+01	
SB-227	N		1	10/21/21	VOC	1,3-Dichloropropane	142-28-9		U	8.60E-04	2.3E+04		1.6E+03	
SB-227	N		1	10/21/21	VOC	2,2-Dichloropropane	594-20-7		U	1.70E-03				
SB-227	N		1	10/21/21	VOC	1,1-Dichloropropene	563-58-6		U	1.70E-03				
SB-227	N		1	10/21/21	VOC	1,3-Dichloropropene (total)	542-75-6		U	8.60E-04	8.2E+01		1.8E+01	
SB-227	N		1	10/21/21	VOC	1,4-Dioxane	123-91-1		U	8.60E-02	2.4E+02		5.3E+01	
SB-227	N		1	10/21/21	VOC	Ethyl tert-butyl ether	637-92-3		U	8.60E-04	5.6E+03		1.3E+03	
SB-227	N		1	10/21/21	VOC	Ethyl Benzene	100-41-4		U	1.70E-03	2.5E+02		5.8E+01	
SB-227	N		1	10/21/21	VOC	Diethyl ether	60-29-7		U	1.70E-02	2.3E+05		1.6E+04	
SB-227	N		1	10/21/21	VOC	2-Hexanone	591-78-6		U	1.70E-02	1.3E+03		2.0E+02	
SB-227	N		1	10/21/21	VOC	Methyl Acetate	79-20-9		U	1.70E-03	1.2E+06		7.8E+04	
SB-227	N		1	10/21/21	VOC	Methyl tert-butyl ether	1634-04-4		U	3.40E-03	2.1E+03		4.7E+02	
SB-227	N		1	10/21/21	VOC	4-Methyl-2-pentanone	108-10-1		U	1.70E-02	1.4E+05		3.3E+04	
SB-227	N		1	10/21/21	VOC	Methylcyclohexane	108-87-2		U	1.70E-03	2.7E+04		6.5E+03	
SB-227	N		1	10/21/21	VOC	Methylene Chloride	75-09-2		U	1.70E-02	3.2E+03		3.5E+02	
SB-227	N		1	10/21/21	VOC	Diisopropyl ether	108-20-3		U	8.60E-04	9.4E+03		2.2E+03	
SB-227	N		1	10/21/21	VOC	n-Propylbenzene	103-65-1		U	1.70E-03	2.4E+04		3.8E+03	
SB-227	N		1	10/21/21	VOC	Styrene	100-42-5		U	1.70E-03	3.5E+04		6.0E+03	
SB-227	N		1	10/21/21	VOC	tert-Butyl alcohol	75-65-0		U	8.60E-02	6.5E+04		1.4E+04	
SB-227	N		1	10/21/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6		U	1.70E-03	8.8E+01		2.0E+01	
SB-227	N		1	10/21/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5		U	8.60E-04	2.7E+01		6.0E+00	
SB-227	N		1	10/21/21	VOC	Tetrachloroethene	127-18-4		U	1.70E-03	3.9E+02		8.1E+01	
SB-227	N		1	10/21/21	VOC	Tetrahydrofuran	109-99-9		U	8.60E-03	9.5E+04		1.8E+04	
SB-227	N		1	10/21/21	VOC	Toluene	108-88-3	4.80E-04	J	1.70E-03	4.7E+04	1.0E-08	4.9E+03	9.8E-08
SB-227	N		1	10/21/21	VOC	1,2,3-Trichlorobenzene	87-61-6		U	1.70E-03	9.3E+02		6.3E+01	
SB-227	N		1	10/21/21	VOC	1,2,4-Trichlorobenzene	120-82-1		U	1.70E-03	2.6E+02		5.8E+01	
SB-227	N		1	10/21/21	VOC	1,3,5-Trichlorobenzene	108-70-3		U	1.70E-03				
SB-227	N		1	10/21/21	VOC	1,1,1-Trichloroethane	71-55-6		U	1.70E-03	3.6E+04		8.1E+03	
SB-227	N		1	10/21/21	VOC	1,1,2-Trichloroethane	79-00-5		U	1.70E-03	6.3E+00		1.5E+00	
SB-227	N		1	10/21/21	VOC	Trichloroethene	79-01-6		U	1.70E-03	1.9E+01		4.1E+00	
SB-227	N		1	10/21/21	VOC	Trichlorofluoromethane	75-69-4		U	8.60E-03	3.5E+05		2.3E+04	
SB-227	N		1	10/21/21	VOC	1,2,3-Trichloropropane	96-18-4		U	1.70E-03	1.1E+00		5.1E-02	
SB-227	N		1	10/21/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		U	8.60E-03	2.8E+04		6.7E+03	
SB-227	N		1	10/21/21	VOC	1,2,4-Trimethylbenzene	95-63-6		U	1.70E-03	1.8E+03		3.0E+02	
SB-227	N		1	10/21/21	VOC	1,3,5-Trimethylbenzene	108-67-8		U	1.70E-03	1.5E+03		2.7E+02	
SB-227	N		1	10/21/21	VOC	Vinyl Chloride	75-01-4		U	8.60E-03	1.7E+01		5.9E-01	
SB-227	N		1	10/21/21	VOC	Xylenes (total)	1330-20-7		U	3.40E-03	2.5E+03		5.8E+02	
SB-227	N		1	10/21/21	SVOC	Acenaphthene	83-32-9		U	1.90E-01	4.5E+04		3.6E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-227	N		1	10/21/21	SVOC	Acenaphthylene	208-96-8		U	1.90E-01	2.3E+04		1.8E+03	
SB-227	N		1	10/21/21	SVOC	Acetophenone	98-86-2		U	3.90E-01	1.2E+05		7.8E+03	
SB-227	N		1	10/21/21	SVOC	t-Amyl methyl ether	994-05-8		U	8.60E-04				
SB-227	N		1	10/21/21	SVOC	Aniline	62-53-3		U	3.90E-01	4.0E+03		4.4E+02	
SB-227	N		1	10/21/21	SVOC	Anthracene	120-12-7		U	1.90E-01	2.3E+05		1.8E+04	
SB-227	N		1	10/21/21	SVOC	Benzidine	92-87-5		U	7.50E-01	1.0E-01		5.3E-03	
SB-227	N		1	10/21/21	SVOC	Benzo(a)anthracene	56-55-3	7.40E-02	J	1.90E-01	2.1E+02	3.5E-04	1.1E+01	6.7E-03
SB-227	N		1	10/21/21	SVOC	Benzo(a)pyrene	50-32-8		U	1.90E-01	2.1E+01		1.1E+00	
SB-227	N		1	10/21/21	SVOC	Benzo(b)fluoranthene	205-99-2	1.30E-01	J	1.90E-01	2.1E+02	6.2E-04	1.1E+01	1.2E-02
SB-227	N		1	10/21/21	SVOC	Benzo(g,h,i)perylene	191-24-2		U	1.90E-01	2.3E+04		1.8E+03	
SB-227	N		1	10/21/21	SVOC	Benzo(k)fluoranthene	207-08-9		U	1.90E-01	2.1E+03		1.1E+02	
SB-227	N		1	10/21/21	SVOC	Benzoic Acid	65-85-0		U	1.10E+00	3.3E+06		2.5E+05	
SB-227	N		1	10/21/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1		U	3.90E-01	2.5E+03		1.9E+02	
SB-227	N		1	10/21/21	SVOC	bis(2-Chloroethyl) ether	111-44-4		U	3.90E-01	1.0E+01		2.3E+00	
SB-227	N		1	10/21/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7		U	3.90E-01	1.6E+03		3.9E+02	
SB-227	N		1	10/21/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3		U	3.90E-01				
SB-227	N		1	10/21/21	SVOC	Butylbenzylphthalate	85-68-7		U	3.90E-01	1.2E+04		2.9E+03	
SB-227	N		1	10/21/21	SVOC	Carbazole	86-74-8		U	1.90E-01	3.0E+04		2.4E+03	
SB-227	N		1	10/21/21	SVOC	4-Chloro-3-methylphenol	59-50-7		U	7.50E-01	8.2E+04		6.3E+03	
SB-227	N		1	10/21/21	SVOC	4-Chloroaniline	106-47-8		U	7.50E-01	1.1E+02		2.7E+01	
SB-227	N		1	10/21/21	SVOC	2-Chloronaphthalene	91-58-7		U	3.90E-01	6.0E+04		4.8E+03	
SB-227	N		1	10/21/21	SVOC	2-Chlorophenol	95-57-8		U	3.90E-01	5.8E+03		3.9E+02	
SB-227	N		1	10/21/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3		U	3.90E-01				
SB-227	N		1	10/21/21	SVOC	Chrysene	218-01-9	1.60E-01	J	1.90E-01	2.1E+04	7.6E-06	1.1E+03	1.5E-04
SB-227	N		1	10/21/21	SVOC	Dibenz(a,h)anthracene	53-70-3		U	1.90E-01	2.1E+01		1.1E+00	
SB-227	N		1	10/21/21	SVOC	Dibenzofuran	132-64-9	2.70E-01	J	3.90E-01	1.2E+03	2.3E-04	7.8E+01	3.5E-03
SB-227	N		1	10/21/21	SVOC	3,3'-Dichlorobenzidine	91-94-1		U	1.90E-01	5.1E+01		1.2E+01	
SB-227	N		1	10/21/21	SVOC	2,4-Dichlorophenol	120-83-2		U	3.90E-01	2.5E+03		1.9E+02	
SB-227	N		1	10/21/21	SVOC	Diethylphthalate	84-66-2		U	3.90E-01	6.6E+05		5.1E+04	
SB-227	N		1	10/21/21	SVOC	2,4-Dimethylphenol	105-67-9		U	3.90E-01	1.6E+04		1.3E+03	
SB-227	N		1	10/21/21	SVOC	Dimethylphthalate	131-11-3		U	3.90E-01	6.6E+05		5.1E+04	
SB-227	N		1	10/21/21	SVOC	Di-n-butylphthalate	84-74-2		U	3.90E-01	8.2E+04		6.3E+03	
SB-227	N		1	10/21/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1		U	3.90E-01	6.6E+01		5.1E+00	
SB-227	N		1	10/21/21	SVOC	2,4-Dinitrophenol	51-28-5		U	7.50E-01	1.6E+03		1.3E+02	
SB-227	N		1	10/21/21	SVOC	Di-n-octylphthalate	117-84-0		U	3.90E-01	8.2E+03		6.3E+02	
SB-227	N		1	10/21/21	SVOC	1,2-Diphenylhydrazine	122-66-7		U	3.90E-01	2.9E+01		6.8E+00	
SB-227	N		1	10/21/21	SVOC	Fluoranthene	206-44-0	1.20E-01	J	1.90E-01	3.0E+04	4.0E-06	2.4E+03	5.0E-05
SB-227	N		1	10/21/21	SVOC	Fluorene	86-73-7		U	1.90E-01	3.0E+04		2.4E+03	
SB-227	N		1	10/21/21	SVOC	Hexachlorobenzene	118-74-1		U	3.90E-01	9.6E+00		7.8E-01	
SB-227	N		1	10/21/21	SVOC	Hexachlorobutadiene	87-68-3		U	1.70E-03	5.3E+01		1.2E+01	
SB-227	N		1	10/21/21	SVOC	Hexachlorocyclopentadiene	77-47-4		U	3.90E-01	7.5E+00		1.8E+00	
SB-227	N		1	10/21/21	SVOC	Hexachloroethane	67-72-1		U	3.90E-01	8.0E+01		1.8E+01	
SB-227	N		1	10/21/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5		U	1.90E-01	2.1E+02		1.1E+01	
SB-227	N		1	10/21/21	SVOC	Isophorone	78-59-1		U	3.90E-01	2.4E+04		5.7E+03	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-227	N		1	10/21/21	SVOC	1-Methylnaphthalene	90-12-0	7.40E-01		1.90E-01	7.3E+02	1.0E-03	1.8E+02	4.1E-03
SB-227	N		1	10/21/21	SVOC	2-Methylnaphthalene	91-57-6	1.20E+00		1.90E-01	3.0E+03	4.0E-04	2.4E+02	5.0E-03
SB-227	N		1	10/21/21	SVOC	2-Methylphenol	95-48-7		U	3.90E-01	4.1E+04		3.2E+03	
SB-227	N		1	10/21/21	SVOC	3&4-Methylphenol	65794-96-9		U	3.90E-01				
SB-227	N		1	10/21/21	SVOC	Naphthalene	91-20-3	6.80E-01		1.90E-01	8.6E+01	7.9E-03	2.0E+01	3.4E-02
SB-227	N		1	10/21/21	SVOC	2-Nitroaniline	88-74-4		U	3.90E-01	8.0E+03		6.3E+02	
SB-227	N		1	10/21/21	SVOC	3-Nitroaniline	99-09-2		U	3.90E-01	1.1E+03		2.5E+02	
SB-227	N		1	10/21/21	SVOC	4-Nitroaniline	100-01-6		U	3.90E-01	1.1E+03		2.5E+02	
SB-227	N		1	10/21/21	SVOC	2-Nitrophenol	88-75-5		U	3.90E-01				
SB-227	N		1	10/21/21	SVOC	4-Nitrophenol	100-02-7		U	7.50E-01				
SB-227	N		1	10/21/21	SVOC	N-Nitrosodimethylamine	62-75-9		U	3.90E-01	3.4E-01		2.0E-02	
SB-227	N		1	10/21/21	SVOC	N-Nitrosodiphenylamine	86-30-6		U	3.90E-01	4.7E+03		1.1E+03	
SB-227	N		1	10/21/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7		U	3.90E-01	3.3E+00		7.8E-01	
SB-227	N		1	10/21/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1		U	3.90E-01	4.7E+04		3.1E+03	
SB-227	N		1	10/21/21	SVOC	Pentachloronitrobenzene	82-68-8		U	3.90E-01	1.3E+02		2.7E+01	
SB-227	N		1	10/21/21	SVOC	Pentachlorophenol	87-86-5		U	3.90E-01	4.0E+01		1.0E+01	
SB-227	N		1	10/21/21	SVOC	Phenanthrene	85-01-8	5.70E-01		1.90E-01	2.3E+04	2.5E-05	1.8E+03	3.2E-04
SB-227	N		1	10/21/21	SVOC	Phenol	108-95-2		U	3.90E-01	2.5E+05		1.9E+04	
SB-227	N		1	10/21/21	SVOC	Pyrene	129-00-0	1.40E-01	J	1.90E-01	2.3E+04	6.1E-06	1.8E+03	7.8E-05
SB-227	N		1	10/21/21	SVOC	Pyridine	110-86-1		U	3.90E-01	1.2E+03		7.8E+01	
SB-227	N		1	10/21/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3		U	3.90E-01	3.5E+01		2.3E+00	
SB-227	N		1	10/21/21	SVOC	2,4,5-Trichlorophenol	95-95-4		U	3.90E-01	8.2E+04		6.3E+03	
SB-227	N		1	10/21/21	SVOC	2,4,6-Trichlorophenol	88-06-2		U	3.90E-01	8.2E+02		6.3E+01	
SB-227	N		1	10/21/21	PCB	PCBs (total)	1336-36-3		U	9.10E-02	9.7E+00		1.2E+00	
SB-227	N		1	10/21/21	NITRO	2,4-Dinitrotoluene	121-14-2		U	3.90E-01	7.4E+01		1.7E+01	
SB-227	N		1	10/21/21	NITRO	2,6-Dinitrotoluene	606-20-2		U	3.90E-01	1.5E+01		3.6E+00	
SB-227	N		1	10/21/21	NITRO	Nitrobenzene	98-95-3		U	3.90E-01	2.2E+02		5.1E+01	
SB-227	N		1	10/21/21	INORG	Aluminum	7429-90-5	3.40E+03		1.90E+01	1.1E+06	3.1E-03	7.7E+04	4.4E-02
SB-227	N		1	10/21/21	INORG	Antimony	7440-36-0		U	1.90E+00	4.7E+02		3.1E+01	
SB-227	N		1	10/21/21	INORG	Arsenic	7440-38-2	2.50E+01		3.70E+00	3.0E+01	8.3E-01	6.8E+00	3.7E+00
SB-227	N		1	10/21/21	INORG	Barium	7440-39-3	1.40E+02		1.90E+00	2.2E+05	6.4E-04	1.5E+04	9.3E-03
SB-227	N		1	10/21/21	INORG	Beryllium	7440-41-7	8.60E-01		1.90E-01	2.3E+03	3.7E-04	1.6E+02	5.4E-03
SB-227	N		1	10/21/21	INORG	Cadmium	7440-43-9		U	3.70E-01	1.0E+02		7.1E+00	
SB-227	N		1	10/21/21	INORG	Chromium (total)	7440-47-3	1.40E+03		7.40E-01	1.8E+06	7.8E-04	1.2E+05	1.2E-02
SB-227	N		1	10/21/21	INORG	Cobalt	7440-48-4	1.80E+01		1.90E+00	3.5E+02	5.1E-02	2.3E+01	7.8E-01
SB-227	N		1	10/21/21	INORG	Copper	7440-50-8	1.00E+03		7.40E-01	4.7E+04	2.1E-02	3.1E+03	3.2E-01
SB-227	N		1	10/21/21	INORG	Cyanide (total)	57-12-5		U	3.80E-01	1.5E+02		2.3E+01	
SB-227	N		1	10/21/21	INORG	Iron	7439-89-6	3.30E+05		3.70E+02	8.2E+05	4.0E-01	5.5E+04	6.0E+00
SB-227	N		1	10/21/21	INORG	Lead	7439-92-1	1.30E+01		5.60E-01	8.0E+02	1.6E-02	2.0E+02	6.5E-02
SB-227	N		1	10/21/21	INORG	Manganese	7439-96-5	2.70E+03		3.70E-01	2.6E+04	1.0E-01	1.8E+03	1.5E+00
SB-227	N		1	10/21/21	INORG	Mercury	7439-97-6	1.90E-02	J	2.90E-02	4.1E+01	4.7E-04	7.4E+00	2.6E-03
SB-227	N		1	10/21/21	INORG	Nickel	7440-02-0	7.30E+02		7.40E-01	2.2E+04	3.3E-02	1.5E+03	4.9E-01
SB-227	N		1	10/21/21	INORG	Selenium	7782-49-2		U	7.40E+01	5.8E+03		3.9E+02	
SB-227	N		1	10/21/21	INORG	Silver	7440-22-4		U	7.40E+00	5.8E+03		3.9E+02	

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
MW-118S	N			06/25/15	VOC	Benzene	71-43-2		U	5.00E-03	5.1E+01		1.2E+01	
MW-118S	N			06/25/15	VOC	Ethyl Benzene	100-41-4	3.80E-02		5.00E-03	2.5E+02	1.5E-04	5.8E+01	6.6E-04
MW-118S	N			06/25/15	VOC	Toluene	108-88-3		U	5.00E-03	4.7E+04		4.9E+03	
MW-118S	N			06/25/15	VOC	Xylenes (total)	1330-20-7	3.30E-02		5.00E-03	2.5E+03	1.3E-05	5.8E+02	5.7E-05
MW-118S	N			06/25/15	SVOC	Naphthalene	91-20-3	1.40E-01		5.00E-03	8.6E+01	1.6E-03	2.0E+01	7.0E-03
MW-120	N	27	28	06/30/15	VOC	Benzene	71-43-2		U	2.00E-01	5.1E+01		1.2E+01	
MW-120	N	27	28	06/30/15	VOC	Ethyl Benzene	100-41-4		U	2.00E-01	2.5E+02		5.8E+01	
MW-120	N	27	28	06/30/15	VOC	Toluene	108-88-3		U	2.00E-01	4.7E+04		4.9E+03	
MW-120	N	27	28	06/30/15	VOC	Xylenes (total)	1330-20-7	8.70E-02	J	2.00E-01	2.5E+03	3.5E-05	5.8E+02	1.5E-04
MW-120	N	27	28	06/30/15	SVOC	Naphthalene	91-20-3	6.20E-01		2.00E-01	8.6E+01	7.2E-03	2.0E+01	3.1E-02
MW-121	N	24	25	07/01/15	VOC	Benzene	71-43-2	7.00E-02	J	2.10E-01	5.1E+01	1.4E-03	1.2E+01	5.8E-03
MW-121	N	24	25	07/01/15	VOC	Ethyl Benzene	100-41-4	7.10E-02	J	2.10E-01	2.5E+02	2.8E-04	5.8E+01	1.2E-03
MW-121	N	24	25	07/01/15	VOC	Toluene	108-88-3		U	2.10E-01	4.7E+04		4.9E+03	
MW-121	N	24	25	07/01/15	VOC	Xylenes (total)	1330-20-7	1.40E+00		2.10E-01	2.5E+03	5.6E-04	5.8E+02	2.4E-03
MW-121	N	24	25	07/01/15	SVOC	Naphthalene	91-20-3	4.80E+00		2.10E-01	8.6E+01	5.6E-02	2.0E+01	2.4E-01
MW-122	N	23	24	06/24/15	VOC	Benzene	71-43-2		U	2.10E-01	5.1E+01		1.2E+01	
MW-122	N	23	24	06/24/15	VOC	Ethyl Benzene	100-41-4	1.60E-01	J	2.10E-01	2.5E+02	6.4E-04	5.8E+01	2.8E-03
MW-122	N	23	24	06/24/15	VOC	Toluene	108-88-3		U	2.10E-01	4.7E+04		4.9E+03	
MW-122	N	23	24	06/24/15	VOC	Xylenes (total)	1330-20-7	4.90E-01		2.10E-01	2.5E+03	2.0E-04	5.8E+02	8.4E-04
MW-122	N	23	24	06/24/15	SVOC	Naphthalene	91-20-3	2.50E+00		2.10E-01	8.6E+01	2.9E-02	2.0E+01	1.3E-01
MW-123S	N	24	25	07/07/15	VOC	Benzene	71-43-2	2.80E-02	J	2.00E-01	5.1E+01	5.5E-04	1.2E+01	2.3E-03
MW-123S	N	24	25	07/07/15	VOC	Ethyl Benzene	100-41-4	7.80E-01		2.00E-01	2.5E+02	3.1E-03	5.8E+01	1.3E-02
MW-123S	N	24	25	07/07/15	VOC	Toluene	108-88-3		U	2.00E-01	4.7E+04		4.9E+03	
MW-123S	N	24	25	07/07/15	VOC	Xylenes (total)	1330-20-7	8.60E-01		2.00E-01	2.5E+03	3.4E-04	5.8E+02	1.5E-03
MW-123S	N	24	25	07/07/15	SVOC	Naphthalene	91-20-3	3.40E+00		2.00E-01	8.6E+01	4.0E-02	2.0E+01	1.7E-01
RW-05S	N	24	25	06/29/15	VOC	Benzene	71-43-2		U	2.70E-01	5.1E+01		1.2E+01	
RW-05S	N	24	25	06/29/15	VOC	Ethyl Benzene	100-41-4	1.70E-01	J	2.70E-01	2.5E+02	6.8E-04	5.8E+01	2.9E-03
RW-05S	N	24	25	06/29/15	VOC	Toluene	108-88-3		U	2.70E-01	4.7E+04		4.9E+03	
RW-05S	N	24	25	06/29/15	VOC	Xylenes (total)	1330-20-7	6.10E-01		2.70E-01	2.5E+03	2.4E-04	5.8E+02	1.1E-03
RW-05S	N	24	25	06/29/15	SVOC	Naphthalene	91-20-3	1.70E+00		2.70E-01	8.6E+01	2.0E-02	2.0E+01	8.5E-02
RW-116S	N			06/25/15	VOC	Benzene	71-43-2	8.40E-02	J	4.40E-01	5.1E+01	1.6E-03	1.2E+01	7.0E-03
RW-116S	N			06/25/15	VOC	Ethyl Benzene	100-41-4	8.70E-01		4.40E-01	2.5E+02	3.5E-03	5.8E+01	1.5E-02
RW-116S	N			06/25/15	VOC	Toluene	108-88-3		U	4.40E-01	4.7E+04		4.9E+03	
RW-116S	N			06/25/15	VOC	Xylenes (total)	1330-20-7	8.20E-01		4.40E-01	2.5E+03	3.3E-04	5.8E+02	1.4E-03
RW-116S	N			06/25/15	SVOC	Naphthalene	91-20-3	1.10E+00		4.40E-01	8.6E+01	1.3E-02	2.0E+01	5.5E-02
RW-117S	N	29	30	06/23/15	VOC	Benzene	71-43-2	6.40E-02	J	3.40E-01	5.1E+01	1.3E-03	1.2E+01	5.3E-03
RW-117S	N	29	30	06/23/15	VOC	Ethyl Benzene	100-41-4	8.10E-02	J	3.40E-01	2.5E+02	3.2E-04	5.8E+01	1.4E-03
RW-117S	N	29	30	06/23/15	VOC	Toluene	108-88-3		U	3.40E-01	4.7E+04		4.9E+03	
RW-117S	N	29	30	06/23/15	VOC	Xylenes (total)	1330-20-7		U	3.40E-01	2.5E+03		5.8E+02	
RW-117S	N	29	30	06/23/15	SVOC	Naphthalene	91-20-3	6.60E-01		3.40E-01	8.6E+01	7.7E-03	2.0E+01	3.3E-02
RW-28S	N	27	27	07/06/15	VOC	Benzene	71-43-2	1.00E-03	J	4.00E-03	5.1E+01	2.0E-05	1.2E+01	8.3E-05
RW-28S	N	27	27	07/06/15	VOC	Ethyl Benzene	100-41-4	1.90E-02		4.00E-03	2.5E+02	7.6E-05	5.8E+01	3.3E-04
RW-28S	N	27	27	07/06/15	VOC	Toluene	108-88-3		U	4.00E-03	4.7E+04		4.9E+03	
RW-28S	N	27	27	07/06/15	VOC	Xylenes (total)	1330-20-7	3.00E-03	J	4.00E-03	2.5E+03	1.2E-06	5.8E+02	5.2E-06

Attachment 1-1: Soil Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample Type	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Qual	Limit (mg/kg)	Industrial Regional Screening Levels (mg/kg)	Ratio of Conc to Industrial RSLs	Residential Regional Screening Levels (mg/kg)	Ratio of Conc to Residential RSLs
SB-227	N		1	10/21/21	INORG	Thallium	7440-28-0		U	1.90E+00	1.2E+01		7.8E-01	
SB-227	N		1	10/21/21	INORG	Vanadium	7440-62-2	1.10E+02		7.40E-01	5.8E+03	1.9E-02	3.9E+02	2.8E-01
SB-227	N		1	10/21/21	INORG	Zinc	7440-66-6	6.70E+01		7.40E-01	3.5E+05	1.9E-04	2.3E+04	2.9E-03

ATTACHMENT 1-2
GROUNDWATER CONCENTRATIONS

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-01S	MW-01S_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	3.13E+01		2.00E+00	1.4E+01	2.2E+00	1.4E+01	2.2E+00
MW-01S	MW-01S_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	6.26E+00		1.00E-02	4.8E-01	1.3E+01	4.3E-01	1.5E+01
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.20E-02	1.6E-03		1.5E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.10E-02	4.0E-02		3.9E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.10E-02				
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Pyrene	129-00-0	T	2.00E-04	J	5.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Barium	7440-39-3	T	9.24E-02		5.00E-03	2.0E+00	4.6E-02	3.8E+00	2.4E-02
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Chromium (total)	7440-47-3	T	1.80E-03	J	1.50E-02	1.0E-01	1.8E-02	2.2E+01	8.2E-05
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Cobalt	7440-48-4	T	4.30E-03	J	5.00E-03	6.0E-03	7.2E-01	6.0E-03	7.2E-01
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Iron	7439-89-6	T	4.66E+01		5.00E+00	1.4E+01	3.3E+00	1.4E+01	3.3E+00
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Manganese	7439-96-5	T	6.92E+00		1.00E-02	4.8E-01	1.4E+01	4.3E-01	1.6E+01
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Nickel	7440-02-0	T	8.20E-03	J	1.00E-02	4.0E-01	2.1E-02	3.9E-01	2.1E-02
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-01S	MW-01S_05/11/20	N	05/11/20	INORG	Zinc	7440-66-6	T	2.54E-02		2.00E-02	6.0E+00	4.2E-03	6.0E+00	4.2E-03
MW-01S	MW-01S_08122020	N	08/12/20	INORG	Iron	7439-89-6	T	2.60E+01	HF	1.00E+00	1.4E+01	1.9E+00	1.4E+01	1.9E+00
MW-01S	MW-01S_08122020	N	08/12/20	INORG	Manganese	7439-96-5	T	5.60E+00		1.00E-02	4.8E-01	1.2E+01	4.3E-01	1.3E+01
MW-01S	410-33859-1_MW-01S	N	03/26/21	SVOC	Naphthalene	91-20-3	T		U	8.50E-04	6.5E-03		1.2E-03	
MW-01S	MW-01S-03262021	N	03/26/21	SVOC	Naphthalene	91-20-3	T		U	3.20E-04	6.5E-03		1.2E-03	
MW-01S	HRP-MW01S-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-01S	HRP-MW-01S-220504	N	05/04/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-01S	HRP-MW01S-221019	N	10/19/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-05	MW-05/RW-05_02/19/20	N	02/19/20	INORG	Iron	7439-89-6	T	3.62E+01		2.00E+00	1.4E+01	2.6E+00	1.4E+01	2.6E+00
MW-05	MW-05/RW-05_02/19/20	N	02/19/20	INORG	Manganese	7439-96-5	T	2.96E+00		1.00E-02	4.8E-01	6.2E+00	4.3E-01	6.9E+00
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T	4.00E-03		1.00E-03	5.0E-03	8.0E-01	4.6E-03	8.7E-01
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Cumene	98-82-8	T	1.00E-03	J	5.00E-03	2.0E+00	5.0E-04	4.5E-01	2.2E-03
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T	2.00E-03		1.00E-03	7.0E-01	2.9E-03	1.5E-02	1.3E-01
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T	2.00E-04	J	1.00E-03	1.0E+00	2.0E-04	1.1E+00	1.8E-04
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	1.00E-03		5.00E-04	1.2E+00	8.3E-04	5.3E-01	1.9E-03
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.10E-02	4.0E-02		3.9E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.10E-02				
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	1.55E-01		5.00E-03	2.0E+00	7.8E-02	3.8E+00	4.1E-02
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T	1.90E-03	J	1.50E-02	1.0E-01	1.9E-02	2.2E+01	8.6E-05
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T		U	5.00E-03	6.0E-03		6.0E-03	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	1.62E-02		1.00E-02	4.0E-01	4.1E-02	3.9E-01	4.2E-02
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T	5.90E-03	J	1.00E-02	1.0E-01	5.9E-02	8.6E-02	6.9E-02
MW-05	MW-05/RW-05_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T		U	2.00E-02	6.0E+00		6.0E+00	
MW-05	410-33562-1_RW-05	N	03/23/21	SVOC	Naphthalene	91-20-3	T		U	1.60E-04	6.5E-03		1.2E-03	
MW-05	RW-05-03232021	N	03/23/21	SVOC	Naphthalene	91-20-3	T		U	6.00E-05	6.5E-03		1.2E-03	
MW-05	HRP-MW05-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T	1.10E-03		6.40E-04	6.5E-03	1.7E-01	1.2E-03	9.2E-01
MW-05	HRP-MW-05-220504	N	05/04/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-05	HRP-MW05-221020	N	10/20/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Acetone	67-64-1	T	1.00E-03	J	2.00E-02	1.8E+01	5.6E-05	1.8E+01	5.6E-05
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Benzene	71-43-2	T	7.00E-03		1.00E-03	5.0E-03	1.4E+00	4.6E-03	1.5E+00
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Cumene	98-82-8	T	4.00E-04	J	5.00E-03	2.0E+00	2.0E-04	4.5E-01	8.9E-04
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Toluene	108-88-3	T	3.00E-04	J	1.00E-03	1.0E+00	3.0E-04	1.1E+00	2.7E-04
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Acenaphthene	83-32-9	T	2.00E-03		5.00E-04	1.2E+00	1.7E-03	5.3E-01	3.8E-03
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.20E-02	1.6E-03		1.5E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.10E-02	4.0E-02		3.9E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Fluorene	86-73-7	T	2.00E-03		5.00E-04	8.0E-01	2.5E-03	2.9E-01	6.9E-03
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.10E-02				
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Barium	7440-39-3	T	1.39E-01		5.00E-03	2.0E+00	7.0E-02	3.8E+00	3.7E-02
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Chromium (total)	7440-47-3	T	2.80E-03	J	1.50E-02	1.0E-01	2.8E-02	2.2E+01	1.3E-04
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Cobalt	7440-48-4	T		U	5.00E-03	6.0E-03		6.0E-03	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Nickel	7440-02-0	T	2.60E-03	J	1.00E-02	4.0E-01	6.5E-03	3.9E-01	6.7E-03
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Vanadium	7440-62-2	T	4.60E-03	J	1.00E-02	1.0E-01	4.6E-02	8.6E-02	5.3E-02
MW-08S	MW-08S_05/11/20	N	05/11/20	INORG	Zinc	7440-66-6	T		U	2.00E-02	6.0E+00		6.0E+00	
MW-08S	410-33859-1_MW-08S	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.40E-04	6.5E-03		1.2E-03	
MW-08S	MW-08S-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.10E-04	6.5E-03		1.2E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Bromomethane	74-83-9	T		U	5.00E-03	2.8E-02		7.5E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Ethanol	64-17-5	T		U	1.00E+01				
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Isopropanol	67-63-0	T		U	1.00E+01	4.0E+01		4.1E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Methanol	67-56-1	T		U	1.00E+01	4.0E+01		2.0E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Acenaphthene	83-32-9	T		U	5.10E-03	1.2E+00		5.3E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Acenaphthylene	208-96-8	T		U	5.10E-03	6.0E-01		1.2E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Aniline	62-53-3	T		U	5.10E-03	1.4E-01		1.3E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Anthracene	120-12-7	T		U	5.10E-03	6.0E+00		1.8E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Benzidine	92-87-5	T		U	2.00E-02	1.1E-06		1.1E-06	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.10E-03	2.5E-03		3.0E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.10E-03	2.0E-04		2.5E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.10E-03	2.5E-03		2.5E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.10E-03	6.0E-01		1.2E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.10E-03	2.5E-02		2.5E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Benzoic Acid	65-85-0	T		U	1.00E-02	8.0E+01		7.5E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.00E-02	6.0E-02		5.9E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.00E-02	7.1E-04		1.4E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.00E-02	6.0E-03		5.6E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.00E-02				
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.00E-02	4.1E-01		1.6E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Carbazole	86-74-8	T		U	1.00E-02	8.0E-01		2.9E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.00E-02	2.0E+00		1.4E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-02	1.6E+00		7.5E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.00E-02	1.0E-01		9.1E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.00E-02				
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Chrysene	218-01-9	T		U	5.10E-03	2.5E-01		2.5E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.10E-03	2.5E-04		2.5E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Dibenzofuran	132-64-9	T		U	5.10E-03	2.0E-02		7.9E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.00E-02	6.0E-02		4.6E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Diethylphthalate	84-66-2	T		U	1.00E-02	1.6E+01		1.5E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.00E-02	1.6E+01		1.5E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.00E-02	2.0E+00		9.0E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.00E-02	1.6E-03		1.5E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.00E-02	4.0E-02		3.9E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.00E-02	2.0E-01		2.0E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.00E-02	9.7E-04		7.8E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Ethylene Glycol	107-21-1	T		U	1.00E+01	1.6E+01		1.6E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Fluoranthene	206-44-0	T		U	5.10E-03	8.0E-01		8.0E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Fluorene	86-73-7	T		U	5.10E-03	8.0E-01		2.9E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.00E-02	1.0E-03		9.8E-05	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.00E-02	5.0E-02		4.1E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Hexachloroethane	67-72-1	T		U	1.00E-02	1.4E-02		3.3E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.10E-03	2.5E-03		2.5E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Isophorone	78-59-1	T		U	1.00E-02	8.2E-01		7.8E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.10E-03	2.7E-02		1.1E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.10E-03	8.0E-02		3.6E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2-Methylphenol	95-48-7	T		U	1.00E-02	1.0E+00		9.3E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	1.00E-02				
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.00E-02	2.0E-01		1.9E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.00E-02	3.9E-02		3.8E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.00E-02	3.9E-02		3.8E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.00E-02				
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.00E-02	4.9E-06		1.1E-06	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.00E-02	1.6E-01		1.2E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.00E-02	1.1E-04		1.1E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.00E-02	8.0E-01		7.1E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.00E-02	3.0E-03		1.2E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.00E-02	1.0E-03		4.1E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Phenanthrene	85-01-8	T		U	5.10E-03	6.0E-01		1.2E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Phenol	108-95-2	T		U	1.00E-02	6.0E+00		5.8E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Propylene glycol	57-55-6	T		U	1.00E+01	4.0E+02		4.0E+02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Pyrene	129-00-0	T		U	5.10E-03	6.0E-01		1.2E-01	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Pyridine	110-86-1	T		U	5.10E-03	2.0E-02		2.0E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.00E-02	6.0E-04		1.7E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.00E-02	2.0E+00		1.2E+00	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.00E-02	2.0E-02		1.2E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.00E-02	2.5E-03		2.4E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.00E-02	5.2E-04		4.9E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	SVOC	Nitrobenzene	98-95-3	T		U	1.00E-02	4.0E-02		1.4E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Aluminum	7429-90-5	D		U	5.00E-02	2.0E+01		2.0E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Aluminum	7429-90-5	T		U	5.00E-02	2.0E+01		2.0E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Arsenic	7440-38-2	D	9.10E-04		8.00E-04	1.0E-02	9.1E-02	5.2E-04	1.8E+00
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Arsenic	7440-38-2	T		U	8.00E-04	1.0E-02		5.2E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Barium	7440-39-3	D	5.00E-02		1.00E-02	2.0E+00	2.5E-02	3.8E+00	1.3E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Barium	7440-39-3	T	4.90E-02		1.00E-02	2.0E+00	2.5E-02	3.8E+00	1.3E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Beryllium	7440-41-7	D	9.40E-04		4.00E-04	4.0E-03	2.4E-01	2.5E-02	3.8E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Beryllium	7440-41-7	T	7.10E-04		4.00E-04	4.0E-03	1.8E-01	2.5E-02	2.8E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Cadmium	7440-43-9	D	1.10E-02		2.00E-04	5.0E-03	2.2E+00	1.8E-03	6.1E+00
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Cadmium	7440-43-9	T	1.20E-02		2.00E-04	5.0E-03	2.4E+00	1.8E-03	6.7E+00
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Chromium (total)	7440-47-3	T		U	1.00E-03	1.0E-01		2.2E+01	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Cobalt	7440-48-4	D	4.10E-01		1.00E-03	6.0E-03	6.8E+01	6.0E-03	6.8E+01
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Cobalt	7440-48-4	T	3.60E-01		1.00E-03	6.0E-03	6.0E+01	6.0E-03	6.0E+01

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Copper	7440-50-8	D	3.00E-03		1.00E-03	1.3E+00	2.3E-03	8.0E-01	3.8E-03
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Copper	7440-50-8	T	2.00E-03		1.00E-03	1.3E+00	1.5E-03	8.0E-01	2.5E-03
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Iron	7439-89-6	D	3.10E+01		5.00E-02	1.4E+01	2.2E+00	1.4E+01	2.2E+00
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Iron	7439-89-6	T	1.50E+01		5.00E-02	1.4E+01	1.1E+00	1.4E+01	1.1E+00
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Lead	7439-92-1	D	1.70E-04	J	5.00E-04	1.5E-02	1.1E-02	1.5E-02	1.1E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Lead	7439-92-1	T	1.60E-04	J	5.00E-04	1.5E-02	1.1E-02	1.5E-02	1.1E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Manganese	7439-96-5	D	1.30E+01		1.00E-02	4.8E-01	2.7E+01	4.3E-01	3.0E+01
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Manganese	7439-96-5	T	9.90E+00		1.00E-03	4.8E-01	2.1E+01	4.3E-01	2.3E+01
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Nickel	7440-02-0	D	2.10E-01		5.00E-03	4.0E-01	5.3E-01	3.9E-01	5.4E-01
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Nickel	7440-02-0	T	2.20E-01		5.00E-03	4.0E-01	5.5E-01	3.9E-01	5.6E-01
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Selenium	7782-49-2	D	1.20E-03	J	5.00E-03	5.0E-02	2.4E-02	1.0E-01	1.2E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Selenium	7782-49-2	T	1.60E-03	J	5.00E-03	5.0E-02	3.2E-02	1.0E-01	1.6E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Silver	7440-22-4	T		U	2.00E-04	1.0E-01		9.4E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Zinc	7440-66-6	D	4.00E-01		1.00E-02	6.0E+00	6.7E-02	6.0E+00	6.7E-02
MW-100S	HRP-MW100S-211028	N	10/28/21	INORG	Zinc	7440-66-6	T	4.40E-01		1.00E-02	6.0E+00	7.3E-02	6.0E+00	7.3E-02
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Ethanol	64-17-5	T		U	1.00E+01				
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Isopropanol	67-63-0	T		U	1.00E+01	4.0E+01		4.1E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Methanol	67-56-1	T		U	1.00E+01	4.0E+01		2.0E+01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-102	HRP-MW102-211027	N	10/27/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Acenaphthene	83-32-9	T		U	5.40E-03	1.2E+00		5.3E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Acenaphthylene	208-96-8	T		U	5.40E-03	6.0E-01		1.2E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Aniline	62-53-3	T		U	5.40E-03	1.4E-01		1.3E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Anthracene	120-12-7	T		U	5.40E-03	6.0E+00		1.8E+00	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Benzidine	92-87-5	T		U	2.20E-02	1.1E-06		1.1E-06	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.40E-03	2.5E-03		3.0E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.40E-03	2.0E-04		2.5E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.40E-03	2.5E-03		2.5E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.40E-03	6.0E-01		1.2E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.40E-03	2.5E-02		2.5E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Benzoic Acid	65-85-0	T		U	1.10E-02	8.0E+01		7.5E+01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.10E-02	6.0E-02		5.9E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.10E-02	7.1E-04		1.4E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.10E-02				
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.10E-02	4.1E-01		1.6E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Carbazole	86-74-8	T		U	1.10E-02	8.0E-01		2.9E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.10E-02	2.0E+00		1.4E+00	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.10E-02	1.6E+00		7.5E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.10E-02	1.0E-01		9.1E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.10E-02				
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Chrysene	218-01-9	T		U	5.40E-03	2.5E-01		2.5E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.40E-03	2.5E-04		2.5E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Dibenzofuran	132-64-9	T		U	5.40E-03	2.0E-02		7.9E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.10E-02	6.0E-02		4.6E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Diethylphthalate	84-66-2	T		U	1.10E-02	1.6E+01		1.5E+01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.10E-02	1.6E+01		1.5E+01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.10E-02	2.0E+00		9.0E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.10E-02	1.6E-03		1.5E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.10E-02	4.0E-02		3.9E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.10E-02	9.7E-04		7.8E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Ethylene Glycol	107-21-1	T		U	1.00E+01	1.6E+01		1.6E+01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Fluoranthene	206-44-0	T		U	5.40E-03	8.0E-01		8.0E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Fluorene	86-73-7	T		U	5.40E-03	8.0E-01		2.9E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.10E-02	1.0E-03		9.8E-05	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Hexachloroethane	67-72-1	T		U	1.10E-02	1.4E-02		3.3E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.40E-03	2.5E-03		2.5E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Isophorone	78-59-1	T		U	1.10E-02	8.2E-01		7.8E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.40E-03	2.7E-02		1.1E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.40E-03	8.0E-02		3.6E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2-Methylphenol	95-48-7	T		U	1.10E-02	1.0E+00		9.3E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	1.10E-02				
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.10E-02	2.0E-01		1.9E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.10E-02	3.9E-02		3.8E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.10E-02	3.9E-02		3.8E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.10E-02				
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.10E-02	4.9E-06		1.1E-06	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.10E-02	1.6E-01		1.2E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.10E-02	1.1E-04		1.1E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.10E-02	8.0E-01		7.1E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.10E-02	3.0E-03		1.2E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.10E-02	1.0E-03		4.1E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Phenanthrene	85-01-8	T		U	5.40E-03	6.0E-01		1.2E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Phenol	108-95-2	T		U	1.10E-02	6.0E+00		5.8E+00	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Propylene glycol	57-55-6	T		U	1.00E+01	4.0E+02		4.0E+02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Pyrene	129-00-0	T		U	5.40E-03	6.0E-01		1.2E-01	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Pyridine	110-86-1	T		U	5.40E-03	2.0E-02		2.0E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.10E-02	6.0E-04		1.7E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.10E-02	2.0E+00		1.2E+00	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.10E-02	2.0E-02		1.2E-02	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.10E-02	2.5E-03		2.4E-03	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.10E-02	5.2E-04		4.9E-04	
MW-102	HRP-MW102-211027	N	10/27/21	SVOC	Nitrobenzene	98-95-3	T		U	1.10E-02	4.0E-02		1.4E-03	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Aluminum	7429-90-5	D		U	5.00E-02	2.0E+01		2.0E+01	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Aluminum	7429-90-5	T	1.30E-01		5.00E-02	2.0E+01	6.5E-03	2.0E+01	6.5E-03
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Antimony	7440-36-0	D	4.90E-04	J	1.00E-03	6.0E-03	8.2E-02	7.8E-03	6.3E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Antimony	7440-36-0	T	6.10E-04	J	1.00E-03	6.0E-03	1.0E-01	7.8E-03	7.8E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Arsenic	7440-38-2	D	2.50E-03		8.00E-04	1.0E-02	2.5E-01	5.2E-04	4.8E+00

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Arsenic	7440-38-2	T	3.10E-03		8.00E-04	1.0E-02	3.1E-01	5.2E-04	6.0E+00
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Barium	7440-39-3	D	5.60E-02		1.00E-02	2.0E+00	2.8E-02	3.8E+00	1.5E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Barium	7440-39-3	T	6.80E-02		1.00E-02	2.0E+00	3.4E-02	3.8E+00	1.8E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Beryllium	7440-41-7	D		U	4.00E-04	4.0E-03		2.5E-02	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Beryllium	7440-41-7	T		U	4.00E-04	4.0E-03		2.5E-02	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Cadmium	7440-43-9	D	1.20E-04	J	2.00E-04	5.0E-03	2.4E-02	1.8E-03	6.7E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Cadmium	7440-43-9	T	2.00E-04		2.00E-04	5.0E-03	4.0E-02	1.8E-03	1.1E-01
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Chromium (total)	7440-47-3	T	1.10E-03		1.00E-03	1.0E-01	1.1E-02	2.2E+01	5.0E-05
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Cobalt	7440-48-4	D	6.60E-03		1.00E-03	6.0E-03	1.1E+00	6.0E-03	1.1E+00
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Cobalt	7440-48-4	T	6.90E-03		1.00E-03	6.0E-03	1.2E+00	6.0E-03	1.2E+00
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Copper	7440-50-8	D	2.20E-03		1.00E-03	1.3E+00	1.7E-03	8.0E-01	2.8E-03
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Copper	7440-50-8	T	3.10E-03		1.00E-03	1.3E+00	2.4E-03	8.0E-01	3.9E-03
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Iron	7439-89-6	D	3.10E+00		5.00E-02	1.4E+01	2.2E-01	1.4E+01	2.2E-01
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Iron	7439-89-6	T	2.10E+00		5.00E-02	1.4E+01	1.5E-01	1.4E+01	1.5E-01
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Lead	7439-92-1	D		U	5.00E-04	1.5E-02		1.5E-02	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Lead	7439-92-1	T	4.30E-04	J	5.00E-04	1.5E-02	2.9E-02	1.5E-02	2.9E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Manganese	7439-96-5	D	1.80E+00		1.00E-02	4.8E-01	3.8E+00	4.3E-01	4.2E+00
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Manganese	7439-96-5	T	1.50E+00		1.00E-02	4.8E-01	3.1E+00	4.3E-01	3.5E+00
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Nickel	7440-02-0	D	1.20E-02	B	5.00E-03	4.0E-01	3.0E-02	3.9E-01	3.1E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Nickel	7440-02-0	T	1.40E-02		5.00E-03	4.0E-01	3.5E-02	3.9E-01	3.6E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Selenium	7782-49-2	D	1.90E-03	J	5.00E-03	5.0E-02	3.8E-02	1.0E-01	1.9E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Selenium	7782-49-2	T	1.60E-03	J	5.00E-03	5.0E-02	3.2E-02	1.0E-01	1.6E-02
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Silver	7440-22-4	T		U	2.00E-04	1.0E-01		9.4E-02	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Zinc	7440-66-6	D	1.70E-02		1.00E-02	6.0E+00	2.8E-03	6.0E+00	2.8E-03
MW-102	HRP-MW102-211027	N	10/27/21	INORG	Zinc	7440-66-6	T	1.80E-02		1.00E-02	6.0E+00	3.0E-03	6.0E+00	3.0E-03
MW-104	HRP-MW104-211103	N	11/03/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-104	HRP-MW104-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-106	MW-106_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	1.18E+01		1.00E+00	1.4E+01	8.4E-01	1.4E+01	8.4E-01
MW-106	MW-106_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	1.71E+00		1.00E-02	4.8E-01	3.6E+00	4.3E-01	4.0E+00
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-106	MW-106_05/14/20	N	05/14/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Benzaldehyde	100-52-7	T		U	1.10E-02	1.9E-01		1.9E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-02	9.7E-02		8.3E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.20E-02	6.0E-03		5.6E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Caprolactam	105-60-2	T		U	1.20E-02	1.0E+01		9.9E+00	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.20E-02	1.6E-03		1.5E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.20E-02	4.0E-02		3.9E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.20E-02	2.0E-01		2.0E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.20E-02	5.0E-02		4.1E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.20E-02				
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-106	MW-106_05/14/20	N	05/14/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Barium	7440-39-3	T	9.80E-03		5.00E-03	2.0E+00	4.9E-03	3.8E+00	2.6E-03
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Beryllium	7440-41-7	T	1.90E-03	J	5.00E-03	4.0E-03	4.8E-01	2.5E-02	7.6E-02
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Chromium (total)	7440-47-3	T	1.90E-03	J	1.50E-02	1.0E-01	1.9E-02	2.2E+01	8.6E-05
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Cobalt	7440-48-4	T	4.33E-02		5.00E-03	6.0E-03	7.2E+00	6.0E-03	7.2E+00
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Copper	7440-50-8	T	1.10E-01		2.00E-02	1.3E+00	8.5E-02	8.0E-01	1.4E-01
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Iron	7439-89-6	T	1.83E+01		1.00E+00	1.4E+01	1.3E+00	1.4E+01	1.3E+00
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Manganese	7439-96-5	T	1.05E+00		1.00E-02	4.8E-01	2.2E+00	4.3E-01	2.4E+00
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Nickel	7440-02-0	T	6.26E-02		1.00E-02	4.0E-01	1.6E-01	3.9E-01	1.6E-01
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
MW-106	MW-106_05/14/20	N	05/14/20	INORG	Zinc	7440-66-6	T	2.24E-01		2.00E-02	6.0E+00	3.7E-02	6.0E+00	3.7E-02
MW-106	410-33562-1_MW-106 NAP	N	03/24/21	SVOC	Naphthalene	91-20-3	T		U	1.60E-04	6.5E-03		1.2E-03	
MW-106	MW-106 NAP-03242021	N	03/24/21	SVOC	Naphthalene	91-20-3	T		U	6.10E-05	6.5E-03		1.2E-03	
MW-106	HRP-MW106-211101	N	11/01/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-106	HRP-MW106-221019	N	10/19/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-107	HRP-MW107-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-107R	HRP-MW107R-221019	N	10/19/22	SVOC	Naphthalene	91-20-3	T	4.30E-03	J	1.00E-03	6.5E-03	6.6E-01	1.2E-03	3.6E+00
MW-10S	MW-10S/RW-10S_02/19/20	N	02/19/20	INORG	Iron	7439-89-6	T	1.88E+02		2.00E+01	1.4E+01	1.3E+01	1.4E+01	1.3E+01
MW-10S	MW-10S/RW-10S_02/19/20	N	02/19/20	INORG	Manganese	7439-96-5	T	4.54E+00		1.00E-02	4.8E-01	9.5E+00	4.3E-01	1.1E+01

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Acetone	67-64-1	T	4.00E-03	J	1.00E-01	1.8E+01	2.2E-04	1.8E+01	2.2E-04
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Benzene	71-43-2	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-03	8.0E-02		1.3E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Bromoform	75-25-2	T		U	2.50E-02	8.0E-02		3.3E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Bromomethane	74-83-9	T		U	5.00E-03	2.8E-02		7.5E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	2-Butanone	78-93-3	T		U	5.00E-02	1.2E+01		5.6E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Carbon Disulfide	75-15-0	T		U	2.50E-02	2.0E+00		8.1E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Chlorobenzene	108-90-7	T		U	5.00E-03	1.0E-01		7.8E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Chloroethane	75-00-3	T		U	5.00E-03			8.3E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Chloroform	67-66-3	T		U	5.00E-03	8.0E-02		2.2E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Chloromethane	74-87-3	T		U	5.00E-03			1.9E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Cumene	98-82-8	T		U	2.50E-02	2.0E+00		4.5E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Cyclohexane	110-82-7	T		U	2.50E-02			1.3E+01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	2.50E-02	2.0E-04		3.3E-06	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-03	8.0E-02		8.7E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-03	5.0E-05		7.5E-05	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	2.50E-02	6.0E-01		3.0E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	2.50E-02	1.4E-01		4.8E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	2.50E-02	7.5E-02		4.8E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	5.00E-03	4.0E+00		2.0E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethane	75-34-3	T		U	5.00E-03	1.4E-01		2.8E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.50E-02	5.0E-03		1.7E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethene	75-35-4	T		U	5.00E-03	7.0E-03		2.8E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	5.00E-03	7.0E-02		2.5E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	5.00E-03	1.0E-01		6.8E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,2-Dichloropropane	78-87-5	T		U	5.00E-03	5.0E-03		8.2E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-03	7.8E-03		4.7E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Ethyl Benzene	100-41-4	T		U	5.00E-03	7.0E-01		1.5E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	2-Hexanone	591-78-6	T		U	5.00E-02	1.0E-01		3.8E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Methyl Acetate	79-20-9	T		U	2.50E-02	2.0E+01		2.0E+01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	5.00E-03	4.3E-01		1.4E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	5.00E-02			6.3E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Methylcyclohexane	108-87-2	T		U	2.50E-02			1.3E+01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Styrene	100-42-5	T		U	2.50E-02	1.0E-01		1.2E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-03	3.9E-03		7.6E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Tetrachloroethene	127-18-4	T		U	5.00E-03	5.0E-03		4.1E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Toluene	108-88-3	T		U	5.00E-03	1.0E+00		1.1E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	2.50E-02	7.0E-02		4.0E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	5.00E-03	2.0E-01		8.0E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	5.00E-03	5.0E-03		4.1E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Trichloroethene	79-01-6	T		U	5.00E-03	5.0E-03		2.8E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Trichlorofluoromethane	75-69-4	T		U	5.00E-03	6.0E+00		5.2E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	5.00E-02	6.0E+02		1.0E+01	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Vinyl Chloride	75-01-4	T		U	5.00E-03	2.0E-03		1.9E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	VOC	Xylenes (total)	1330-20-7	T		U	2.50E-02	1.0E+01		1.9E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2-Methylphenol	95-48-7	T	1.00E-03	J	2.00E-03	1.0E+00	1.0E-03	9.3E-01	1.1E-03
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Barium	7440-39-3	T	9.71E-02		5.00E-03	2.0E+00	4.9E-02	3.8E+00	2.6E-02
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Chromium (total)	7440-47-3	T	1.90E-03	J	1.50E-02	1.0E-01	1.9E-02	2.2E+01	8.6E-05
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Cobalt	7440-48-4	T	6.33E-02		5.00E-03	6.0E-03	1.1E+01	6.0E-03	1.1E+01
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Iron	7439-89-6	T	1.97E+02		2.00E+01	1.4E+01	1.4E+01	1.4E+01	1.4E+01
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Lead	7439-92-1	T	1.64E-02		1.50E-02	1.5E-02	1.1E+00	1.5E-02	1.1E+00
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Manganese	7439-96-5	T	5.27E+00		1.00E-02	4.8E-01	1.1E+01	4.3E-01	1.2E+01
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Nickel	7440-02-0	T	1.64E-02		1.00E-02	4.0E-01	4.1E-02	3.9E-01	4.2E-02
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Vanadium	7440-62-2	T	1.16E-02		1.00E-02	1.0E-01	1.2E-01	8.6E-02	1.3E-01
MW-10S	MW-10S_05/14/20	N	05/14/20	INORG	Zinc	7440-66-6	T		U	2.00E-02	6.0E+00		6.0E+00	
MW-10S	RW-10S_08122020	N	08/12/20	INORG	Iron	7439-89-6	T	1.50E+02	HF	5.00E+00	1.4E+01	1.1E+01	1.4E+01	1.1E+01

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-10S	RW-10S_08122020	N	08/12/20	INORG	Manganese	7439-96-5	T	5.30E+00		1.00E-02	4.8E-01	1.1E+01	4.3E-01	1.2E+01
MW-10S	410-33859-1 MW-10S	N	03/25/21	SVOC	Naphthalene	91-20-3	T	3.60E-02		8.30E-04	6.5E-03	5.5E+00	1.2E-03	3.0E+01
MW-10S	MW-10S-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T	3.60E-02		3.10E-04	6.5E-03	5.5E+00	1.2E-03	3.0E+01
MW-121	MW-121_02/17/20	N	02/17/20	INORG	Iron	7439-89-6	T	1.19E+02		2.00E+01	1.4E+01	8.5E+00	1.4E+01	8.5E+00
MW-121	MW-121_02/17/20	N	02/17/20	INORG	Manganese	7439-96-5	T	7.93E+00		1.00E-02	4.8E-01	1.7E+01	4.3E-01	1.8E+01
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Acetone	67-64-1	T	2.00E-03	J	2.00E-02	1.8E+01	1.1E-04	1.8E+01	1.1E-04
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Toluene	108-88-3	T	6.00E-04	J	1.00E-03	1.0E+00	6.0E-04	1.1E+00	5.5E-04

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-121	MW-121_05/11/20	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2,4-Dimethylphenol	105-67-9	T	9.00E-03	J	1.00E-02	4.0E-01	2.3E-02	3.6E-01	2.5E-02
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2-Methylphenol	95-48-7	T	9.00E-04	J	2.00E-03	1.0E+00	9.0E-04	9.3E-01	9.7E-04
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Naphthalene	91-20-3	T	2.00E-03		5.00E-04	6.5E-03	3.1E-01	1.2E-03	1.7E+00
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-121	MW-121_05/11/20	N	05/11/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Barium	7440-39-3	T	2.80E-01		5.00E-03	2.0E+00	1.4E-01	3.8E+00	7.4E-02
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Cadmium	7440-43-9	T	1.10E-03	J	5.00E-03	5.0E-03	2.2E-01	1.8E-03	6.1E-01
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Chromium (total)	7440-47-3	T	3.90E-03	J	1.50E-02	1.0E-01	3.9E-02	2.2E+01	1.8E-04
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Cobalt	7440-48-4	T	5.30E-03		5.00E-03	6.0E-03	8.8E-01	6.0E-03	8.8E-01
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Iron	7439-89-6	T	1.34E+02		1.00E+01	1.4E+01	9.6E+00	1.4E+01	9.6E+00
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Lead	7439-92-1	T	1.77E-02		1.50E-02	1.5E-02	1.2E+00	1.5E-02	1.2E+00
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Manganese	7439-96-5	T	7.94E+00		1.00E-02	4.8E-01	1.7E+01	4.3E-01	1.8E+01
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Nickel	7440-02-0	T	5.21E-02		1.00E-02	4.0E-01	1.3E-01	3.9E-01	1.3E-01
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Vanadium	7440-62-2	T	9.00E-03	J	1.00E-02	1.0E-01	9.0E-02	8.6E-02	1.0E-01
MW-121	MW-121_05/11/20	N	05/11/20	INORG	Zinc	7440-66-6	T	1.12E-01		2.00E-02	6.0E+00	1.9E-02	6.0E+00	1.9E-02
MW-121	410-33562-1_MW-121	N	03/23/21	SVOC	Naphthalene	91-20-3	T		U	1.60E-03	6.5E-03		1.2E-03	
MW-121	MW-121-03232021	N	03/23/21	SVOC	Naphthalene	91-20-3	T		U	6.10E-04	6.5E-03		1.2E-03	
MW-122	MW-122_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	5.25E+01		5.00E+00	1.4E+01	3.8E+00	1.4E+01	3.8E+00
MW-122	MW-122_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	5.95E+00		1.00E-02	4.8E-01	1.2E+01	4.3E-01	1.4E+01
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-122	MW-122_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T	7.00E-04		5.00E-04	8.0E-01	8.8E-04	2.9E-01	2.4E-03
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-122	MW-122_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	8.27E-02		5.00E-03	2.0E+00	4.1E-02	3.8E+00	2.2E-02
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T	1.30E-02		5.00E-03	6.0E-03	2.2E+00	6.0E-03	2.2E+00
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Iron	7439-89-6	T	4.86E+01		5.00E+00	1.4E+01	3.5E+00	1.4E+01	3.5E+00
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Manganese	7439-96-5	T	5.14E+00		1.00E-02	4.8E-01	1.1E+01	4.3E-01	1.2E+01
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	1.09E-02		1.00E-02	4.0E-01	2.7E-02	3.9E-01	2.8E-02
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
MW-122	MW-122_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T	5.50E-03	J	2.00E-02	6.0E+00	9.2E-04	6.0E+00	9.2E-04
MW-122	410-33562-1_MW-122	N	03/23/21	SVOC	Naphthalene	91-20-3	T	7.70E-05	J	1.70E-04	6.5E-03	1.2E-02	1.2E-03	6.4E-02
MW-122	MW-122-03232021	N	03/23/21	SVOC	Naphthalene	91-20-3	T	7.70E-05	J	6.50E-05	6.5E-03	1.2E-02	1.2E-03	6.4E-02
MW-122	HRP-DUP07-211102	FD	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-122	HRP-MW122-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-122	HRP-DUP-02-220503	FD	05/03/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-122	HRP-MW-122-2220503	N	05/03/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-122	HRP-FD02-221019	FD	10/19/22	SVOC	Naphthalene	91-20-3	T	1.30E-03	J	1.00E-03	6.5E-03	2.0E-01	1.2E-03	1.1E+00
MW-122	HRP-MW122-221019	N	10/19/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Acetone	67-64-1	T	8.00E-03	J	2.00E-02	1.8E+01	4.4E-04	1.8E+01	4.4E-04
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	2-Butanone	78-93-3	T	1.00E-03	J	1.00E-02	1.2E+01	8.3E-05	5.6E+00	1.8E-04
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T		U	3.00E-03	1.2E+00		5.3E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	3.00E-03	6.0E-01		1.2E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	5.00E-02	2.0E+00		1.9E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	3.00E-03	6.0E+00		1.8E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	2.50E-02	3.0E-03		3.0E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	5.00E-02	1.9E-01		1.9E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	3.00E-03	2.5E-03		3.0E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	3.00E-03	2.0E-04		2.5E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	3.00E-03	2.5E-03		2.5E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-03	6.0E-01		1.2E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	3.00E-03	2.5E-02		2.5E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	5.00E-02	9.7E-02		8.3E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.00E-02	6.0E-02		5.9E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.00E-02	7.1E-04		1.4E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	5.50E-02	6.0E-03		5.6E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.00E-02				
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	2.50E-02	4.1E-01		1.6E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	5.50E-02	1.0E+01		9.9E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	1.00E-02	8.0E-01		2.9E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.80E-02	2.0E+00		1.4E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	5.00E-02	3.9E-03		3.7E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	5.00E-03	1.6E+00		7.5E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	1.00E-02	1.0E-01		9.1E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.00E-02				
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	3.00E-03	2.5E-01		2.5E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	3.00E-03	2.5E-04		2.5E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-02	2.0E-02		7.9E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	5.00E-02	1.7E-03		1.3E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.00E-02	6.0E-02		4.6E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	2.50E-02	1.6E+01		1.5E+01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	5.00E-02	4.0E-01		3.6E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	2.50E-02	1.6E+01		1.5E+01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	2.50E-02	2.0E+00		9.0E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.10E-01	1.6E-03		1.5E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.50E-01	4.0E-02		3.9E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	5.50E-02	2.0E-01		2.0E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	3.00E-03	8.0E-01		8.0E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T		U	3.00E-03	8.0E-01		2.9E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	3.00E-03	1.0E-03		9.8E-05	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	1.00E-02	1.0E-02		1.4E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	5.50E-02	5.0E-02		4.1E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	2.50E-02	1.4E-02		3.3E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	3.00E-03	2.5E-03		2.5E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	1.00E-02	8.2E-01		7.8E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-03	8.0E-02		3.6E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	1.00E-02	1.0E+00		9.3E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	1.00E-02	4.0E-01		3.7E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	3.00E-03	6.5E-03		1.2E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	3.50E-02	2.0E-01		1.9E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	3.50E-02	3.9E-02		3.8E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	1.50E-02	3.9E-02		3.8E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	5.00E-02				
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	1.50E-01				
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.50E-02	1.6E-01		1.2E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.50E-02	1.1E-04		1.1E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.00E-02	8.0E-01		7.1E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	2.50E-02	1.0E-03		4.1E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-03	6.0E-01		1.2E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	1.00E-02	6.0E+00		5.8E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T		U	3.00E-03	6.0E-01		1.2E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.00E-02	2.0E+00		1.2E+00	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.00E-02	2.0E-02		1.2E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	2.50E-02	2.5E-03		2.4E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.00E-02	5.2E-04		4.9E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	1.00E-02	4.0E-02		1.4E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	3.42E-01		5.00E-03	2.0E+00	1.7E-01	3.8E+00	9.0E-02
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T	2.80E-03	J	5.00E-03	5.0E-03	5.6E-01	1.8E-03	1.6E+00

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T	7.10E-03		5.00E-03	6.0E-03	1.2E+00	6.0E-03	1.2E+00
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	2.80E-03	J	1.00E-02	4.0E-01	7.0E-03	3.9E-01	7.2E-03
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T	1.20E-02		1.00E-02	1.0E-01	1.2E-01	8.6E-02	1.4E-01
MW-123S	RW-123S_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T		U	2.00E-02	6.0E+00		6.0E+00	
MW-123S	410-33562-1_MW-123S	N	03/24/21	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
MW-123S	MW-123S-03242021	N	03/24/21	SVOC	Naphthalene	91-20-3	T		U	6.20E-05	6.5E-03		1.2E-03	
MW-123S	HRP-DUP06-211101	FD	11/01/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-123S	HRP-MW123S-211101	N	11/01/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-123S	HRP-DUP-01-220503	FD	05/03/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-123S	HRP-MW-123S-220503	N	05/03/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-123S	HRP-FD01-221019	FD	10/19/22	SVOC	Naphthalene	91-20-3	T	3.00E-03	J	1.00E-03	6.5E-03	4.6E-01	1.2E-03	2.5E+00
MW-123S	HRP-MW123S-221019	N	10/19/22	SVOC	Naphthalene	91-20-3	T	2.30E-02		1.00E-03	6.5E-03	3.5E+00	1.2E-03	1.9E+01
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Toluene	108-88-3	T	5.00E-04	J	1.00E-03	1.0E+00	5.0E-04	1.1E+00	4.5E-04
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Benzaldehyde	100-52-7	T		U	1.10E-02	1.9E-01		1.9E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-02	9.7E-02		8.3E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.20E-02	6.0E-03		5.6E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Caprolactam	105-60-2	T		U	1.20E-02	1.0E+01		9.9E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.30E-02	1.6E-03		1.5E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.20E-02	4.0E-02		3.9E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.20E-02	2.0E-01		2.0E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.20E-02	5.0E-02		4.1E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2-Methylphenol	95-48-7	T	6.00E-03		2.00E-03	1.0E+00	6.0E-03	9.3E-01	6.5E-03
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2-Nitroaniline	88-74-4	T		U	8.00E-03	2.0E-01		1.9E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	3-Nitroaniline	99-09-2	T		U	8.00E-03	3.9E-02		3.8E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.20E-02				
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Pyrene	129-00-0	T	4.00E-04	J	5.00E-04	6.0E-01	6.7E-04	1.2E-01	3.3E-03
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Barium	7440-39-3	T	1.84E-01		5.00E-03	2.0E+00	9.2E-02	3.8E+00	4.8E-02
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Chromium (total)	7440-47-3	T	1.60E-03	J	1.50E-02	1.0E-01	1.6E-02	2.2E+01	7.3E-05
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Cobalt	7440-48-4	T		U	5.00E-03	6.0E-03		6.0E-03	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Iron	7439-89-6	T	9.47E+01		5.00E+00	1.4E+01	6.8E+00	1.4E+01	6.8E+00
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Lead	7439-92-1	T	1.06E-02	J	1.50E-02	1.5E-02	7.1E-01	1.5E-02	7.1E-01
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Manganese	7439-96-5	T	6.32E+00		1.00E-02	4.8E-01	1.3E+01	4.3E-01	1.5E+01
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Mercury	7439-97-6	T	7.10E-05	J	2.00E-04	2.0E-03	3.6E-02	5.7E-04	1.2E-01
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Nickel	7440-02-0	T	5.00E-03	J	1.00E-02	4.0E-01	1.3E-02	3.9E-01	1.3E-02
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
MW-14	MW/RW-14_05/14/20	N	05/14/20	INORG	Zinc	7440-66-6	T		U	2.00E-02	6.0E+00		6.0E+00	
MW-14	410-33859-1_MW-14	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.10E-04	6.5E-03		1.2E-03	
MW-14	MW-14-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.00E-04	6.5E-03		1.2E-03	
MW-14	HRP-MW14-211028	N	10/28/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-14	HRP-MW14-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-16	MW-16_05/13/20	N	05/13/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.20E-02	1.6E-03		1.5E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.10E-02	4.0E-02		3.9E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.10E-02				
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-16	MW-16_05/13/20	N	05/13/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Barium	7440-39-3	T	3.59E-02		5.00E-03	2.0E+00	1.8E-02	3.8E+00	9.4E-03
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Cobalt	7440-48-4	T		U	5.00E-03	6.0E-03		6.0E-03	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Nickel	7440-02-0	T	2.90E-03	J	1.00E-02	4.0E-01	7.3E-03	3.9E-01	7.4E-03
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
MW-16	MW-16_05/13/20	N	05/13/20	INORG	Zinc	7440-66-6	T		U	2.00E-02	6.0E+00		6.0E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Ethanol	64-17-5	T		U	1.00E+01				
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Isopropanol	67-63-0	T		U	1.00E+01	4.0E+01		4.1E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Methanol	67-56-1	T		U	1.00E+01	4.0E+01		2.0E+01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Tetrachloroethene	127-18-4	T	8.80E-04	J	1.00E-03	5.0E-03	1.8E-01	4.1E-02	2.1E-02
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Toluene	108-88-3	T	8.50E-04	J	1.00E-03	1.0E+00	8.5E-04	1.1E+00	7.7E-04
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-201	HRP-MW201-211025	N	10/25/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Acenaphthene	83-32-9	T		U	5.10E-03	1.2E+00		5.3E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Acenaphthylene	208-96-8	T		U	5.10E-03	6.0E-01		1.2E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Aniline	62-53-3	T		U	5.10E-03	1.4E-01		1.3E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Anthracene	120-12-7	T		U	5.10E-03	6.0E+00		1.8E+00	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Benzidine	92-87-5	T		U	2.10E-02	1.1E-06		1.1E-06	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.10E-03	2.5E-03		3.0E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.10E-03	2.0E-04		2.5E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.10E-03	2.5E-03		2.5E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.10E-03	6.0E-01		1.2E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.10E-03	2.5E-02		2.5E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Benzoic Acid	65-85-0	T		U	1.00E-02	8.0E+01		7.5E+01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.00E-02	6.0E-02		5.9E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.00E-02	7.1E-04		1.4E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.00E-02	6.0E-03		5.6E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.00E-02				
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.00E-02	4.1E-01		1.6E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Carbazole	86-74-8	T		U	1.00E-02	8.0E-01		2.9E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.00E-02	2.0E+00		1.4E+00	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-02	1.6E+00		7.5E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.00E-02	1.0E-01		9.1E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.00E-02				
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Chrysene	218-01-9	T		U	5.10E-03	2.5E-01		2.5E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.10E-03	2.5E-04		2.5E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Dibenzofuran	132-64-9	T		U	5.10E-03	2.0E-02		7.9E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.00E-02	6.0E-02		4.6E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Diethylphthalate	84-66-2	T		U	1.00E-02	1.6E+01		1.5E+01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.00E-02	1.6E+01		1.5E+01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.00E-02	2.0E+00		9.0E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.00E-02	1.6E-03		1.5E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.00E-02	4.0E-02		3.9E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.00E-02	2.0E-01		2.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.00E-02	9.7E-04		7.8E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Ethylene Glycol	107-21-1	T		U	1.00E+01	1.6E+01		1.6E+01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Fluoranthene	206-44-0	T		U	5.10E-03	8.0E-01		8.0E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Fluorene	86-73-7	T		U	5.10E-03	8.0E-01		2.9E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.00E-02	1.0E-03		9.8E-05	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.00E-02	5.0E-02		4.1E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Hexachloroethane	67-72-1	T		U	1.00E-02	1.4E-02		3.3E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.10E-03	2.5E-03		2.5E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Isophorone	78-59-1	T		U	1.00E-02	8.2E-01		7.8E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.10E-03	2.7E-02		1.1E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.10E-03	8.0E-02		3.6E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2-Methylphenol	95-48-7	T		U	1.00E-02	1.0E+00		9.3E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	1.00E-02				
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.00E-02	2.0E-01		1.9E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.00E-02	3.9E-02		3.8E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.00E-02	3.9E-02		3.8E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.00E-02				
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.00E-02	4.9E-06		1.1E-06	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.00E-02	1.6E-01		1.2E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.00E-02	1.1E-04		1.1E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.00E-02	8.0E-01		7.1E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.00E-02	3.0E-03		1.2E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.00E-02	1.0E-03		4.1E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Phenanthrene	85-01-8	T		U	5.10E-03	6.0E-01		1.2E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Phenol	108-95-2	T		U	1.00E-02	6.0E+00		5.8E+00	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Propylene glycol	57-55-6	T		U	1.00E+01	4.0E+02		4.0E+02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Pyrene	129-00-0	T		U	5.10E-03	6.0E-01		1.2E-01	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Pyridine	110-86-1	T		U	5.10E-03	2.0E-02		2.0E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.00E-02	6.0E-04		1.7E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.00E-02	2.0E+00		1.2E+00	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.00E-02	2.0E-02		1.2E-02	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.00E-02	2.5E-03		2.4E-03	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.00E-02	5.2E-04		4.9E-04	
MW-201	HRP-MW201-211025	N	10/25/21	SVOC	Nitrobenzene	98-95-3	T		U	1.00E-02	4.0E-02		1.4E-03	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Aluminum	7429-90-5	D	1.10E-01		5.00E-02	2.0E+01	5.5E-03	2.0E+01	5.5E-03
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Aluminum	7429-90-5	T	2.40E-01		5.00E-02	2.0E+01	1.2E-02	2.0E+01	1.2E-02
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Arsenic	7440-38-2	D	7.70E-04	J	8.00E-04	1.0E-02	7.7E-02	5.2E-04	1.5E+00
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Arsenic	7440-38-2	T	6.50E-04	J	8.00E-04	1.0E-02	6.5E-02	5.2E-04	1.3E+00
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Barium	7440-39-3	D	2.30E-02		1.00E-02	2.0E+00	1.2E-02	3.8E+00	6.1E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Barium	7440-39-3	T	2.50E-02		1.00E-02	2.0E+00	1.3E-02	3.8E+00	6.6E-03
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Beryllium	7440-41-7	D	1.10E-04	J	4.00E-04	4.0E-03	2.8E-02	2.5E-02	4.4E-03
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Beryllium	7440-41-7	T	9.10E-05	J	4.00E-04	4.0E-03	2.3E-02	2.5E-02	3.6E-03
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Cadmium	7440-43-9	D	2.20E-04		2.00E-04	5.0E-03	4.4E-02	1.8E-03	1.2E-01
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Cadmium	7440-43-9	T	2.00E-04		2.00E-04	5.0E-03	4.0E-02	1.8E-03	1.1E-01
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Chromium (total)	7440-47-3	T		U	1.00E-03	1.0E-01		2.2E+01	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Cobalt	7440-48-4	D	7.20E-03		1.00E-03	6.0E-03	1.2E+00	6.0E-03	1.2E+00
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Cobalt	7440-48-4	T	7.70E-03		1.00E-03	6.0E-03	1.3E+00	6.0E-03	1.3E+00
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Copper	7440-50-8	D	1.70E-03		1.00E-03	1.3E+00	1.3E-03	8.0E-01	2.1E-03
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Copper	7440-50-8	T	1.20E-03		1.00E-03	1.3E+00	9.2E-04	8.0E-01	1.5E-03
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Iron	7439-89-6	D		U	5.00E-02	1.4E+01		1.4E+01	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Iron	7439-89-6	T	1.60E-01		5.00E-02	1.4E+01	1.1E-02	1.4E+01	1.1E-02
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Lead	7439-92-1	D		U	5.00E-04	1.5E-02		1.5E-02	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Lead	7439-92-1	T	1.60E-04	J	5.00E-04	1.5E-02	1.1E-02	1.5E-02	1.1E-02
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Manganese	7439-96-5	D	3.40E-01		1.00E-03	4.8E-01	7.1E-01	4.3E-01	7.9E-01
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Manganese	7439-96-5	T	3.30E-01		1.00E-03	4.8E-01	6.9E-01	4.3E-01	7.7E-01
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Nickel	7440-02-0	D	5.50E-03	B	5.00E-03	4.0E-01	1.4E-02	3.9E-01	1.4E-02
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Nickel	7440-02-0	T	6.20E-03		5.00E-03	4.0E-01	1.6E-02	3.9E-01	1.6E-02
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Selenium	7782-49-2	D	6.10E-03		5.00E-03	5.0E-02	1.2E-01	1.0E-01	6.1E-02
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Selenium	7782-49-2	T	5.70E-03		5.00E-03	5.0E-02	1.1E-01	1.0E-01	5.7E-02
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Silver	7440-22-4	T		U	2.00E-04	1.0E-01		9.4E-02	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Zinc	7440-66-6	D	7.90E-03	J	1.00E-02	6.0E+00	1.3E-03	6.0E+00	1.3E-03
MW-201	HRP-MW201-211025	N	10/25/21	INORG	Zinc	7440-66-6	T	8.60E-03	J	1.00E-02	6.0E+00	1.4E-03	6.0E+00	1.4E-03
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Acetone	67-64-1	T		U	5.10E-03	1.8E+01		1.8E+01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Benzene	71-43-2	T		U	3.40E-04	5.0E-03		4.6E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Bromobenzene	108-86-1	T		U	2.90E-04	1.6E-01		6.2E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Bromochloromethane	74-97-5	T		U	4.70E-04			8.3E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Bromodichloromethane	75-27-4	T		U	3.10E-04	8.0E-02		1.3E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Bromoform	75-25-2	T		U	3.40E-04	8.0E-02		3.3E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Bromomethane	74-83-9	T		U	1.70E-03	2.8E-02		7.5E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	2-Butanone	78-93-3	T		U	4.00E-03	1.2E+01		5.6E+00	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Carbon Tetrachloride	56-23-5	T		U	3.30E-04	5.0E-03		4.6E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Chlorobenzene	108-90-7	T		U	2.80E-04	1.0E-01		7.8E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Chloroethane	75-00-3	T		U	6.50E-04			8.3E+00	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Chloroform	67-66-3	T		U	4.30E-04	8.0E-02		2.2E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Chloromethane	74-87-3	T		U	5.40E-04			1.9E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-201	HRP-MW201-211102	N	11/02/21	VOC	2-Chlorotoluene	95-49-8	T		U	3.20E-04	4.0E-01		2.4E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	4-Chlorotoluene	106-43-4	T		U	3.20E-04	4.0E-01		2.5E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	p-Cymene	99-87-6	T		U	4.10E-04				
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	3.40E-04	2.0E-04		3.3E-06	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Dibromochloromethane	124-48-1	T		U	3.60E-04	8.0E-02		8.7E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,2-Dibromoethane	106-93-4	T		U	2.70E-04	5.0E-05		7.5E-05	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Dibromomethane	74-95-3	T		U	3.90E-04			8.3E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	3.40E-04	6.0E-01		3.0E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	3.40E-04	1.4E-01		4.8E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	3.30E-04	7.5E-02		4.8E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	3.50E-04	4.0E+00		2.0E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,1-Dichloroethane	75-34-3	T		U	3.70E-04	1.4E-01		2.8E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,2-Dichloroethane	107-06-2	T		U	3.20E-04	5.0E-03		1.7E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,1-Dichloroethene	75-35-4	T		U	3.50E-04	7.0E-03		2.8E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	3.80E-04	7.0E-02		2.5E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	4.00E-04	1.0E-01		6.8E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,2-Dichloropropane	78-87-5	T		U	3.60E-04	5.0E-03		8.2E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,3-Dichloropropane	142-28-9	T		U	2.80E-04	4.0E-01		3.7E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	2,2-Dichloropropane	594-20-7	T		U	3.90E-04				
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,1-Dichloropropene	563-58-6	T		U	4.30E-04				
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	3.60E-04	7.8E-03		4.7E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Ethyl Benzene	100-41-4	T		U	3.00E-04	7.0E-01		1.5E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	2-Hexanone	591-78-6	T		U	4.80E-04	1.0E-01		3.8E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	4.20E-04	4.3E-01		1.4E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	2.70E-03			6.3E+00	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Methylene Chloride	75-09-2	T		U	2.00E-03	5.0E-03		1.1E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Diisopropyl ether	108-20-3	T		U	3.10E-04			1.5E+00	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Styrene	100-42-5	T		U	2.90E-04	1.0E-01		1.2E+00	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	3.10E-04	3.0E-02		5.7E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	2.20E-04	3.9E-03		7.6E-04	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Tetrachloroethene	127-18-4	T		U	2.90E-04	5.0E-03		4.1E-02	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Toluene	108-88-3	T		U	4.80E-04	1.0E+00		1.1E+00	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	8.10E-04	1.6E-02		7.0E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	6.40E-04	7.0E-02		4.0E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	3.30E-04	2.0E-01		8.0E+00	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	3.20E-04	5.0E-03		4.1E-04	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Trichloroethene	79-01-6	T		U	3.80E-04	5.0E-03		2.8E-03	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Trichlorofluoromethane	75-69-4	T		U	3.00E-04	6.0E+00		5.2E+00	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.60E-04	8.4E-06		7.5E-06	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Vinyl Acetate	108-05-4	T		U	1.30E-03	2.0E+01		4.1E-01	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Vinyl Chloride	75-01-4	T		U	3.90E-04	2.0E-03		1.9E-04	
MW-201	HRP-MW201-211102	N	11/02/21	VOC	Xylenes (total)	1330-20-7	T		U	7.10E-04	1.0E+01		1.9E-01	
MW-201	HRP-MW201-211102	N	11/02/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	1.50E-03	1.0E-02		1.4E-03	
MW-201	HRP-MW201-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Aluminum	7429-90-5	T	2.45E-01		7.20E-02	2.0E+01	1.2E-02	2.0E+01	1.2E-02
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Antimony	7440-36-0	T		U	3.00E-03	6.0E-03		7.8E-03	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Arsenic	7440-38-2	T		U	4.70E-03	1.0E-02		5.2E-04	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Barium	7440-39-3	T	2.73E-02		3.50E-03	2.0E+00	1.4E-02	3.8E+00	7.2E-03
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Beryllium	7440-41-7	T		U	7.00E-04	4.0E-03		2.5E-02	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Cadmium	7440-43-9	T		U	4.00E-04	5.0E-03		1.8E-03	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Chromium (total)	7440-47-3	T		U	3.70E-03	1.0E-01		2.2E+01	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Cobalt	7440-48-4	T	6.20E-03		3.60E-03	6.0E-03	1.0E+00	6.0E-03	1.0E+00
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Copper	7440-50-8	T		U	4.30E-03	1.3E+00		8.0E-01	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Iron	7439-89-6	T	2.21E-01		4.15E-02	1.4E+01	1.6E-02	1.4E+01	1.6E-02
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Lead	7439-92-1	T		U	4.50E-03	1.5E-02		1.5E-02	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Manganese	7439-96-5	T	3.34E-01		3.40E-03	4.8E-01	7.0E-01	4.3E-01	7.8E-01
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Mercury	7439-97-6	T		U	1.20E-04	2.0E-03		5.7E-04	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Molybdenum	7439-98-7	T		U	3.90E-03	1.0E-01		1.0E-01	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Nickel	7440-02-0	T	5.60E-03		3.50E-03	4.0E-01	1.4E-02	3.9E-01	1.4E-02
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Selenium	7782-49-2	T		U	4.70E-03	5.0E-02		1.0E-01	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Silver	7440-22-4	T		U	2.50E-03	1.0E-01		9.4E-02	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Thallium	7440-28-0	T		U	8.10E-03	2.0E-03		2.0E-04	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Vanadium	7440-62-2	T		U	3.90E-03	1.0E-01		8.6E-02	
MW-201	HRP-MW201-211102	N	11/02/21	INORG	Zinc	7440-66-6	T		U	9.50E-03	6.0E+00		6.0E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	p-Cymene	99-87-6	T	5.40E-03		1.00E-03				
MW-202	HRP-MW202-211026	N	10/26/21	VOC	p-Cymene	99-87-6	T	5.10E-03		1.00E-03				
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-202	HRP-MW202-211026	N	10/26/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Ethanol	64-17-5	T		U	1.00E+01				
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Ethanol	64-17-5	T		U	1.00E+01				
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Isopropanol	67-63-0	T		U	1.00E+01	4.0E+01		4.1E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Isopropanol	67-63-0	T		U	1.00E+01	4.0E+01		4.1E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Methanol	67-56-1	T		U	1.00E+01	4.0E+01		2.0E+01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Methanol	67-56-1	T		U	1.00E+01	4.0E+01		2.0E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-202	HRP-MW202-211026	N	10/26/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Acenaphthene	83-32-9	T		U	4.80E-03	1.2E+00		5.3E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Acenaphthene	83-32-9	T		U	5.30E-03	1.2E+00		5.3E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Acenaphthylene	208-96-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Acenaphthylene	208-96-8	T		U	5.30E-03	6.0E-01		1.2E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Acetophenone	98-86-2	T		U	9.60E-03	2.0E+00		1.9E+00	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Aniline	62-53-3	T		U	4.80E-03	1.4E-01		1.3E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Aniline	62-53-3	T		U	5.30E-03	1.4E-01		1.3E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Anthracene	120-12-7	T		U	4.80E-03	6.0E+00		1.8E+00	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Anthracene	120-12-7	T		U	5.30E-03	6.0E+00		1.8E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Benzidine	92-87-5	T		U	1.90E-02	1.1E-06		1.1E-06	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Benzidine	92-87-5	T		U	2.10E-02	1.1E-06		1.1E-06	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	4.80E-03	2.5E-03		3.0E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.30E-03	2.5E-03		3.0E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	4.80E-03	2.0E-04		2.5E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.30E-03	2.0E-04		2.5E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.30E-03	2.5E-03		2.5E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.30E-03	6.0E-01		1.2E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	4.80E-03	2.5E-02		2.5E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.30E-03	2.5E-02		2.5E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Benzoic Acid	65-85-0	T		U	9.60E-03	8.0E+01		7.5E+01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Benzoic Acid	65-85-0	T		U	1.10E-02	8.0E+01		7.5E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	9.60E-03	6.0E-02		5.9E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.10E-02	6.0E-02		5.9E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	9.60E-03	7.1E-04		1.4E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.10E-02	7.1E-04		1.4E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	9.60E-03	6.0E-03		5.6E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	9.60E-03				
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.10E-02				
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	9.60E-03	4.1E-01		1.6E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.10E-02	4.1E-01		1.6E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Carbazole	86-74-8	T		U	9.60E-03	8.0E-01		2.9E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Carbazole	86-74-8	T		U	1.10E-02	8.0E-01		2.9E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	9.60E-03	2.0E+00		1.4E+00	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.10E-02	2.0E+00		1.4E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	4-Chloroaniline	106-47-8	T		U	9.60E-03	3.9E-03		3.7E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	9.60E-03	1.6E+00		7.5E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.10E-02	1.6E+00		7.5E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2-Chlorophenol	95-57-8	T		U	9.60E-03	1.0E-01		9.1E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.10E-02	1.0E-01		9.1E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	9.60E-03				
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.10E-02				

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Chrysene	218-01-9	T		U	4.80E-03	2.5E-01		2.5E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Chrysene	218-01-9	T		U	5.30E-03	2.5E-01		2.5E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	4.80E-03	2.5E-04		2.5E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.30E-03	2.5E-04		2.5E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Dibenzofuran	132-64-9	T		U	4.80E-03	2.0E-02		7.9E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Dibenzofuran	132-64-9	T		U	5.30E-03	2.0E-02		7.9E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	9.60E-03	1.7E-03		1.3E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	9.60E-03	6.0E-02		4.6E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.10E-02	6.0E-02		4.6E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Diethylphthalate	84-66-2	T		U	9.60E-03	1.6E+01		1.5E+01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Diethylphthalate	84-66-2	T		U	1.10E-02	1.6E+01		1.5E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	9.60E-03	4.0E-01		3.6E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Dimethylphthalate	131-11-3	T		U	9.60E-03	1.6E+01		1.5E+01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.10E-02	1.6E+01		1.5E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	9.60E-03	2.0E+00		9.0E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.10E-02	2.0E+00		9.0E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	9.60E-03	1.6E-03		1.5E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.10E-02	1.6E-03		1.5E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	9.60E-03	4.0E-02		3.9E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.10E-02	4.0E-02		3.9E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	9.60E-03	2.0E-01		2.0E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	9.60E-03	9.7E-04		7.8E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.10E-02	9.7E-04		7.8E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Ethylene Glycol	107-21-1	T		U	1.00E+01	1.6E+01		1.6E+01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Ethylene Glycol	107-21-1	T		U	1.00E+01	1.6E+01		1.6E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Fluoranthene	206-44-0	T		U	4.80E-03	8.0E-01		8.0E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Fluoranthene	206-44-0	T		U	5.30E-03	8.0E-01		8.0E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Fluorene	86-73-7	T		U	4.80E-03	8.0E-01		2.9E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Fluorene	86-73-7	T		U	5.30E-03	8.0E-01		2.9E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Hexachlorobenzene	118-74-1	T		U	9.60E-03	1.0E-03		9.8E-05	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.10E-02	1.0E-03		9.8E-05	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	9.60E-03	5.0E-02		4.1E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Hexachloroethane	67-72-1	T		U	9.60E-03	1.4E-02		3.3E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Hexachloroethane	67-72-1	T		U	1.10E-02	1.4E-02		3.3E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.30E-03	2.5E-03		2.5E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Isophorone	78-59-1	T		U	9.60E-03	8.2E-01		7.8E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Isophorone	78-59-1	T		U	1.10E-02	8.2E-01		7.8E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	4.80E-03	2.7E-02		1.1E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.30E-03	2.7E-02		1.1E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	4.80E-03	8.0E-02		3.6E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.30E-03	8.0E-02		3.6E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2-Methylphenol	95-48-7	T		U	9.60E-03	1.0E+00		9.3E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2-Methylphenol	95-48-7	T		U	1.10E-02	1.0E+00		9.3E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	3&4-Methylphenol	65794-96-9	T	4.90E-04	J	9.60E-03				
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	3&4-Methylphenol	65794-96-9	T	8.00E-04	J	1.10E-02				
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2-Nitroaniline	88-74-4	T		U	9.60E-03	2.0E-01		1.9E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.10E-02	2.0E-01		1.9E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	3-Nitroaniline	99-09-2	T		U	9.60E-03	3.9E-02		3.8E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.10E-02	3.9E-02		3.8E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	4-Nitroaniline	100-01-6	T		U	9.60E-03	3.9E-02		3.8E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.10E-02	3.9E-02		3.8E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2-Nitrophenol	88-75-5	T		U	9.60E-03				
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	4-Nitrophenol	100-02-7	T		U	9.60E-03				
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.10E-02				
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	9.60E-03	4.9E-06		1.1E-06	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.10E-02	4.9E-06		1.1E-06	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	9.60E-03	1.6E-01		1.2E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.10E-02	1.6E-01		1.2E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	9.60E-03	1.1E-04		1.1E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.10E-02	1.1E-04		1.1E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	9.60E-03	8.0E-01		7.1E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.10E-02	8.0E-01		7.1E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	9.60E-03	3.0E-03		1.2E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.10E-02	3.0E-03		1.2E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Pentachlorophenol	87-86-5	T		U	9.60E-03	1.0E-03		4.1E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.10E-02	1.0E-03		4.1E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Phenanthrene	85-01-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Phenanthrene	85-01-8	T		U	5.30E-03	6.0E-01		1.2E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Phenol	108-95-2	T		U	9.60E-03	6.0E+00		5.8E+00	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Phenol	108-95-2	T		U	1.10E-02	6.0E+00		5.8E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Propylene glycol	57-55-6	T		U	1.00E+01	4.0E+02		4.0E+02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Propylene glycol	57-55-6	T		U	1.00E+01	4.0E+02		4.0E+02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Pyrene	129-00-0	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Pyrene	129-00-0	T		U	5.30E-03	6.0E-01		1.2E-01	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Pyridine	110-86-1	T		U	4.80E-03	2.0E-02		2.0E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Pyridine	110-86-1	T		U	5.30E-03	2.0E-02		2.0E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	9.60E-03	6.0E-04		1.7E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.10E-02	6.0E-04		1.7E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	9.60E-03	2.0E+00		1.2E+00	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.10E-02	2.0E+00		1.2E+00	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	9.60E-03	2.0E-02		1.2E-02	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.10E-02	2.0E-02		1.2E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	9.60E-03	2.5E-03		2.4E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.10E-02	2.5E-03		2.4E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	9.60E-03	5.2E-04		4.9E-04	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.10E-02	5.2E-04		4.9E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	SVOC	Nitrobenzene	98-95-3	T		U	9.60E-03	4.0E-02		1.4E-03	
MW-202	HRP-MW202-211026	N	10/26/21	SVOC	Nitrobenzene	98-95-3	T		U	1.10E-02	4.0E-02		1.4E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Aluminum	7429-90-5	D	2.70E-01		5.00E-02	2.0E+01	1.4E-02	2.0E+01	1.4E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Aluminum	7429-90-5	T	3.00E-01		5.00E-02	2.0E+01	1.5E-02	2.0E+01	1.5E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Aluminum	7429-90-5	D	2.80E-01		5.00E-02	2.0E+01	1.4E-02	2.0E+01	1.4E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Aluminum	7429-90-5	T	4.60E-01		5.00E-02	2.0E+01	2.3E-02	2.0E+01	2.3E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Arsenic	7440-38-2	D	4.00E-03		8.00E-04	1.0E-02	4.0E-01	5.2E-04	7.7E+00
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Arsenic	7440-38-2	T	4.70E-03		8.00E-04	1.0E-02	4.7E-01	5.2E-04	9.0E+00
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Arsenic	7440-38-2	D	4.10E-03		8.00E-04	1.0E-02	4.1E-01	5.2E-04	7.9E+00
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Arsenic	7440-38-2	T	4.50E-03		8.00E-04	1.0E-02	4.5E-01	5.2E-04	8.7E+00
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Barium	7440-39-3	D	2.20E-02		1.00E-02	2.0E+00	1.1E-02	3.8E+00	5.8E-03
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Barium	7440-39-3	T	2.40E-02		1.00E-02	2.0E+00	1.2E-02	3.8E+00	6.3E-03
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Barium	7440-39-3	D	2.20E-02		1.00E-02	2.0E+00	1.1E-02	3.8E+00	5.8E-03
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Barium	7440-39-3	T	2.20E-02		1.00E-02	2.0E+00	1.1E-02	3.8E+00	5.8E-03
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Beryllium	7440-41-7	D	1.20E-03		4.00E-04	4.0E-03	3.0E-01	2.5E-02	4.8E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Beryllium	7440-41-7	T	1.10E-03		4.00E-04	4.0E-03	2.8E-01	2.5E-02	4.4E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Beryllium	7440-41-7	D	1.30E-03		4.00E-04	4.0E-03	3.3E-01	2.5E-02	5.2E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Beryllium	7440-41-7	T	1.30E-03		4.00E-04	4.0E-03	3.3E-01	2.5E-02	5.2E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Cadmium	7440-43-9	D	2.50E-04		2.00E-04	5.0E-03	5.0E-02	1.8E-03	1.4E-01
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Cadmium	7440-43-9	T	9.70E-05	J	2.00E-04	5.0E-03	1.9E-02	1.8E-03	5.4E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Cadmium	7440-43-9	D	2.90E-04		2.00E-04	5.0E-03	5.8E-02	1.8E-03	1.6E-01
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Cadmium	7440-43-9	T	1.10E-04	J	2.00E-04	5.0E-03	2.2E-02	1.8E-03	6.1E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Chromium (total)	7440-47-3	T		U	1.00E-03	1.0E-01		2.2E+01	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	T	9.90E-04	J	1.00E-03	1.0E-01	9.9E-03	2.2E+01	4.5E-05
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Cobalt	7440-48-4	D	3.70E-02		1.00E-03	6.0E-03	6.2E+00	6.0E-03	6.2E+00
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Cobalt	7440-48-4	T	4.00E-02		1.00E-03	6.0E-03	6.7E+00	6.0E-03	6.7E+00
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Cobalt	7440-48-4	D	3.70E-02		1.00E-03	6.0E-03	6.2E+00	6.0E-03	6.2E+00
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Cobalt	7440-48-4	T	4.00E-02		1.00E-03	6.0E-03	6.7E+00	6.0E-03	6.7E+00
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Copper	7440-50-8	D	1.30E-03		1.00E-03	1.3E+00	1.0E-03	8.0E-01	1.6E-03
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Copper	7440-50-8	T	1.20E-03		1.00E-03	1.3E+00	9.2E-04	8.0E-01	1.5E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Copper	7440-50-8	D	1.50E-03		1.00E-03	1.3E+00	1.2E-03	8.0E-01	1.9E-03
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Copper	7440-50-8	T	1.30E-03		1.00E-03	1.3E+00	1.0E-03	8.0E-01	1.6E-03
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Iron	7439-89-6	D	6.30E+01		5.00E-02	1.4E+01	4.5E+00	1.4E+01	4.5E+00
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Iron	7439-89-6	T	6.40E+01		5.00E-02	1.4E+01	4.6E+00	1.4E+01	4.6E+00
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Iron	7439-89-6	D	6.30E+01		5.00E-02	1.4E+01	4.5E+00	1.4E+01	4.5E+00
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Iron	7439-89-6	T	6.00E+01		5.00E-02	1.4E+01	4.3E+00	1.4E+01	4.3E+00
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Lead	7439-92-1	D	1.50E-04	J	5.00E-04	1.5E-02	1.0E-02	1.5E-02	1.0E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Lead	7439-92-1	T	2.70E-04	J	5.00E-04	1.5E-02	1.8E-02	1.5E-02	1.8E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Lead	7439-92-1	D	1.60E-04	J	5.00E-04	1.5E-02	1.1E-02	1.5E-02	1.1E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Lead	7439-92-1	T	4.60E-04	J	5.00E-04	1.5E-02	3.1E-02	1.5E-02	3.1E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Manganese	7439-96-5	D	5.80E+00		2.00E-02	4.8E-01	1.2E+01	4.3E-01	1.3E+01
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Manganese	7439-96-5	T	5.70E+00		2.00E-02	4.8E-01	1.2E+01	4.3E-01	1.3E+01
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Manganese	7439-96-5	D	5.70E+00		2.00E-02	4.8E-01	1.2E+01	4.3E-01	1.3E+01
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Manganese	7439-96-5	T	5.50E+00		2.00E-02	4.8E-01	1.1E+01	4.3E-01	1.3E+01
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Nickel	7440-02-0	D	2.40E-02	B	5.00E-03	4.0E-01	6.0E-02	3.9E-01	6.2E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Nickel	7440-02-0	T	3.20E-02		5.00E-03	4.0E-01	8.0E-02	3.9E-01	8.2E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Nickel	7440-02-0	D	2.50E-02	B	5.00E-03	4.0E-01	6.3E-02	3.9E-01	6.4E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Nickel	7440-02-0	T	3.50E-02		5.00E-03	4.0E-01	8.8E-02	3.9E-01	9.0E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Selenium	7782-49-2	D	2.10E-03	J	5.00E-03	5.0E-02	4.2E-02	1.0E-01	2.1E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Selenium	7782-49-2	T	1.60E-03	J	5.00E-03	5.0E-02	3.2E-02	1.0E-01	1.6E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Selenium	7782-49-2	D	2.20E-03	J	5.00E-03	5.0E-02	4.4E-02	1.0E-01	2.2E-02
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Selenium	7782-49-2	T	1.70E-03	J	5.00E-03	5.0E-02	3.4E-02	1.0E-01	1.7E-02
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Silver	7440-22-4	T	3.00E-05	J	2.00E-04	1.0E-01	3.0E-04	9.4E-02	3.2E-04
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Silver	7440-22-4	T	3.00E-05	J	2.00E-04	1.0E-01	3.0E-04	9.4E-02	3.2E-04
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Zinc	7440-66-6	D	2.20E-02		1.00E-02	6.0E+00	3.7E-03	6.0E+00	3.7E-03
MW-202	HRP-DUP05-211026	FD	10/26/21	INORG	Zinc	7440-66-6	T	2.40E-02		1.00E-02	6.0E+00	4.0E-03	6.0E+00	4.0E-03
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Zinc	7440-66-6	D	2.30E-02		1.00E-02	6.0E+00	3.8E-03	6.0E+00	3.8E-03
MW-202	HRP-MW202-211026	N	10/26/21	INORG	Zinc	7440-66-6	T	2.80E-02		1.00E-02	6.0E+00	4.7E-03	6.0E+00	4.7E-03
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Tetrachloroethene	127-18-4	T	6.80E-04	J	1.00E-03	5.0E-03	1.4E-01	4.1E-02	1.7E-02
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-205	HRP-MW205-211026	N	10/26/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Acenaphthene	83-32-9	T		U	5.20E-03	1.2E+00		5.3E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Acenaphthylene	208-96-8	T		U	5.20E-03	6.0E-01		1.2E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Aniline	62-53-3	T		U	5.20E-03	1.4E-01		1.3E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Anthracene	120-12-7	T		U	5.20E-03	6.0E+00		1.8E+00	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Benzidine	92-87-5	T		U	2.10E-02	1.1E-06		1.1E-06	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.20E-03	2.5E-03		3.0E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.20E-03	2.0E-04		2.5E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.20E-03	2.5E-03		2.5E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.20E-03	6.0E-01		1.2E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.20E-03	2.5E-02		2.5E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Benzoic Acid	65-85-0	T		U	1.00E-02	8.0E+01		7.5E+01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.00E-02	6.0E-02		5.9E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.00E-02	7.1E-04		1.4E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.00E-02	6.0E-03		5.6E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.00E-02				

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.00E-02	4.1E-01		1.6E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Carbazole	86-74-8	T		U	1.00E-02	8.0E-01		2.9E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.00E-02	2.0E+00		1.4E+00	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-02	1.6E+00		7.5E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.00E-02	1.0E-01		9.1E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.00E-02				
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Chrysene	218-01-9	T		U	5.20E-03	2.5E-01		2.5E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.20E-03	2.5E-04		2.5E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Dibenzofuran	132-64-9	T		U	5.20E-03	2.0E-02		7.9E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.00E-02	6.0E-02		4.6E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Diethylphthalate	84-66-2	T		U	1.00E-02	1.6E+01		1.5E+01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.00E-02	1.6E+01		1.5E+01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.00E-02	2.0E+00		9.0E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.00E-02	1.6E-03		1.5E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.00E-02	4.0E-02		3.9E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.00E-02	2.0E-01		2.0E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.00E-02	9.7E-04		7.8E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Fluoranthene	206-44-0	T		U	5.20E-03	8.0E-01		8.0E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Fluorene	86-73-7	T		U	5.20E-03	8.0E-01		2.9E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.00E-02	1.0E-03		9.8E-05	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.00E-02	5.0E-02		4.1E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Hexachloroethane	67-72-1	T		U	1.00E-02	1.4E-02		3.3E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.20E-03	2.5E-03		2.5E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Isophorone	78-59-1	T		U	1.00E-02	8.2E-01		7.8E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.20E-03	2.7E-02		1.1E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.20E-03	8.0E-02		3.6E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2-Methylphenol	95-48-7	T		U	1.00E-02	1.0E+00		9.3E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	1.00E-02				
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.00E-02	2.0E-01		1.9E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.00E-02	3.9E-02		3.8E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.00E-02	3.9E-02		3.8E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.00E-02				
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.00E-02	4.9E-06		1.1E-06	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.00E-02	1.6E-01		1.2E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.00E-02	1.1E-04		1.1E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.00E-02	8.0E-01		7.1E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.00E-02	3.0E-03		1.2E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.00E-02	1.0E-03		4.1E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Phenanthrene	85-01-8	T		U	5.20E-03	6.0E-01		1.2E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Phenol	108-95-2	T		U	1.00E-02	6.0E+00		5.8E+00	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Pyrene	129-00-0	T		U	5.20E-03	6.0E-01		1.2E-01	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Pyridine	110-86-1	T		U	5.20E-03	2.0E-02		2.0E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.00E-02	6.0E-04		1.7E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.00E-02	2.0E+00		1.2E+00	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.00E-02	2.0E-02		1.2E-02	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.00E-02	2.5E-03		2.4E-03	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.00E-02	5.2E-04		4.9E-04	
MW-205	HRP-MW205-211026	N	10/26/21	SVOC	Nitrobenzene	98-95-3	T		U	1.00E-02	4.0E-02		1.4E-03	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Aluminum	7429-90-5	D		U	5.00E-02	2.0E+01		2.0E+01	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Aluminum	7429-90-5	T	1.00E-01		5.00E-02	2.0E+01	5.0E-03	2.0E+01	5.0E-03
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Arsenic	7440-38-2	D		U	8.00E-04	1.0E-02		5.2E-04	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Arsenic	7440-38-2	T		U	8.00E-04	1.0E-02		5.2E-04	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Barium	7440-39-3	D	6.30E-02		1.00E-02	2.0E+00	3.2E-02	3.8E+00	1.7E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Barium	7440-39-3	T	6.80E-02		1.00E-02	2.0E+00	3.4E-02	3.8E+00	1.8E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Beryllium	7440-41-7	D		U	4.00E-04	4.0E-03		2.5E-02	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Beryllium	7440-41-7	T		U	4.00E-04	4.0E-03		2.5E-02	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Cadmium	7440-43-9	D	4.20E-05	J	2.00E-04	5.0E-03	8.4E-03	1.8E-03	2.3E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Cadmium	7440-43-9	T	4.30E-05	J	2.00E-04	5.0E-03	8.6E-03	1.8E-03	2.4E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	T		U	1.00E-03	1.0E-01		2.2E+01	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Cobalt	7440-48-4	D	2.20E-03		1.00E-03	6.0E-03	3.7E-01	6.0E-03	3.7E-01
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Cobalt	7440-48-4	T	2.60E-03		1.00E-03	6.0E-03	4.3E-01	6.0E-03	4.3E-01
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Copper	7440-50-8	D	9.00E-04	J	1.00E-03	1.3E+00	6.9E-04	8.0E-01	1.1E-03
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Copper	7440-50-8	T	4.30E-04	J	1.00E-03	1.3E+00	3.3E-04	8.0E-01	5.4E-04
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Iron	7439-89-6	D		U	5.00E-02	1.4E+01		1.4E+01	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Iron	7439-89-6	T	1.60E-01		5.00E-02	1.4E+01	1.1E-02	1.4E+01	1.1E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Lead	7439-92-1	D		U	5.00E-04	1.5E-02		1.5E-02	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Lead	7439-92-1	T		U	5.00E-04	1.5E-02		1.5E-02	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Manganese	7439-96-5	D	3.10E-02		1.00E-03	4.8E-01	6.5E-02	4.3E-01	7.2E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Manganese	7439-96-5	T	3.30E-02		1.00E-03	4.8E-01	6.9E-02	4.3E-01	7.7E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Nickel	7440-02-0	D	1.60E-03	JB	5.00E-03	4.0E-01	4.0E-03	3.9E-01	4.1E-03
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Nickel	7440-02-0	T	3.20E-03	J	5.00E-03	4.0E-01	8.0E-03	3.9E-01	8.2E-03
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Selenium	7782-49-2	D	1.60E-03	J	5.00E-03	5.0E-02	3.2E-02	1.0E-01	1.6E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Selenium	7782-49-2	T	1.50E-03	J	5.00E-03	5.0E-02	3.0E-02	1.0E-01	1.5E-02
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Silver	7440-22-4	T		U	2.00E-04	1.0E-01		9.4E-02	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Zinc	7440-66-6	D		U	1.00E-02	6.0E+00		6.0E+00	
MW-205	HRP-MW205-211026	N	10/26/21	INORG	Zinc	7440-66-6	T		U	1.00E-02	6.0E+00		6.0E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Acetone	67-64-1	T	2.80E-03	J	5.00E-02	1.8E+01	1.6E-04	1.8E+01	1.6E-04
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-206	HRP-MW206-211026	N	10/26/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Acenaphthene	83-32-9	T		U	5.60E-03	1.2E+00		5.3E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Acenaphthylene	208-96-8	T		U	5.60E-03	6.0E-01		1.2E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Aniline	62-53-3	T		U	5.60E-03	1.4E-01		1.3E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Anthracene	120-12-7	T		U	5.60E-03	6.0E+00		1.8E+00	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Benzidine	92-87-5	T		U	2.20E-02	1.1E-06		1.1E-06	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.60E-03	2.5E-03		3.0E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.60E-03	2.0E-04		2.5E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.60E-03	2.5E-03		2.5E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.60E-03	6.0E-01		1.2E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.60E-03	2.5E-02		2.5E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Benzoic Acid	65-85-0	T		U	1.10E-02	8.0E+01		7.5E+01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.10E-02	6.0E-02		5.9E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.10E-02	7.1E-04		1.4E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.10E-02				
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.10E-02	4.1E-01		1.6E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Carbazole	86-74-8	T		U	1.10E-02	8.0E-01		2.9E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.10E-02	2.0E+00		1.4E+00	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.10E-02	1.6E+00		7.5E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.10E-02	1.0E-01		9.1E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.10E-02				
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Chrysene	218-01-9	T		U	5.60E-03	2.5E-01		2.5E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.60E-03	2.5E-04		2.5E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Dibenzofuran	132-64-9	T		U	5.60E-03	2.0E-02		7.9E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.10E-02	6.0E-02		4.6E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Diethylphthalate	84-66-2	T		U	1.10E-02	1.6E+01		1.5E+01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.10E-02	1.6E+01		1.5E+01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.10E-02	2.0E+00		9.0E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.10E-02	1.6E-03		1.5E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.10E-02	4.0E-02		3.9E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.10E-02	9.7E-04		7.8E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Fluoranthene	206-44-0	T		U	5.60E-03	8.0E-01		8.0E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Fluorene	86-73-7	T		U	5.60E-03	8.0E-01		2.9E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.10E-02	1.0E-03		9.8E-05	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Hexachloroethane	67-72-1	T		U	1.10E-02	1.4E-02		3.3E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.60E-03	2.5E-03		2.5E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Isophorone	78-59-1	T		U	1.10E-02	8.2E-01		7.8E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.60E-03	2.7E-02		1.1E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.60E-03	8.0E-02		3.6E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2-Methylphenol	95-48-7	T		U	1.10E-02	1.0E+00		9.3E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	1.10E-02				
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.10E-02	2.0E-01		1.9E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.10E-02	3.9E-02		3.8E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.10E-02	3.9E-02		3.8E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.10E-02				

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.10E-02	4.9E-06		1.1E-06	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.10E-02	1.6E-01		1.2E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.10E-02	1.1E-04		1.1E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.10E-02	8.0E-01		7.1E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.10E-02	3.0E-03		1.2E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.10E-02	1.0E-03		4.1E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Phenanthrene	85-01-8	T		U	5.60E-03	6.0E-01		1.2E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Phenol	108-95-2	T		U	1.10E-02	6.0E+00		5.8E+00	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Pyrene	129-00-0	T		U	5.60E-03	6.0E-01		1.2E-01	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Pyridine	110-86-1	T		U	5.60E-03	2.0E-02		2.0E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.10E-02	6.0E-04		1.7E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.10E-02	2.0E+00		1.2E+00	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.10E-02	2.0E-02		1.2E-02	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.10E-02	2.5E-03		2.4E-03	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.10E-02	5.2E-04		4.9E-04	
MW-206	HRP-MW206-211026	N	10/26/21	SVOC	Nitrobenzene	98-95-3	T		U	1.10E-02	4.0E-02		1.4E-03	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Aluminum	7429-90-5	D	6.70E-02		5.00E-02	2.0E+01	3.4E-03	2.0E+01	3.4E-03
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Aluminum	7429-90-5	T	1.90E+01		5.00E-02	2.0E+01	9.5E-01	2.0E+01	9.5E-01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Antimony	7440-36-0	T	4.10E-04	J	1.00E-03	6.0E-03	6.8E-02	7.8E-03	5.3E-02
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Arsenic	7440-38-2	D	5.00E-03		8.00E-04	1.0E-02	5.0E-01	5.2E-04	9.6E+00
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Arsenic	7440-38-2	T	1.80E-02		8.00E-04	1.0E-02	1.8E+00	5.2E-04	3.5E+01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Barium	7440-39-3	D	2.80E-02		1.00E-02	2.0E+00	1.4E-02	3.8E+00	7.4E-03
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Barium	7440-39-3	T	2.20E-01		1.00E-02	2.0E+00	1.1E-01	3.8E+00	5.8E-02
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Beryllium	7440-41-7	D		U	4.00E-04	4.0E-03		2.5E-02	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Beryllium	7440-41-7	T	1.40E-03		4.00E-04	4.0E-03	3.5E-01	2.5E-02	5.6E-02
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Cadmium	7440-43-9	D		U	2.00E-04	5.0E-03		1.8E-03	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Cadmium	7440-43-9	T	5.30E-05	J	2.00E-04	5.0E-03	1.1E-02	1.8E-03	2.9E-02
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	T	3.60E-02		1.00E-03	1.0E-01	3.6E-01	2.2E+01	1.6E-03
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Cobalt	7440-48-4	D	7.20E-02		1.00E-03	6.0E-03	1.2E+01	6.0E-03	1.2E+01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Cobalt	7440-48-4	T	1.00E-01		1.00E-03	6.0E-03	1.7E+01	6.0E-03	1.7E+01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Copper	7440-50-8	D	2.50E-02		1.00E-03	1.3E+00	1.9E-02	8.0E-01	3.1E-02
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Copper	7440-50-8	T	5.20E-02		1.00E-03	1.3E+00	4.0E-02	8.0E-01	6.5E-02
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Iron	7439-89-6	D	1.00E+02		5.00E-02	1.4E+01	7.1E+00	1.4E+01	7.1E+00
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Lead	7439-92-1	D		U	5.00E-04	1.5E-02		1.5E-02	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Lead	7439-92-1	T	2.50E-02		5.00E-04	1.5E-02	1.7E+00	1.5E-02	1.7E+00
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Manganese	7439-96-5	D	1.40E+01		1.00E-01	4.8E-01	2.9E+01	4.3E-01	3.3E+01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Manganese	7439-96-5	T	1.50E+01		1.00E-01	4.8E-01	3.1E+01	4.3E-01	3.5E+01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Mercury	7439-97-6	T	5.30E-05	J	1.00E-04	2.0E-03	2.7E-02	5.7E-04	9.3E-02
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Nickel	7440-02-0	D	4.10E-02	B	5.00E-03	4.0E-01	1.0E-01	3.9E-01	1.1E-01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Nickel	7440-02-0	T	8.90E-02		5.00E-03	4.0E-01	2.2E-01	3.9E-01	2.3E-01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Selenium	7782-49-2	D	1.50E-02		5.00E-03	5.0E-02	3.0E-01	1.0E-01	1.5E-01

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Selenium	7782-49-2	T	1.40E-02		5.00E-03	5.0E-02	2.8E-01	1.0E-01	1.4E-01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Silver	7440-22-4	T	3.70E-04		2.00E-04	1.0E-01	3.7E-03	9.4E-02	3.9E-03
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Thallium	7440-28-0	T	2.70E-04		2.00E-04	2.0E-03	1.4E-01	2.0E-04	1.4E+00
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Vanadium	7440-62-2	T	6.40E-02		5.00E-03	1.0E-01	6.4E-01	8.6E-02	7.4E-01
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Zinc	7440-66-6	D	1.60E-02		1.00E-02	6.0E+00	2.7E-03	6.0E+00	2.7E-03
MW-206	HRP-MW206-211026	N	10/26/21	INORG	Zinc	7440-66-6	T	1.10E-01		1.00E-02	6.0E+00	1.8E-02	6.0E+00	1.8E-02
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-207	HRP-MW207-211026	N	10/26/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Tetrachloroethene	127-18-4	T	2.50E-04	J	1.00E-03	5.0E-03	5.0E-02	4.1E-02	6.1E-03
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-207	HRP-MW207-211026	N	10/26/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Acenaphthene	83-32-9	T		U	4.80E-03	1.2E+00		5.3E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Acenaphthylene	208-96-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Acetophenone	98-86-2	T		U	9.60E-03	2.0E+00		1.9E+00	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Aniline	62-53-3	T		U	4.80E-03	1.4E-01		1.3E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Anthracene	120-12-7	T		U	4.80E-03	6.0E+00		1.8E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Benzidine	92-87-5	T		U	1.90E-02	1.1E-06		1.1E-06	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	4.80E-03	2.5E-03		3.0E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	4.80E-03	2.0E-04		2.5E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	4.80E-03	2.5E-02		2.5E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Benzoic Acid	65-85-0	T		U	9.60E-03	8.0E+01		7.5E+01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	9.60E-03	6.0E-02		5.9E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	9.60E-03	7.1E-04		1.4E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	9.60E-03	6.0E-03		5.6E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	9.60E-03				
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	9.60E-03	4.1E-01		1.6E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Carbazole	86-74-8	T		U	9.60E-03	8.0E-01		2.9E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	9.60E-03	2.0E+00		1.4E+00	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	4-Chloroaniline	106-47-8	T		U	9.60E-03	3.9E-03		3.7E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	9.60E-03	1.6E+00		7.5E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2-Chlorophenol	95-57-8	T		U	9.60E-03	1.0E-01		9.1E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	9.60E-03				
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Chrysene	218-01-9	T		U	4.80E-03	2.5E-01		2.5E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	4.80E-03	2.5E-04		2.5E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Dibenzofuran	132-64-9	T		U	4.80E-03	2.0E-02		7.9E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	9.60E-03	1.7E-03		1.3E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	9.60E-03	6.0E-02		4.6E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Diethylphthalate	84-66-2	T		U	9.60E-03	1.6E+01		1.5E+01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	9.60E-03	4.0E-01		3.6E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Dimethylphthalate	131-11-3	T		U	9.60E-03	1.6E+01		1.5E+01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	9.60E-03	2.0E+00		9.0E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	9.60E-03	1.6E-03		1.5E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	9.60E-03	4.0E-02		3.9E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	9.60E-03	2.0E-01		2.0E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	9.60E-03	9.7E-04		7.8E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Fluoranthene	206-44-0	T		U	4.80E-03	8.0E-01		8.0E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Fluorene	86-73-7	T		U	4.80E-03	8.0E-01		2.9E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Hexachlorobenzene	118-74-1	T		U	9.60E-03	1.0E-03		9.8E-05	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	9.60E-03	5.0E-02		4.1E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Hexachloroethane	67-72-1	T		U	9.60E-03	1.4E-02		3.3E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Isophorone	78-59-1	T		U	9.60E-03	8.2E-01		7.8E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	4.80E-03	2.7E-02		1.1E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	4.80E-03	8.0E-02		3.6E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2-Methylphenol	95-48-7	T		U	9.60E-03	1.0E+00		9.3E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	9.60E-03				
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2-Nitroaniline	88-74-4	T		U	9.60E-03	2.0E-01		1.9E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	3-Nitroaniline	99-09-2	T		U	9.60E-03	3.9E-02		3.8E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	4-Nitroaniline	100-01-6	T		U	9.60E-03	3.9E-02		3.8E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2-Nitrophenol	88-75-5	T		U	9.60E-03				
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	4-Nitrophenol	100-02-7	T		U	9.60E-03				
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	9.60E-03	4.9E-06		1.1E-06	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	9.60E-03	1.6E-01		1.2E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	9.60E-03	1.1E-04		1.1E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	9.60E-03	8.0E-01		7.1E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	9.60E-03	3.0E-03		1.2E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Pentachlorophenol	87-86-5	T		U	9.60E-03	1.0E-03		4.1E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Phenanthrene	85-01-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Phenol	108-95-2	T		U	9.60E-03	6.0E+00		5.8E+00	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Pyrene	129-00-0	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Pyridine	110-86-1	T		U	4.80E-03	2.0E-02		2.0E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	9.60E-03	6.0E-04		1.7E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	9.60E-03	2.0E+00		1.2E+00	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	9.60E-03	2.0E-02		1.2E-02	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	9.60E-03	2.5E-03		2.4E-03	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	9.60E-03	5.2E-04		4.9E-04	
MW-207	HRP-MW207-211026	N	10/26/21	SVOC	Nitrobenzene	98-95-3	T		U	9.60E-03	4.0E-02		1.4E-03	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Aluminum	7429-90-5	D		U	5.00E-02	2.0E+01		2.0E+01	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Aluminum	7429-90-5	T	4.80E-01		5.00E-02	2.0E+01	2.4E-02	2.0E+01	2.4E-02
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Arsenic	7440-38-2	D	5.20E-03		8.00E-04	1.0E-02	5.2E-01	5.2E-04	1.0E+01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Arsenic	7440-38-2	T	8.00E-03		8.00E-04	1.0E-02	8.0E-01	5.2E-04	1.5E+01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Barium	7440-39-3	D	2.30E-02		1.00E-02	2.0E+00	1.2E-02	3.8E+00	6.1E-03
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Barium	7440-39-3	T	2.80E-02		1.00E-02	2.0E+00	1.4E-02	3.8E+00	7.4E-03
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Beryllium	7440-41-7	D		U	4.00E-04	4.0E-03		2.5E-02	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Beryllium	7440-41-7	T		U	4.00E-04	4.0E-03		2.5E-02	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Cadmium	7440-43-9	D	5.60E-04		2.00E-04	5.0E-03	1.1E-01	1.8E-03	3.1E-01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Cadmium	7440-43-9	T	4.40E-04		2.00E-04	5.0E-03	8.8E-02	1.8E-03	2.4E-01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	T	2.10E-03		1.00E-03	1.0E-01	2.1E-02	2.2E+01	9.5E-05
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Cobalt	7440-48-4	D	2.30E-02		1.00E-03	6.0E-03	3.8E+00	6.0E-03	3.8E+00
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Cobalt	7440-48-4	T	2.50E-02		1.00E-03	6.0E-03	4.2E+00	6.0E-03	4.2E+00
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Copper	7440-50-8	D	3.90E-02		1.00E-03	1.3E+00	3.0E-02	8.0E-01	4.9E-02
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Copper	7440-50-8	T	3.10E-02		1.00E-03	1.3E+00	2.4E-02	8.0E-01	3.9E-02
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Iron	7439-89-6	D	1.10E+00		5.00E-02	1.4E+01	7.9E-02	1.4E+01	7.9E-02
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Iron	7439-89-6	T	1.70E+00		5.00E-02	1.4E+01	1.2E-01	1.4E+01	1.2E-01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Lead	7439-92-1	D		U	5.00E-04	1.5E-02		1.5E-02	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Lead	7439-92-1	T	3.50E-04	J	5.00E-04	1.5E-02	2.3E-02	1.5E-02	2.3E-02
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Manganese	7439-96-5	D	1.60E+01		1.00E-01	4.8E-01	3.3E+01	4.3E-01	3.7E+01

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Manganese	7439-96-5	T	1.60E+01		1.00E-01	4.8E-01	3.3E+01	4.3E-01	3.7E+01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Nickel	7440-02-0	D	5.40E-02	B	5.00E-03	4.0E-01	1.4E-01	3.9E-01	1.4E-01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Nickel	7440-02-0	T	6.20E-02		5.00E-03	4.0E-01	1.6E-01	3.9E-01	1.6E-01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Selenium	7782-49-2	D	9.70E-03		5.00E-03	5.0E-02	1.9E-01	1.0E-01	9.7E-02
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Selenium	7782-49-2	T	1.00E-02		5.00E-03	5.0E-02	2.0E-01	1.0E-01	1.0E-01
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Silver	7440-22-4	T	3.30E-05	J	2.00E-04	1.0E-01	3.3E-04	9.4E-02	3.5E-04
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Zinc	7440-66-6	D	1.10E-02		1.00E-02	6.0E+00	1.8E-03	6.0E+00	1.8E-03
MW-207	HRP-MW207-211026	N	10/26/21	INORG	Zinc	7440-66-6	T	1.30E-02		1.00E-02	6.0E+00	2.2E-03	6.0E+00	2.2E-03
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Diisopropyl ether	108-20-3	T	4.60E-04	J	5.00E-04			1.5E+00	3.1E-04
MW-208	HRP-SB208-211026	N	10/26/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-208	HRP-SB208-211026	N	10/26/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Acenaphthene	83-32-9	T		U	4.80E-03	1.2E+00		5.3E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Acenaphthylene	208-96-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Acetophenone	98-86-2	T		U	9.70E-03	2.0E+00		1.9E+00	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Aniline	62-53-3	T		U	4.80E-03	1.4E-01		1.3E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Anthracene	120-12-7	T		U	4.80E-03	6.0E+00		1.8E+00	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Benzidine	92-87-5	T		U	1.90E-02	1.1E-06		1.1E-06	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	4.80E-03	2.5E-03		3.0E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	4.80E-03	2.0E-04		2.5E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	4.80E-03	2.5E-02		2.5E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Benzoic Acid	65-85-0	T		U	9.70E-03	8.0E+01		7.5E+01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	9.70E-03	6.0E-02		5.9E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	9.70E-03	7.1E-04		1.4E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	9.70E-03	6.0E-03		5.6E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	9.70E-03				
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	9.70E-03	4.1E-01		1.6E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Carbazole	86-74-8	T		U	9.70E-03	8.0E-01		2.9E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	9.70E-03	2.0E+00		1.4E+00	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	4-Chloroaniline	106-47-8	T		U	9.70E-03	3.9E-03		3.7E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	9.70E-03	1.6E+00		7.5E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2-Chlorophenol	95-57-8	T		U	9.70E-03	1.0E-01		9.1E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	9.70E-03				
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Chrysene	218-01-9	T		U	4.80E-03	2.5E-01		2.5E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	4.80E-03	2.5E-04		2.5E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Dibenzofuran	132-64-9	T		U	4.80E-03	2.0E-02		7.9E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	9.70E-03	1.7E-03		1.3E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	9.70E-03	6.0E-02		4.6E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Diethylphthalate	84-66-2	T		U	9.70E-03	1.6E+01		1.5E+01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	9.70E-03	4.0E-01		3.6E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Dimethylphthalate	131-11-3	T		U	9.70E-03	1.6E+01		1.5E+01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	9.70E-03	2.0E+00		9.0E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	9.70E-03	1.6E-03		1.5E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	9.70E-03	4.0E-02		3.9E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	9.70E-03	2.0E-01		2.0E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	9.70E-03	9.7E-04		7.8E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Fluoranthene	206-44-0	T		U	4.80E-03	8.0E-01		8.0E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Fluorene	86-73-7	T		U	4.80E-03	8.0E-01		2.9E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Hexachlorobenzene	118-74-1	T		U	9.70E-03	1.0E-03		9.8E-05	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	9.70E-03	5.0E-02		4.1E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Hexachloroethane	67-72-1	T		U	9.70E-03	1.4E-02		3.3E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.80E-03	2.5E-03		2.5E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Isophorone	78-59-1	T		U	9.70E-03	8.2E-01		7.8E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	4.80E-03	2.7E-02		1.1E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	4.80E-03	8.0E-02		3.6E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2-Methylphenol	95-48-7	T		U	9.70E-03	1.0E+00		9.3E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	9.70E-03				
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2-Nitroaniline	88-74-4	T		U	9.70E-03	2.0E-01		1.9E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	3-Nitroaniline	99-09-2	T		U	9.70E-03	3.9E-02		3.8E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	4-Nitroaniline	100-01-6	T		U	9.70E-03	3.9E-02		3.8E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2-Nitrophenol	88-75-5	T		U	9.70E-03				
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	4-Nitrophenol	100-02-7	T		U	9.70E-03				
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	9.70E-03	4.9E-06		1.1E-06	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	9.70E-03	1.6E-01		1.2E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	9.70E-03	1.1E-04		1.1E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	9.70E-03	8.0E-01		7.1E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	9.70E-03	3.0E-03		1.2E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Pentachlorophenol	87-86-5	T		U	9.70E-03	1.0E-03		4.1E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Phenanthrene	85-01-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Phenol	108-95-2	T		U	9.70E-03	6.0E+00		5.8E+00	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Pyrene	129-00-0	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Pyridine	110-86-1	T		U	4.80E-03	2.0E-02		2.0E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	9.70E-03	6.0E-04		1.7E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	9.70E-03	2.0E+00		1.2E+00	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	9.70E-03	2.0E-02		1.2E-02	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	9.70E-03	2.5E-03		2.4E-03	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	9.70E-03	5.2E-04		4.9E-04	
MW-208	HRP-SB208-211026	N	10/26/21	SVOC	Nitrobenzene	98-95-3	T		U	9.70E-03	4.0E-02		1.4E-03	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Aluminum	7429-90-5	D		U	5.00E-02	2.0E+01		2.0E+01	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Aluminum	7429-90-5	T	8.50E-02		5.00E-02	2.0E+01	4.3E-03	2.0E+01	4.3E-03
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Arsenic	7440-38-2	D	3.60E-03		8.00E-04	1.0E-02	3.6E-01	5.2E-04	6.9E+00
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Arsenic	7440-38-2	T	4.90E-03		8.00E-04	1.0E-02	4.9E-01	5.2E-04	9.4E+00
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Barium	7440-39-3	D	2.30E-02		1.00E-02	2.0E+00	1.2E-02	3.8E+00	6.1E-03
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Barium	7440-39-3	T	2.70E-02		1.00E-02	2.0E+00	1.4E-02	3.8E+00	7.1E-03
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Beryllium	7440-41-7	D	6.70E-05	J	4.00E-04	4.0E-03	1.7E-02	2.5E-02	2.7E-03
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Beryllium	7440-41-7	T		U	4.00E-04	4.0E-03		2.5E-02	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Cadmium	7440-43-9	D	1.60E-03		2.00E-04	5.0E-03	3.2E-01	1.8E-03	8.9E-01
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Cadmium	7440-43-9	T	1.60E-03		2.00E-04	5.0E-03	3.2E-01	1.8E-03	8.9E-01
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	T	9.60E-04	J	1.00E-03	1.0E-01	9.6E-03	2.2E+01	4.4E-05
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Cobalt	7440-48-4	D	2.00E-01		1.00E-03	6.0E-03	3.3E+01	6.0E-03	3.3E+01
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Cobalt	7440-48-4	T	2.10E-01		1.00E-03	6.0E-03	3.5E+01	6.0E-03	3.5E+01
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Copper	7440-50-8	D	8.00E-03		1.00E-03	1.3E+00	6.2E-03	8.0E-01	1.0E-02

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Copper	7440-50-8	T	6.70E-03		1.00E-03	1.3E+00	5.2E-03	8.0E-01	8.4E-03
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Iron	7439-89-6	D	4.90E+01		5.00E-02	1.4E+01	3.5E+00	1.4E+01	3.5E+00
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Iron	7439-89-6	T	5.10E+01		5.00E-02	1.4E+01	3.6E+00	1.4E+01	3.6E+00
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Lead	7439-92-1	D		U	5.00E-04	1.5E-02		1.5E-02	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Lead	7439-92-1	T		U	5.00E-04	1.5E-02		1.5E-02	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Manganese	7439-96-5	D	1.60E+01		1.00E-01	4.8E-01	3.3E+01	4.3E-01	3.7E+01
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Manganese	7439-96-5	T	1.60E+01		1.00E-01	4.8E-01	3.3E+01	4.3E-01	3.7E+01
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Nickel	7440-02-0	D	1.00E-01	B	5.00E-03	4.0E-01	2.5E-01	3.9E-01	2.6E-01
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Nickel	7440-02-0	T	1.10E-01		5.00E-03	4.0E-01	2.8E-01	3.9E-01	2.8E-01
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Selenium	7782-49-2	D	6.00E-03		5.00E-03	5.0E-02	1.2E-01	1.0E-01	6.0E-02
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Selenium	7782-49-2	T	5.00E-03		5.00E-03	5.0E-02	1.0E-01	1.0E-01	5.0E-02
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Silver	7440-22-4	T	2.70E-05	J	2.00E-04	1.0E-01	2.7E-04	9.4E-02	2.9E-04
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Zinc	7440-66-6	D	3.70E-02		1.00E-02	6.0E+00	6.2E-03	6.0E+00	6.2E-03
MW-208	HRP-SB208-211026	N	10/26/21	INORG	Zinc	7440-66-6	T	4.10E-02		1.00E-02	6.0E+00	6.8E-03	6.0E+00	6.8E-03
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Bromomethane	74-83-9	T		U	5.00E-03	2.8E-02		7.5E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Chlorobenzene	108-90-7	T	1.00E-03		1.00E-03	1.0E-01	1.0E-02	7.8E-02	1.3E-02
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Diisopropyl ether	108-20-3	T	2.80E-03		5.00E-04			1.5E+00	1.9E-03
MW-209	HRP-MW209-211028	N	10/28/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-209	HRP-MW209-211028	N	10/28/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Acenaphthene	83-32-9	T		U	4.80E-03	1.2E+00		5.3E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Acenaphthylene	208-96-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Acetophenone	98-86-2	T		U	9.50E-03	2.0E+00		1.9E+00	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Aniline	62-53-3	T		U	4.80E-03	1.4E-01		1.3E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Anthracene	120-12-7	T		U	4.80E-03	6.0E+00		1.8E+00	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Benzidine	92-87-5	T		U	1.90E-02	1.1E-06		1.1E-06	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	4.80E-03	2.5E-03		3.0E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	4.80E-03	2.0E-04		2.5E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	4.80E-03	2.5E-02		2.5E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Benzoic Acid	65-85-0	T		U	9.50E-03	8.0E+01		7.5E+01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	9.50E-03	6.0E-02		5.9E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	9.50E-03	7.1E-04		1.4E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	9.50E-03	6.0E-03		5.6E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	9.50E-03				
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	9.50E-03	4.1E-01		1.6E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Carbazole	86-74-8	T		U	9.50E-03	8.0E-01		2.9E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	9.50E-03	2.0E+00		1.4E+00	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	4-Chloroaniline	106-47-8	T		U	9.50E-03	3.9E-03		3.7E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	9.50E-03	1.6E+00		7.5E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2-Chlorophenol	95-57-8	T		U	9.50E-03	1.0E-01		9.1E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	9.50E-03				
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Chrysene	218-01-9	T		U	4.80E-03	2.5E-01		2.5E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	4.80E-03	2.5E-04		2.5E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Dibenzofuran	132-64-9	T		U	4.80E-03	2.0E-02		7.9E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	9.50E-03	1.7E-03		1.3E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	9.50E-03	6.0E-02		4.6E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Diethylphthalate	84-66-2	T		U	9.50E-03	1.6E+01		1.5E+01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	9.50E-03	4.0E-01		3.6E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Dimethylphthalate	131-11-3	T		U	9.50E-03	1.6E+01		1.5E+01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	9.50E-03	2.0E+00		9.0E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	9.50E-03	1.6E-03		1.5E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	9.50E-03	4.0E-02		3.9E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	9.50E-03	2.0E-01		2.0E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	9.50E-03	9.7E-04		7.8E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Fluoranthene	206-44-0	T		U	4.80E-03	8.0E-01		8.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Fluorene	86-73-7	T		U	4.80E-03	8.0E-01		2.9E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Hexachlorobenzene	118-74-1	T		U	9.50E-03	1.0E-03		9.8E-05	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	9.50E-03	5.0E-02		4.1E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Hexachloroethane	67-72-1	T		U	9.50E-03	1.4E-02		3.3E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Isophorone	78-59-1	T		U	9.50E-03	8.2E-01		7.8E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	4.80E-03	2.7E-02		1.1E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	4.80E-03	8.0E-02		3.6E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2-Methylphenol	95-48-7	T		U	9.50E-03	1.0E+00		9.3E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	9.50E-03				
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2-Nitroaniline	88-74-4	T		U	9.50E-03	2.0E-01		1.9E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	3-Nitroaniline	99-09-2	T		U	9.50E-03	3.9E-02		3.8E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	4-Nitroaniline	100-01-6	T		U	9.50E-03	3.9E-02		3.8E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2-Nitrophenol	88-75-5	T		U	9.50E-03				
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	4-Nitrophenol	100-02-7	T		U	9.50E-03				
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	9.50E-03	4.9E-06		1.1E-06	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	9.50E-03	1.6E-01		1.2E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	9.50E-03	1.1E-04		1.1E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	9.50E-03	8.0E-01		7.1E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	9.50E-03	3.0E-03		1.2E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Pentachlorophenol	87-86-5	T		U	9.50E-03	1.0E-03		4.1E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Phenanthrene	85-01-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Phenol	108-95-2	T		U	9.50E-03	6.0E+00		5.8E+00	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Pyrene	129-00-0	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Pyridine	110-86-1	T		U	4.80E-03	2.0E-02		2.0E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	9.50E-03	6.0E-04		1.7E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	9.50E-03	2.0E+00		1.2E+00	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	9.50E-03	2.0E-02		1.2E-02	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	9.50E-03	2.5E-03		2.4E-03	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	9.50E-03	5.2E-04		4.9E-04	
MW-209	HRP-MW209-211028	N	10/28/21	SVOC	Nitrobenzene	98-95-3	T		U	9.50E-03	4.0E-02		1.4E-03	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Aluminum	7429-90-5	D		U	5.00E-02	2.0E+01		2.0E+01	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Aluminum	7429-90-5	T	2.50E-01		5.00E-02	2.0E+01	1.3E-02	2.0E+01	1.3E-02
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Arsenic	7440-38-2	D	7.10E-03		8.00E-04	1.0E-02	7.1E-01	5.2E-04	1.4E+01
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Arsenic	7440-38-2	T	6.90E-03		8.00E-04	1.0E-02	6.9E-01	5.2E-04	1.3E+01
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Barium	7440-39-3	D	1.80E-02		1.00E-02	2.0E+00	9.0E-03	3.8E+00	4.7E-03
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Barium	7440-39-3	T	1.90E-02		1.00E-02	2.0E+00	9.5E-03	3.8E+00	5.0E-03
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Beryllium	7440-41-7	D		U	4.00E-04	4.0E-03		2.5E-02	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Beryllium	7440-41-7	T		U	4.00E-04	4.0E-03		2.5E-02	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Cadmium	7440-43-9	D	5.20E-04		2.00E-04	5.0E-03	1.0E-01	1.8E-03	2.9E-01

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Cadmium	7440-43-9	T	7.80E-04		2.00E-04	5.0E-03	1.6E-01	1.8E-03	4.3E-01
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Chromium (total)	7440-47-3	T		U	1.00E-03	1.0E-01		2.2E+01	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Cobalt	7440-48-4	D	9.70E-02		1.00E-03	6.0E-03	1.6E+01	6.0E-03	1.6E+01
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Cobalt	7440-48-4	T	1.10E-01		1.00E-03	6.0E-03	1.8E+01	6.0E-03	1.8E+01
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Copper	7440-50-8	D	3.60E-03		1.00E-03	1.3E+00	2.8E-03	8.0E-01	4.5E-03
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Copper	7440-50-8	T	6.00E-03		1.00E-03	1.3E+00	4.6E-03	8.0E-01	7.5E-03
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Iron	7439-89-6	D	5.50E+01		5.00E-02	1.4E+01	3.9E+00	1.4E+01	3.9E+00
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Iron	7439-89-6	T	5.50E+01		5.00E-02	1.4E+01	3.9E+00	1.4E+01	3.9E+00
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Lead	7439-92-1	D		U	5.00E-04	1.5E-02		1.5E-02	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Lead	7439-92-1	T	2.00E-04	J	5.00E-04	1.5E-02	1.3E-02	1.5E-02	1.3E-02
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Manganese	7439-96-5	D	9.20E+00		1.00E-03	4.8E-01	1.9E+01	4.3E-01	2.1E+01
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Manganese	7439-96-5	T	9.50E+00		1.00E-03	4.8E-01	2.0E+01	4.3E-01	2.2E+01
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Nickel	7440-02-0	D	3.50E-02		5.00E-03	4.0E-01	8.8E-02	3.9E-01	9.0E-02
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Nickel	7440-02-0	T	3.70E-02		5.00E-03	4.0E-01	9.3E-02	3.9E-01	9.5E-02
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Selenium	7782-49-2	D		U	5.00E-03	5.0E-02		1.0E-01	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Selenium	7782-49-2	T	9.40E-04	J	5.00E-03	5.0E-02	1.9E-02	1.0E-01	9.4E-03
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Silver	7440-22-4	T		U	2.00E-04	1.0E-01		9.4E-02	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Zinc	7440-66-6	D	3.00E-02		1.00E-02	6.0E+00	5.0E-03	6.0E+00	5.0E-03
MW-209	HRP-MW209-211028	N	10/28/21	INORG	Zinc	7440-66-6	T	2.90E-02		1.00E-02	6.0E+00	4.8E-03	6.0E+00	4.8E-03
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Acetone	67-64-1	T	3.40E-03	J	5.00E-02	1.8E+01	1.9E-04	1.8E+01	1.9E-04
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-214	HRP-MW214-211026	N	10/26/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Acenaphthene	83-32-9	T		U	4.80E-03	1.2E+00		5.3E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Acenaphthylene	208-96-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Acetophenone	98-86-2	T		U	9.60E-03	2.0E+00		1.9E+00	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Aniline	62-53-3	T		U	4.80E-03	1.4E-01		1.3E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Anthracene	120-12-7	T		U	4.80E-03	6.0E+00		1.8E+00	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Benzidine	92-87-5	T		U	1.90E-02	1.1E-06		1.1E-06	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	4.80E-03	2.5E-03		3.0E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	4.80E-03	2.0E-04		2.5E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	4.80E-03	2.5E-02		2.5E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Benzoic Acid	65-85-0	T		U	9.60E-03	8.0E+01		7.5E+01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	9.60E-03	6.0E-02		5.9E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	9.60E-03	7.1E-04		1.4E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	9.60E-03	6.0E-03		5.6E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	9.60E-03				
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	9.60E-03	4.1E-01		1.6E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Carbazole	86-74-8	T		U	9.60E-03	8.0E-01		2.9E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	9.60E-03	2.0E+00		1.4E+00	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	4-Chloroaniline	106-47-8	T		U	9.60E-03	3.9E-03		3.7E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	9.60E-03	1.6E+00		7.5E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2-Chlorophenol	95-57-8	T		U	9.60E-03	1.0E-01		9.1E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	9.60E-03				
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Chrysene	218-01-9	T		U	4.80E-03	2.5E-01		2.5E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	4.80E-03	2.5E-04		2.5E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Dibenzofuran	132-64-9	T		U	4.80E-03	2.0E-02		7.9E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	9.60E-03	1.7E-03		1.3E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	9.60E-03	6.0E-02		4.6E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Diethylphthalate	84-66-2	T		U	9.60E-03	1.6E+01		1.5E+01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	9.60E-03	4.0E-01		3.6E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Dimethylphthalate	131-11-3	T		U	9.60E-03	1.6E+01		1.5E+01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	9.60E-03	2.0E+00		9.0E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	9.60E-03	1.6E-03		1.5E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	9.60E-03	4.0E-02		3.9E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	9.60E-03	2.0E-01		2.0E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	9.60E-03	9.7E-04		7.8E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Fluoranthene	206-44-0	T		U	4.80E-03	8.0E-01		8.0E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Fluorene	86-73-7	T		U	4.80E-03	8.0E-01		2.9E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Hexachlorobenzene	118-74-1	T		U	9.60E-03	1.0E-03		9.8E-05	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	9.60E-03	5.0E-02		4.1E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Hexachloroethane	67-72-1	T		U	9.60E-03	1.4E-02		3.3E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.80E-03	2.5E-03		2.5E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Isophorone	78-59-1	T		U	9.60E-03	8.2E-01		7.8E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	4.80E-03	2.7E-02		1.1E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	4.80E-03	8.0E-02		3.6E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2-Methylphenol	95-48-7	T		U	9.60E-03	1.0E+00		9.3E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	9.60E-03				
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2-Nitroaniline	88-74-4	T		U	9.60E-03	2.0E-01		1.9E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	3-Nitroaniline	99-09-2	T		U	9.60E-03	3.9E-02		3.8E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	4-Nitroaniline	100-01-6	T		U	9.60E-03	3.9E-02		3.8E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2-Nitrophenol	88-75-5	T		U	9.60E-03				
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	4-Nitrophenol	100-02-7	T		U	9.60E-03				
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	9.60E-03	4.9E-06		1.1E-06	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	9.60E-03	1.6E-01		1.2E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	9.60E-03	1.1E-04		1.1E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	9.60E-03	8.0E-01		7.1E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	9.60E-03	3.0E-03		1.2E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Pentachlorophenol	87-86-5	T		U	9.60E-03	1.0E-03		4.1E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Phenanthrene	85-01-8	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Phenol	108-95-2	T		U	9.60E-03	6.0E+00		5.8E+00	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Pyrene	129-00-0	T		U	4.80E-03	6.0E-01		1.2E-01	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Pyridine	110-86-1	T		U	4.80E-03	2.0E-02		2.0E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	9.60E-03	6.0E-04		1.7E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	9.60E-03	2.0E+00		1.2E+00	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	9.60E-03	2.0E-02		1.2E-02	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	9.60E-03	2.5E-03		2.4E-03	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	9.60E-03	5.2E-04		4.9E-04	
MW-214	HRP-MW214-211026	N	10/26/21	SVOC	Nitrobenzene	98-95-3	T		U	9.60E-03	4.0E-02		1.4E-03	
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Aluminum	7429-90-5	D	2.00E+00		5.00E-02	2.0E+01	1.0E-01	2.0E+01	1.0E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Aluminum	7429-90-5	T	2.20E+00		5.00E-02	2.0E+01	1.1E-01	2.0E+01	1.1E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Arsenic	7440-38-2	D	5.40E-03		8.00E-04	1.0E-02	5.4E-01	5.2E-04	1.0E+01

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Arsenic	7440-38-2	T	5.10E-03		8.00E-04	1.0E-02	5.1E-01	5.2E-04	9.8E+00
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Barium	7440-39-3	D	4.00E-02		1.00E-02	2.0E+00	2.0E-02	3.8E+00	1.1E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Barium	7440-39-3	T	4.20E-02		1.00E-02	2.0E+00	2.1E-02	3.8E+00	1.1E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Beryllium	7440-41-7	D	1.70E-03		4.00E-04	4.0E-03	4.3E-01	2.5E-02	6.8E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Beryllium	7440-41-7	T	1.60E-03		4.00E-04	4.0E-03	4.0E-01	2.5E-02	6.4E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Cadmium	7440-43-9	D	7.70E-03		2.00E-04	5.0E-03	1.5E+00	1.8E-03	4.3E+00
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Cadmium	7440-43-9	T	7.20E-03		2.00E-04	5.0E-03	1.4E+00	1.8E-03	4.0E+00
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Chromium (total)	7440-47-3	T	1.40E-03		1.00E-03	1.0E-01	1.4E-02	2.2E+01	6.4E-05
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Cobalt	7440-48-4	D	8.30E-01		1.00E-01	6.0E-03	1.4E+02	6.0E-03	1.4E+02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Cobalt	7440-48-4	T	7.80E-01		1.00E-02	6.0E-03	1.3E+02	6.0E-03	1.3E+02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Copper	7440-50-8	D	1.60E-02		1.00E-03	1.3E+00	1.2E-02	8.0E-01	2.0E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Copper	7440-50-8	T	1.20E-02		1.00E-03	1.3E+00	9.2E-03	8.0E-01	1.5E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Iron	7439-89-6	D	3.10E-01		5.00E-02	1.4E+01	2.2E-02	1.4E+01	2.2E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Iron	7439-89-6	T	7.30E-01		5.00E-02	1.4E+01	5.2E-02	1.4E+01	5.2E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Lead	7439-92-1	D	1.50E-03		5.00E-04	1.5E-02	1.0E-01	1.5E-02	1.0E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Lead	7439-92-1	T	1.70E-03		5.00E-04	1.5E-02	1.1E-01	1.5E-02	1.1E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Manganese	7439-96-5	D	2.60E+01		1.00E-01	4.8E-01	5.4E+01	4.3E-01	6.0E+01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Manganese	7439-96-5	T	2.60E+01		1.00E-01	4.8E-01	5.4E+01	4.3E-01	6.0E+01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Mercury	7439-97-6	D	1.10E-04	J	2.00E-04	2.0E-03	5.5E-02	5.7E-04	1.9E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Mercury	7439-97-6	T	3.30E-04		2.00E-04	2.0E-03	1.7E-01	5.7E-04	5.8E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Nickel	7440-02-0	D	1.90E-01	B	5.00E-03	4.0E-01	4.8E-01	3.9E-01	4.9E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Nickel	7440-02-0	T	1.90E-01		5.00E-03	4.0E-01	4.8E-01	3.9E-01	4.9E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Selenium	7782-49-2	D	1.80E-02		5.00E-03	5.0E-02	3.6E-01	1.0E-01	1.8E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Selenium	7782-49-2	T	1.80E-02		5.00E-03	5.0E-02	3.6E-01	1.0E-01	1.8E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Silver	7440-22-4	T	4.30E-05	J	2.00E-04	1.0E-01	4.3E-04	9.4E-02	4.6E-04
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Thallium	7440-28-0	D	8.80E-05	J	2.00E-04	2.0E-03	4.4E-02	2.0E-04	4.4E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Thallium	7440-28-0	T	9.70E-05	J	2.00E-04	2.0E-03	4.9E-02	2.0E-04	4.9E-01
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Zinc	7440-66-6	D	3.50E-01		1.00E-02	6.0E+00	5.8E-02	6.0E+00	5.8E-02
MW-214	HRP-MW214-211026	N	10/26/21	INORG	Zinc	7440-66-6	T	3.80E-01		1.00E-02	6.0E+00	6.3E-02	6.0E+00	6.3E-02
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Bromomethane	74-83-9	T		U	2.00E-03	2.8E-02		7.5E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-221	HRP-MW221-211027	N	10/27/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	p-Cymene	99-87-6	T	2.20E-03		1.00E-03				
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,1-Dichloroethene	75-35-4	T	3.70E-04	J	1.00E-03	7.0E-03	5.3E-02	2.8E-01	1.3E-03
MW-221	HRP-MW221-211027	N	10/27/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
MW-221	HRP-MW221-211027	N	10/27/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Acenaphthene	83-32-9	T	7.80E-04	J	5.30E-03	1.2E+00	6.5E-04	5.3E-01	1.5E-03
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Acenaphthylene	208-96-8	T		U	5.30E-03	6.0E-01		1.2E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Aniline	62-53-3	T		U	5.30E-03	1.4E-01		1.3E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Anthracene	120-12-7	T		U	5.30E-03	6.0E+00		1.8E+00	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Benzydine	92-87-5	T		U	2.10E-02	1.1E-06		1.1E-06	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.30E-03	2.5E-03		3.0E-04	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.30E-03	2.0E-04		2.5E-04	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.30E-03	2.5E-03		2.5E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.30E-03	6.0E-01		1.2E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.30E-03	2.5E-02		2.5E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Benzoic Acid	65-85-0	T		U	1.10E-02	8.0E+01		7.5E+01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.10E-02	6.0E-02		5.9E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.10E-02	7.1E-04		1.4E-04	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.10E-02				
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.10E-02	4.1E-01		1.6E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Carbazole	86-74-8	T		U	1.10E-02	8.0E-01		2.9E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.10E-02	2.0E+00		1.4E+00	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.10E-02	1.6E+00		7.5E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.10E-02	1.0E-01		9.1E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.10E-02				
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Chrysene	218-01-9	T		U	5.30E-03	2.5E-01		2.5E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.30E-03	2.5E-04		2.5E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Dibenzofuran	132-64-9	T		U	5.30E-03	2.0E-02		7.9E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.10E-02	6.0E-02		4.6E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Diethylphthalate	84-66-2	T		U	1.10E-02	1.6E+01		1.5E+01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.10E-02	1.6E+01		1.5E+01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.10E-02	2.0E+00		9.0E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.10E-02	1.6E-03		1.5E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.10E-02	4.0E-02		3.9E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.10E-02	9.7E-04		7.8E-04	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Fluoranthene	206-44-0	T		U	5.30E-03	8.0E-01		8.0E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Fluorene	86-73-7	T		U	5.30E-03	8.0E-01		2.9E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.10E-02	1.0E-03		9.8E-05	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Hexachloroethane	67-72-1	T		U	1.10E-02	1.4E-02		3.3E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.30E-03	2.5E-03		2.5E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Isophorone	78-59-1	T		U	1.10E-02	8.2E-01		7.8E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.30E-03	2.7E-02		1.1E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.30E-03	8.0E-02		3.6E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2-Methylphenol	95-48-7	T		U	1.10E-02	1.0E+00		9.3E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	1.10E-02				
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.10E-02	2.0E-01		1.9E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.10E-02	3.9E-02		3.8E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.10E-02	3.9E-02		3.8E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.10E-02				
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.10E-02	4.9E-06		1.1E-06	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.10E-02	1.6E-01		1.2E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.10E-02	1.1E-04		1.1E-04	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.10E-02	8.0E-01		7.1E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.10E-02	3.0E-03		1.2E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.10E-02	1.0E-03		4.1E-04	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Phenanthrene	85-01-8	T		U	5.30E-03	6.0E-01		1.2E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Phenol	108-95-2	T		U	1.10E-02	6.0E+00		5.8E+00	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Pyrene	129-00-0	T		U	5.30E-03	6.0E-01		1.2E-01	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Pyridine	110-86-1	T		U	5.30E-03	2.0E-02		2.0E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.10E-02	6.0E-04		1.7E-04	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.10E-02	2.0E+00		1.2E+00	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.10E-02	2.0E-02		1.2E-02	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.10E-02	2.5E-03		2.4E-03	
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.10E-02	5.2E-04		4.9E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-221	HRP-MW221-211027	N	10/27/21	SVOC	Nitrobenzene	98-95-3	T		U	1.10E-02	4.0E-02		1.4E-03	
MW-25	MW-25/RW-25_02/19/20	N	02/19/20	INORG	Iron	7439-89-6	T	2.75E+01		2.00E+00	1.4E+01	2.0E+00	1.4E+01	2.0E+00
MW-25	MW-25/RW-25_02/19/20	N	02/19/20	INORG	Manganese	7439-96-5	T	2.88E+00		1.00E-02	4.8E-01	6.0E+00	4.3E-01	6.7E+00
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Acetone	67-64-1	T	3.00E-03	J	2.00E-02	1.8E+01	1.7E-04	1.8E+01	1.7E-04
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-25	MW/RW-25_05/11/20	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-25	MW-25/RW-25_05/11/20	N	05/11/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Barium	7440-39-3	T	2.94E-02		5.00E-03	2.0E+00	1.5E-02	3.8E+00	7.7E-03
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Cobalt	7440-48-4	T	1.98E-02		5.00E-03	6.0E-03	3.3E+00	6.0E-03	3.3E+00
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Iron	7439-89-6	T	2.20E+01		2.00E+00	1.4E+01	1.6E+00	1.4E+01	1.6E+00
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Manganese	7439-96-5	T	2.39E+00		1.00E-02	4.8E-01	5.0E+00	4.3E-01	5.6E+00
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Mercury	7439-97-6	T	6.00E-05	J	2.00E-04	2.0E-03	3.0E-02	5.7E-04	1.1E-01
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Nickel	7440-02-0	T	1.40E-02		1.00E-02	4.0E-01	3.5E-02	3.9E-01	3.6E-02
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
MW-25	MW/RW-25_05/11/20	N	05/11/20	INORG	Zinc	7440-66-6	T	9.50E-03	J	2.00E-02	6.0E+00	1.6E-03	6.0E+00	1.6E-03
MW-25	410-33859-1_MW-25	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.20E-04	6.5E-03		1.2E-03	
MW-25	MW-25-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.10E-04	6.5E-03		1.2E-03	
MW-25	HRP-MW25-211028	N	10/28/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-25	HRP-MW-25-220504	N	05/04/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-25	HRP-MW25-221019	N	10/19/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Acetone	67-64-1	T		U	1.00E-01	1.8E+01		1.8E+01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Benzene	71-43-2	T	1.00E-03	J	5.00E-03	5.0E-03	2.0E-01	4.6E-03	2.2E-01
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-03	8.0E-02		1.3E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Bromoform	75-25-2	T		U	2.50E-02	8.0E-02		3.3E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Bromomethane	74-83-9	T		U	5.00E-03	2.8E-02		7.5E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	2-Butanone	78-93-3	T		U	5.00E-02	1.2E+01		5.6E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Carbon Disulfide	75-15-0	T		U	2.50E-02	2.0E+00		8.1E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Chlorobenzene	108-90-7	T		U	5.00E-03	1.0E-01		7.8E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Chloroethane	75-00-3	T		U	5.00E-03			8.3E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Chloroform	67-66-3	T		U	5.00E-03	8.0E-02		2.2E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Chloromethane	74-87-3	T		U	5.00E-03			1.9E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Cumene	98-82-8	T		U	2.50E-02	2.0E+00		4.5E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Cyclohexane	110-82-7	T		U	2.50E-02			1.3E+01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	2.50E-02	2.0E-04		3.3E-06	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-03	8.0E-02		8.7E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-03	5.0E-05		7.5E-05	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	2.50E-02	6.0E-01		3.0E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	2.50E-02	1.4E-01		4.8E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	2.50E-02	7.5E-02		4.8E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	5.00E-03	4.0E+00		2.0E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethane	75-34-3	T		U	5.00E-03	1.4E-01		2.8E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.50E-02	5.0E-03		1.7E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethene	75-35-4	T		U	5.00E-03	7.0E-03		2.8E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	5.00E-03	7.0E-02		2.5E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	5.00E-03	1.0E-01		6.8E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,2-Dichloropropane	78-87-5	T		U	5.00E-03	5.0E-03		8.2E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-03	7.8E-03		4.7E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Ethyl Benzene	100-41-4	T		U	5.00E-03	7.0E-01		1.5E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	2-Hexanone	591-78-6	T		U	5.00E-02	1.0E-01		3.8E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Methyl Acetate	79-20-9	T		U	2.50E-02	2.0E+01		2.0E+01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	5.00E-03	4.3E-01		1.4E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	5.00E-02			6.3E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Methylcyclohexane	108-87-2	T		U	2.50E-02			1.3E+01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Styrene	100-42-5	T		U	2.50E-02	1.0E-01		1.2E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-03	3.9E-03		7.6E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Tetrachloroethene	127-18-4	T		U	5.00E-03	5.0E-03		4.1E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Toluene	108-88-3	T		U	5.00E-03	1.0E+00		1.1E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	2.50E-02	7.0E-02		4.0E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	5.00E-03	2.0E-01		8.0E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	5.00E-03	5.0E-03		4.1E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Trichloroethene	79-01-6	T		U	5.00E-03	5.0E-03		2.8E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Trichlorofluoromethane	75-69-4	T		U	5.00E-03	6.0E+00		5.2E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	5.00E-02	6.0E+02		1.0E+01	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Vinyl Chloride	75-01-4	T		U	5.00E-03	2.0E-03		1.9E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	VOC	Xylenes (total)	1330-20-7	T		U	2.50E-02	1.0E+01		1.9E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Benzaldehyde	100-52-7	T		U	1.10E-02	1.9E-01		1.9E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-02	9.7E-02		8.3E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.20E-02	6.0E-03		5.6E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Caprolactam	105-60-2	T		U	1.20E-02	1.0E+01		9.9E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.20E-02	1.6E-03		1.5E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.20E-02	4.0E-02		3.9E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.20E-02	2.0E-01		2.0E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.20E-02	5.0E-02		4.1E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.20E-02				
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Pyrene	129-00-0	T	9.00E-04		5.00E-04	6.0E-01	1.5E-03	1.2E-01	7.5E-03
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Barium	7440-39-3	T	2.04E-01		5.00E-03	2.0E+00	1.0E-01	3.8E+00	5.4E-02
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Cadmium	7440-43-9	T	1.60E-03	J	5.00E-03	5.0E-03	3.2E-01	1.8E-03	8.9E-01
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Cobalt	7440-48-4	T	1.82E-02		5.00E-03	6.0E-03	3.0E+00	6.0E-03	3.0E+00
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Nickel	7440-02-0	T	1.41E-02		1.00E-02	4.0E-01	3.5E-02	3.9E-01	3.6E-02
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Vanadium	7440-62-2	T	7.40E-03	J	1.00E-02	1.0E-01	7.4E-02	8.6E-02	8.6E-02
MW-25S	MW-25S_05/14/20	N	05/14/20	INORG	Zinc	7440-66-6	T	1.14E-01		2.00E-02	6.0E+00	1.9E-02	6.0E+00	1.9E-02
MW-25S	410-33859-1_MW-25S	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.20E-04	6.5E-03		1.2E-03	
MW-25S	MW-25S-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.10E-04	6.5E-03		1.2E-03	
MW-25S	HRP-MW25S-211028	N	10/28/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-25S	HRP-MW-25S-220504	N	05/04/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-25S	HRP-MW25S-221019	N	10/19/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-27	MW-27_02/17/20	N	02/17/20	INORG	Iron	7439-89-6	T	8.24E+01		5.00E+00	1.4E+01	5.9E+00	1.4E+01	5.9E+00
MW-27	MW-27_02/17/20	N	02/17/20	INORG	Manganese	7439-96-5	T	1.33E+01		1.00E-02	4.8E-01	2.8E+01	4.3E-01	3.1E+01
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-27	MW-27_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	7.00E-04		5.00E-04	1.2E+00	5.8E-04	5.3E-01	1.3E-03
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T	9.00E-04		5.00E-04	8.0E-01	1.1E-03	2.9E-01	3.1E-03
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-27	MW-27_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	3.35E-02		5.00E-03	2.0E+00	1.7E-02	3.8E+00	8.8E-03
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T	1.60E-03	J	5.00E-03	5.0E-03	3.2E-01	1.8E-03	8.9E-01
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T	8.78E-02		5.00E-03	6.0E-03	1.5E+01	6.0E-03	1.5E+01
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Iron	7439-89-6	T	8.30E+01		5.00E+00	1.4E+01	5.9E+00	1.4E+01	5.9E+00

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02	3.3E+01	1.5E-02	3.6E+01
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Manganese	7439-96-5	T	1.56E+01		1.00E-02	4.8E-01		4.3E-01	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	6.14E-02		1.00E-02	4.0E-01	1.5E-01	3.9E-01	1.6E-01
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	1.50E-01	2.0E-03		2.0E-04	
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T	8.50E-03	J	1.00E-02	1.0E-01	8.5E-02	8.6E-02	9.9E-02
MW-27	MW-27_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T	1.02E-02	J	2.00E-02	6.0E+00	1.7E-03	6.0E+00	1.7E-03
MW-27	410-33562-1_MW-27 NAP	N	03/24/21	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
MW-27	MW-27 NAP-03242021	N	03/24/21	SVOC	Naphthalene	91-20-3	T		U	6.30E-05	6.5E-03		1.2E-03	
MW-27	HRP-MW27-211027	N	10/27/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-27	HRP-MW-27-220502	N	05/02/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-27	HRP-MW27-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	6.00E-04		5.00E-04	1.2E+00	5.0E-04	5.3E-01	1.1E-03
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T	2.00E-04	J	5.00E-04	8.0E-01	2.5E-04	8.0E-01	2.5E-04
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T	3.00E-04	J	5.00E-04	8.0E-01	3.8E-04	2.9E-01	1.0E-03
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T	3.00E-04	J	5.00E-04	6.0E-01	5.0E-04	1.2E-01	2.5E-03
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	6.86E-02		5.00E-03	2.0E+00	3.4E-02	3.8E+00	1.8E-02
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T	2.30E-03	J	1.50E-02	1.0E-01	2.3E-02	2.2E+01	1.0E-04
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T	8.60E-03		5.00E-03	6.0E-03	1.4E+00	6.0E-03	1.4E+00
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	2.53E-02		1.00E-02	4.0E-01	6.3E-02	3.9E-01	6.5E-02
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T	2.70E-03	J	1.00E-02	1.0E-01	2.7E-02	8.6E-02	3.1E-02
MW-31	MW-31/RW-31_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T	4.70E-03	J	2.00E-02	6.0E+00	7.8E-04	6.0E+00	7.8E-04
MW-31	410-33562-1_MW-31 NAP	N	03/24/21	SVOC	Naphthalene	91-20-3	T		U	1.80E-04	6.5E-03		1.2E-03	
MW-31	MW-31 NAP-03242021	N	03/24/21	SVOC	Naphthalene	91-20-3	T		U	6.80E-05	6.5E-03		1.2E-03	
MW-33	HRP-MW33-211101	N	11/01/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
MW-33	HRP-MW33-221017	N	10/17/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
MW-51	MW-51/RW-51_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	1.04E+02		1.00E+01	1.4E+01	7.4E+00	1.4E+01	7.4E+00
MW-51	MW-51/RW-51_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	3.53E+01		5.00E-02	4.8E-01	7.4E+01	4.3E-01	8.2E+01
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Benzene	71-43-2	T	6.00E-04	J	1.00E-03	5.0E-03	1.2E-01	4.6E-03	1.3E-01
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Cumene	98-82-8	T	1.00E-03	J	5.00E-03	2.0E+00	5.0E-04	4.5E-01	2.2E-03
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Ethyl Benzene	100-41-4	T	1.00E-03		1.00E-03	7.0E-01	1.4E-03	1.5E-02	6.7E-02
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Methylcyclohexane	108-87-2	T	3.00E-04	J	5.00E-03			1.3E+01	2.3E-05
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03	5.0E-05	1.9E-04	2.6E-03
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	VOC	Xylenes (total)	1330-20-7	T	5.00E-04	J	5.00E-03	1.0E+01		1.9E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Carbazole	86-74-8	T	9.00E-04	J	2.00E-03	8.0E-01	1.1E-03	2.9E-01	3.1E-03
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2-Methylnaphthalene	91-57-6	T	6.00E-04		5.00E-04	8.0E-02	7.5E-03	3.6E-02	1.7E-02
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2-Methylphenol	95-48-7	T	8.00E-04	J	2.00E-03	1.0E+00	8.0E-04	9.3E-01	8.6E-04
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	4-Methylphenol	106-44-5	T	6.00E-03		2.00E-03	4.0E-01	1.5E-02	3.7E-01	1.6E-02
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Naphthalene	91-20-3	T	5.00E-03	J	1.00E-02	6.5E-03	7.7E-01	1.2E-03	4.2E+00
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Barium	7440-39-3	T	1.03E-01		5.00E-03	2.0E+00	5.2E-02	3.8E+00	2.7E-02
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Cadmium	7440-43-9	T	2.10E-03	J	5.00E-03	5.0E-03	4.2E-01	1.8E-03	1.2E+00
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Cobalt	7440-48-4	T	2.14E-02		5.00E-03	6.0E-03	3.6E+00	6.0E-03	3.6E+00
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Iron	7439-89-6	T	1.20E+02		1.00E+01	1.4E+01	8.6E+00	1.4E+01	8.6E+00
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Manganese	7439-96-5	T	1.58E+01		1.00E-02	4.8E-01	3.3E+01	4.3E-01	3.7E+01
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Nickel	7440-02-0	T	5.13E-02		1.00E-02	4.0E-01	1.3E-01	3.9E-01	1.3E-01
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Thallium	7440-28-0	T		U	1.50E-01	2.0E-03		2.0E-04	
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Vanadium	7440-62-2	T	8.30E-03	J	1.00E-02	1.0E-01	8.3E-02	8.6E-02	9.7E-02
MW-51	MW-51-RW-51_05/13/20	N	05/13/20	INORG	Zinc	7440-66-6	T		U	2.00E-02	6.0E+00		6.0E+00	
MW-51	410-33859-1_MW-51	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.40E-04	6.5E-03		1.2E-03	
MW-51	MW-51-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.20E-04	6.5E-03		1.2E-03	
MW-51S	MW-51S_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	7.42E+01		5.00E+00	1.4E+01	5.3E+00	1.4E+01	5.3E+00
MW-51S	MW-51S_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	1.37E+00		1.00E-02	4.8E-01	2.9E+00	4.3E-01	3.2E+00
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Acetone	67-64-1	T		U	1.00E-01	1.8E+01		1.8E+01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Benzene	71-43-2	T	2.00E-03	J	5.00E-03	5.0E-03	4.0E-01	4.6E-03	4.3E-01
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-03	8.0E-02		1.3E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Bromoform	75-25-2	T		U	2.50E-02	8.0E-02		3.3E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Bromomethane	74-83-9	T		U	5.00E-03	2.8E-02		7.5E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	2-Butanone	78-93-3	T		U	5.00E-02	1.2E+01		5.6E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Carbon Disulfide	75-15-0	T		U	2.50E-02	2.0E+00		8.1E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Chlorobenzene	108-90-7	T		U	5.00E-03	1.0E-01		7.8E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Chloroethane	75-00-3	T		U	5.00E-03			8.3E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Chloroform	67-66-3	T		U	5.00E-03	8.0E-02		2.2E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Chloromethane	74-87-3	T		U	5.00E-03			1.9E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Cumene	98-82-8	T		U	2.50E-02	2.0E+00		4.5E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Cyclohexane	110-82-7	T		U	2.50E-02			1.3E+01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	2.50E-02	2.0E-04		3.3E-06	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-03	8.0E-02		8.7E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-03	5.0E-05		7.5E-05	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	2.50E-02	6.0E-01		3.0E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	2.50E-02	1.4E-01		4.8E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	2.50E-02	7.5E-02		4.8E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	5.00E-03	4.0E+00		2.0E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,1-Dichloroethane	75-34-3	T		U	5.00E-03	1.4E-01		2.8E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.50E-02	5.0E-03		1.7E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,1-Dichloroethene	75-35-4	T		U	5.00E-03	7.0E-03		2.8E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	5.00E-03	7.0E-02		2.5E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	5.00E-03	1.0E-01		6.8E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,2-Dichloropropane	78-87-5	T		U	5.00E-03	5.0E-03		8.2E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-03	7.8E-03		4.7E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Ethyl Benzene	100-41-4	T		U	5.00E-03	7.0E-01		1.5E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	2-Hexanone	591-78-6	T		U	5.00E-02	1.0E-01		3.8E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Methyl Acetate	79-20-9	T		U	2.50E-02	2.0E+01		2.0E+01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	5.00E-03	4.3E-01		1.4E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	5.00E-02			6.3E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Methylcyclohexane	108-87-2	T		U	2.50E-02			1.3E+01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Styrene	100-42-5	T		U	2.50E-02	1.0E-01		1.2E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-03	3.9E-03		7.6E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Tetrachloroethene	127-18-4	T		U	5.00E-03	5.0E-03		4.1E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Toluene	108-88-3	T		U	5.00E-03	1.0E+00		1.1E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	2.50E-02	7.0E-02		4.0E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	5.00E-03	2.0E-01		8.0E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	5.00E-03	5.0E-03		4.1E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Trichloroethene	79-01-6	T		U	5.00E-03	5.0E-03		2.8E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Trichlorofluoromethane	75-69-4	T		U	5.00E-03	6.0E+00		5.2E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	5.00E-02	6.0E+02		1.0E+01	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Vinyl Chloride	75-01-4	T		U	5.00E-03	2.0E-03		1.9E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	VOC	Xylenes (total)	1330-20-7	T		U	2.50E-02	1.0E+01		1.9E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-51S	MW-51S_05/13/20	N	05/13/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Barium	7440-39-3	T	1.23E-01		5.00E-03	2.0E+00	6.2E-02	3.8E+00	3.2E-02
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Cadmium	7440-43-9	T	1.60E-03	J	5.00E-03	5.0E-03	3.2E-01	1.8E-03	8.9E-01
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Cobalt	7440-48-4	T	4.20E-03	J	5.00E-03	6.0E-03	7.0E-01	6.0E-03	7.0E-01
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Iron	7439-89-6	T	7.87E+01		5.00E+00	1.4E+01	5.6E+00	1.4E+01	5.6E+00
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Manganese	7439-96-5	T	5.79E-01		1.00E-02	4.8E-01	1.2E+00	4.3E-01	1.3E+00
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Nickel	7440-02-0	T	4.20E-03	J	1.00E-02	4.0E-01	1.1E-02	3.9E-01	1.1E-02
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
MW-51S	MW-51S_05/13/20	N	05/13/20	INORG	Zinc	7440-66-6	T	2.79E-02		2.00E-02	6.0E+00	4.7E-03	6.0E+00	4.7E-03
MW-51S	MW-51S_08122020	N	08/12/20	INORG	Iron	7439-89-6	T	1.30E+02	HF	5.00E+00	1.4E+01	9.3E+00	1.4E+01	9.3E+00
MW-51S	MW-51S_08122020	N	08/12/20	INORG	Manganese	7439-96-5	T	4.00E+00		1.00E-02	4.8E-01	8.3E+00	4.3E-01	9.3E+00
MW-51S	410-33859-1 MW-51S	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.20E-04	6.5E-03		1.2E-03	
MW-51S	MW-51S-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.10E-04	6.5E-03		1.2E-03	
MW-72	MW-72/RW-72_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	5.48E+00		5.00E-01	1.4E+01	3.9E-01	1.4E+01	3.9E-01
MW-72	MW-72/RW-72_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	2.97E+01		5.00E-02	4.8E-01	6.2E+01	4.3E-01	6.9E+01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Acetone	67-64-1	T	7.00E-03	J	2.00E-02	1.8E+01	3.9E-04	1.8E+01	3.9E-04
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Benzene	71-43-2	T	4.00E-04	J	1.00E-03	5.0E-03	8.0E-02	4.6E-03	8.7E-02
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Cumene	98-82-8	T	2.00E-03	J	5.00E-03	2.0E+00	1.0E-03	4.5E-01	4.4E-03
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Ethyl Benzene	100-41-4	T	2.00E-03		1.00E-03	7.0E-01	2.9E-03	1.5E-02	1.3E-01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	VOC	Xylenes (total)	1330-20-7	T	6.00E-03		5.00E-03	1.0E+01	6.0E-04	1.9E-01	3.2E-02
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Fluorene	86-73-7	T	3.00E-04	J	5.00E-04	8.0E-01	3.8E-04	2.9E-01	1.0E-03
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2-Methylnaphthalene	91-57-6	T	4.00E-03		5.00E-04	8.0E-02	5.0E-02	3.6E-02	1.1E-01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Naphthalene	91-20-3	T	1.40E-02		1.00E-02	6.5E-03	2.2E+00	1.2E-03	1.2E+01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Barium	7440-39-3	T	1.16E-02		5.00E-03	2.0E+00	5.8E-03	3.8E+00	3.1E-03
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Beryllium	7440-41-7	T	8.90E-03		5.00E-03	4.0E-03	2.2E+00	2.5E-02	3.6E-01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Cadmium	7440-43-9	T	5.00E-03	J	5.00E-03	5.0E-03	1.0E+00	1.8E-03	2.8E+00
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Chromium (total)	7440-47-3	T	6.80E-03	J	1.50E-02	1.0E-01	6.8E-02	2.2E+01	3.1E-04
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Cobalt	7440-48-4	T	4.46E-01		5.00E-03	6.0E-03	7.4E+01	6.0E-03	7.4E+01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Copper	7440-50-8	T	1.49E-02	J	2.00E-02	1.3E+00	1.1E-02	8.0E-01	1.9E-02
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Iron	7439-89-6	T	9.63E+00		5.00E-01	1.4E+01	6.9E-01	1.4E+01	6.9E-01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Lead	7439-92-1	T	1.12E-02	J	1.50E-02	1.5E-02	7.5E-01	1.5E-02	7.5E-01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Manganese	7439-96-5	T	2.65E+01		5.00E-02	4.8E-01	5.5E+01	4.3E-01	6.2E+01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Nickel	7440-02-0	T	1.96E-01		1.00E-02	4.0E-01	4.9E-01	3.9E-01	5.0E-01
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
MW-72	MW-72/RW-72_05/13/20	N	05/13/20	INORG	Zinc	7440-66-6	T	4.22E-01		2.00E-02	6.0E+00	7.0E-02	6.0E+00	7.0E-02
MW-72	410-33859-1 MW-72	N	03/25/21	SVOC	Naphthalene	91-20-3	T	4.00E-03		1.60E-04	6.5E-03	6.2E-01	1.2E-03	3.3E+00
MW-72	MW-72-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T	4.00E-03		6.00E-05	6.5E-03	6.2E-01	1.2E-03	3.3E+00
MW-72S	MW-72S/RW-72S_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	1.53E+02		2.00E+01	1.4E+01	1.1E+01	1.4E+01	1.1E+01
MW-72S	MW-72S/RW-72S_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	1.29E+01		1.00E-02	4.8E-01	2.7E+01	4.3E-01	3.0E+01
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Acetone	67-64-1	T	2.80E-02		2.00E-02	1.8E+01	1.6E-03	1.8E+01	1.6E-03
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Acenaphthene	83-32-9	T		U	6.00E-04	1.2E+00		5.3E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Acenaphthylene	208-96-8	T		U	6.00E-04	6.0E-01		1.2E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Anthracene	120-12-7	T		U	6.00E-04	6.0E+00		1.8E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Atrazine	1912-24-9	T		U	6.00E-03	3.0E-03		3.0E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Benzaldehyde	100-52-7	T		U	1.10E-02	1.9E-01		1.9E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	6.00E-04	2.5E-03		3.0E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	6.00E-04	2.0E-04		2.5E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	6.00E-04	2.5E-03		2.5E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.00E-04	6.0E-01		1.2E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	6.00E-04	2.5E-02		2.5E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-02	9.7E-02		8.3E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.30E-02	6.0E-03		5.6E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	6.00E-03	4.1E-01		1.6E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Caprolactam	105-60-2	T		U	1.30E-02	1.0E+01		9.9E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Chrysene	218-01-9	T		U	6.00E-04	2.5E-01		2.5E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	6.00E-04	2.5E-04		2.5E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Diethylphthalate	84-66-2	T		U	6.00E-03	1.6E+01		1.5E+01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Dimethylphthalate	131-11-3	T		U	6.00E-03	1.6E+01		1.5E+01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	6.00E-03	2.0E+00		9.0E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.40E-02	1.6E-03		1.5E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.40E-02	4.0E-02		3.9E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.30E-02	2.0E-01		2.0E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Fluoranthene	206-44-0	T		U	6.00E-04	8.0E-01		8.0E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Fluorene	86-73-7	T		U	6.00E-04	8.0E-01		2.9E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Hexachlorobenzene	118-74-1	T		U	6.00E-04	1.0E-03		9.8E-05	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.30E-02	5.0E-02		4.1E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Hexachloroethane	67-72-1	T		U	6.00E-03	1.4E-02		3.3E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	6.00E-04	2.5E-03		2.5E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.00E-04	8.0E-02		3.6E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Naphthalene	91-20-3	T		U	6.00E-04	6.5E-03		1.2E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2-Nitroaniline	88-74-4	T		U	8.00E-03	2.0E-01		1.9E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	3-Nitroaniline	99-09-2	T		U	8.00E-03	3.9E-02		3.8E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.40E-02				
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Pentachlorophenol	87-86-5	T		U	6.00E-03	1.0E-03		4.1E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Phenanthrene	85-01-8	T		U	6.00E-04	6.0E-01		1.2E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Pyrene	129-00-0	T		U	6.00E-04	6.0E-01		1.2E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	6.00E-03	2.5E-03		2.4E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Barium	7440-39-3	T	1.02E-02		5.00E-03	2.0E+00	5.1E-03	3.8E+00	2.7E-03
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Beryllium	7440-41-7	T	7.30E-03		5.00E-03	4.0E-03	1.8E+00	2.5E-02	2.9E-01
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Cadmium	7440-43-9	T	4.30E-03	J	5.00E-03	5.0E-03	8.6E-01	1.8E-03	2.4E+00
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Chromium (total)	7440-47-3	T	2.10E-03	J	1.50E-02	1.0E-01	2.1E-02	2.2E+01	9.5E-05
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Cobalt	7440-48-4	T	4.40E-01		5.00E-03	6.0E-03	7.3E+01	6.0E-03	7.3E+01
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Copper	7440-50-8	T	2.02E-02		2.00E-02	1.3E+00	1.6E-02	8.0E-01	2.5E-02
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Iron	7439-89-6	T	7.58E+01		5.00E+00	1.4E+01	5.4E+00	1.4E+01	5.4E+00
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Manganese	7439-96-5	T	1.15E+01		1.00E-02	4.8E-01	2.4E+01	4.3E-01	2.7E+01
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Mercury	7439-97-6	T	6.00E-05	J	2.00E-04	2.0E-03	3.0E-02	5.7E-04	1.1E-01
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Nickel	7440-02-0	T	1.50E-01		1.00E-02	4.0E-01	3.8E-01	3.9E-01	3.8E-01
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
MW-72S	MW-72S_05/13/20	N	05/13/20	INORG	Zinc	7440-66-6	T	4.43E-01		2.00E-02	6.0E+00	7.4E-02	6.0E+00	7.4E-02
MW-72S	MW-72S_08122020	N	08/12/20	INORG	Iron	7439-89-6	T	8.90E+01	HF	2.50E+00	1.4E+01	6.4E+00	1.4E+01	6.4E+00
MW-72S	MW-72S_08122020	N	08/12/20	INORG	Manganese	7439-96-5	T	7.50E+00		1.00E-02	4.8E-01	1.6E+01	4.3E-01	1.7E+01
MW-72S	410-33859-1_MW-72S	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.10E-04	6.5E-03		1.2E-03	
MW-72S	MW-72S-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.00E-04	6.5E-03		1.2E-03	
MW-72S	MW72S-210517	N	05/17/21	SVOC	Naphthalene	91-20-3	T		U	6.80E-05	6.5E-03		1.2E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Acetone	67-64-1	T		U	1.00E-01	1.8E+01		1.8E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Acrylonitrile	107-13-1	T		U	1.00E-02	1.4E-03		5.2E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Benzene	71-43-2	T		U	2.00E-03	5.0E-03		4.6E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Bromobenzene	108-86-1	T		U	2.00E-03	1.6E-01		6.2E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Bromochloromethane	74-97-5	T		U	2.00E-03			8.3E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Bromoform	75-25-2	T		U	2.00E-03	8.0E-02		3.3E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Bromomethane	74-83-9	T		U	1.00E-02	2.8E-02		7.5E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	2-Butanone	78-93-3	T		U	4.00E-02	1.2E+01		5.6E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	n-Butylbenzene	104-51-8	T		U	2.00E-03	1.0E+00		1.0E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	sec-Butylbenzene	135-98-8	T		U	2.00E-03	2.0E+00		2.0E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	tert-Butylbenzene	98-06-6	T		U	2.00E-03	2.0E+00		6.9E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Carbon Disulfide	75-15-0	T		U	1.00E-02	2.0E+00		8.1E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-02	5.0E-03		4.6E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Chlorobenzene	108-90-7	T		U	2.00E-03	1.0E-01		7.8E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Chloroethane	75-00-3	T		U	4.00E-03			8.3E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Chloroform	67-66-3	T		U	4.00E-03	8.0E-02		2.2E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Chloromethane	74-87-3	T		U	4.00E-03			1.9E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	2-Chlorotoluene	95-49-8	T		U	2.00E-03	4.0E-01		2.4E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	4-Chlorotoluene	106-43-4	T		U	2.00E-03	4.0E-01		2.5E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Cumene	98-82-8	T		U	2.00E-03	2.0E+00		4.5E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	p-Cymene	99-87-6	T		U	2.00E-03				
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	1.00E-02	2.0E-04		3.3E-06	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Dibromomethane	74-95-3	T		U	2.00E-03			8.3E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	4.00E-03			1.3E-05	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	2.00E-03	6.0E-01		3.0E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	2.00E-03	1.4E-01		4.8E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	2.00E-03	7.5E-02		4.8E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	4.00E-03	4.0E+00		2.0E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,1-Dichloroethane	75-34-3	T		U	2.00E-03	1.4E-01		2.8E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,1-Dichloroethene	75-35-4	T		U	2.00E-03	7.0E-03		2.8E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	2.00E-03	7.0E-02		2.5E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	2.00E-03	1.0E-01		6.8E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2-Dichloropropane	78-87-5	T		U	2.00E-03	5.0E-03		8.2E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,3-Dichloropropane	142-28-9	T		U	1.00E-03	4.0E-01		3.7E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	2,2-Dichloropropane	594-20-7	T		U	2.00E-03				
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,1-Dichloropropene	563-58-6	T		U	4.00E-03				
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,4-Dioxane	123-91-1	T		U	1.00E-01	7.8E-03		4.6E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Ethanol	64-17-5	T		U	1.00E+01				
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	1.00E-03	2.0E+01		7.0E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-03	7.0E-01		1.5E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Diethyl ether	60-29-7	T		U	4.00E-03	4.0E+00		3.9E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	2-Hexanone	591-78-6	T		U	2.00E-02	1.0E-01		3.8E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Isopropanol	67-63-0	T		U	1.00E+01	4.0E+01		4.1E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Methanol	67-56-1	T		U	1.00E+01	4.0E+01		2.0E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Methyl Acetate	79-20-9	T		U	2.00E-03	2.0E+01		2.0E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-03	4.3E-01		1.4E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	2.00E-02			6.3E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Methylcyclohexane	108-87-2	T		U	2.00E-03			1.3E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Methylene Chloride	75-09-2	T		U	1.00E-02	5.0E-03		1.1E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Diisopropyl ether	108-20-3	T		U	1.00E-03			1.5E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	n-Propylbenzene	103-65-1	T		U	2.00E-03	2.0E+00		6.6E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Styrene	100-42-5	T		U	2.00E-03	1.0E-01		1.2E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	tert-Butyl alcohol	75-65-0	T		U	4.00E-02	1.6E+00		1.5E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	2.00E-03	3.0E-02		5.7E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Tetrachloroethene	127-18-4	T		U	2.00E-03	5.0E-03		4.1E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Tetrahydrofuran	109-99-9	T		U	2.00E-02	1.8E+01		3.4E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Toluene	108-88-3	T		U	2.00E-03	1.0E+00		1.1E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	1.00E-02	1.6E-02		7.0E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	2.00E-03	7.0E-02		4.0E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	2.00E-03				
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	2.00E-03	2.0E-01		8.0E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	2.00E-03	5.0E-03		4.1E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Trichloroethene	79-01-6	T		U	2.00E-03	5.0E-03		2.8E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Trichlorofluoromethane	75-69-4	T		U	4.00E-03	6.0E+00		5.2E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	4.00E-03	8.4E-06		7.5E-06	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	2.00E-03	6.0E+02		1.0E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	2.00E-03	2.0E-01		5.6E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	2.00E-03	2.0E-01		6.0E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Vinyl Chloride	75-01-4	T		U	4.00E-03	2.0E-03		1.9E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	VOC	Xylenes (total)	1330-20-7	T		U	4.00E-03	1.0E+01		1.9E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Acenaphthene	83-32-9	T		U	5.20E-03	1.2E+00		5.3E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Acenaphthylene	208-96-8	T		U	5.20E-03	6.0E-01		1.2E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	1.00E-03				
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Aniline	62-53-3	T		U	5.20E-03	1.4E-01		1.3E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Anthracene	120-12-7	T		U	5.20E-03	6.0E+00		1.8E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Benzidine	92-87-5	T		U	2.10E-02	1.1E-06		1.1E-06	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.20E-03	2.5E-03		3.0E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.20E-03	2.0E-04		2.5E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.20E-03	2.5E-03		2.5E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.20E-03	6.0E-01		1.2E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.20E-03	2.5E-02		2.5E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Benzoic Acid	65-85-0	T		U	1.00E-02	8.0E+01		7.5E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.00E-02	6.0E-02		5.9E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.00E-02	7.1E-04		1.4E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.00E-02	6.0E-03		5.6E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.00E-02				
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.00E-02	4.1E-01		1.6E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Carbazole	86-74-8	T		U	1.00E-02	8.0E-01		2.9E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.00E-02	2.0E+00		1.4E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-02	1.6E+00		7.5E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.00E-02	1.0E-01		9.1E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.00E-02				
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Chrysene	218-01-9	T		U	5.20E-03	2.5E-01		2.5E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.20E-03	2.5E-04		2.5E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Dibenzofuran	132-64-9	T		U	5.20E-03	2.0E-02		7.9E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.00E-02	6.0E-02		4.6E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Diethylphthalate	84-66-2	T		U	1.00E-02	1.6E+01		1.5E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.00E-02	1.6E+01		1.5E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.00E-02	2.0E+00		9.0E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.00E-02	1.6E-03		1.5E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.00E-02	4.0E-02		3.9E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.00E-02	2.0E-01		2.0E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.00E-02	9.7E-04		7.8E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Ethylene Glycol	107-21-1	T		U	1.00E+01	1.6E+01		1.6E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Fluoranthene	206-44-0	T		U	5.20E-03	8.0E-01		8.0E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Fluorene	86-73-7	T		U	5.20E-03	8.0E-01		2.9E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.00E-02	1.0E-03		9.8E-05	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	1.20E-03	1.0E-02		1.4E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.00E-02	5.0E-02		4.1E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Hexachloroethane	67-72-1	T		U	1.00E-02	1.4E-02		3.3E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.20E-03	2.5E-03		2.5E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Isophorone	78-59-1	T		U	1.00E-02	8.2E-01		7.8E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.20E-03	2.7E-02		1.1E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.20E-03	8.0E-02		3.6E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2-Methylphenol	95-48-7	T		U	1.00E-02	1.0E+00		9.3E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	1.00E-02				
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Naphthalene	91-20-3	T		U	4.00E-03	6.5E-03		1.2E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.00E-02	2.0E-01		1.9E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.00E-02	3.9E-02		3.8E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.00E-02	3.9E-02		3.8E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.00E-02				
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.00E-02	4.9E-06		1.1E-06	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.00E-02	1.6E-01		1.2E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.00E-02	1.1E-04		1.1E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.00E-02	8.0E-01		7.1E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.00E-02	3.0E-03		1.2E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.00E-02	1.0E-03		4.1E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Phenanthrene	85-01-8	T		U	5.20E-03	6.0E-01		1.2E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Phenol	108-95-2	T		U	1.00E-02	6.0E+00		5.8E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Propylene glycol	57-55-6	T		U	1.00E+01	4.0E+02		4.0E+02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Pyrene	129-00-0	T		U	5.20E-03	6.0E-01		1.2E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Pyridine	110-86-1	T		U	5.20E-03	2.0E-02		2.0E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.00E-02	6.0E-04		1.7E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.00E-02	2.0E+00		1.2E+00	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.00E-02	2.0E-02		1.2E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.00E-02	2.5E-03		2.4E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.00E-02	5.2E-04		4.9E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	SVOC	Nitrobenzene	98-95-3	T		U	1.00E-02	4.0E-02		1.4E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Aluminum	7429-90-5	D	5.80E-02		5.00E-02	2.0E+01	2.9E-03	2.0E+01	2.9E-03
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Aluminum	7429-90-5	T	8.60E-02		5.00E-02	2.0E+01	4.3E-03	2.0E+01	4.3E-03
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Arsenic	7440-38-2	D	1.40E-03		8.00E-04	1.0E-02	1.4E-01	5.2E-04	2.7E+00
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Arsenic	7440-38-2	T	1.70E-03		8.00E-04	1.0E-02	1.7E-01	5.2E-04	3.3E+00
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Barium	7440-39-3	D	1.30E-02		1.00E-02	2.0E+00	6.5E-03	3.8E+00	3.4E-03
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Barium	7440-39-3	T	1.30E-02		1.00E-02	2.0E+00	6.5E-03	3.8E+00	3.4E-03
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Beryllium	7440-41-7	D	8.30E-05	J	4.00E-04	4.0E-03	2.1E-02	2.5E-02	3.3E-03
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Beryllium	7440-41-7	T	9.90E-05	J	4.00E-04	4.0E-03	2.5E-02	2.5E-02	4.0E-03
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Cadmium	7440-43-9	D	5.00E-05	J	2.00E-04	5.0E-03	1.0E-02	1.8E-03	2.8E-02
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Cadmium	7440-43-9	T	7.90E-05	J	2.00E-04	5.0E-03	1.6E-02	1.8E-03	4.4E-02
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Chromium (total)	7440-47-3	T		U	1.00E-03	1.0E-01		2.2E+01	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Cobalt	7440-48-4	D	9.40E-02		1.00E-03	6.0E-03	1.6E+01	6.0E-03	1.6E+01
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Cobalt	7440-48-4	T	9.50E-02		1.00E-03	6.0E-03	1.6E+01	6.0E-03	1.6E+01
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Copper	7440-50-8	D	3.30E-03		1.00E-03	1.3E+00	2.5E-03	8.0E-01	4.1E-03
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Copper	7440-50-8	T	1.30E-02		1.00E-03	1.3E+00	1.0E-02	8.0E-01	1.6E-02
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Iron	7439-89-6	D	1.90E+02		5.00E-02	1.4E+01	1.4E+01	1.4E+01	1.4E+01
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Iron	7439-89-6	T	1.80E+02		5.00E-02	1.4E+01	1.3E+01	1.4E+01	1.3E+01
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Lead	7439-92-1	D	4.00E-04	J	5.00E-04	1.5E-02	2.7E-02	1.5E-02	2.7E-02
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Lead	7439-92-1	T	1.20E-03		5.00E-04	1.5E-02	8.0E-02	1.5E-02	8.0E-02
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Manganese	7439-96-5	D	4.80E+00		1.00E-03	4.8E-01	1.0E+01	4.3E-01	1.1E+01
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Manganese	7439-96-5	T	4.70E+00		1.00E-03	4.8E-01	9.8E+00	4.3E-01	1.1E+01
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Mercury	7439-97-6	T	6.00E-05	J	1.00E-04	2.0E-03	3.0E-02	5.7E-04	1.1E-01
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Nickel	7440-02-0	D	1.70E-02		5.00E-03	4.0E-01	4.3E-02	3.9E-01	4.4E-02
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Nickel	7440-02-0	T	1.70E-02		5.00E-03	4.0E-01	4.3E-02	3.9E-01	4.4E-02
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Selenium	7782-49-2	D		U	5.00E-03	5.0E-02		1.0E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Selenium	7782-49-2	T		U	5.00E-03	5.0E-02		1.0E-01	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Silver	7440-22-4	T		U	2.00E-04	1.0E-01		9.4E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Zinc	7440-66-6	D	2.70E-02		1.00E-02	6.0E+00	4.5E-03	6.0E+00	4.5E-03
MW-72S	HRP-MW72S-211027	N	10/27/21	INORG	Zinc	7440-66-6	T	2.60E-02		1.00E-02	6.0E+00	4.3E-03	6.0E+00	4.3E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Acetone	67-64-1	T	2.00E-03	J	2.00E-02	1.8E+01	1.1E-04	1.8E+01	1.1E-04
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Benzene	71-43-2	T	3.00E-03		1.00E-03	5.0E-03	6.0E-01	4.6E-03	6.5E-01
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	2-Butanone	78-93-3	T	1.00E-03	J	1.00E-02	1.2E+01	8.3E-05	5.6E+00	1.8E-04
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Cumene	98-82-8	T	8.00E-04	J	5.00E-03	2.0E+00	4.0E-04	4.5E-01	1.8E-03
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T	2.00E-03		1.00E-03	7.0E-01	2.9E-03	1.5E-02	1.3E-01
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Toluene	108-88-3	T	2.00E-04	J	1.00E-03	1.0E+00	2.0E-04	1.1E+00	1.8E-04
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T	2.00E-03	J	5.00E-03	1.0E+01	2.0E-04	1.9E-01	1.1E-02
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Di-n-butylphthalate	84-74-2	T	3.00E-03	J	5.00E-03	2.0E+00	1.5E-03	9.0E-01	3.3E-03
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.20E-02	1.6E-03		1.5E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.10E-02	4.0E-02		3.9E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Fluorene	86-73-7	T	6.00E-04		5.00E-04	8.0E-01	7.5E-04	2.9E-01	2.1E-03
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2-Methylphenol	95-48-7	T	6.00E-04	J	2.00E-03	1.0E+00	6.0E-04	9.3E-01	6.5E-04
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.10E-02				
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Pyrene	129-00-0	T	4.00E-04	J	5.00E-04	6.0E-01	6.7E-04	1.2E-01	3.3E-03
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Barium	7440-39-3	T	1.00E-01		5.00E-03	2.0E+00	5.0E-02	3.8E+00	2.6E-02
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Chromium (total)	7440-47-3	T	2.20E-03	J	1.50E-02	1.0E-01	2.2E-02	2.2E+01	1.0E-04
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Cobalt	7440-48-4	T	5.70E-03		5.00E-03	6.0E-03	9.5E-01	6.0E-03	9.5E-01
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Nickel	7440-02-0	T	2.35E-02		1.00E-02	4.0E-01	5.9E-02	3.9E-01	6.0E-02
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Vanadium	7440-62-2	T	1.45E-02		1.00E-02	1.0E-01	1.5E-01	8.6E-02	1.7E-01
RW-05S	RW-05S_05/11/20	N	05/11/20	INORG	Zinc	7440-66-6	T	1.18E-02	J	2.00E-02	6.0E+00	2.0E-03	6.0E+00	2.0E-03
RW-05S	410-33562-1_RW-05S	N	03/24/21	SVOC	Naphthalene	91-20-3	T	2.50E-03		8.20E-04	6.5E-03	3.8E-01	1.2E-03	2.1E+00
RW-05S	RW-05S-03242021	N	03/24/21	SVOC	Naphthalene	91-20-3	T	2.50E-03		3.10E-04	6.5E-03	3.8E-01	1.2E-03	2.1E+00
RW-05S	RW05S-210519	N	05/19/21	SVOC	Naphthalene	91-20-3	T		UF1	6.10E-05	6.5E-03		1.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-05S	HRP-RW05S-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
RW-05S	HRP-RW-05S-220504	N	05/04/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
RW-05S	HRP-RW05S-221020	N	10/20/22	SVOC	Naphthalene	91-20-3	T		U	5.00E-03	6.5E-03		1.2E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Acetone	67-64-1	T	4.00E-03	J	2.00E-02	1.8E+01	2.2E-04	1.8E+01	2.2E-04
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
RW-1	RW-1_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T		U	1.00E-03	1.2E+00		5.3E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-03	6.0E-01		1.2E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	2.00E-02	2.0E+00		1.9E+00	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	1.00E-03	6.0E+00		1.8E+00	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	1.00E-02	3.0E-03		3.0E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	2.00E-02	1.9E-01		1.9E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-03	2.5E-03		3.0E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-03	2.0E-04		2.5E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.00E-03	2.5E-03		2.5E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-03	6.0E-01		1.2E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-03	2.5E-02		2.5E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-02	9.7E-02		8.3E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	4.00E-03	6.0E-02		5.9E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	4.00E-03	7.1E-04		1.4E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	2.20E-02	6.0E-03		5.6E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	4.00E-03				
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.00E-02	4.1E-01		1.6E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	2.20E-02	1.0E+01		9.9E+00	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	4.00E-03	8.0E-01		2.9E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	7.00E-03	2.0E+00		1.4E+00	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	2.00E-02	3.9E-03		3.7E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	2.00E-03	1.6E+00		7.5E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	4.00E-03	1.0E-01		9.1E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	4.00E-03				
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-03	2.5E-01		2.5E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-03	2.5E-04		2.5E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	4.00E-03	2.0E-02		7.9E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	2.00E-02	1.7E-03		1.3E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	4.00E-03	6.0E-02		4.6E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	1.00E-02	1.6E+01		1.5E+01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	2.00E-02	4.0E-01		3.6E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	1.00E-02	1.6E+01		1.5E+01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.00E-02	2.0E+00		9.0E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	4.20E-02	1.6E-03		1.5E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	6.00E-02	4.0E-02		3.9E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	2.20E-02	2.0E-01		2.0E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-03	8.0E-01		8.0E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T		U	1.00E-03	8.0E-01		2.9E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	1.00E-03	1.0E-03		9.8E-05	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	4.00E-03	1.0E-02		1.4E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	2.20E-02	5.0E-02		4.1E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	1.00E-02	1.4E-02		3.3E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.00E-03	2.5E-03		2.5E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	4.00E-03	8.2E-01		7.8E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-03	8.0E-02		3.6E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	4.00E-03	1.0E+00		9.3E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	4.00E-03	4.0E-01		3.7E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	1.40E-02	2.0E-01		1.9E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	1.40E-02	3.9E-02		3.8E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	6.00E-03	3.9E-02		3.8E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	2.00E-02				
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	6.00E-02				
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	6.00E-03	1.6E-01		1.2E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	6.00E-03	1.1E-04		1.1E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	4.00E-03	8.0E-01		7.1E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	1.00E-02	1.0E-03		4.1E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	1.00E-03	6.0E-01		1.2E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	4.00E-03	6.0E+00		5.8E+00	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T		U	1.00E-03	6.0E-01		1.2E-01	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	4.00E-03	2.0E+00		1.2E+00	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	4.00E-03	2.0E-02		1.2E-02	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.00E-02	2.5E-03		2.4E-03	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	4.00E-03	5.2E-04		4.9E-04	
RW-1	RW-1_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	4.00E-03	4.0E-02		1.4E-03	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	1.77E-01		5.00E-03	2.0E+00	8.9E-02	3.8E+00	4.7E-02
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T		U	5.00E-03	6.0E-03		6.0E-03	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	5.50E-03	J	1.00E-02	4.0E-01	1.4E-02	3.9E-01	1.4E-02
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	1.50E-01	2.0E-03		2.0E-04	
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T	3.20E-03	J	1.00E-02	1.0E-01	3.2E-02	8.6E-02	3.7E-02
RW-1	RW-1_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T	9.10E-03	J	2.00E-02	6.0E+00	1.5E-03	6.0E+00	1.5E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-1	410-33859-1 RW-1	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.50E-04	6.5E-03		1.2E-03	
RW-1	RW-1-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.20E-04	6.5E-03		1.2E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Acetone	67-64-1	T		U	1.00E-01	1.8E+01		1.8E+01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Benzene	71-43-2	T		U	5.00E-03	5.0E-03		4.6E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-03	8.0E-02		1.3E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Bromoform	75-25-2	T		U	2.50E-02	8.0E-02		3.3E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Bromomethane	74-83-9	T		U	5.00E-03	2.8E-02		7.5E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	2-Butanone	78-93-3	T	1.20E-02	J	5.00E-02	1.2E+01	1.0E-03	5.6E+00	2.1E-03
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Carbon Disulfide	75-15-0	T		U	2.50E-02	2.0E+00		8.1E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Chlorobenzene	108-90-7	T		U	5.00E-03	1.0E-01		7.8E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Chloroethane	75-00-3	T		U	5.00E-03			8.3E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Chloroform	67-66-3	T		U	5.00E-03	8.0E-02		2.2E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Chloromethane	74-87-3	T		U	5.00E-03			1.9E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Cumene	98-82-8	T		U	2.50E-02	2.0E+00		4.5E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Cyclohexane	110-82-7	T		U	2.50E-02			1.3E+01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	2.50E-02	2.0E-04		3.3E-06	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-03	8.0E-02		8.7E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-03	5.0E-05		7.5E-05	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	2.50E-02	6.0E-01		3.0E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	2.50E-02	1.4E-01		4.8E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	2.50E-02	7.5E-02		4.8E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	5.00E-03	4.0E+00		2.0E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethane	75-34-3	T		U	5.00E-03	1.4E-01		2.8E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.50E-02	5.0E-03		1.7E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethene	75-35-4	T		U	5.00E-03	7.0E-03		2.8E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	5.00E-03	7.0E-02		2.5E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	5.00E-03	1.0E-01		6.8E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,2-Dichloropropane	78-87-5	T		U	5.00E-03	5.0E-03		8.2E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-03	7.8E-03		4.7E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Ethyl Benzene	100-41-4	T		U	5.00E-03	7.0E-01		1.5E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	2-Hexanone	591-78-6	T		U	5.00E-02	1.0E-01		3.8E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Methyl Acetate	79-20-9	T		U	2.50E-02	2.0E+01		2.0E+01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	5.00E-03	4.3E-01		1.4E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	5.00E-02			6.3E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Methylcyclohexane	108-87-2	T		U	2.50E-02			1.3E+01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Styrene	100-42-5	T		U	2.50E-02	1.0E-01		1.2E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-03	3.9E-03		7.6E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Tetrachloroethene	127-18-4	T		U	5.00E-03	5.0E-03		4.1E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Toluene	108-88-3	T		U	5.00E-03	1.0E+00		1.1E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	2.50E-02	7.0E-02		4.0E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	5.00E-03	2.0E-01		8.0E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	5.00E-03	5.0E-03		4.1E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Trichloroethene	79-01-6	T		U	5.00E-03	5.0E-03		2.8E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Trichlorofluoromethane	75-69-4	T		U	5.00E-03	6.0E+00		5.2E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	5.00E-02	6.0E+02		1.0E+01	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Vinyl Chloride	75-01-4	T		U	5.00E-03	2.0E-03		1.9E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	VOC	Xylenes (total)	1330-20-7	T		U	2.50E-02	1.0E+01		1.9E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.10E-02	4.0E-02		3.9E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.10E-02				
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Pyrene	129-00-0	T	1.00E-03		5.00E-04	6.0E-01	1.7E-03	1.2E-01	8.3E-03
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Barium	7440-39-3	T	4.14E-02		5.00E-03	2.0E+00	2.1E-02	3.8E+00	1.1E-02
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Cadmium	7440-43-9	T	2.70E-03	J	5.00E-03	5.0E-03	5.4E-01	1.8E-03	1.5E+00
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Cobalt	7440-48-4	T	1.72E-01		5.00E-03	6.0E-03	2.9E+01	6.0E-03	2.9E+01
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Copper	7440-50-8	T	3.17E-02		2.00E-02	1.3E+00	2.4E-02	8.0E-01	4.0E-02
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Nickel	7440-02-0	T	6.45E-02		1.00E-02	4.0E-01	1.6E-01	3.9E-01	1.7E-01
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Vanadium	7440-62-2	T	8.60E-03	J	1.00E-02	1.0E-01	8.6E-02	8.6E-02	1.0E-01
RW-116S	RW-116S_05/14/20	N	05/14/20	INORG	Zinc	7440-66-6	T	9.36E-02		2.00E-02	6.0E+00	1.6E-02	6.0E+00	1.6E-02
RW-116S	410-33859-1_RW-116S	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.30E-04	6.5E-03		1.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-116S	RW-116S-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.10E-04	6.5E-03		1.2E-03	
RW-116S	HRP-RW116S-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
RW-116S	HRP-RW116S-221020	N	10/20/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
RW-117S	HRP-RW117S-211103	N	11/03/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
RW-117S	HRP-RW117S-221020	N	10/20/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Acetone	67-64-1	T	1.00E-03	J	2.00E-02	1.8E+01	5.6E-05	1.8E+01	5.6E-05
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Barium	7440-39-3	T	3.20E-02		5.00E-03	2.0E+00	1.6E-02	3.8E+00	8.4E-03
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Cadmium	7440-43-9	T	2.00E-03	J	5.00E-03	5.0E-03	4.0E-01	1.8E-03	1.1E+00
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Chromium (total)	7440-47-3	T	3.10E-03	J	1.50E-02	1.0E-01	3.1E-02	2.2E+01	1.4E-04
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Cobalt	7440-48-4	T	5.15E-01		5.00E-03	6.0E-03	8.6E+01	6.0E-03	8.6E+01
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Copper	7440-50-8	T	1.38E-02	J	2.00E-02	1.3E+00	1.1E-02	8.0E-01	1.7E-02
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Nickel	7440-02-0	T	2.99E-01		1.00E-02	4.0E-01	7.5E-01	3.9E-01	7.7E-01
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Vanadium	7440-62-2	T	4.20E-03	J	1.00E-02	1.0E-01	4.2E-02	8.6E-02	4.9E-02
RW-118S	RW-118S_05/14/20	N	05/14/20	INORG	Zinc	7440-66-6	T	2.21E-01		2.00E-02	6.0E+00	3.7E-02	6.0E+00	3.7E-02
RW-118S	410-33859-1_RW-118S	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	8.20E-04	6.5E-03		1.2E-03	
RW-118S	RW-118S-03252021	N	03/25/21	SVOC	Naphthalene	91-20-3	T		U	3.10E-04	6.5E-03		1.2E-03	
RW-118S	HRP-RW118S-211028	N	10/28/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
RW-118S	HRP-RW118S-221019	N	10/19/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Barium	7440-39-3	T	2.40E-01		5.00E-03	2.0E+00	1.2E-01	3.8E+00	6.3E-02
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Cobalt	7440-48-4	T	3.10E-03	J	5.00E-03	6.0E-03	5.2E-01	6.0E-03	5.2E-01
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Nickel	7440-02-0	T	4.90E-03	J	1.00E-02	4.0E-01	1.2E-02	3.9E-01	1.3E-02
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Vanadium	7440-62-2	T	3.10E-03	J	1.00E-02	1.0E-01	3.1E-02	8.6E-02	3.6E-02
RW-119S	RW-119S_05/14/20	N	05/14/20	INORG	Zinc	7440-66-6	T	7.29E-02		2.00E-02	6.0E+00	1.2E-02	6.0E+00	1.2E-02
RW-119S	410-33562-1_RW-119S	N	03/24/21	SVOC	Naphthalene	91-20-3	T	1.90E-04		1.60E-04	6.5E-03	2.9E-02	1.2E-03	1.6E-01
RW-119S	RW-119S-03242021	N	03/24/21	SVOC	Naphthalene	91-20-3	T	1.90E-04		6.10E-05	6.5E-03	2.9E-02	1.2E-03	1.6E-01
RW-25S	410-33859-1_RW-25S	N	03/26/21	SVOC	Naphthalene	91-20-3	T		U	1.60E-03	6.5E-03		1.2E-03	
RW-25S	RW-25S-03262021	N	03/26/21	SVOC	Naphthalene	91-20-3	T		U	6.20E-04	6.5E-03		1.2E-03	
RW-25S	RW25S-210517	N	05/17/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-05	6.5E-03		1.2E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Acetone	67-64-1	T		U	2.00E-02	1.8E+01		1.8E+01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Bromodichloromethane	75-27-4	T		U	1.00E-03	8.0E-02		1.3E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Bromoform	75-25-2	T		U	5.00E-03	8.0E-02		3.3E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Bromomethane	74-83-9	T		U	1.00E-03	2.8E-02		7.5E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	2-Butanone	78-93-3	T		U	1.00E-02	1.2E+01		5.6E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Carbon Tetrachloride	56-23-5	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Chloroethane	75-00-3	T		U	1.00E-03			8.3E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Chloroform	67-66-3	T		U	1.00E-03	8.0E-02		2.2E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Chloromethane	74-87-3	T		U	1.00E-03			1.9E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Cumene	98-82-8	T		U	5.00E-03	2.0E+00		4.5E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Cyclohexane	110-82-7	T		U	5.00E-03			1.3E+01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Dibromochloromethane	124-48-1	T		U	1.00E-03	8.0E-02		8.7E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,2-Dichlorobenzene	95-50-1	T		U	5.00E-03	6.0E-01		3.0E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,3-Dichlorobenzene	541-73-1	T		U	5.00E-03	1.4E-01		4.8E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,4-Dichlorobenzene	106-46-7	T		U	5.00E-03	7.5E-02		4.8E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Dichlorodifluoromethane	75-71-8	T		U	1.00E-03	4.0E+00		2.0E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	1.00E-03	7.8E-03		4.7E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Methyl Acetate	79-20-9	T		U	5.00E-03	2.0E+01		2.0E+01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Methylcyclohexane	108-87-2	T		U	5.00E-03			1.3E+01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Methylene Chloride	75-09-2	T		U	1.00E-03	5.0E-03		1.1E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Styrene	100-42-5	T		U	5.00E-03	1.0E-01		1.2E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	1.00E-03	3.9E-03		7.6E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	5.00E-03	7.0E-02		4.0E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Trichlorofluoromethane	75-69-4	T		U	1.00E-03	6.0E+00		5.2E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-02	6.0E+02		1.0E+01	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Vinyl Chloride	75-01-4	T		U	1.00E-03	2.0E-03		1.9E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	5.00E-03	1.0E+01		1.9E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T		U	5.00E-04	1.2E+00		5.3E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	5.00E-04	8.0E-01		8.0E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T		U	5.00E-04	8.0E-01		2.9E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	5.00E-04	6.5E-03		1.2E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	2.37E-02		5.00E-03	2.0E+00	1.2E-02	3.8E+00	6.2E-03
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T	2.10E-03	J	1.50E-02	1.0E-01	2.1E-02	2.2E+01	9.5E-05
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T	5.30E-03		5.00E-03	6.0E-03	8.8E-01	6.0E-03	8.8E-01
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	7.80E-03	J	1.00E-02	4.0E-01	2.0E-02	3.9E-01	2.0E-02

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
RW-28S	RW-28S_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T	7.80E-03	J	2.00E-02	6.0E+00	1.3E-03	6.0E+00	1.3E-03
RW-28S	410-33562-1_RW-28S	N	03/24/21	SVOC	Naphthalene	91-20-3	T	1.40E-03		1.70E-04	6.5E-03	2.2E-01	1.2E-03	1.2E+00
RW-28S	RW-28S-03242021	N	03/24/21	SVOC	Naphthalene	91-20-3	T	1.40E-03		6.20E-05	6.5E-03	2.2E-01	1.2E-03	1.2E+00
RW-28S	HRP-RW28S-211027	N	10/27/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
RW-28S	HRP-RW-28S-220502	N	05/02/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
RW-28S	HRP-RW28S-221017	N	10/17/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Acetone	67-64-1	T		U	5.00E-02	1.8E+01		1.8E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Acrylonitrile	107-13-1	T		U	5.00E-03	1.4E-03		5.2E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Bromobenzene	108-86-1	T		U	1.00E-03	1.6E-01		6.2E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Bromochloromethane	74-97-5	T		U	1.00E-03			8.3E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Bromodichloromethane	75-27-4	T		U	5.00E-04	8.0E-02		1.3E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Bromoform	75-25-2	T		U	1.00E-03	8.0E-02		3.3E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Bromomethane	74-83-9	T		U	5.00E-03	2.8E-02		7.5E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	2-Butanone	78-93-3	T		U	2.00E-02	1.2E+01		5.6E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	n-Butylbenzene	104-51-8	T		U	1.00E-03	1.0E+00		1.0E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	sec-Butylbenzene	135-98-8	T		U	1.00E-03	2.0E+00		2.0E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	tert-Butylbenzene	98-06-6	T		U	1.00E-03	2.0E+00		6.9E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Carbon Disulfide	75-15-0	T		U	5.00E-03	2.0E+00		8.1E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Carbon Tetrachloride	56-23-5	T		U	5.00E-03	5.0E-03		4.6E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Chlorobenzene	108-90-7	T		U	1.00E-03	1.0E-01		7.8E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Chloroethane	75-00-3	T		U	2.00E-03			8.3E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Chloroform	67-66-3	T		U	2.00E-03	8.0E-02		2.2E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Chloromethane	74-87-3	T		U	2.00E-03			1.9E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	2-Chlorotoluene	95-49-8	T		U	1.00E-03	4.0E-01		2.4E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	4-Chlorotoluene	106-43-4	T		U	1.00E-03	4.0E-01		2.5E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Cumene	98-82-8	T		U	1.00E-03	2.0E+00		4.5E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	p-Cymene	99-87-6	T		U	1.00E-03				
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2-Dibromo-3-chloropropane	96-12-8	T		U	5.00E-03	2.0E-04		3.3E-06	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Dibromochloromethane	124-48-1	T		U	5.00E-04	8.0E-02		8.7E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2-Dibromoethane	106-93-4	T		U	5.00E-04	5.0E-05		7.5E-05	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Dibromomethane	74-95-3	T		U	1.00E-03			8.3E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	trans-1,4-Dichloro-2-butene	110-57-6	T		U	2.00E-03			1.3E-05	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2-Dichlorobenzene	95-50-1	T		U	1.00E-03	6.0E-01		3.0E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,3-Dichlorobenzene	541-73-1	T		U	1.00E-03	1.4E-01		4.8E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,4-Dichlorobenzene	106-46-7	T		U	1.00E-03	7.5E-02		4.8E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Dichlorodifluoromethane	75-71-8	T		U	2.00E-03	4.0E+00		2.0E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,1-Dichloroethane	75-34-3	T		U	1.00E-03	1.4E-01		2.8E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2-Dichloroethane	107-06-2	T		U	1.00E-03	5.0E-03		1.7E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,1-Dichloroethene	75-35-4	T		U	1.00E-03	7.0E-03		2.8E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	cis-1,2-Dichloroethene	156-59-2	T		U	1.00E-03	7.0E-02		2.5E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	trans-1,2-Dichloroethene	156-60-5	T		U	1.00E-03	1.0E-01		6.8E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2-Dichloropropane	78-87-5	T		U	1.00E-03	5.0E-03		8.2E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,3-Dichloropropane	142-28-9	T		U	5.00E-04	4.0E-01		3.7E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	2,2-Dichloropropane	594-20-7	T		U	1.00E-03				
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,1-Dichloropropene	563-58-6	T		U	2.00E-03				
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,3-Dichloropropene (total)	542-75-6	T		U	5.00E-04	7.8E-03		4.7E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,4-Dioxane	123-91-1	T		U	5.00E-02	7.8E-03		4.6E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Ethanol	64-17-5	T		U	1.00E+01				
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Ethyl tert-butyl ether	637-92-3	T		U	5.00E-04	2.0E+01		7.0E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Diethyl ether	60-29-7	T		U	2.00E-03	4.0E+00		3.9E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	2-Hexanone	591-78-6	T		U	1.00E-02	1.0E-01		3.8E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Isopropanol	67-63-0	T		U	1.00E+01	4.0E+01		4.1E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Methanol	67-56-1	T		U	1.00E+01	4.0E+01		2.0E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Methyl Acetate	79-20-9	T		U	1.00E-03	2.0E+01		2.0E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	4-Methyl-2-pentanone	108-10-1	T		U	1.00E-02			6.3E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Methylcyclohexane	108-87-2	T		U	1.00E-03			1.3E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Methylene Chloride	75-09-2	T		U	5.00E-03	5.0E-03		1.1E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Diisopropyl ether	108-20-3	T		U	5.00E-04			1.5E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	n-Propylbenzene	103-65-1	T		U	1.00E-03	2.0E+00		6.6E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Styrene	100-42-5	T		U	1.00E-03	1.0E-01		1.2E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.00E-02	1.6E+00		1.5E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,1,1,2-Tetrachloroethane	630-20-6	T		U	1.00E-03	3.0E-02		5.7E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,1,2,2-Tetrachloroethane	79-34-5	T		U	5.00E-04	3.9E-03		7.6E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Tetrachloroethene	127-18-4	T		U	1.00E-03	5.0E-03		4.1E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Tetrahydrofuran	109-99-9	T		U	1.00E-02	1.8E+01		3.4E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2,3-Trichlorobenzene	87-61-6	T		U	5.00E-03	1.6E-02		7.0E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2,4-Trichlorobenzene	120-82-1	T		U	1.00E-03	7.0E-02		4.0E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,3,5-Trichlorobenzene	108-70-3	T		U	1.00E-03				
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,1,1-Trichloroethane	71-55-6	T		U	1.00E-03	2.0E-01		8.0E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,1,2-Trichloroethane	79-00-5	T		U	1.00E-03	5.0E-03		4.1E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Trichloroethene	79-01-6	T		U	1.00E-03	5.0E-03		2.8E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Trichlorofluoromethane	75-69-4	T		U	2.00E-03	6.0E+00		5.2E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2,3-Trichloropropane	96-18-4	T		U	2.00E-03	8.4E-06		7.5E-06	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	T		U	1.00E-03	6.0E+02		1.0E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,2,4-Trimethylbenzene	95-63-6	T		U	1.00E-03	2.0E-01		5.6E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	1,3,5-Trimethylbenzene	108-67-8	T		U	1.00E-03	2.0E-01		6.0E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Vinyl Chloride	75-01-4	T		U	2.00E-03	2.0E-03		1.9E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	VOC	Xylenes (total)	1330-20-7	T		U	2.00E-03	1.0E+01		1.9E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Acenaphthene	83-32-9	T		U	5.20E-03	1.2E+00		5.3E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Acenaphthylene	208-96-8	T		U	5.20E-03	6.0E-01		1.2E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	t-Amyl methyl ether	994-05-8	T		U	5.00E-04				
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Aniline	62-53-3	T		U	5.20E-03	1.4E-01		1.3E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Anthracene	120-12-7	T		U	5.20E-03	6.0E+00		1.8E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Benzidine	92-87-5	T		U	2.10E-02	1.1E-06		1.1E-06	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.20E-03	2.5E-03		3.0E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.20E-03	2.0E-04		2.5E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.20E-03	2.5E-03		2.5E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.20E-03	6.0E-01		1.2E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.20E-03	2.5E-02		2.5E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Benzoic Acid	65-85-0	T		U	1.00E-02	8.0E+01		7.5E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	1.00E-02	6.0E-02		5.9E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	1.00E-02	7.1E-04		1.4E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.00E-02	6.0E-03		5.6E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	1.00E-02				
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Butylbenzylphthalate	85-68-7	T		U	1.00E-02	4.1E-01		1.6E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Carbazole	86-74-8	T		U	1.00E-02	8.0E-01		2.9E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	1.00E-02	2.0E+00		1.4E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-02	1.6E+00		7.5E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2-Chlorophenol	95-57-8	T		U	1.00E-02	1.0E-01		9.1E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	1.00E-02				
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Chrysene	218-01-9	T		U	5.20E-03	2.5E-01		2.5E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.20E-03	2.5E-04		2.5E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Dibenzofuran	132-64-9	T		U	5.20E-03	2.0E-02		7.9E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2,4-Dichlorophenol	120-83-2	T		U	1.00E-02	6.0E-02		4.6E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Diethylphthalate	84-66-2	T		U	1.00E-02	1.6E+01		1.5E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Dimethylphthalate	131-11-3	T		U	1.00E-02	1.6E+01		1.5E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Di-n-butylphthalate	84-74-2	T		U	1.00E-02	2.0E+00		9.0E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	1.00E-02	1.6E-03		1.5E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2,4-Dinitrophenol	51-28-5	T		U	1.00E-02	4.0E-02		3.9E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.00E-02	2.0E-01		2.0E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	1,2-Diphenylhydrazine	122-66-7	T		U	1.00E-02	9.7E-04		7.8E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Ethylene Glycol	107-21-1	T		U	1.00E+01	1.6E+01		1.6E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Fluoranthene	206-44-0	T		U	5.20E-03	8.0E-01		8.0E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Fluorene	86-73-7	T		U	5.20E-03	8.0E-01		2.9E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Hexachlorobenzene	118-74-1	T		U	1.00E-02	1.0E-03		9.8E-05	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Hexachlorobutadiene	87-68-3	T		U	6.00E-04	1.0E-02		1.4E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.00E-02	5.0E-02		4.1E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Hexachloroethane	67-72-1	T		U	1.00E-02	1.4E-02		3.3E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.20E-03	2.5E-03		2.5E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Isophorone	78-59-1	T		U	1.00E-02	8.2E-01		7.8E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	5.20E-03	2.7E-02		1.1E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.20E-03	8.0E-02		3.6E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2-Methylphenol	95-48-7	T		U	1.00E-02	1.0E+00		9.3E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	3&4-Methylphenol	65794-96-9	T		U	1.00E-02				
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Naphthalene	91-20-3	T		U	2.00E-03	6.5E-03		1.2E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2-Nitroaniline	88-74-4	T		U	1.00E-02	2.0E-01		1.9E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	3-Nitroaniline	99-09-2	T		U	1.00E-02	3.9E-02		3.8E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	4-Nitroaniline	100-01-6	T		U	1.00E-02	3.9E-02		3.8E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	4-Nitrophenol	100-02-7	T		U	1.00E-02				
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	N-Nitrosodimethylamine	62-75-9	T		U	1.00E-02	4.9E-06		1.1E-06	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	1.00E-02	1.6E-01		1.2E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	1.00E-02	1.1E-04		1.1E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	1.00E-02	8.0E-01		7.1E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Pentachloronitrobenzene	82-68-8	T		U	1.00E-02	3.0E-03		1.2E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Pentachlorophenol	87-86-5	T		U	1.00E-02	1.0E-03		4.1E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Phenanthrene	85-01-8	T		U	5.20E-03	6.0E-01		1.2E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Phenol	108-95-2	T		U	1.00E-02	6.0E+00		5.8E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Propylene glycol	57-55-6	T		U	1.00E+01	4.0E+02		4.0E+02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Pyrene	129-00-0	T		U	5.20E-03	6.0E-01		1.2E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Pyridine	110-86-1	T		U	5.20E-03	2.0E-02		2.0E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	T		U	1.00E-02	6.0E-04		1.7E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	1.00E-02	2.0E+00		1.2E+00	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	1.00E-02	2.0E-02		1.2E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	1.00E-02	2.5E-03		2.4E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	1.00E-02	5.2E-04		4.9E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	SVOC	Nitrobenzene	98-95-3	T		U	1.00E-02	4.0E-02		1.4E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Aluminum	7429-90-5	D		U	5.00E-02	2.0E+01		2.0E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Aluminum	7429-90-5	T		U	5.00E-02	2.0E+01		2.0E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Antimony	7440-36-0	D		U	1.00E-03	6.0E-03		7.8E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Antimony	7440-36-0	T		U	1.00E-03	6.0E-03		7.8E-03	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Arsenic	7440-38-2	D	7.10E-04	J	8.00E-04	1.0E-02	7.1E-02	5.2E-04	1.4E+00
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Arsenic	7440-38-2	T	1.20E-03		8.00E-04	1.0E-02	1.2E-01	5.2E-04	2.3E+00
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Barium	7440-39-3	D	4.10E-02		1.00E-02	2.0E+00	2.1E-02	3.8E+00	1.1E-02
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Barium	7440-39-3	T	3.80E-02		1.00E-02	2.0E+00	1.9E-02	3.8E+00	1.0E-02
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Beryllium	7440-41-7	D		U	4.00E-04	4.0E-03		2.5E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Beryllium	7440-41-7	T		U	4.00E-04	4.0E-03		2.5E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Cadmium	7440-43-9	D	7.00E-05	J	2.00E-04	5.0E-03	1.4E-02	1.8E-03	3.9E-02
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Cadmium	7440-43-9	T	8.20E-05	J	2.00E-04	5.0E-03	1.6E-02	1.8E-03	4.6E-02
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Chromium (total)	7440-47-3	D		U	1.00E-03	1.0E-01		2.2E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Chromium (total)	7440-47-3	T		U	1.00E-03	1.0E-01		2.2E+01	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Cobalt	7440-48-4	D	1.60E-02		1.00E-03	6.0E-03	2.7E+00	6.0E-03	2.7E+00
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Cobalt	7440-48-4	T	1.70E-02		1.00E-03	6.0E-03	2.8E+00	6.0E-03	2.8E+00
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Copper	7440-50-8	D	2.10E-03		1.00E-03	1.3E+00	1.6E-03	8.0E-01	2.6E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Copper	7440-50-8	T	2.00E-03		1.00E-03	1.3E+00	1.5E-03	8.0E-01	2.5E-03
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Iron	7439-89-6	D	1.60E+00		5.00E-02	1.4E+01	1.1E-01	1.4E+01	1.1E-01
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Iron	7439-89-6	T	1.50E+00		5.00E-02	1.4E+01	1.1E-01	1.4E+01	1.1E-01
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Lead	7439-92-1	D	5.20E-04		5.00E-04	1.5E-02	3.5E-02	1.5E-02	3.5E-02
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Lead	7439-92-1	T	4.80E-04	J	5.00E-04	1.5E-02	3.2E-02	1.5E-02	3.2E-02
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Manganese	7439-96-5	D	1.80E+00		1.00E-03	4.8E-01	3.8E+00	4.3E-01	4.2E+00
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Manganese	7439-96-5	T	1.70E+00		1.00E-03	4.8E-01	3.5E+00	4.3E-01	4.0E+00
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Mercury	7439-97-6	D		U	1.00E-04	2.0E-03		5.7E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Mercury	7439-97-6	T		U	1.00E-04	2.0E-03		5.7E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Nickel	7440-02-0	D	4.20E-02		5.00E-03	4.0E-01	1.1E-01	3.9E-01	1.1E-01
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Nickel	7440-02-0	T	4.30E-02		5.00E-03	4.0E-01	1.1E-01	3.9E-01	1.1E-01
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Selenium	7782-49-2	D		U	5.00E-03	5.0E-02		1.0E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Selenium	7782-49-2	T		U	5.00E-03	5.0E-02		1.0E-01	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Silver	7440-22-4	D		U	2.00E-04	1.0E-01		9.4E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Silver	7440-22-4	T		U	2.00E-04	1.0E-01		9.4E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Thallium	7440-28-0	D		U	2.00E-04	2.0E-03		2.0E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Thallium	7440-28-0	T		U	2.00E-04	2.0E-03		2.0E-04	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Vanadium	7440-62-2	D		U	5.00E-03	1.0E-01		8.6E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Vanadium	7440-62-2	T		U	5.00E-03	1.0E-01		8.6E-02	
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Zinc	7440-66-6	D	1.30E-02		1.00E-02	6.0E+00	2.2E-03	6.0E+00	2.2E-03
RW-30S	HRP-MW30S-211027	N	10/27/21	INORG	Zinc	7440-66-6	T	9.80E-03	J	1.00E-02	6.0E+00	1.6E-03	6.0E+00	1.6E-03
TW-02	PRG24_TW-02	N	02/18/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-02	TW-02_02/18/20	N	02/18/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-02	PRG24_TW-02	N	02/18/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-02	TW-02_02/18/20	N	02/18/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-02	PRG24_TW-02	N	02/18/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-02	TW-02_02/18/20	N	02/18/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-02	PRG24_TW-02	N	02/18/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-02	TW-02_02/18/20	N	02/18/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-02	PRG24_TW-02	N	02/18/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-02	TW-02_02/18/20	N	02/18/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-02	PRG24_TW-02	N	02/18/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-02	TW-02_02/18/20	N	02/18/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-02	PRG24_TW-02	N	02/18/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-02	TW-02_02/18/20	N	02/18/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-02	PRG24_TW-02	N	02/18/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-02	TW-02_02/18/20	N	02/18/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Acenaphthene	83-32-9	T		U	2.00E-04	1.2E+00		5.3E-01	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Acenaphthene	83-32-9	T		U	2.00E-04	1.2E+00		5.3E-01	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Fluorene	86-73-7	T		U	2.00E-04	8.0E-01		2.9E-01	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Fluorene	86-73-7	T		U	2.00E-04	8.0E-01		2.9E-01	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Naphthalene	91-20-3	T	2.00E-04	J	3.00E-04	6.5E-03	3.1E-02	1.2E-03	1.7E-01
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Naphthalene	91-20-3	T	2.00E-04	J	3.00E-04	6.5E-03	3.1E-02	1.2E-03	1.7E-01
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-02	PRG24_TW-02	N	02/18/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-02	TW-02_02/18/20	N	02/18/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-02	PRG25_TW02	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-02	TW-02_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-02	PRG25_TW02	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-02	TW-02_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-02	PRG25_TW02	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-02	TW-02_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-02	PRG25_TW02	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-02	TW-02_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-02	PRG25_TW02	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-02	TW-02_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-02	PRG25_TW02	N	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-02	TW-02_05/12/20	N	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-02	PRG25_TW02	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-02	TW-02_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-02	PRG25_TW02	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-02	TW-02_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	4.00E-05	J	1.00E-04	1.2E+00	3.3E-05	5.3E-01	7.5E-05
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	4.00E-05	J	1.00E-04	1.2E+00	3.3E-05	5.3E-01	7.5E-05
TW-02	PRG25_TW02	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-02	PRG25_TW02	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Fluoranthene	206-44-0	T	7.00E-05	J	1.00E-04	8.0E-01	8.8E-05	8.0E-01	8.8E-05
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T	7.00E-05	J	1.00E-04	8.0E-01	8.8E-05	8.0E-01	8.8E-05
TW-02	PRG25_TW02	N	05/12/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-02	PRG25_TW02	N	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-02	PRG25_TW02	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	2.00E-04	6.5E-03		1.2E-03	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	2.00E-04	6.5E-03		1.2E-03	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-02	PRG25_TW02	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-02	PRG25_TW02	N	05/12/20	SVOC	Pyrene	129-00-0	T	8.00E-05	J	1.00E-04	6.0E-01	1.3E-04	1.2E-01	6.7E-04
TW-02	TW-02_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T	8.00E-05	J	1.00E-04	6.0E-01	1.3E-04	1.2E-01	6.7E-04
TW-02	TW-02_08/11/20	N	08/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-02	TW-02_08/11/20	N	08/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-02	TW-02_08/11/20	N	08/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-02	TW-02_08/11/20	N	08/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-02	TW-02_08/11/20	N	08/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-02	TW-02_08/11/20	N	08/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-02	TW-02_08/11/20	N	08/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-02	TW-02_08/11/20	N	08/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Acenaphthene	83-32-9	T	1.20E-04		1.10E-04	1.2E+00	1.0E-04	5.3E-01	2.3E-04
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Acenaphthylene	208-96-8	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Anthracene	120-12-7	T		U	1.10E-04	6.0E+00		1.8E+00	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.10E-04	2.5E-03		3.0E-04	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.10E-04	2.0E-04		2.5E-04	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.60E-04	6.0E-01		1.2E-01	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.10E-04	2.5E-02		2.5E-02	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-04	9.7E-02		8.3E-04	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Chrysene	218-01-9	T		U	1.10E-04	2.5E-01		2.5E-01	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.10E-04	2.5E-04		2.5E-04	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Dibenzofuran	132-64-9	T		U	1.10E-04	2.0E-02		7.9E-03	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Fluoranthene	206-44-0	T	1.60E-04	J	1.10E-04	8.0E-01	2.0E-04	8.0E-01	2.0E-04
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Fluorene	86-73-7	T		U	1.10E-04	8.0E-01		2.9E-01	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.10E-04	2.7E-02		1.1E-02	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.60E-04	8.0E-02		3.6E-02	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Naphthalene	91-20-3	T		U	1.80E-04	6.5E-03		1.2E-03	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Phenanthrene	85-01-8	T		U	1.80E-04	6.0E-01		1.2E-01	
TW-02	TW-02_08/11/20	N	08/11/20	SVOC	Pyrene	129-00-0	T	1.60E-04		1.10E-04	6.0E-01	2.7E-04	1.2E-01	1.3E-03
TW-02	410-12267-2383.2_TW02	N	12/08/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-02	TW02-12082020	N	12/08/20	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-02	410-12267-2383.2_TW02	N	12/08/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-02	TW02-12082020	N	12/08/20	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-02	410-12267-2383.2_TW02	N	12/08/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-02	TW02-12082020	N	12/08/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-02	410-12267-2383.2_TW02	N	12/08/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-02	TW02-12082020	N	12/08/20	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-02	410-12267-2383.2_TW02	N	12/08/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-02	TW02-12082020	N	12/08/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-02	410-12267-2383.2_TW02	N	12/08/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-02	TW02-12082020	N	12/08/20	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-02	410-12267-2383.2_TW02	N	12/08/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-02	TW02-12082020	N	12/08/20	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-02	410-12267-2383.2_TW02	N	12/08/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-02	TW02-12082020	N	12/08/20	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Acenaphthene	83-32-9	T	7.30E-05	J	1.10E-04	1.2E+00	6.1E-05	5.3E-01	1.4E-04
TW-02	TW02-12082020	N	12/08/20	SVOC	Acenaphthene	83-32-9	T	7.30E-05	J	2.10E-05	1.2E+00	6.1E-05	5.3E-01	1.4E-04
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Acenaphthylene	208-96-8	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-02	TW02-12082020	N	12/08/20	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Anthracene	120-12-7	T	4.80E-05	J	1.10E-04	6.0E+00	8.0E-06	1.8E+00	2.7E-05
TW-02	TW02-12082020	N	12/08/20	SVOC	Anthracene	120-12-7	T	4.80E-05	J	2.10E-05	6.0E+00	8.0E-06	1.8E+00	2.7E-05
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Benzo(a)anthracene	56-55-3	T	4.90E-05	J	1.10E-04	2.5E-03	2.0E-02	3.0E-04	1.6E-01
TW-02	TW02-12082020	N	12/08/20	SVOC	Benzo(a)anthracene	56-55-3	T	4.90E-05	J	2.10E-05	2.5E-03	2.0E-02	3.0E-04	1.6E-01
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Benzo(a)pyrene	50-32-8	T	5.70E-05	J	1.10E-04	2.0E-04	2.9E-01	2.5E-04	2.3E-01
TW-02	TW02-12082020	N	12/08/20	SVOC	Benzo(a)pyrene	50-32-8	T	5.70E-05	J	2.10E-05	2.0E-04	2.9E-01	2.5E-04	2.3E-01
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-02	TW02-12082020	N	12/08/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.50E-05	2.5E-03		2.5E-03	
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-02	TW02-12082020	N	12/08/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-02	TW02-12082020	N	12/08/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.30E-05	6.0E-01		1.2E-01	
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Benzo(k)fluoranthene	207-08-9	T	3.60E-05	J	1.10E-04	2.5E-02	1.4E-03	2.5E-02	1.4E-03
TW-02	TW02-12082020	N	12/08/20	SVOC	Benzo(k)fluoranthene	207-08-9	T	3.60E-05	J	2.10E-05	2.5E-02	1.4E-03	2.5E-02	1.4E-03
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	1,1-Biphenyl	92-52-4	T	4.60E-05	J	1.10E-04	9.7E-02	4.7E-04	8.3E-04	5.5E-02
TW-02	TW02-12082020	N	12/08/20	SVOC	1,1-Biphenyl	92-52-4	T	4.60E-05	J	4.20E-05	9.7E-02	4.7E-04	8.3E-04	5.5E-02
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Chrysene	218-01-9	T	5.00E-05	J	1.10E-04	2.5E-01	2.0E-04	2.5E-01	2.0E-04
TW-02	TW02-12082020	N	12/08/20	SVOC	Chrysene	218-01-9	T	5.00E-05	J	2.10E-05	2.5E-01	2.0E-04	2.5E-01	2.0E-04
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T	3.40E-05	J	1.10E-04	2.5E-04	1.4E-01	2.5E-04	1.4E-01
TW-02	TW02-12082020	N	12/08/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T	3.40E-05	J	2.10E-05	2.5E-04	1.4E-01	2.5E-04	1.4E-01
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Dibenzofuran	132-64-9	T	4.50E-05	J	1.10E-04	2.0E-02	2.3E-03	7.9E-03	5.7E-03
TW-02	TW02-12082020	N	12/08/20	SVOC	Dibenzofuran	132-64-9	T	4.50E-05	J	2.10E-05	2.0E-02	2.3E-03	7.9E-03	5.7E-03
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Fluoranthene	206-44-0	T	8.30E-05	J	1.10E-04	8.0E-01	1.0E-04	8.0E-01	1.0E-04
TW-02	TW02-12082020	N	12/08/20	SVOC	Fluoranthene	206-44-0	T	8.30E-05	J	2.10E-05	8.0E-01	1.0E-04	8.0E-01	1.0E-04
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Fluorene	86-73-7	T	5.00E-05	J	1.10E-04	8.0E-01	6.3E-05	2.9E-01	1.7E-04
TW-02	TW02-12082020	N	12/08/20	SVOC	Fluorene	86-73-7	T	5.00E-05	J	2.10E-05	8.0E-01	6.3E-05	2.9E-01	1.7E-04
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-02	TW02-12082020	N	12/08/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.50E-05	2.5E-03		2.5E-03	
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	1-Methylnaphthalene	90-12-0	T	2.50E-05	J	1.10E-04	2.7E-02	9.3E-04	1.1E-02	2.3E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-02	TW02-12082020	N	12/08/20	SVOC	1-Methylnaphthalene	90-12-0	T	2.50E-05	J	2.10E-05	2.7E-02	9.3E-04	1.1E-02	2.3E-03
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-02	TW02-12082020	N	12/08/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.30E-05	8.0E-02		3.6E-02	
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-02	TW02-12082020	N	12/08/20	SVOC	Naphthalene	91-20-3	T		U	6.30E-05	6.5E-03		1.2E-03	
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-02	TW02-12082020	N	12/08/20	SVOC	Perylene	198-55-0	T		U	4.20E-05				
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Phenanthrene	85-01-8	T	7.30E-05	J	1.70E-04	6.0E-01	1.2E-04	1.2E-01	6.1E-04
TW-02	TW02-12082020	N	12/08/20	SVOC	Phenanthrene	85-01-8	T	7.30E-05	J	6.30E-05	6.0E-01	1.2E-04	1.2E-01	6.1E-04
TW-02	410-12267-2383.2_TW02	N	12/08/20	SVOC	Pyrene	129-00-0	T	7.70E-05	J	1.10E-04	6.0E-01	1.3E-04	1.2E-01	6.4E-04
TW-02	TW02-12082020	N	12/08/20	SVOC	Pyrene	129-00-0	T	7.70E-05	J	4.20E-05	6.0E-01	1.3E-04	1.2E-01	6.4E-04
TW-02	410-33562-1_TW-02	N	03/22/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-02	TW-02-03222021	N	03/22/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-02	410-33562-1_TW-02	N	03/22/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-02	TW-02-03222021	N	03/22/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-02	410-33562-1_TW-02	N	03/22/21	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-02	TW-02-03222021	N	03/22/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-02	410-33562-1_TW-02	N	03/22/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-02	TW-02-03222021	N	03/22/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-02	410-33562-1_TW-02	N	03/22/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-02	TW-02-03222021	N	03/22/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-02	410-33562-1_TW-02	N	03/22/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-02	TW-02-03222021	N	03/22/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-02	410-33562-1_TW-02	N	03/22/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-02	TW-02-03222021	N	03/22/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-02	410-33562-1_TW-02	N	03/22/21	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-02	TW-02-03222021	N	03/22/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Acenaphthene	83-32-9	T	6.40E-05	J	1.00E-04	1.2E+00	5.3E-05	5.3E-01	1.2E-04
TW-02	TW-02-03222021	N	03/22/21	SVOC	Acenaphthene	83-32-9	T	6.40E-05	J	2.00E-05	1.2E+00	5.3E-05	5.3E-01	1.2E-04
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-05	6.0E-01		1.2E-01	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Anthracene	120-12-7	T		U	2.00E-05	6.0E+00		1.8E+00	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-05	2.5E-03		3.0E-04	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-05	2.0E-04		2.5E-04	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.80E-04	2.5E-03		2.5E-03	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.10E-05	2.5E-03		2.5E-03	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-05	1.8E-03		1.8E-03	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.40E-04	6.0E-01		1.2E-01	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.10E-05	6.0E-01		1.2E-01	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-02	TW-02-03222021	N	03/22/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-05	2.5E-02		2.5E-02	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-02	TW-02-03222021	N	03/22/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.00E-05	9.7E-02		8.3E-04	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Chrysene	218-01-9	T		U	2.00E-05	2.5E-01		2.5E-01	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-05	2.5E-04		2.5E-04	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-05	2.0E-02		7.9E-03	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Fluoranthene	206-44-0	T	5.70E-05	J	1.00E-04	8.0E-01	7.1E-05	8.0E-01	7.1E-05
TW-02	TW-02-03222021	N	03/22/21	SVOC	Fluoranthene	206-44-0	T	5.70E-05	J*+	2.00E-05	8.0E-01	7.1E-05	8.0E-01	7.1E-05
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Fluorene	86-73-7	T		U	2.00E-05	8.0E-01		2.9E-01	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.80E-04	2.5E-03		2.5E-03	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.10E-05	2.5E-03		2.5E-03	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-02	TW-02-03222021	N	03/22/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-05	2.7E-02		1.1E-02	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.40E-04	8.0E-02		3.6E-02	
TW-02	TW-02-03222021	N	03/22/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.10E-05	8.0E-02		3.6E-02	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Naphthalene	91-20-3	T		U	1.60E-04	6.5E-03		1.2E-03	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Naphthalene	91-20-3	T		U	6.10E-05	6.5E-03		1.2E-03	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-02	TW-02-03222021	N	03/22/21	SVOC	Perylene	198-55-0	T		U*+	4.00E-05				
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Phenanthrene	85-01-8	T		U	1.60E-04	6.0E-01		1.2E-01	
TW-02	TW-02-03222021	N	03/22/21	SVOC	Phenanthrene	85-01-8	T		U	6.10E-05	6.0E-01		1.2E-01	
TW-02	410-33562-1_TW-02	N	03/22/21	SVOC	Pyrene	129-00-0	T	6.70E-05	J	1.00E-04	6.0E-01	1.1E-04	1.2E-01	5.6E-04
TW-02	TW-02-03222021	N	03/22/21	SVOC	Pyrene	129-00-0	T	6.70E-05	J	4.00E-05	6.0E-01	1.1E-04	1.2E-01	5.6E-04
TW-02	HRP-TW02-211101	N	11/01/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
TW-02	HRP-TW-02-220503	N	05/03/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-02	HRP-TW02-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-03	PRG24_TW-03	N	02/18/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-03	TW-03_02/18/20	N	02/18/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-03	PRG24_TW-03	N	02/18/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-03	TW-03_02/18/20	N	02/18/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-03	PRG24_TW-03	N	02/18/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-03	TW-03_02/18/20	N	02/18/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-03	PRG24_TW-03	N	02/18/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-03	TW-03_02/18/20	N	02/18/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-03	PRG24_TW-03	N	02/18/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-03	TW-03_02/18/20	N	02/18/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-03	PRG24_TW-03	N	02/18/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-03	TW-03_02/18/20	N	02/18/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-03	PRG24_TW-03	N	02/18/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-03	TW-03_02/18/20	N	02/18/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-03	PRG24_TW-03	N	02/18/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-03	TW-03_02/18/20	N	02/18/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Acenaphthene	83-32-9	T		U	2.00E-04	1.2E+00		5.3E-01	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Acenaphthene	83-32-9	T		U	2.00E-04	1.2E+00		5.3E-01	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Fluorene	86-73-7	T		U	2.00E-04	8.0E-01		2.9E-01	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Fluorene	86-73-7	T		U	2.00E-04	8.0E-01		2.9E-01	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Naphthalene	91-20-3	T		U	3.00E-04	6.5E-03		1.2E-03	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Naphthalene	91-20-3	T		U	3.00E-04	6.5E-03		1.2E-03	
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-04	6.0E-01		1.2E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-03	PRG24_TW-03	N	02/18/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_02/18/20	N	02/18/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	5.31E+01		5.00E+00	1.4E+01	3.8E+00	1.4E+01	3.8E+00
TW-03	TW-03_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	7.09E+00		1.00E-02	4.8E-01	1.5E+01	4.3E-01	1.6E+01
TW-03	PRG25_TW03	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-03	TW-03_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-03	PRG25_TW03	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-03	TW-03_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-03	PRG25_TW03	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-03	TW-03_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-03	PRG25_TW03	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-03	TW-03_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-03	PRG25_TW03	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-03	TW-03_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-03	PRG25_TW03	N	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-03	TW-03_05/12/20	N	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-03	PRG25_TW03	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-03	TW-03_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-03	PRG25_TW03	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-03	TW-03_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	2.00E-05	J	1.00E-04	1.2E+00	1.7E-05	5.3E-01	3.8E-05
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	2.00E-05	J	1.00E-04	1.2E+00	1.7E-05	5.3E-01	3.8E-05
TW-03	PRG25_TW03	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Anthracene	120-12-7	T	4.00E-05	J	1.00E-04	6.0E+00	6.7E-06	1.8E+00	2.2E-05
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T	4.00E-05	J	1.00E-04	6.0E+00	6.7E-06	1.8E+00	2.2E-05
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	1.10E-02	1.9E-01		1.9E-01	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-03	PRG25_TW03	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.20E-02	6.0E-03		5.6E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	1.20E-02	1.0E+01		9.9E+00	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
TW-03	PRG25_TW03	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T	2.00E-05	J	1.00E-04	2.0E-02	1.0E-03	7.9E-03	2.5E-03
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T	2.00E-05	J	1.00E-04	2.0E-02	1.0E-03	7.9E-03	2.5E-03
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.20E-02	1.6E-03		1.5E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.20E-02	4.0E-02		3.9E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.20E-02	2.0E-01		2.0E-01	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Fluorene	86-73-7	T	7.00E-05	J	1.00E-04	8.0E-01	8.8E-05	2.9E-01	2.4E-04
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T	7.00E-05	J	1.00E-04	8.0E-01	8.8E-05	2.9E-01	2.4E-04
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.20E-02	5.0E-02		4.1E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
TW-03	PRG25_TW03	N	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-03	PRG25_TW03	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	2.00E-04	6.5E-03		1.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	2.00E-04	6.5E-03		1.2E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.20E-02				
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-03	PRG25_TW03	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
TW-03	PRG25_TW03	N	05/12/20	SVOC	Pyrene	129-00-0	T	5.00E-05	J	1.00E-04	6.0E-01	8.3E-05	1.2E-01	4.2E-04
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T	5.00E-05	J	1.00E-04	6.0E-01	8.3E-05	1.2E-01	4.2E-04
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
TW-03	TW-03_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	1.80E-02		5.00E-03	2.0E+00	9.0E-03	3.8E+00	4.7E-03
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T	1.30E-03	J	5.00E-03	4.0E-03	3.3E-01	2.5E-02	5.2E-02
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T	1.70E-03	J	5.00E-03	5.0E-03	3.4E-01	1.8E-03	9.4E-01
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T	1.25E-01		5.00E-03	6.0E-03	2.1E+01	6.0E-03	2.1E+01
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Iron	7439-89-6	T	5.78E+01		5.00E+00	1.4E+01	4.1E+00	1.4E+01	4.1E+00
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T	2.44E-02		1.50E-02	1.5E-02	1.6E+00	1.5E-02	1.6E+00
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Manganese	7439-96-5	T	6.63E+00		1.00E-02	4.8E-01	1.4E+01	4.3E-01	1.5E+01
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	6.08E-02		1.00E-02	4.0E-01	1.5E-01	3.9E-01	1.6E-01
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	1.50E-01	2.0E-03		2.0E-04	
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T	5.60E-03	J	1.00E-02	1.0E-01	5.6E-02	8.6E-02	6.5E-02
TW-03	TW-03_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T	1.43E-01		2.00E-02	6.0E+00	2.4E-02	6.0E+00	2.4E-02
TW-03	TW-03_08/11/20	N	08/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-03	TW-03_08/11/20	N	08/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-03	TW-03_08/11/20	N	08/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-03	TW-03_08/11/20	N	08/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-03	TW-03_08/11/20	N	08/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-03	TW-03_08/11/20	N	08/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-03	TW-03_08/11/20	N	08/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-03	TW-03_08/11/20	N	08/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.40E-04	6.0E-01		1.2E-01	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.40E-04	8.0E-02		3.6E-02	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Naphthalene	91-20-3	T		U	1.60E-04	6.5E-03		1.2E-03	
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Phenanthrene	85-01-8	T	7.00E-05	J	1.60E-04	6.0E-01	1.2E-04	1.2E-01	5.8E-04
TW-03	TW-03_08/11/20	N	08/11/20	SVOC	Pyrene	129-00-0	T	7.60E-05	J	1.00E-04	6.0E-01	1.3E-04	1.2E-01	6.3E-04
TW-03	TW-03_08112020	N	08/11/20	INORG	Iron	7439-89-6	T	2.10E+01	HF	1.00E+00	1.4E+01	1.5E+00	1.4E+01	1.5E+00
TW-03	TW-03_08112020	N	08/11/20	INORG	Manganese	7439-96-5	T	2.40E+00		1.00E-02	4.8E-01	5.0E+00	4.3E-01	5.6E+00
TW-03	410-12267-2383.1_TW03	N	12/08/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-03	TW03-12082020	N	12/08/20	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-03	410-12267-2383.1_TW03	N	12/08/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-03	TW03-12082020	N	12/08/20	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-03	410-12267-2383.1_TW03	N	12/08/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-03	TW03-12082020	N	12/08/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-03	410-12267-2383.1_TW03	N	12/08/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-03	TW03-12082020	N	12/08/20	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-03	410-12267-2383.1_TW03	N	12/08/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-03	TW03-12082020	N	12/08/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-03	410-12267-2383.1_TW03	N	12/08/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-03	TW03-12082020	N	12/08/20	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-03	410-12267-2383.1_TW03	N	12/08/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-03	TW03-12082020	N	12/08/20	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-03	410-12267-2383.1_TW03	N	12/08/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-03	TW03-12082020	N	12/08/20	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Acenaphthene	83-32-9	T	3.30E-05	J	1.00E-04	1.2E+00	2.8E-05	5.3E-01	6.2E-05
TW-03	TW03-12082020	N	12/08/20	SVOC	Acenaphthene	83-32-9	T	3.30E-05	J	2.10E-05	1.2E+00	2.8E-05	5.3E-01	6.2E-05
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-03	TW03-12082020	N	12/08/20	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-03	TW03-12082020	N	12/08/20	SVOC	Anthracene	120-12-7	T		U	2.10E-05	6.0E+00		1.8E+00	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Benzo(a)anthracene	56-55-3	T	2.60E-05	J	1.00E-04	2.5E-03	1.0E-02	3.0E-04	8.7E-02
TW-03	TW03-12082020	N	12/08/20	SVOC	Benzo(a)anthracene	56-55-3	T	2.60E-05	J	2.10E-05	2.5E-03	1.0E-02	3.0E-04	8.7E-02
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Benzo(a)pyrene	50-32-8	T	3.60E-05	J	1.00E-04	2.0E-04	1.8E-01	2.5E-04	1.4E-01
TW-03	TW03-12082020	N	12/08/20	SVOC	Benzo(a)pyrene	50-32-8	T	3.60E-05	J	2.10E-05	2.0E-04	1.8E-01	2.5E-04	1.4E-01
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-03	TW03-12082020	N	12/08/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.40E-05	2.5E-03		2.5E-03	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-03	TW03-12082020	N	12/08/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T	7.70E-05	J	1.50E-04	6.0E-01	1.3E-04	1.2E-01	6.4E-04
TW-03	TW03-12082020	N	12/08/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T	7.70E-05	J	6.30E-05	6.0E-01	1.3E-04	1.2E-01	6.4E-04
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Benzo(k)fluoranthene	207-08-9	T	5.60E-05	J	1.00E-04	2.5E-02	2.2E-03	2.5E-02	2.2E-03
TW-03	TW03-12082020	N	12/08/20	SVOC	Benzo(k)fluoranthene	207-08-9	T	5.60E-05	J	2.10E-05	2.5E-02	2.2E-03	2.5E-02	2.2E-03
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-03	TW03-12082020	N	12/08/20	SVOC	1,1-Biphenyl	92-52-4	T		U	4.20E-05	9.7E-02		8.3E-04	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Chrysene	218-01-9	T	4.30E-05	J	1.00E-04	2.5E-01	1.7E-04	2.5E-01	1.7E-04
TW-03	TW03-12082020	N	12/08/20	SVOC	Chrysene	218-01-9	T	4.30E-05	J	2.10E-05	2.5E-01	1.7E-04	2.5E-01	1.7E-04
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T	7.20E-05	J	1.00E-04	2.5E-04	2.9E-01	2.5E-04	2.9E-01
TW-03	TW03-12082020	N	12/08/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T	7.20E-05	J	2.10E-05	2.5E-04	2.9E-01	2.5E-04	2.9E-01
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-03	TW03-12082020	N	12/08/20	SVOC	Dibenzofuran	132-64-9	T		U	2.10E-05	2.0E-02		7.9E-03	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Fluoranthene	206-44-0	T	2.40E-05	J	1.00E-04	8.0E-01	3.0E-05	8.0E-01	3.0E-05
TW-03	TW03-12082020	N	12/08/20	SVOC	Fluoranthene	206-44-0	T	2.40E-05	J	2.10E-05	8.0E-01	3.0E-05	8.0E-01	3.0E-05
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Fluorene	86-73-7	T	9.80E-05	J	1.00E-04	8.0E-01	1.2E-04	2.9E-01	3.4E-04
TW-03	TW03-12082020	N	12/08/20	SVOC	Fluorene	86-73-7	T	9.80E-05	J	2.10E-05	8.0E-01	1.2E-04	2.9E-01	3.4E-04
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T	8.60E-05	J	1.90E-04	2.5E-03	3.4E-02	2.5E-03	3.4E-02
TW-03	TW03-12082020	N	12/08/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T	8.60E-05	J	8.40E-05	2.5E-03	3.4E-02	2.5E-03	3.4E-02
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-03	TW03-12082020	N	12/08/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.10E-05	2.7E-02		1.1E-02	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-03	TW03-12082020	N	12/08/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.30E-05	8.0E-02		3.6E-02	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-03	TW03-12082020	N	12/08/20	SVOC	Naphthalene	91-20-3	T		U	6.30E-05	6.5E-03		1.2E-03	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-03	TW03-12082020	N	12/08/20	SVOC	Perylene	198-55-0	T		U	4.20E-05				
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Phenanthrene	85-01-8	T		U	1.70E-04	6.0E-01		1.2E-01	
TW-03	TW03-12082020	N	12/08/20	SVOC	Phenanthrene	85-01-8	T		U	6.30E-05	6.0E-01		1.2E-01	
TW-03	410-12267-2383.1_TW03	N	12/08/20	SVOC	Pyrene	129-00-0	T	5.50E-05	J	1.00E-04	6.0E-01	9.2E-05	1.2E-01	4.6E-04

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-03	TW03-12082020	N	12/08/20	SVOC	Pyrene	129-00-0	T	5.50E-05	J	4.20E-05	6.0E-01	9.2E-05	1.2E-01	4.6E-04
TW-03	410-33562-1_TW-03	N	03/22/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-03	TW-03-03222021	N	03/22/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-03	410-33562-1_TW-03	N	03/22/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-03	TW-03-03222021	N	03/22/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-03	410-33562-1_TW-03	N	03/22/21	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-03	TW-03-03222021	N	03/22/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-03	410-33562-1_TW-03	N	03/22/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-03	TW-03-03222021	N	03/22/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-03	410-33562-1_TW-03	N	03/22/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-03	TW-03-03222021	N	03/22/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-03	410-33562-1_TW-03	N	03/22/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-03	TW-03-03222021	N	03/22/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-03	410-33562-1_TW-03	N	03/22/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-03	TW-03-03222021	N	03/22/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-03	410-33562-1_TW-03	N	03/22/21	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-03	TW-03-03222021	N	03/22/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Acenaphthene	83-32-9	T	2.60E-05	J	1.00E-04	1.2E+00	2.2E-05	5.3E-01	4.9E-05
TW-03	TW-03-03222021	N	03/22/21	SVOC	Acenaphthene	83-32-9	T	2.60E-05	J	2.00E-05	1.2E+00	2.2E-05	5.3E-01	4.9E-05
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-03	TW-03-03222021	N	03/22/21	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-05	6.0E-01		1.2E-01	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Anthracene	120-12-7	T	4.50E-05	J	1.00E-04	6.0E+00	7.5E-06	1.8E+00	2.5E-05
TW-03	TW-03-03222021	N	03/22/21	SVOC	Anthracene	120-12-7	T	4.50E-05	J	2.00E-05	6.0E+00	7.5E-06	1.8E+00	2.5E-05
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Benzo(a)anthracene	56-55-3	T	5.00E-05	J	1.00E-04	2.5E-03	2.0E-02	3.0E-04	1.7E-01
TW-03	TW-03-03222021	N	03/22/21	SVOC	Benzo(a)anthracene	56-55-3	T	5.00E-05	J	2.00E-05	2.5E-03	2.0E-02	3.0E-04	1.7E-01
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Benzo(a)pyrene	50-32-8	T	7.20E-05	JB	1.00E-04	2.0E-04	3.6E-01	2.5E-04	2.9E-01
TW-03	TW-03-03222021	N	03/22/21	SVOC	Benzo(a)pyrene	50-32-8	T	7.20E-05	JB	2.00E-05	2.0E-04	3.6E-01	2.5E-04	2.9E-01
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.80E-04	2.5E-03		2.5E-03	
TW-03	TW-03-03222021	N	03/22/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.20E-05	2.5E-03		2.5E-03	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Benzo(e)pyrene	192-97-2	T	3.00E-05	J	1.00E-04	1.8E-03	1.7E-02	1.8E-03	1.7E-02
TW-03	TW-03-03222021	N	03/22/21	SVOC	Benzo(e)pyrene	192-97-2	T	3.00E-05	J	2.00E-05	1.8E-03	1.7E-02	1.8E-03	1.7E-02
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.40E-04	6.0E-01		1.2E-01	
TW-03	TW-03-03222021	N	03/22/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.10E-05	6.0E-01		1.2E-01	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Benzo(k)fluoranthene	207-08-9	T	6.10E-05	J	1.00E-04	2.5E-02	2.4E-03	2.5E-02	2.4E-03
TW-03	TW-03-03222021	N	03/22/21	SVOC	Benzo(k)fluoranthene	207-08-9	T	6.10E-05	J	2.00E-05	2.5E-02	2.4E-03	2.5E-02	2.4E-03
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-03	TW-03-03222021	N	03/22/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.10E-05	9.7E-02		8.3E-04	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Chrysene	218-01-9	T	4.30E-05	J	1.00E-04	2.5E-01	1.7E-04	2.5E-01	1.7E-04
TW-03	TW-03-03222021	N	03/22/21	SVOC	Chrysene	218-01-9	T	4.30E-05	J	2.00E-05	2.5E-01	1.7E-04	2.5E-01	1.7E-04
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T	3.30E-05	J	1.00E-04	2.5E-04	1.3E-01	2.5E-04	1.3E-01
TW-03	TW-03-03222021	N	03/22/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T	3.30E-05	J	2.00E-05	2.5E-04	1.3E-01	2.5E-04	1.3E-01
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Dibenzofuran	132-64-9	T	2.00E-05	J	1.00E-04	2.0E-02	1.0E-03	7.9E-03	2.5E-03
TW-03	TW-03-03222021	N	03/22/21	SVOC	Dibenzofuran	132-64-9	T	2.00E-05	J	2.00E-05	2.0E-02	1.0E-03	7.9E-03	2.5E-03
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Fluoranthene	206-44-0	T	9.60E-05	J	1.00E-04	8.0E-01	1.2E-04	8.0E-01	1.2E-04

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-03	TW-03-03222021	N	03/22/21	SVOC	Fluoranthene	206-44-0	T	9.60E-05	J*+	2.00E-05	8.0E-01	1.2E-04	8.0E-01	1.2E-04
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Fluorene	86-73-7	T	7.60E-05	J	1.00E-04	8.0E-01	9.5E-05	2.9E-01	2.6E-04
TW-03	TW-03-03222021	N	03/22/21	SVOC	Fluorene	86-73-7	T	7.60E-05	J	2.00E-05	8.0E-01	9.5E-05	2.9E-01	2.6E-04
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.80E-04	2.5E-03		2.5E-03	
TW-03	TW-03-03222021	N	03/22/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.20E-05	2.5E-03		2.5E-03	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	1-Methylnaphthalene	90-12-0	T	4.00E-05	J	1.00E-04	2.7E-02	1.5E-03	1.1E-02	3.6E-03
TW-03	TW-03-03222021	N	03/22/21	SVOC	1-Methylnaphthalene	90-12-0	T	4.00E-05	J	2.00E-05	2.7E-02	1.5E-03	1.1E-02	3.6E-03
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.40E-04	8.0E-02		3.6E-02	
TW-03	TW-03-03222021	N	03/22/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.10E-05	8.0E-02		3.6E-02	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Naphthalene	91-20-3	T		U	1.60E-04	6.5E-03		1.2E-03	
TW-03	TW-03-03222021	N	03/22/21	SVOC	Naphthalene	91-20-3	T		U	6.10E-05	6.5E-03		1.2E-03	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-03	TW-03-03222021	N	03/22/21	SVOC	Perylene	198-55-0	T		U*+	4.10E-05				
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Phenanthrene	85-01-8	T		U	1.60E-04	6.0E-01		1.2E-01	
TW-03	TW-03-03222021	N	03/22/21	SVOC	Phenanthrene	85-01-8	T		U	6.10E-05	6.0E-01		1.2E-01	
TW-03	410-33562-1_TW-03	N	03/22/21	SVOC	Pyrene	129-00-0	T	1.20E-04		1.00E-04	6.0E-01	2.0E-04	1.2E-01	1.0E-03
TW-03	TW-03-03222021	N	03/22/21	SVOC	Pyrene	129-00-0	T	1.20E-04		4.10E-05	6.0E-01	2.0E-04	1.2E-01	1.0E-03
TW-03	HRP-TW03-211101	N	11/01/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
TW-03	HRP-TW-03-220503	N	05/03/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-03	HRP-TW03-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-04	PRG24_DUP20200217	FD	02/17/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	PRG24_TW-04	N	02/17/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	TW-04_02/17/20	N	02/17/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	PRG24_DUP20200217	FD	02/17/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	PRG24_TW-04	N	02/17/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	TW-04_02/17/20	N	02/17/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	PRG24_DUP20200217	FD	02/17/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	PRG24_TW-04	N	02/17/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	TW-04_02/17/20	N	02/17/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	PRG24_DUP20200217	FD	02/17/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-04	PRG24_TW-04	N	02/17/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-04	TW-04_02/17/20	N	02/17/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-04	PRG24_DUP20200217	FD	02/17/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-04	PRG24_TW-04	N	02/17/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-04	TW-04_02/17/20	N	02/17/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-04	PRG24_DUP20200217	FD	02/17/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	PRG24_TW-04	N	02/17/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	TW-04_02/17/20	N	02/17/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	PRG24_DUP20200217	FD	02/17/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	PRG24_TW-04	N	02/17/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	TW-04_02/17/20	N	02/17/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	PRG24_DUP20200217	FD	02/17/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-04	PRG24_TW-04	N	02/17/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-04	TW-04_02/17/20	N	02/17/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Acenaphthene	83-32-9	T	6.00E-04		2.00E-04	1.2E+00	5.0E-04	5.3E-01	1.1E-03
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Acenaphthene	83-32-9	T	5.00E-04		2.00E-04	1.2E+00	4.2E-04	5.3E-01	9.4E-04
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Acenaphthene	83-32-9	T	5.00E-04		1.00E-04	1.2E+00	4.2E-04	5.3E-01	9.4E-04
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Anthracene	120-12-7	T	1.00E-04	J	2.00E-04	6.0E+00	1.7E-05	1.8E+00	5.6E-05
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Anthracene	120-12-7	T	1.00E-04	J	2.00E-04	6.0E+00	1.7E-05	1.8E+00	5.6E-05
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Anthracene	120-12-7	T	1.00E-04	J	1.00E-04	6.0E+00	1.7E-05	1.8E+00	5.6E-05
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Dibenzofuran	132-64-9	T	2.00E-04	J	2.00E-04	2.0E-02	1.0E-02	7.9E-03	2.5E-02
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Dibenzofuran	132-64-9	T	2.00E-04	J	2.00E-04	2.0E-02	1.0E-02	7.9E-03	2.5E-02
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Dibenzofuran	132-64-9	T	2.00E-04	J	1.00E-04	2.0E-02	1.0E-02	7.9E-03	2.5E-02
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Fluoranthene	206-44-0	T	2.00E-04	J	2.00E-04	8.0E-01	2.5E-04	8.0E-01	2.5E-04
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Fluoranthene	206-44-0	T	1.00E-04	J	2.00E-04	8.0E-01	1.3E-04	8.0E-01	1.3E-04
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Fluoranthene	206-44-0	T	1.00E-04	J	1.00E-04	8.0E-01	1.3E-04	8.0E-01	1.3E-04
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Fluorene	86-73-7	T	4.00E-04		2.00E-04	8.0E-01	5.0E-04	2.9E-01	1.4E-03
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Fluorene	86-73-7	T	3.00E-04		2.00E-04	8.0E-01	3.8E-04	2.9E-01	1.0E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Fluorene	86-73-7	T	3.00E-04		1.00E-04	8.0E-01	3.8E-04	2.9E-01	1.0E-03
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-04	PRG24_TW-04	N	02/17/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Naphthalene	91-20-3	T	3.00E-04	J	3.00E-04	6.5E-03	4.6E-02	1.2E-03	2.5E-01
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Naphthalene	91-20-3	T	2.00E-04	J	4.00E-04	6.5E-03	3.1E-02	1.2E-03	1.7E-01
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Naphthalene	91-20-3	T	2.00E-04	J	4.00E-04	6.5E-03	3.1E-02	1.2E-03	1.7E-01
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Phenanthrene	85-01-8	T	2.00E-04	J	3.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Phenanthrene	85-01-8	T	2.00E-04	J	4.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Phenanthrene	85-01-8	T	2.00E-04	J	4.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-04	PRG24_DUP20200217	FD	02/17/20	SVOC	Pyrene	129-00-0	T	1.00E-04	J	2.00E-04	6.0E-01	1.7E-04	1.2E-01	8.3E-04
TW-04	PRG24_TW-04	N	02/17/20	SVOC	Pyrene	129-00-0	T	1.00E-04	J	2.00E-04	6.0E-01	1.7E-04	1.2E-01	8.3E-04
TW-04	TW-04_02/17/20	N	02/17/20	SVOC	Pyrene	129-00-0	T	1.00E-04	J	1.00E-04	6.0E-01	1.7E-04	1.2E-01	8.3E-04
TW-04	PRG25_TW04	N	05/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	TW-04_05/11/20	N	05/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	PRG25_TW04	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	TW-04_05/11/20	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	PRG25_TW04	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	TW-04_05/11/20	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	PRG25_TW04	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-04	TW-04_05/11/20	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-04	PRG25_TW04	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-04	TW-04_05/11/20	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-04	PRG25_TW04	N	05/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	TW-04_05/11/20	N	05/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	PRG25_TW04	N	05/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	TW-04_05/11/20	N	05/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	PRG25_TW04	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-04	TW-04_05/11/20	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Acenaphthene	83-32-9	T	9.00E-04		5.00E-04	1.2E+00	7.5E-04	5.3E-01	1.7E-03
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	5.00E-04	6.0E-01		1.2E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	5.00E-04	6.0E+00		1.8E+00	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	5.00E-04	2.5E-03		3.0E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	5.00E-04	2.0E-04		2.5E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	5.00E-04	2.5E-03		2.5E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	5.00E-04	6.0E-01		1.2E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	5.00E-04	2.5E-02		2.5E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-02	9.7E-02		8.3E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Carbazole	86-74-8	T	8.00E-04	J	2.00E-03	8.0E-01	1.0E-03	2.9E-01	2.8E-03
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	5.00E-04	2.5E-01		2.5E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	5.00E-04	2.5E-04		2.5E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-03	2.0E-02		7.9E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Fluoranthene	206-44-0	T	2.00E-04	J	5.00E-04	8.0E-01	2.5E-04	8.0E-01	2.5E-04
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Fluorene	86-73-7	T	4.00E-04	J	5.00E-04	8.0E-01	5.0E-04	2.9E-01	1.4E-03
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	5.00E-04	2.5E-03		2.5E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	5.00E-04	8.0E-02		3.6E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Naphthalene	91-20-3	T	3.00E-04	J	5.00E-04	6.5E-03	4.6E-02	1.2E-03	2.5E-01
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Phenanthrene	85-01-8	T	3.00E-04	J	5.00E-04	6.0E-01	5.0E-04	1.2E-01	2.5E-03
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Pyrene	129-00-0	T		U	5.00E-04	6.0E-01		1.2E-01	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
TW-04	TW-04_05/11/20	N	05/11/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Barium	7440-39-3	T	3.82E-02		5.00E-03	2.0E+00	1.9E-02	3.8E+00	1.0E-02
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Cadmium	7440-43-9	T	2.30E-03	J	5.00E-03	5.0E-03	4.6E-01	1.8E-03	1.3E+00
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Cobalt	7440-48-4	T	9.11E-02		5.00E-03	6.0E-03	1.5E+01	6.0E-03	1.5E+01
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Lead	7439-92-1	T	1.19E-02	J	1.50E-02	1.5E-02	7.9E-01	1.5E-02	7.9E-01
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Nickel	7440-02-0	T	1.23E-01		1.00E-02	4.0E-01	3.1E-01	3.9E-01	3.2E-01
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Vanadium	7440-62-2	T	2.20E-03	J	1.00E-02	1.0E-01	2.2E-02	8.6E-02	2.6E-02
TW-04	TW-04_05/11/20	N	05/11/20	INORG	Zinc	7440-66-6	T	1.90E-01		2.00E-02	6.0E+00	3.2E-02	6.0E+00	3.2E-02
TW-04	TW-04_08/10/20	N	08/10/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	TW-04_08/10/20	N	08/10/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	TW-04_08/10/20	N	08/10/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	TW-04_08/10/20	N	08/10/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-04	TW-04_08/10/20	N	08/10/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-04	TW-04_08/10/20	N	08/10/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	TW-04_08/10/20	N	08/10/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	TW-04_08/10/20	N	08/10/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-04	TW-04_08/11/20	N	08/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	TW-04_08/11/20	N	08/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	TW-04_08/11/20	N	08/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	TW-04_08/11/20	N	08/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	TW-04_08/11/20	N	08/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-04	TW-04_08/11/20	N	08/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	TW-04_08/11/20	N	08/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	TW-04_08/11/20	N	08/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Acenaphthene	83-32-9	T	8.40E-04		2.10E-04	1.2E+00	7.0E-04	5.3E-01	1.6E-03
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-04	6.0E-01		1.2E-01	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Anthracene	120-12-7	T	1.10E-04	J	2.10E-04	6.0E+00	1.8E-05	1.8E+00	6.1E-05
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-04	2.5E-03		3.0E-04	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.10E-04	2.0E-04		2.5E-04	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	3.70E-04	2.5E-03		2.5E-03	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-04	1.8E-03		1.8E-03	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	2.90E-04	6.0E-01		1.2E-01	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-04	2.5E-02		2.5E-02	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.10E-04	9.7E-02		8.3E-04	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Chrysene	218-01-9	T		U	2.10E-04	2.5E-01		2.5E-01	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-04	2.5E-04		2.5E-04	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Dibenzofuran	132-64-9	T	1.20E-04	J	2.10E-04	2.0E-02	6.0E-03	7.9E-03	1.5E-02
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Fluoranthene	206-44-0	T	1.10E-04	J	2.10E-04	8.0E-01	1.4E-04	8.0E-01	1.4E-04
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Fluorene	86-73-7	T	2.40E-04		2.10E-04	8.0E-01	3.0E-04	2.9E-01	8.3E-04
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	3.70E-04	2.5E-03		2.5E-03	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	1-Methylnaphthalene	90-12-0	T	3.40E-04		2.10E-04	2.7E-02	1.3E-02	1.1E-02	3.1E-02
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	2.90E-04	8.0E-02		3.6E-02	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Naphthalene	91-20-3	T	2.80E-04	J	3.30E-04	6.5E-03	4.3E-02	1.2E-03	2.3E-01
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Perylene	198-55-0	T		U	2.10E-04				
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Phenanthrene	85-01-8	T		U	3.30E-04	6.0E-01		1.2E-01	
TW-04	TW-04_08/11/20	N	08/11/20	SVOC	Pyrene	129-00-0	T	2.40E-04		2.10E-04	6.0E-01	4.0E-04	1.2E-01	2.0E-03
TW-04	410-12267-2383.1_TW04	N	12/09/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	TW04-12092020	N	12/09/20	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-04	410-12267-2383.1_TW04	N	12/09/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	TW04-12092020	N	12/09/20	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-04	410-12267-2383.1_TW04	N	12/09/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	TW04-12092020	N	12/09/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-04	410-12267-2383.1_TW04	N	12/09/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-04	TW04-12092020	N	12/09/20	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-04	410-12267-2383.1_TW04	N	12/09/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-04	TW04-12092020	N	12/09/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-04	410-12267-2383.1_TW04	N	12/09/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	TW04-12092020	N	12/09/20	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-04	410-12267-2383.1_TW04	N	12/09/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	TW04-12092020	N	12/09/20	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-04	410-12267-2383.1_TW04	N	12/09/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-04	TW04-12092020	N	12/09/20	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Acenaphthene	83-32-9	T	5.10E-03		1.00E-04	1.2E+00	4.3E-03	5.3E-01	9.6E-03
TW-04	TW04-12092020	N	12/09/20	SVOC	Acenaphthene	83-32-9	T	5.10E-03		2.10E-05	1.2E+00	4.3E-03	5.3E-01	9.6E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Acenaphthylene	208-96-8	T	9.70E-05	J	1.00E-04	6.0E-01	1.6E-04	1.2E-01	8.1E-04
TW-04	TW04-12092020	N	12/09/20	SVOC	Acenaphthylene	208-96-8	T	9.70E-05	J	2.10E-05	6.0E-01	1.6E-04	1.2E-01	8.1E-04
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Anthracene	120-12-7	T	4.00E-04		1.00E-04	6.0E+00	6.7E-05	1.8E+00	2.2E-04
TW-04	TW04-12092020	N	12/09/20	SVOC	Anthracene	120-12-7	T	4.00E-04		2.10E-05	6.0E+00	6.7E-05	1.8E+00	2.2E-04
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-04	TW04-12092020	N	12/09/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-05	2.5E-03		3.0E-04	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-04	TW04-12092020	N	12/09/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.10E-05	2.0E-04		2.5E-04	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-04	TW04-12092020	N	12/09/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.40E-05	2.5E-03		2.5E-03	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-04	TW04-12092020	N	12/09/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-04	TW04-12092020	N	12/09/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.30E-05	6.0E-01		1.2E-01	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-04	TW04-12092020	N	12/09/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-05	2.5E-02		2.5E-02	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	1,1-Biphenyl	92-52-4	T	2.60E-04		1.00E-04	9.7E-02	2.7E-03	8.3E-04	3.1E-01
TW-04	TW04-12092020	N	12/09/20	SVOC	1,1-Biphenyl	92-52-4	T	2.60E-04		4.20E-05	9.7E-02	2.7E-03	8.3E-04	3.1E-01
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-04	TW04-12092020	N	12/09/20	SVOC	Chrysene	218-01-9	T		U	2.10E-05	2.5E-01		2.5E-01	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-04	TW04-12092020	N	12/09/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-05	2.5E-04		2.5E-04	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Dibenzofuran	132-64-9	T	1.00E-03		1.00E-04	2.0E-02	5.0E-02	7.9E-03	1.3E-01
TW-04	TW04-12092020	N	12/09/20	SVOC	Dibenzofuran	132-64-9	T	1.00E-03		2.10E-05	2.0E-02	5.0E-02	7.9E-03	1.3E-01
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Fluoranthene	206-44-0	T	2.10E-04		1.00E-04	8.0E-01	2.6E-04	8.0E-01	2.6E-04
TW-04	TW04-12092020	N	12/09/20	SVOC	Fluoranthene	206-44-0	T	2.10E-04		2.10E-05	8.0E-01	2.6E-04	8.0E-01	2.6E-04
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Fluorene	86-73-7	T	2.30E-03		1.00E-04	8.0E-01	2.9E-03	2.9E-01	7.9E-03
TW-04	TW04-12092020	N	12/09/20	SVOC	Fluorene	86-73-7	T	2.30E-03		2.10E-05	8.0E-01	2.9E-03	2.9E-01	7.9E-03
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-04	TW04-12092020	N	12/09/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.40E-05	2.5E-03		2.5E-03	
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	1-Methylnaphthalene	90-12-0	T	1.40E-03		1.00E-04	2.7E-02	5.2E-02	1.1E-02	1.3E-01
TW-04	TW04-12092020	N	12/09/20	SVOC	1-Methylnaphthalene	90-12-0	T	1.40E-03		2.10E-05	2.7E-02	5.2E-02	1.1E-02	1.3E-01
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	2-Methylnaphthalene	91-57-6	T	1.40E-04	J	1.50E-04	8.0E-02	1.8E-03	3.6E-02	3.9E-03
TW-04	TW04-12092020	N	12/09/20	SVOC	2-Methylnaphthalene	91-57-6	T	1.40E-04	J	6.30E-05	8.0E-02	1.8E-03	3.6E-02	3.9E-03
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Naphthalene	91-20-3	T	2.40E-03		1.70E-04	6.5E-03	3.7E-01	1.2E-03	2.0E+00
TW-04	TW04-12092020	N	12/09/20	SVOC	Naphthalene	91-20-3	T	2.40E-03		6.30E-05	6.5E-03	3.7E-01	1.2E-03	2.0E+00
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-04	TW04-12092020	N	12/09/20	SVOC	Perylene	198-55-0	T		U	4.20E-05				
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Phenanthrene	85-01-8	T	6.80E-04		1.70E-04	6.0E-01	1.1E-03	1.2E-01	5.7E-03
TW-04	TW04-12092020	N	12/09/20	SVOC	Phenanthrene	85-01-8	T	6.80E-04		6.30E-05	6.0E-01	1.1E-03	1.2E-01	5.7E-03
TW-04	410-12267-2383.1_TW04	N	12/09/20	SVOC	Pyrene	129-00-0	T	1.80E-04		1.00E-04	6.0E-01	3.0E-04	1.2E-01	1.5E-03
TW-04	TW04-12092020	N	12/09/20	SVOC	Pyrene	129-00-0	T	1.80E-04		4.20E-05	6.0E-01	3.0E-04	1.2E-01	1.5E-03
TW-04	410-33562-1_TW-04	N	03/23/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-04	TW-04-03232021	N	03/23/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	410-33562-1_TW-04	N	03/23/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-04	TW-04-03232021	N	03/23/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-04	410-33562-1_TW-04	N	03/23/21	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-04	TW-04-03232021	N	03/23/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-04	410-33562-1_TW-04	N	03/23/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-04	TW-04-03232021	N	03/23/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-04	410-33562-1_TW-04	N	03/23/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-04	TW-04-03232021	N	03/23/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-04	410-33562-1_TW-04	N	03/23/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-04	TW-04-03232021	N	03/23/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-04	410-33562-1_TW-04	N	03/23/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-04	TW-04-03232021	N	03/23/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-04	410-33562-1_TW-04	N	03/23/21	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-04	TW-04-03232021	N	03/23/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Acenaphthene	83-32-9	T	1.90E-03		1.10E-04	1.2E+00	1.6E-03	5.3E-01	3.6E-03
TW-04	TW-04-03232021	N	03/23/21	SVOC	Acenaphthene	83-32-9	T	1.90E-03		2.10E-05	1.2E+00	1.6E-03	5.3E-01	3.6E-03
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Acenaphthylene	208-96-8	T	6.10E-05	J	1.10E-04	6.0E-01	1.0E-04	1.2E-01	5.1E-04
TW-04	TW-04-03232021	N	03/23/21	SVOC	Acenaphthylene	208-96-8	T	6.10E-05	J	2.10E-05	6.0E-01	1.0E-04	1.2E-01	5.1E-04
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Anthracene	120-12-7	T	1.40E-04		1.10E-04	6.0E+00	2.3E-05	1.8E+00	7.8E-05
TW-04	TW-04-03232021	N	03/23/21	SVOC	Anthracene	120-12-7	T	1.40E-04		2.10E-05	6.0E+00	2.3E-05	1.8E+00	7.8E-05
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.10E-04	2.5E-03		3.0E-04	
TW-04	TW-04-03232021	N	03/23/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-05	2.5E-03		3.0E-04	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Benzo(a)pyrene	50-32-8	T	2.60E-05	J	1.10E-04	2.0E-04	1.3E-01	2.5E-04	1.0E-01
TW-04	TW-04-03232021	N	03/23/21	SVOC	Benzo(a)pyrene	50-32-8	T	2.60E-05	J	2.10E-05	2.0E-04	1.3E-01	2.5E-04	1.0E-01
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-04	TW-04-03232021	N	03/23/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.50E-05	2.5E-03		2.5E-03	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-04	TW-04-03232021	N	03/23/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-04	TW-04-03232021	N	03/23/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.40E-05	6.0E-01		1.2E-01	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.10E-04	2.5E-02		2.5E-02	
TW-04	TW-04-03232021	N	03/23/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-05	2.5E-02		2.5E-02	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	1,1-Biphenyl	92-52-4	T	1.20E-04	*-	1.10E-04	9.7E-02	1.2E-03	8.3E-04	1.4E-01
TW-04	TW-04-03232021	N	03/23/21	SVOC	1,1-Biphenyl	92-52-4	T	1.20E-04	*-	4.20E-05	9.7E-02	1.2E-03	8.3E-04	1.4E-01
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Chrysene	218-01-9	T		U	1.10E-04	2.5E-01		2.5E-01	
TW-04	TW-04-03232021	N	03/23/21	SVOC	Chrysene	218-01-9	T		U	2.10E-05	2.5E-01		2.5E-01	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.10E-04	2.5E-04		2.5E-04	
TW-04	TW-04-03232021	N	03/23/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-05	2.5E-04		2.5E-04	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Dibenzofuran	132-64-9	T	4.50E-04		1.10E-04	2.0E-02	2.3E-02	7.9E-03	5.7E-02
TW-04	TW-04-03232021	N	03/23/21	SVOC	Dibenzofuran	132-64-9	T	4.50E-04		2.10E-05	2.0E-02	2.3E-02	7.9E-03	5.7E-02
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Fluoranthene	206-44-0	T	1.10E-04	*+	1.10E-04	8.0E-01	1.4E-04	8.0E-01	1.4E-04
TW-04	TW-04-03232021	N	03/23/21	SVOC	Fluoranthene	206-44-0	T	1.10E-04	*+	2.10E-05	8.0E-01	1.4E-04	8.0E-01	1.4E-04
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Fluorene	86-73-7	T	8.00E-04		1.10E-04	8.0E-01	1.0E-03	2.9E-01	2.8E-03
TW-04	TW-04-03232021	N	03/23/21	SVOC	Fluorene	86-73-7	T	8.00E-04		2.10E-05	8.0E-01	1.0E-03	2.9E-01	2.8E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-04	TW-04-03232021	N	03/23/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.50E-05	2.5E-03		2.5E-03	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	1-Methylnaphthalene	90-12-0	T	3.40E-04		1.10E-04	2.7E-02	1.3E-02	1.1E-02	3.1E-02
TW-04	TW-04-03232021	N	03/23/21	SVOC	1-Methylnaphthalene	90-12-0	T	3.40E-04		2.10E-05	2.7E-02	1.3E-02	1.1E-02	3.1E-02
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-04	TW-04-03232021	N	03/23/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.40E-05	8.0E-02		3.6E-02	
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Naphthalene	91-20-3	T	4.20E-04		1.70E-04	6.5E-03	6.5E-02	1.2E-03	3.5E-01
TW-04	TW-04-03232021	N	03/23/21	SVOC	Naphthalene	91-20-3	T	4.20E-04		6.40E-05	6.5E-03	6.5E-02	1.2E-03	3.5E-01
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-04	TW-04-03232021	N	03/23/21	SVOC	Perylene	198-55-0	T		U*	4.20E-05				
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Phenanthrene	85-01-8	T	1.40E-04	J	1.70E-04	6.0E-01	2.3E-04	1.2E-01	1.2E-03
TW-04	TW-04-03232021	N	03/23/21	SVOC	Phenanthrene	85-01-8	T	1.40E-04	J	6.40E-05	6.0E-01	2.3E-04	1.2E-01	1.2E-03
TW-04	410-33562-1_TW-04	N	03/23/21	SVOC	Pyrene	129-00-0	T	1.60E-04		1.10E-04	6.0E-01	2.7E-04	1.2E-01	1.3E-03
TW-04	TW-04-03232021	N	03/23/21	SVOC	Pyrene	129-00-0	T	1.60E-04		4.20E-05	6.0E-01	2.7E-04	1.2E-01	1.3E-03
TW-04	TW04-210520	N	05/20/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-04	TW04-210520	N	05/20/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-04	TW04-210520	N	05/20/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-04	TW04-210520	N	05/20/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-04	TW04-210520	N	05/20/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-04	TW04-210520	N	05/20/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-04	TW04-210520	N	05/20/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-04	TW04-210520	N	05/20/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-04	TW04-210520	N	05/20/21	SVOC	Acenaphthene	83-32-9	T	1.30E-03		2.20E-05	1.2E+00	1.1E-03	5.3E-01	2.5E-03
TW-04	TW04-210520	N	05/20/21	SVOC	Acenaphthylene	208-96-8	T	4.80E-05	J	2.20E-05	6.0E-01	8.0E-05	1.2E-01	4.0E-04
TW-04	TW04-210520	N	05/20/21	SVOC	Anthracene	120-12-7	T	6.20E-05	J	2.20E-05	6.0E+00	1.0E-05	1.8E+00	3.4E-05
TW-04	TW04-210520	N	05/20/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.20E-05	2.5E-03		3.0E-04	
TW-04	TW04-210520	N	05/20/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.20E-05	2.0E-04		2.5E-04	
TW-04	TW04-210520	N	05/20/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.80E-05	2.5E-03		2.5E-03	
TW-04	TW04-210520	N	05/20/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.20E-05	1.8E-03		1.8E-03	
TW-04	TW04-210520	N	05/20/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.60E-05	6.0E-01		1.2E-01	
TW-04	TW04-210520	N	05/20/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.20E-05	2.5E-02		2.5E-02	
TW-04	TW04-210520	N	05/20/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.40E-05	9.7E-02		8.3E-04	
TW-04	TW04-210520	N	05/20/21	SVOC	Chrysene	218-01-9	T		U	2.20E-05	2.5E-01		2.5E-01	
TW-04	TW04-210520	N	05/20/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.20E-05	2.5E-04		2.5E-04	
TW-04	TW04-210520	N	05/20/21	SVOC	Dibenzofuran	132-64-9	T	3.90E-04		2.20E-05	2.0E-02	2.0E-02	7.9E-03	4.9E-02
TW-04	TW04-210520	N	05/20/21	SVOC	Dibenzothiophene	132-65-0	T		U	4.40E-05				
TW-04	TW04-210520	N	05/20/21	SVOC	Fluoranthene	206-44-0	T	8.30E-05	J	2.20E-05	8.0E-01	1.0E-04	8.0E-01	1.0E-04
TW-04	TW04-210520	N	05/20/21	SVOC	Fluorene	86-73-7	T	6.40E-04		2.20E-05	8.0E-01	8.0E-04	2.9E-01	2.2E-03
TW-04	TW04-210520	N	05/20/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.80E-05	2.5E-03		2.5E-03	
TW-04	TW04-210520	N	05/20/21	SVOC	1-Methylnaphthalene	90-12-0	T	6.70E-04		2.20E-05	2.7E-02	2.5E-02	1.1E-02	6.1E-02
TW-04	TW04-210520	N	05/20/21	SVOC	2-Methylnaphthalene	91-57-6	T	8.40E-05	J	6.60E-05	8.0E-02	1.1E-03	3.6E-02	2.3E-03
TW-04	TW04-210520	N	05/20/21	SVOC	Naphthalene	91-20-3	T	3.10E-04		6.60E-05	6.5E-03	4.8E-02	1.2E-03	2.6E-01
TW-04	TW04-210520	N	05/20/21	SVOC	Perylene	198-55-0	T		U	4.40E-05				
TW-04	TW04-210520	N	05/20/21	SVOC	Phenanthrene	85-01-8	T	2.30E-04		6.60E-05	6.0E-01	3.8E-04	1.2E-01	1.9E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-04	TW04-210520	N	05/20/21	SVOC	Pyrene	129-00-0	T	1.70E-04		4.40E-05	6.0E-01	2.8E-04	1.2E-01	1.4E-03
TW-04	HRP-TW04-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
TW-04	HRP-TW-04-220503	N	05/03/22	SVOC	Naphthalene	91-20-3	T	1.70E-03	J	1.00E-03	6.5E-03	2.6E-01	1.2E-03	1.4E+00
TW-04	HRP-TW04-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-05	PRG24_TW-05	N	02/18/20	VOC	Benzene	71-43-2	T	2.00E-04	J	1.00E-03	5.0E-03	4.0E-02	4.6E-03	4.3E-02
TW-05	TW-05_02/18/20	N	02/18/20	VOC	Benzene	71-43-2	T	2.00E-04	J	1.00E-03	5.0E-03	4.0E-02	4.6E-03	4.3E-02
TW-05	PRG24_TW-05	N	02/18/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-05	TW-05_02/18/20	N	02/18/20	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-05	PRG24_TW-05	N	02/18/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-05	TW-05_02/18/20	N	02/18/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-05	PRG24_TW-05	N	02/18/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-05	TW-05_02/18/20	N	02/18/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-05	PRG24_TW-05	N	02/18/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-05	TW-05_02/18/20	N	02/18/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-05	PRG24_TW-05	N	02/18/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-05	TW-05_02/18/20	N	02/18/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-05	PRG24_TW-05	N	02/18/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-05	TW-05_02/18/20	N	02/18/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-05	PRG24_TW-05	N	02/18/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-05	TW-05_02/18/20	N	02/18/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Acenaphthene	83-32-9	T	7.00E-04		2.00E-04	1.2E+00	5.8E-04	5.3E-01	1.3E-03
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Acenaphthene	83-32-9	T	7.00E-04		2.00E-04	1.2E+00	5.8E-04	5.3E-01	1.3E-03
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	1,1-Biphenyl	92-52-4	T	2.00E-04		2.00E-04	9.7E-02	2.1E-03	8.3E-04	2.4E-01
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	1,1-Biphenyl	92-52-4	T	2.00E-04		2.00E-04	9.7E-02	2.1E-03	8.3E-04	2.4E-01
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Dibenzofuran	132-64-9	T	1.00E-04	J	2.00E-04	2.0E-02	5.0E-03	7.9E-03	1.3E-02
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Dibenzofuran	132-64-9	T	1.00E-04	J	2.00E-04	2.0E-02	5.0E-03	7.9E-03	1.3E-02
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Fluorene	86-73-7	T	6.00E-04		2.00E-04	8.0E-01	7.5E-04	2.9E-01	2.1E-03
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Fluorene	86-73-7	T	6.00E-04		2.00E-04	8.0E-01	7.5E-04	2.9E-01	2.1E-03
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-05	PRG24_TW-05	N	02/18/20	SVOC	1-Methylnaphthalene	90-12-0	T	2.00E-03		2.00E-04	2.7E-02	7.4E-02	1.1E-02	1.8E-01
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	1-Methylnaphthalene	90-12-0	T	2.00E-03		2.00E-04	2.7E-02	7.4E-02	1.1E-02	1.8E-01
TW-05	PRG24_TW-05	N	02/18/20	SVOC	2-Methylnaphthalene	91-57-6	T	2.00E-04	J	3.00E-04	8.0E-02	2.5E-03	3.6E-02	5.6E-03
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	2-Methylnaphthalene	91-57-6	T	2.00E-04	J	3.00E-04	8.0E-02	2.5E-03	3.6E-02	5.6E-03
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Naphthalene	91-20-3	T	6.00E-04		3.00E-04	6.5E-03	9.2E-02	1.2E-03	5.0E-01
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Naphthalene	91-20-3	T	6.00E-04		3.00E-04	6.5E-03	9.2E-02	1.2E-03	5.0E-01
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Phenanthrene	85-01-8	T	3.00E-04	J	3.00E-04	6.0E-01	5.0E-04	1.2E-01	2.5E-03
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Phenanthrene	85-01-8	T	3.00E-04	J	3.00E-04	6.0E-01	5.0E-04	1.2E-01	2.5E-03
TW-05	PRG24_TW-05	N	02/18/20	SVOC	Pyrene	129-00-0	T	2.00E-04	J	2.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-05	TW-05_02/18/20	N	02/18/20	SVOC	Pyrene	129-00-0	T	2.00E-04	J	2.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-05	TW-05_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	9.58E+01		5.00E+00	1.4E+01	6.8E+00	1.4E+01	6.8E+00
TW-05	TW-05_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	5.03E+00		1.00E-02	4.8E-01	1.0E+01	4.3E-01	1.2E+01
TW-05	PRG25_TW05	N	05/11/20	VOC	Benzene	71-43-2	T	2.00E-04	J	1.00E-03	5.0E-03	4.0E-02	4.6E-03	4.3E-02
TW-05	TW-05_05/11/20	N	05/11/20	VOC	Benzene	71-43-2	T	2.00E-04	J	1.00E-03	5.0E-03	4.0E-02	4.6E-03	4.3E-02
TW-05	PRG25_TW05	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-05	TW-05_05/11/20	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-05	PRG25_TW05	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-05	TW-05_05/11/20	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-05	PRG25_TW05	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-05	TW-05_05/11/20	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-05	PRG25_TW05	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-05	TW-05_05/11/20	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-05	PRG25_TW05	N	05/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-05	TW-05_05/11/20	N	05/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-05	PRG25_TW05	N	05/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-05	TW-05_05/11/20	N	05/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-05	PRG25_TW05	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-05	TW-05_05/11/20	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Acenaphthene	83-32-9	T	8.00E-04		1.00E-04	1.2E+00	6.7E-04	5.3E-01	1.5E-03
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Acenaphthene	83-32-9	T	8.00E-04		5.00E-04	1.2E+00	6.7E-04	5.3E-01	1.5E-03
TW-05	PRG25_TW05	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-05	PRG25_TW05	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T	2.00E-04		1.00E-04	9.7E-02	2.1E-03	8.3E-04	2.4E-01
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T	2.00E-04		1.00E-04	9.7E-02	2.1E-03	8.3E-04	2.4E-01
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
TW-05	PRG25_TW05	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T	1.00E-04	J	1.00E-04	2.0E-02	5.0E-03	7.9E-03	1.3E-02
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T	1.00E-04	J	1.00E-04	2.0E-02	5.0E-03	7.9E-03	1.3E-02
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	PRG25_TW05	N	05/11/20	SVOC	Fluoranthene	206-44-0	T	4.00E-05	J	1.00E-04	8.0E-01	5.0E-05	8.0E-01	5.0E-05
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Fluoranthene	206-44-0	T	4.00E-05	J	1.00E-04	8.0E-01	5.0E-05	8.0E-01	5.0E-05
TW-05	PRG25_TW05	N	05/11/20	SVOC	Fluorene	86-73-7	T	6.00E-04		1.00E-04	8.0E-01	7.5E-04	2.9E-01	2.1E-03
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Fluorene	86-73-7	T	6.00E-04		5.00E-04	8.0E-01	7.5E-04	2.9E-01	2.1E-03
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
TW-05	PRG25_TW05	N	05/11/20	SVOC	1-Methylnaphthalene	90-12-0	T	2.00E-03		1.00E-04	2.7E-02	7.4E-02	1.1E-02	1.8E-01
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	1-Methylnaphthalene	90-12-0	T	2.00E-03		1.00E-04	2.7E-02	7.4E-02	1.1E-02	1.8E-01
TW-05	PRG25_TW05	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T	2.00E-04		1.00E-04	8.0E-02	2.5E-03	3.6E-02	5.6E-03
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T	2.00E-04		1.00E-04	8.0E-02	2.5E-03	3.6E-02	5.6E-03
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Naphthalene	91-20-3	T	7.00E-04		2.00E-04	6.5E-03	1.1E-01	1.2E-03	5.8E-01
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Naphthalene	91-20-3	T	7.00E-04		2.00E-04	6.5E-03	1.1E-01	1.2E-03	5.8E-01
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-05	PRG25_TW05	N	05/11/20	SVOC	Phenanthrene	85-01-8	T	2.00E-04		2.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Phenanthrene	85-01-8	T	3.00E-04	J	5.00E-04	6.0E-01	5.0E-04	1.2E-01	2.5E-03
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
TW-05	PRG25_TW05	N	05/11/20	SVOC	Pyrene	129-00-0	T	1.00E-04		1.00E-04	6.0E-01	1.7E-04	1.2E-01	8.3E-04
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Pyrene	129-00-0	T	2.00E-04	J	5.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
TW-05	TW-05_05/11/20	N	05/11/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Barium	7440-39-3	T	2.67E-02		5.00E-03	2.0E+00	1.3E-02	3.8E+00	7.0E-03
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Cadmium	7440-43-9	T	4.40E-03	J	5.00E-03	5.0E-03	8.8E-01	1.8E-03	2.4E+00
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Cobalt	7440-48-4	T	1.09E-01		5.00E-03	6.0E-03	1.8E+01	6.0E-03	1.8E+01
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Iron	7439-89-6	T	9.84E+01		5.00E+00	1.4E+01	7.0E+00	1.4E+01	7.0E+00
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Lead	7439-92-1	T	8.70E-03	J	1.50E-02	1.5E-02	5.8E-01	1.5E-02	5.8E-01
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Manganese	7439-96-5	T	4.35E+00		1.00E-02	4.8E-01	9.1E+00	4.3E-01	1.0E+01
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Nickel	7440-02-0	T	4.81E-02		1.00E-02	4.0E-01	1.2E-01	3.9E-01	1.2E-01
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
TW-05	TW-05_05/11/20	N	05/11/20	INORG	Zinc	7440-66-6	T	1.42E-01		2.00E-02	6.0E+00	2.4E-02	6.0E+00	2.4E-02
TW-05	410-12267-2383.1_TW05	N	12/09/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-05	TW05-12092020	N	12/09/20	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-05	410-12267-2383.1_TW05	N	12/09/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-05	TW05-12092020	N	12/09/20	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-05	410-12267-2383.1_TW05	N	12/09/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-05	TW05-12092020	N	12/09/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-05	410-12267-2383.1_TW05	N	12/09/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-05	TW05-12092020	N	12/09/20	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-05	410-12267-2383.1_TW05	N	12/09/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-05	TW05-12092020	N	12/09/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-05	410-12267-2383.1_TW05	N	12/09/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-05	TW05-12092020	N	12/09/20	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-05	410-12267-2383.1_TW05	N	12/09/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-05	TW05-12092020	N	12/09/20	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-05	410-12267-2383.1_TW05	N	12/09/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-05	TW05-12092020	N	12/09/20	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Acenaphthene	83-32-9	T		U	1.10E-04	1.2E+00		5.3E-01	
TW-05	TW05-12092020	N	12/09/20	SVOC	Acenaphthene	83-32-9	T		U	2.10E-05	1.2E+00		5.3E-01	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Acenaphthylene	208-96-8	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-05	TW05-12092020	N	12/09/20	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Anthracene	120-12-7	T		U	1.10E-04	6.0E+00		1.8E+00	
TW-05	TW05-12092020	N	12/09/20	SVOC	Anthracene	120-12-7	T		U	2.10E-05	6.0E+00		1.8E+00	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.10E-04	2.5E-03		3.0E-04	
TW-05	TW05-12092020	N	12/09/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-05	2.5E-03		3.0E-04	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Benzo(a)pyrene	50-32-8	T	2.70E-05	J	1.10E-04	2.0E-04	1.4E-01	2.5E-04	1.1E-01
TW-05	TW05-12092020	N	12/09/20	SVOC	Benzo(a)pyrene	50-32-8	T	2.70E-05	J	2.10E-05	2.0E-04	1.4E-01	2.5E-04	1.1E-01
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-05	TW05-12092020	N	12/09/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.60E-05	2.5E-03		2.5E-03	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	TW05-12092020	N	12/09/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-05	TW05-12092020	N	12/09/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.40E-05	6.0E-01		1.2E-01	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.10E-04	2.5E-02		2.5E-02	
TW-05	TW05-12092020	N	12/09/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-05	2.5E-02		2.5E-02	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-04	9.7E-02		8.3E-04	
TW-05	TW05-12092020	N	12/09/20	SVOC	1,1-Biphenyl	92-52-4	T		U	4.30E-05	9.7E-02		8.3E-04	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Chrysene	218-01-9	T	2.10E-05	J	1.10E-04	2.5E-01	8.4E-05	2.5E-01	8.4E-05
TW-05	TW05-12092020	N	12/09/20	SVOC	Chrysene	218-01-9	T	2.10E-05	J	2.10E-05	2.5E-01	8.4E-05	2.5E-01	8.4E-05
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.10E-04	2.5E-04		2.5E-04	
TW-05	TW05-12092020	N	12/09/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-05	2.5E-04		2.5E-04	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Dibenzofuran	132-64-9	T		U	1.10E-04	2.0E-02		7.9E-03	
TW-05	TW05-12092020	N	12/09/20	SVOC	Dibenzofuran	132-64-9	T		U	2.10E-05	2.0E-02		7.9E-03	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Fluoranthene	206-44-0	T		U	1.10E-04	8.0E-01		8.0E-01	
TW-05	TW05-12092020	N	12/09/20	SVOC	Fluoranthene	206-44-0	T		U	2.10E-05	8.0E-01		8.0E-01	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Fluorene	86-73-7	T		U	1.10E-04	8.0E-01		2.9E-01	
TW-05	TW05-12092020	N	12/09/20	SVOC	Fluorene	86-73-7	T		U	2.10E-05	8.0E-01		2.9E-01	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-05	TW05-12092020	N	12/09/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.60E-05	2.5E-03		2.5E-03	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.10E-04	2.7E-02		1.1E-02	
TW-05	TW05-12092020	N	12/09/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.10E-05	2.7E-02		1.1E-02	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-05	TW05-12092020	N	12/09/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.40E-05	8.0E-02		3.6E-02	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-05	TW05-12092020	N	12/09/20	SVOC	Naphthalene	91-20-3	T		U	6.40E-05	6.5E-03		1.2E-03	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-05	TW05-12092020	N	12/09/20	SVOC	Perylene	198-55-0	T		U	4.30E-05				
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Phenanthrene	85-01-8	T		U	1.70E-04	6.0E-01		1.2E-01	
TW-05	TW05-12092020	N	12/09/20	SVOC	Phenanthrene	85-01-8	T		U	6.40E-05	6.0E-01		1.2E-01	
TW-05	410-12267-2383.1_TW05	N	12/09/20	SVOC	Pyrene	129-00-0	T	3.00E-04		1.10E-04	6.0E-01	5.0E-04	1.2E-01	2.5E-03
TW-05	TW05-12092020	N	12/09/20	SVOC	Pyrene	129-00-0	T	3.00E-04		4.30E-05	6.0E-01	5.0E-04	1.2E-01	2.5E-03
TW-05	410-33562-1_DUP20210323	FD	03/23/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-05	410-33562-1_TW-05	N	03/23/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-05	DUP20210323-03232021	FD	03/23/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-05	TW-05-03232021	N	03/23/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-05	410-33562-1_TW-05	N	03/23/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-05	DUP20210323-03232021	FD	03/23/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-05	TW-05-03232021	N	03/23/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-05	410-33562-1_TW-05	N	03/23/21	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-05	DUP20210323-03232021	FD	03/23/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-05	TW-05-03232021	N	03/23/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	410-33562-1_TW-05	N	03/23/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-05	DUP20210323-03232021	FD	03/23/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-05	TW-05-03232021	N	03/23/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-05	410-33562-1_TW-05	N	03/23/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-05	DUP20210323-03232021	FD	03/23/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-05	TW-05-03232021	N	03/23/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-05	410-33562-1_TW-05	N	03/23/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-05	DUP20210323-03232021	FD	03/23/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-05	TW-05-03232021	N	03/23/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-05	410-33562-1_TW-05	N	03/23/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-05	DUP20210323-03232021	FD	03/23/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-05	TW-05-03232021	N	03/23/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-05	410-33562-1_TW-05	N	03/23/21	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-05	DUP20210323-03232021	FD	03/23/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-05	TW-05-03232021	N	03/23/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Acenaphthene	83-32-9	T		U	2.00E-05	1.2E+00		5.3E-01	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Acenaphthene	83-32-9	T		U	2.10E-05	1.2E+00		5.3E-01	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-05	6.0E-01		1.2E-01	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Anthracene	120-12-7	T		U	2.00E-05	6.0E+00		1.8E+00	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Anthracene	120-12-7	T		U	2.10E-05	6.0E+00		1.8E+00	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Benzo(a)anthracene	56-55-3	T	5.10E-05	J	1.00E-04	2.5E-03	2.0E-02	3.0E-04	1.7E-01
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Benzo(a)anthracene	56-55-3	T	1.70E-04		1.00E-04	2.5E-03	6.8E-02	3.0E-04	5.7E-01
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Benzo(a)anthracene	56-55-3	T	5.10E-05	J	2.00E-05	2.5E-03	2.0E-02	3.0E-04	1.7E-01
TW-05	TW-05-03232021	N	03/23/21	SVOC	Benzo(a)anthracene	56-55-3	T	1.70E-04		2.10E-05	2.5E-03	6.8E-02	3.0E-04	5.7E-01
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Benzo(a)pyrene	50-32-8	T	7.60E-05	J	1.00E-04	2.0E-04	3.8E-01	2.5E-04	3.0E-01
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Benzo(a)pyrene	50-32-8	T	1.60E-04		1.00E-04	2.0E-04	8.0E-01	2.5E-04	6.4E-01
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Benzo(a)pyrene	50-32-8	T	7.60E-05	J	2.00E-05	2.0E-04	3.8E-01	2.5E-04	3.0E-01
TW-05	TW-05-03232021	N	03/23/21	SVOC	Benzo(a)pyrene	50-32-8	T	1.60E-04		2.10E-05	2.0E-04	8.0E-01	2.5E-04	6.4E-01
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.80E-04	2.5E-03		2.5E-03	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Benzo(b)fluoranthene	205-99-2	T	2.00E-04		1.90E-04	2.5E-03	8.0E-02	2.5E-03	8.0E-02
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.20E-05	2.5E-03		2.5E-03	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Benzo(b)fluoranthene	205-99-2	T	2.00E-04		8.40E-05	2.5E-03	8.0E-02	2.5E-03	8.0E-02
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Benzo(e)pyrene	192-97-2	T	7.60E-05	J	1.00E-04	1.8E-03	4.2E-02	1.8E-03	4.2E-02

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Benzo(e)pyrene	192-97-2	T	1.70E-04		1.00E-04	1.8E-03	9.4E-02	1.8E-03	9.4E-02
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Benzo(e)pyrene	192-97-2	T	7.60E-05	J	2.00E-05	1.8E-03	4.2E-02	1.8E-03	4.2E-02
TW-05	TW-05-03232021	N	03/23/21	SVOC	Benzo(e)pyrene	192-97-2	T	1.70E-04		2.10E-05	1.8E-03	9.4E-02	1.8E-03	9.4E-02
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.40E-04	6.0E-01		1.2E-01	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T	1.10E-04	J	1.50E-04	6.0E-01	1.8E-04	1.2E-01	9.2E-04
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.10E-05	6.0E-01		1.2E-01	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T	1.10E-04	J	6.30E-05	6.0E-01	1.8E-04	1.2E-01	9.2E-04
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Benzo(k)fluoranthene	207-08-9	T	5.30E-05	J	1.00E-04	2.5E-02	2.1E-03	2.5E-02	2.1E-03
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Benzo(k)fluoranthene	207-08-9	T	1.30E-04		1.00E-04	2.5E-02	5.2E-03	2.5E-02	5.2E-03
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Benzo(k)fluoranthene	207-08-9	T	5.30E-05	J	2.00E-05	2.5E-02	2.1E-03	2.5E-02	2.1E-03
TW-05	TW-05-03232021	N	03/23/21	SVOC	Benzo(k)fluoranthene	207-08-9	T	1.30E-04		2.10E-05	2.5E-02	5.2E-03	2.5E-02	5.2E-03
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.10E-05	9.7E-02		8.3E-04	
TW-05	TW-05-03232021	N	03/23/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.20E-05	9.7E-02		8.3E-04	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Chrysene	218-01-9	T	1.10E-04		1.00E-04	2.5E-01	4.4E-04	2.5E-01	4.4E-04
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Chrysene	218-01-9	T	3.00E-04		1.00E-04	2.5E-01	1.2E-03	2.5E-01	1.2E-03
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Chrysene	218-01-9	T	1.10E-04		2.00E-05	2.5E-01	4.4E-04	2.5E-01	4.4E-04
TW-05	TW-05-03232021	N	03/23/21	SVOC	Chrysene	218-01-9	T	3.00E-04		2.10E-05	2.5E-01	1.2E-03	2.5E-01	1.2E-03
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T	2.90E-05	J	1.00E-04	2.5E-04	1.2E-01	2.5E-04	1.2E-01
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-05	2.5E-04		2.5E-04	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T	2.90E-05	J	2.10E-05	2.5E-04	1.2E-01	2.5E-04	1.2E-01
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-05	2.0E-02		7.9E-03	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Dibenzofuran	132-64-9	T		U	2.10E-05	2.0E-02		7.9E-03	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Fluoranthene	206-44-0	T	1.40E-04	*+	1.00E-04	8.0E-01	1.8E-04	8.0E-01	1.8E-04
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Fluoranthene	206-44-0	T	2.80E-04	*+	1.00E-04	8.0E-01	3.5E-04	8.0E-01	3.5E-04
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Fluoranthene	206-44-0	T	1.40E-04	*+	2.00E-05	8.0E-01	1.8E-04	8.0E-01	1.8E-04
TW-05	TW-05-03232021	N	03/23/21	SVOC	Fluoranthene	206-44-0	T	2.80E-04	*+	2.10E-05	8.0E-01	3.5E-04	8.0E-01	3.5E-04
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Fluorene	86-73-7	T		U	2.00E-05	8.0E-01		2.9E-01	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Fluorene	86-73-7	T		U	2.10E-05	8.0E-01		2.9E-01	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.80E-04	2.5E-03		2.5E-03	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T	1.10E-04	J	1.90E-04	2.5E-03	4.4E-02	2.5E-03	4.4E-02
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.20E-05	2.5E-03		2.5E-03	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T	1.10E-04	J	8.40E-05	2.5E-03	4.4E-02	2.5E-03	4.4E-02
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-05	2.7E-02		1.1E-02	
TW-05	TW-05-03232021	N	03/23/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.10E-05	2.7E-02		1.1E-02	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.40E-04	8.0E-02		3.6E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.10E-05	8.0E-02		3.6E-02	
TW-05	TW-05-03232021	N	03/23/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.30E-05	8.0E-02		3.6E-02	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Naphthalene	91-20-3	T		U	1.60E-04	6.5E-03		1.2E-03	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Naphthalene	91-20-3	T		U	6.10E-05	6.5E-03		1.2E-03	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Naphthalene	91-20-3	T		U	6.30E-05	6.5E-03		1.2E-03	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Perylene	198-55-0	T		U*	4.10E-05				
TW-05	TW-05-03232021	N	03/23/21	SVOC	Perylene	198-55-0	T		U*	4.20E-05				
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Phenanthrene	85-01-8	T		U	1.60E-04	6.0E-01		1.2E-01	
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Phenanthrene	85-01-8	T		U	1.70E-04	6.0E-01		1.2E-01	
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Phenanthrene	85-01-8	T		U	6.10E-05	6.0E-01		1.2E-01	
TW-05	TW-05-03232021	N	03/23/21	SVOC	Phenanthrene	85-01-8	T		U	6.30E-05	6.0E-01		1.2E-01	
TW-05	410-33562-1_DUP20210323	FD	03/23/21	SVOC	Pyrene	129-00-0	T	1.20E-03		1.00E-04	6.0E-01	2.0E-03	1.2E-01	1.0E-02
TW-05	410-33562-1_TW-05	N	03/23/21	SVOC	Pyrene	129-00-0	T	2.60E-03		1.00E-04	6.0E-01	4.3E-03	1.2E-01	2.2E-02
TW-05	DUP20210323-03232021	FD	03/23/21	SVOC	Pyrene	129-00-0	T	1.20E-03		4.10E-05	6.0E-01	2.0E-03	1.2E-01	1.0E-02
TW-05	TW-05-03232021	N	03/23/21	SVOC	Pyrene	129-00-0	T	2.60E-03		4.20E-05	6.0E-01	4.3E-03	1.2E-01	2.2E-02
TW-05	TW05-210521	N	05/21/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-05	TW05-210521	N	05/21/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-05	TW05-210521	N	05/21/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-05	TW05-210521	N	05/21/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-05	TW05-210521	N	05/21/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-05	TW05-210521	N	05/21/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-05	TW05-210521	N	05/21/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-05	TW05-210521	N	05/21/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-05	TW05-210521	N	05/21/21	SVOC	Acenaphthene	83-32-9	T	7.30E-05	J	2.10E-05	1.2E+00	6.1E-05	5.3E-01	1.4E-04
TW-05	TW05-210521	N	05/21/21	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-05	TW05-210521	N	05/21/21	SVOC	Anthracene	120-12-7	T		U	2.10E-05	6.0E+00		1.8E+00	
TW-05	TW05-210521	N	05/21/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-05	2.5E-03		3.0E-04	
TW-05	TW05-210521	N	05/21/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.10E-05	2.0E-04		2.5E-04	
TW-05	TW05-210521	N	05/21/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.30E-05	2.5E-03		2.5E-03	
TW-05	TW05-210521	N	05/21/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-05	TW05-210521	N	05/21/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.20E-05	6.0E-01		1.2E-01	
TW-05	TW05-210521	N	05/21/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-05	2.5E-02		2.5E-02	
TW-05	TW05-210521	N	05/21/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.10E-05	9.7E-02		8.3E-04	
TW-05	TW05-210521	N	05/21/21	SVOC	Chrysene	218-01-9	T		U	2.10E-05	2.5E-01		2.5E-01	
TW-05	TW05-210521	N	05/21/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-05	2.5E-04		2.5E-04	
TW-05	TW05-210521	N	05/21/21	SVOC	Dibenzofuran	132-64-9	T		U	2.10E-05	2.0E-02		7.9E-03	
TW-05	TW05-210521	N	05/21/21	SVOC	Dibenzothiophene	132-65-0	T		U	4.10E-05				
TW-05	TW05-210521	N	05/21/21	SVOC	Fluoranthene	206-44-0	T		U	2.10E-05	8.0E-01		8.0E-01	
TW-05	TW05-210521	N	05/21/21	SVOC	Fluorene	86-73-7	T		U	2.10E-05	8.0E-01		2.9E-01	
TW-05	TW05-210521	N	05/21/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.30E-05	2.5E-03		2.5E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-05	TW05-210521	N	05/21/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.10E-05	2.7E-02		1.1E-02	
TW-05	TW05-210521	N	05/21/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.20E-05	8.0E-02		3.6E-02	
TW-05	TW05-210521	N	05/21/21	SVOC	Naphthalene	91-20-3	T		U	6.20E-05	6.5E-03		1.2E-03	
TW-05	TW05-210521	N	05/21/21	SVOC	Perylene	198-55-0	T		U	4.10E-05				
TW-05	TW05-210521	N	05/21/21	SVOC	Phenanthrene	85-01-8	T		U	6.20E-05	6.0E-01		1.2E-01	
TW-05	TW05-210521	N	05/21/21	SVOC	Pyrene	129-00-0	T	2.30E-04		4.10E-05	6.0E-01	3.8E-04	1.2E-01	1.9E-03
TW-05	HRP-TW05-211102	N	11/02/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
TW-05	HRP-TW-05-220504	N	05/04/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-05	HRP-TW05-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-06	PRG24_TW-06	N	02/18/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	TW-06_02/18/20	N	02/18/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	PRG24_TW-06	N	02/18/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-06	TW-06_02/18/20	N	02/18/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-06	PRG24_TW-06	N	02/18/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	TW-06_02/18/20	N	02/18/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	PRG24_TW-06	N	02/18/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	TW-06_02/18/20	N	02/18/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	PRG24_TW-06	N	02/18/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	TW-06_02/18/20	N	02/18/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	PRG24_TW-06	N	02/18/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-06	TW-06_02/18/20	N	02/18/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-06	PRG24_TW-06	N	02/18/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	TW-06_02/18/20	N	02/18/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	PRG24_TW-06	N	02/18/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	TW-06_02/18/20	N	02/18/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Acenaphthene	83-32-9	T	4.00E-04		2.00E-04	1.2E+00	3.3E-04	5.3E-01	7.5E-04
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Acenaphthene	83-32-9	T	4.00E-04		2.00E-04	1.2E+00	3.3E-04	5.3E-01	7.5E-04
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	1,1-Biphenyl	92-52-4	T	3.00E-04		2.00E-04	9.7E-02	3.1E-03	8.3E-04	3.6E-01

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	1,1-Biphenyl	92-52-4	T	3.00E-04		2.00E-04	9.7E-02	3.1E-03	8.3E-04	3.6E-01
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Fluorene	86-73-7	T	5.00E-04		2.00E-04	8.0E-01	6.3E-04	2.9E-01	1.7E-03
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Fluorene	86-73-7	T	5.00E-04		2.00E-04	8.0E-01	6.3E-04	2.9E-01	1.7E-03
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	1-Methylnaphthalene	90-12-0	T	3.00E-04		2.00E-04	2.7E-02	1.1E-02	1.1E-02	2.7E-02
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	1-Methylnaphthalene	90-12-0	T	3.00E-04		2.00E-04	2.7E-02	1.1E-02	1.1E-02	2.7E-02
TW-06	PRG24_TW-06	N	02/18/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Naphthalene	91-20-3	T	5.00E-04		4.00E-04	6.5E-03	7.7E-02	1.2E-03	4.2E-01
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Naphthalene	91-20-3	T	5.00E-04		4.00E-04	6.5E-03	7.7E-02	1.2E-03	4.2E-01
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Phenanthrene	85-01-8	T	2.00E-04	J	4.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Phenanthrene	85-01-8	T	2.00E-04	J	4.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-06	PRG24_TW-06	N	02/18/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-06	TW-06_02/18/20	N	02/18/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-06	TW-06_02/18/20	N	02/18/20	INORG	Iron	7439-89-6	T	4.40E+01		5.00E+00	1.4E+01	3.1E+00	1.4E+01	3.1E+00
TW-06	TW-06_02/18/20	N	02/18/20	INORG	Manganese	7439-96-5	T	9.27E-01		1.00E-02	4.8E-01	1.9E+00	4.3E-01	2.2E+00
TW-06	PRG25_DUP20200512	FD	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	PRG25_TW06	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	TW-06_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	PRG25_DUP20200512	FD	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T	4.00E-04	J	1.00E-03	5.0E-05	8.0E+00	7.5E-05	5.3E+00
TW-06	PRG25_TW06	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-06	TW-06_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-06	PRG25_DUP20200512	FD	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	PRG25_TW06	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	TW-06_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	PRG25_DUP20200512	FD	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	PRG25_TW06	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	TW-06_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	PRG25_DUP20200512	FD	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	PRG25_TW06	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	TW-06_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-06	PRG25_TW06	N	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	TW-06_05/12/20	N	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-06	PRG25_DUP20200512	FD	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	PRG25_TW06	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	TW-06_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	PRG25_DUP20200512	FD	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	PRG25_TW06	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	TW-06_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Acenaphthene	83-32-9	T	9.00E-04		1.00E-04	1.2E+00	7.5E-04	5.3E-01	1.7E-03
TW-06	PRG25_TW06	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	1.00E-03		1.00E-04	1.2E+00	8.3E-04	5.3E-01	1.9E-03
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T	1.00E-03		1.00E-04	1.2E+00	8.3E-04	5.3E-01	1.9E-03
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Acenaphthylene	208-96-8	T	7.00E-05	J	1.00E-04	6.0E-01	1.2E-04	1.2E-01	5.8E-04
TW-06	PRG25_TW06	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T	8.00E-05	J	1.00E-04	6.0E-01	1.3E-04	1.2E-01	6.7E-04
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T	8.00E-05	J	1.00E-04	6.0E-01	1.3E-04	1.2E-01	6.7E-04
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Anthracene	120-12-7	T	1.00E-04	J	1.00E-04	6.0E+00	1.7E-05	1.8E+00	5.6E-05
TW-06	PRG25_TW06	N	05/12/20	SVOC	Anthracene	120-12-7	T	1.00E-04		1.00E-04	6.0E+00	1.7E-05	1.8E+00	5.6E-05
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T	1.00E-04		1.00E-04	6.0E+00	1.7E-05	1.8E+00	5.6E-05
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T	7.00E-04		1.00E-04	9.7E-02	7.2E-03	8.3E-04	8.4E-01
TW-06	PRG25_TW06	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T	7.00E-04		1.00E-04	9.7E-02	7.2E-03	8.3E-04	8.4E-01
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T	7.00E-04		1.00E-04	9.7E-02	7.2E-03	8.3E-04	8.4E-01
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Dibenzofuran	132-64-9	T	2.00E-04		1.00E-04	2.0E-02	1.0E-02	7.9E-03	2.5E-02
TW-06	PRG25_TW06	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T	2.00E-04		1.00E-04	2.0E-02	1.0E-02	7.9E-03	2.5E-02
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T	2.00E-04		1.00E-04	2.0E-02	1.0E-02	7.9E-03	2.5E-02
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Fluoranthene	206-44-0	T	5.00E-05	J	1.00E-04	8.0E-01	6.3E-05	8.0E-01	6.3E-05
TW-06	PRG25_TW06	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Fluorene	86-73-7	T	8.00E-04		1.00E-04	8.0E-01	1.0E-03	2.9E-01	2.8E-03
TW-06	PRG25_TW06	N	05/12/20	SVOC	Fluorene	86-73-7	T	9.00E-04		1.00E-04	8.0E-01	1.1E-03	2.9E-01	3.1E-03
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T	9.00E-04		1.00E-04	8.0E-01	1.1E-03	2.9E-01	3.1E-03
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-06	PRG25_TW06	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T	5.00E-04		1.00E-04	2.7E-02	1.9E-02	1.1E-02	4.5E-02
TW-06	PRG25_TW06	N	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T	5.00E-04		1.00E-04	2.7E-02	1.9E-02	1.1E-02	4.5E-02
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T	5.00E-04		1.00E-04	2.7E-02	1.9E-02	1.1E-02	4.5E-02
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	PRG25_TW06	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Naphthalene	91-20-3	T	4.00E-04		2.00E-04	6.5E-03	6.2E-02	1.2E-03	3.3E-01
TW-06	PRG25_TW06	N	05/12/20	SVOC	Naphthalene	91-20-3	T	4.00E-04		2.00E-04	6.5E-03	6.2E-02	1.2E-03	3.3E-01
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T	4.00E-04		2.00E-04	6.5E-03	6.2E-02	1.2E-03	3.3E-01
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-06	PRG25_TW06	N	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Phenanthrene	85-01-8	T	2.00E-04		2.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-06	PRG25_TW06	N	05/12/20	SVOC	Phenanthrene	85-01-8	T	2.00E-04		2.00E-04	6.0E-01	3.3E-04	1.2E-01	1.7E-03
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T	3.00E-04	J	5.00E-04	6.0E-01	5.0E-04	1.2E-01	2.5E-03
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
TW-06	PRG25_DUP20200512	FD	05/12/20	SVOC	Pyrene	129-00-0	T	1.00E-04	J	1.00E-04	6.0E-01	1.7E-04	1.2E-01	8.3E-04
TW-06	PRG25_TW06	N	05/12/20	SVOC	Pyrene	129-00-0	T	1.00E-04		1.00E-04	6.0E-01	1.7E-04	1.2E-01	8.3E-04
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T	1.00E-04		1.00E-04	6.0E-01	1.7E-04	1.2E-01	8.3E-04
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
TW-06	TW-06_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	4.16E-02		5.00E-03	2.0E+00	2.1E-02	3.8E+00	1.1E-02
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T	6.60E-03		5.00E-03	6.0E-03	1.1E+00	6.0E-03	1.1E+00
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Iron	7439-89-6	T	5.40E+01		5.00E+00	1.4E+01	3.9E+00	1.4E+01	3.9E+00
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Manganese	7439-96-5	T	9.94E-01		1.00E-02	4.8E-01	2.1E+00	4.3E-01	2.3E+00
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	8.30E-03	J	1.00E-02	4.0E-01	2.1E-02	3.9E-01	2.1E-02
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
TW-06	TW-06_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T	2.25E-01		2.00E-02	6.0E+00	3.8E-02	6.0E+00	3.8E-02
TW-06	TW-06_08/10/20	N	08/10/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	TW-06_08/10/20	N	08/10/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-06	TW-06_08/10/20	N	08/10/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	TW-06_08/10/20	N	08/10/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	TW-06_08/10/20	N	08/10/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	TW-06_08/10/20	N	08/10/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-06	TW-06_08/10/20	N	08/10/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	TW-06_08/10/20	N	08/10/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.80E-04	2.5E-03		2.5E-03	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.40E-04	6.0E-01		1.2E-01	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.80E-04	2.5E-03		2.5E-03	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.40E-04	8.0E-02		3.6E-02	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Naphthalene	91-20-3	T		U	1.60E-04	6.5E-03		1.2E-03	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Phenanthrene	85-01-8	T		U	1.60E-04	6.0E-01		1.2E-01	
TW-06	TW-06_08/10/20	N	08/10/20	SVOC	Pyrene	129-00-0	T	2.60E-04		1.00E-04	6.0E-01	4.3E-04	1.2E-01	2.2E-03
TW-06	TW-06-GRAB_08102020	N	08/10/20	INORG	Iron	7439-89-6	T	5.30E+01	HF	2.50E+00	1.4E+01	3.8E+00	1.4E+01	3.8E+00
TW-06	TW-06-GRAB_08102020	N	08/10/20	INORG	Manganese	7439-96-5	T	8.80E-01		1.00E-02	4.8E-01	1.8E+00	4.3E-01	2.0E+00
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	410-12267-2383.2_TW06	N	12/08/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	TW06-12082020	N	12/08/20	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-06	410-12267-2383.2_TW06	N	12/08/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-06	TW06-12082020	N	12/08/20	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	410-12267-2383.2_TW06	N	12/08/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	TW06-12082020	N	12/08/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	410-12267-2383.2_TW06	N	12/08/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	TW06-12082020	N	12/08/20	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	410-12267-2383.2_TW06	N	12/08/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	TW06-12082020	N	12/08/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-06	410-12267-2383.2_TW06	N	12/08/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-06	TW06-12082020	N	12/08/20	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	410-12267-2383.2_TW06	N	12/08/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	TW06-12082020	N	12/08/20	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	410-12267-2383.2_TW06	N	12/08/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	TW06-12082020	N	12/08/20	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Acenaphthene	83-32-9	T	6.20E-05	J	1.10E-04	1.2E+00	5.2E-05	5.3E-01	1.2E-04
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Acenaphthene	83-32-9	T	3.60E-05	J	1.10E-04	1.2E+00	3.0E-05	5.3E-01	6.8E-05
TW-06	TW06-12082020	N	12/08/20	SVOC	Acenaphthene	83-32-9	T	3.60E-05	J	2.10E-05	1.2E+00	3.0E-05	5.3E-01	6.8E-05
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Acenaphthylene	208-96-8	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Acenaphthylene	208-96-8	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-06	TW06-12082020	N	12/08/20	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Anthracene	120-12-7	T	6.80E-05	J	1.10E-04	6.0E+00	1.1E-05	1.8E+00	3.8E-05
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Anthracene	120-12-7	T		U	1.10E-04	6.0E+00		1.8E+00	
TW-06	TW06-12082020	N	12/08/20	SVOC	Anthracene	120-12-7	T		U	2.10E-05	6.0E+00		1.8E+00	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Benzo(a)anthracene	56-55-3	T	6.00E-05	J	1.10E-04	2.5E-03	2.4E-02	3.0E-04	2.0E-01
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.10E-04	2.5E-03		3.0E-04	
TW-06	TW06-12082020	N	12/08/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-05	2.5E-03		3.0E-04	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Benzo(a)pyrene	50-32-8	T	6.40E-05	J	1.10E-04	2.0E-04	3.2E-01	2.5E-04	2.6E-01
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.10E-04	2.0E-04		2.5E-04	
TW-06	TW06-12082020	N	12/08/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.10E-05	2.0E-04		2.5E-04	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-06	TW06-12082020	N	12/08/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.40E-05	2.5E-03		2.5E-03	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-06	TW06-12082020	N	12/08/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-06	TW06-12082020	N	12/08/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.30E-05	6.0E-01		1.2E-01	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Benzo(k)fluoranthene	207-08-9	T	4.70E-05	J	1.10E-04	2.5E-02	1.9E-03	2.5E-02	1.9E-03
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.10E-04	2.5E-02		2.5E-02	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	TW06-12082020	N	12/08/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-05	2.5E-02		2.5E-02	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-04	9.7E-02		8.3E-04	
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-04	9.7E-02		8.3E-04	
TW-06	TW06-12082020	N	12/08/20	SVOC	1,1-Biphenyl	92-52-4	T		U	4.20E-05	9.7E-02		8.3E-04	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Chrysene	218-01-9	T	6.20E-05	J	1.10E-04	2.5E-01	2.5E-04	2.5E-01	2.5E-04
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Chrysene	218-01-9	T		U	1.10E-04	2.5E-01		2.5E-01	
TW-06	TW06-12082020	N	12/08/20	SVOC	Chrysene	218-01-9	T		U	2.10E-05	2.5E-01		2.5E-01	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T	4.40E-05	J	1.10E-04	2.5E-04	1.8E-01	2.5E-04	1.8E-01
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.10E-04	2.5E-04		2.5E-04	
TW-06	TW06-12082020	N	12/08/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-05	2.5E-04		2.5E-04	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Dibenzofuran	132-64-9	T	4.30E-05	J	1.10E-04	2.0E-02	2.2E-03	7.9E-03	5.4E-03
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Dibenzofuran	132-64-9	T		U	1.10E-04	2.0E-02		7.9E-03	
TW-06	TW06-12082020	N	12/08/20	SVOC	Dibenzofuran	132-64-9	T		U	2.10E-05	2.0E-02		7.9E-03	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Fluoranthene	206-44-0	T	6.90E-05	J	1.10E-04	8.0E-01	8.6E-05	8.0E-01	8.6E-05
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Fluoranthene	206-44-0	T		U	1.10E-04	8.0E-01		8.0E-01	
TW-06	TW06-12082020	N	12/08/20	SVOC	Fluoranthene	206-44-0	T		U	2.10E-05	8.0E-01		8.0E-01	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Fluorene	86-73-7	T	6.30E-05	J	1.10E-04	8.0E-01	7.9E-05	2.9E-01	2.2E-04
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Fluorene	86-73-7	T		U	1.10E-04	8.0E-01		2.9E-01	
TW-06	TW06-12082020	N	12/08/20	SVOC	Fluorene	86-73-7	T		U	2.10E-05	8.0E-01		2.9E-01	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-06	TW06-12082020	N	12/08/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.40E-05	2.5E-03		2.5E-03	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	1-Methylnaphthalene	90-12-0	T	2.30E-05	J	1.10E-04	2.7E-02	8.5E-04	1.1E-02	2.1E-03
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.10E-04	2.7E-02		1.1E-02	
TW-06	TW06-12082020	N	12/08/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.10E-05	2.7E-02		1.1E-02	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-06	TW06-12082020	N	12/08/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.30E-05	8.0E-02		3.6E-02	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-06	TW06-12082020	N	12/08/20	SVOC	Naphthalene	91-20-3	T		U	6.30E-05	6.5E-03		1.2E-03	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-06	TW06-12082020	N	12/08/20	SVOC	Perylene	198-55-0	T		U	4.20E-05				
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Phenanthrene	85-01-8	T	6.60E-05	J	1.70E-04	6.0E-01	1.1E-04	1.2E-01	5.5E-04
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Phenanthrene	85-01-8	T		U	1.70E-04	6.0E-01		1.2E-01	
TW-06	TW06-12082020	N	12/08/20	SVOC	Phenanthrene	85-01-8	T		U	6.30E-05	6.0E-01		1.2E-01	
TW-06	410-12267-2383.2_DUP20201208	FD	12/08/20	SVOC	Pyrene	129-00-0	T	1.20E-04		1.10E-04	6.0E-01	2.0E-04	1.2E-01	1.0E-03
TW-06	410-12267-2383.2_TW06	N	12/08/20	SVOC	Pyrene	129-00-0	T	7.40E-05	J	1.10E-04	6.0E-01	1.2E-04	1.2E-01	6.2E-04
TW-06	TW06-12082020	N	12/08/20	SVOC	Pyrene	129-00-0	T	7.40E-05	J	4.20E-05	6.0E-01	1.2E-04	1.2E-01	6.2E-04
TW-06	410-33562-1_TW-06	N	03/22/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-06	TW-06-03222021	N	03/22/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-06	410-33562-1_TW-06	N	03/22/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-06	TW-06-03222021	N	03/22/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	410-33562-1_TW-06	N	03/22/21	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-06	TW-06-03222021	N	03/22/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-06	410-33562-1_TW-06	N	03/22/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-06	TW-06-03222021	N	03/22/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-06	410-33562-1_TW-06	N	03/22/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-06	TW-06-03222021	N	03/22/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-06	410-33562-1_TW-06	N	03/22/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-06	TW-06-03222021	N	03/22/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-06	410-33562-1_TW-06	N	03/22/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-06	TW-06-03222021	N	03/22/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-06	410-33562-1_TW-06	N	03/22/21	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-06	TW-06-03222021	N	03/22/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Acenaphthene	83-32-9	T	2.10E-04		1.10E-04	1.2E+00	1.8E-04	5.3E-01	4.0E-04
TW-06	TW-06-03222021	N	03/22/21	SVOC	Acenaphthene	83-32-9	T	2.10E-04		2.10E-05	1.2E+00	1.8E-04	5.3E-01	4.0E-04
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Acenaphthylene	208-96-8	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Anthracene	120-12-7	T		U	1.10E-04	6.0E+00		1.8E+00	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Anthracene	120-12-7	T		U	2.10E-05	6.0E+00		1.8E+00	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.10E-04	2.5E-03		3.0E-04	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-05	2.5E-03		3.0E-04	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.10E-04	2.0E-04		2.5E-04	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.10E-05	2.0E-04		2.5E-04	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.50E-05	2.5E-03		2.5E-03	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.40E-05	6.0E-01		1.2E-01	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.10E-04	2.5E-02		2.5E-02	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-05	2.5E-02		2.5E-02	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-04	9.7E-02		8.3E-04	
TW-06	TW-06-03222021	N	03/22/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.30E-05	9.7E-02		8.3E-04	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Chrysene	218-01-9	T		U	1.10E-04	2.5E-01		2.5E-01	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Chrysene	218-01-9	T		U	2.10E-05	2.5E-01		2.5E-01	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.10E-04	2.5E-04		2.5E-04	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-05	2.5E-04		2.5E-04	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Dibenzofuran	132-64-9	T	5.30E-05	J	1.10E-04	2.0E-02	2.7E-03	7.9E-03	6.7E-03

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-06	TW-06-03222021	N	03/22/21	SVOC	Dibenzofuran	132-64-9	T	5.30E-05	J	2.10E-05	2.0E-02	2.7E-03	7.9E-03	6.7E-03
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Fluoranthene	206-44-0	T		U	1.10E-04	8.0E-01		8.0E-01	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Fluoranthene	206-44-0	T		U*	2.10E-05	8.0E-01		8.0E-01	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Fluorene	86-73-7	T	2.80E-04		1.10E-04	8.0E-01	3.5E-04	2.9E-01	9.7E-04
TW-06	TW-06-03222021	N	03/22/21	SVOC	Fluorene	86-73-7	T	2.80E-04		2.10E-05	8.0E-01	3.5E-04	2.9E-01	9.7E-04
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.50E-05	2.5E-03		2.5E-03	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	1-Methylnaphthalene	90-12-0	T	7.70E-05	J	1.10E-04	2.7E-02	2.9E-03	1.1E-02	7.0E-03
TW-06	TW-06-03222021	N	03/22/21	SVOC	1-Methylnaphthalene	90-12-0	T	7.70E-05	J	2.10E-05	2.7E-02	2.9E-03	1.1E-02	7.0E-03
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-06	TW-06-03222021	N	03/22/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.40E-05	8.0E-02		3.6E-02	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-05	6.5E-03		1.2E-03	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Perylene	198-55-0	T		F1	1.10E-04				
TW-06	TW-06-03222021	N	03/22/21	SVOC	Perylene	198-55-0	T		U	4.30E-05				
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Phenanthrene	85-01-8	T		U	1.70E-04	6.0E-01		1.2E-01	
TW-06	TW-06-03222021	N	03/22/21	SVOC	Phenanthrene	85-01-8	T		U	6.40E-05	6.0E-01		1.2E-01	
TW-06	410-33562-1_TW-06	N	03/22/21	SVOC	Pyrene	129-00-0	T	1.40E-04		1.10E-04	6.0E-01	2.3E-04	1.2E-01	1.2E-03
TW-06	TW-06-03222021	N	03/22/21	SVOC	Pyrene	129-00-0	T	1.40E-04		4.30E-05	6.0E-01	2.3E-04	1.2E-01	1.2E-03
TW-06	HRP-TW06-211101	N	11/01/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
TW-06	HRP-TW-06-220516	N	05/16/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-06	HRP-TW06-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-07	PRG24_TW-07	N	02/17/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-07	TW-07_02/17/20	N	02/17/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-07	PRG24_TW-07	N	02/17/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-07	TW-07_02/17/20	N	02/17/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-07	PRG24_TW-07	N	02/17/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-07	TW-07_02/17/20	N	02/17/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-07	PRG24_TW-07	N	02/17/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-07	TW-07_02/17/20	N	02/17/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-07	PRG24_TW-07	N	02/17/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-07	TW-07_02/17/20	N	02/17/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-07	PRG24_TW-07	N	02/17/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-07	TW-07_02/17/20	N	02/17/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-07	PRG24_TW-07	N	02/17/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-07	TW-07_02/17/20	N	02/17/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-07	PRG24_TW-07	N	02/17/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-07	TW-07_02/17/20	N	02/17/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Acenaphthene	83-32-9	T		U	2.00E-04	1.2E+00		5.3E-01	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Acenaphthene	83-32-9	T		U	2.00E-04	1.2E+00		5.3E-01	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Fluorene	86-73-7	T		U	2.00E-04	8.0E-01		2.9E-01	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Fluorene	86-73-7	T		U	2.00E-04	8.0E-01		2.9E-01	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Naphthalene	91-20-3	T		U	3.00E-04	6.5E-03		1.2E-03	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Naphthalene	91-20-3	T		U	3.00E-04	6.5E-03		1.2E-03	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-07	PRG24_TW-07	N	02/17/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_02/17/20	N	02/17/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_02/17/20	N	02/17/20	INORG	Iron	7439-89-6	T	3.10E+01		2.00E+00	1.4E+01	2.2E+00	1.4E+01	2.2E+00
TW-07	TW-07_02/17/20	N	02/17/20	INORG	Manganese	7439-96-5	T	4.77E+00		1.00E-02	4.8E-01	9.9E+00	4.3E-01	1.1E+01
TW-07	PRG25_TW07	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-07	TW-07_05/12/20	N	05/12/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-07	PRG25_TW07	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-07	TW-07_05/12/20	N	05/12/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-07	PRG25_TW07	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-07	TW-07_05/12/20	N	05/12/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-07	PRG25_TW07	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-07	TW-07_05/12/20	N	05/12/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-07	PRG25_TW07	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-07	TW-07_05/12/20	N	05/12/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-07	PRG25_TW07	N	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-07	TW-07_05/12/20	N	05/12/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-07	PRG25_TW07	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-07	TW-07_05/12/20	N	05/12/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-07	PRG25_TW07	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-07	TW-07_05/12/20	N	05/12/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Acetophenone	98-86-2	T		U	1.00E-02	2.0E+00		1.9E+00	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Anthracene	120-12-7	T	4.00E-05	J	1.00E-04	6.0E+00	6.7E-06	1.8E+00	2.2E-05
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Anthracene	120-12-7	T	4.00E-05	J	1.00E-04	6.0E+00	6.7E-06	1.8E+00	2.2E-05
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Benzaldehyde	100-52-7	T		U	1.00E-02	1.9E-01		1.9E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-07	PRG25_TW07	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.10E-02	6.0E-03		5.6E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Caprolactam	105-60-2	T		U	1.10E-02	1.0E+01		9.9E+00	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.00E-02	3.9E-03		3.7E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
TW-07	PRG25_TW07	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.00E-02	1.7E-03		1.3E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.00E-02	4.0E-01		3.6E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.10E-02	1.6E-03		1.5E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.00E-02	4.0E-02		3.9E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.10E-02	2.0E-01		2.0E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.10E-02	5.0E-02		4.1E-04	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-07	PRG25_TW07	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	2.00E-04	6.5E-03		1.2E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Naphthalene	91-20-3	T		U	2.00E-04	6.5E-03		1.2E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.00E-02				
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.00E-02				
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-07	PRG25_TW07	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Phenanthrene	85-01-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
TW-07	PRG25_TW07	N	05/12/20	SVOC	Pyrene	129-00-0	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Pyrene	129-00-0	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
TW-07	TW-07_05/12/20	N	05/12/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Barium	7440-39-3	T	7.14E-02		5.00E-03	2.0E+00	3.6E-02	3.8E+00	1.9E-02
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Cadmium	7440-43-9	T	1.00E-03	J	5.00E-03	5.0E-03	2.0E-01	1.8E-03	5.6E-01
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Cobalt	7440-48-4	T	4.29E-02		5.00E-03	6.0E-03	7.2E+00	6.0E-03	7.2E+00
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Iron	7439-89-6	T	2.46E+01		2.00E+00	1.4E+01	1.8E+00	1.4E+01	1.8E+00
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Manganese	7439-96-5	T	3.64E+00		1.00E-02	4.8E-01	7.6E+00	4.3E-01	8.5E+00
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Nickel	7440-02-0	T	2.47E-02		1.00E-02	4.0E-01	6.2E-02	3.9E-01	6.3E-02
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Vanadium	7440-62-2	T	3.40E-03	J	1.00E-02	1.0E-01	3.4E-02	8.6E-02	4.0E-02
TW-07	TW-07_05/12/20	N	05/12/20	INORG	Zinc	7440-66-6	T	7.24E-02		2.00E-02	6.0E+00	1.2E-02	6.0E+00	1.2E-02
TW-07	TW-07_08/11/20	N	08/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-07	TW-07_08/11/20	N	08/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-07	TW-07_08/11/20	N	08/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-07	TW-07_08/11/20	N	08/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-07	TW-07_08/11/20	N	08/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-07	TW-07_08/11/20	N	08/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-07	TW-07_08/11/20	N	08/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-07	TW-07_08/11/20	N	08/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Phenanthrene	85-01-8	T		U	1.70E-04	6.0E-01		1.2E-01	
TW-07	TW-07_08/11/20	N	08/11/20	SVOC	Pyrene	129-00-0	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-07	TW07-12092020	N	12/09/20	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-07	410-12267-2383.1_TW07	N	12/09/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-07	TW07-12092020	N	12/09/20	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-07	410-12267-2383.1_TW07	N	12/09/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-07	TW07-12092020	N	12/09/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-07	410-12267-2383.1_TW07	N	12/09/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-07	TW07-12092020	N	12/09/20	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-07	410-12267-2383.1_TW07	N	12/09/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-07	TW07-12092020	N	12/09/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-07	TW07-12092020	N	12/09/20	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-07	410-12267-2383.1_TW07	N	12/09/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-07	TW07-12092020	N	12/09/20	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-07	410-12267-2383.1_TW07	N	12/09/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-07	TW07-12092020	N	12/09/20	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Acenaphthene	83-32-9	T		U	1.10E-04	1.2E+00		5.3E-01	
TW-07	TW07-12092020	N	12/09/20	SVOC	Acenaphthene	83-32-9	T		U	2.10E-05	1.2E+00		5.3E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Acenaphthylene	208-96-8	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-07	TW07-12092020	N	12/09/20	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Anthracene	120-12-7	T	3.00E-05	J	1.10E-04	6.0E+00	5.0E-06	1.8E+00	1.7E-05
TW-07	TW07-12092020	N	12/09/20	SVOC	Anthracene	120-12-7	T	3.00E-05	J	2.10E-05	6.0E+00	5.0E-06	1.8E+00	1.7E-05
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.10E-04	2.5E-03		3.0E-04	
TW-07	TW07-12092020	N	12/09/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-05	2.5E-03		3.0E-04	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.10E-04	2.0E-04		2.5E-04	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-07	TW07-12092020	N	12/09/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.10E-05	2.0E-04		2.5E-04	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-07	TW07-12092020	N	12/09/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.50E-05	2.5E-03		2.5E-03	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-07	TW07-12092020	N	12/09/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-07	TW07-12092020	N	12/09/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.40E-05	6.0E-01		1.2E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.10E-04	2.5E-02		2.5E-02	
TW-07	TW07-12092020	N	12/09/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-05	2.5E-02		2.5E-02	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-04	9.7E-02		8.3E-04	
TW-07	TW07-12092020	N	12/09/20	SVOC	1,1-Biphenyl	92-52-4	T		U	4.20E-05	9.7E-02		8.3E-04	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Chrysene	218-01-9	T		U	1.10E-04	2.5E-01		2.5E-01	
TW-07	TW07-12092020	N	12/09/20	SVOC	Chrysene	218-01-9	T		U	2.10E-05	2.5E-01		2.5E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.10E-04	2.5E-04		2.5E-04	
TW-07	TW07-12092020	N	12/09/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-05	2.5E-04		2.5E-04	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Dibenzofuran	132-64-9	T		U	1.10E-04	2.0E-02		7.9E-03	
TW-07	TW07-12092020	N	12/09/20	SVOC	Dibenzofuran	132-64-9	T		U	2.10E-05	2.0E-02		7.9E-03	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Fluoranthene	206-44-0	T		U	1.10E-04	8.0E-01		8.0E-01	
TW-07	TW07-12092020	N	12/09/20	SVOC	Fluoranthene	206-44-0	T		U	2.10E-05	8.0E-01		8.0E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Fluorene	86-73-7	T		U	1.10E-04	8.0E-01		2.9E-01	
TW-07	TW07-12092020	N	12/09/20	SVOC	Fluorene	86-73-7	T		U	2.10E-05	8.0E-01		2.9E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-07	TW07-12092020	N	12/09/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.50E-05	2.5E-03		2.5E-03	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.10E-04	2.7E-02		1.1E-02	
TW-07	TW07-12092020	N	12/09/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.10E-05	2.7E-02		1.1E-02	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-07	TW07-12092020	N	12/09/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.40E-05	8.0E-02		3.6E-02	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	
TW-07	TW07-12092020	N	12/09/20	SVOC	Naphthalene	91-20-3	T		U	6.40E-05	6.5E-03		1.2E-03	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-07	TW07-12092020	N	12/09/20	SVOC	Perylene	198-55-0	T		U	4.20E-05				
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Phenanthrene	85-01-8	T		U	1.70E-04	6.0E-01		1.2E-01	
TW-07	TW07-12092020	N	12/09/20	SVOC	Phenanthrene	85-01-8	T		U	6.40E-05	6.0E-01		1.2E-01	
TW-07	410-12267-2383.1_TW07	N	12/09/20	SVOC	Pyrene	129-00-0	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-07	TW07-12092020	N	12/09/20	SVOC	Pyrene	129-00-0	T		U	4.20E-05	6.0E-01		1.2E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-07	TW-07-03232021	N	03/23/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-07	410-33562-1_TW-07	N	03/23/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-07	TW-07-03232021	N	03/23/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-07	410-33562-1_TW-07	N	03/23/21	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-07	TW-07-03232021	N	03/23/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-07	410-33562-1_TW-07	N	03/23/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-07	TW-07-03232021	N	03/23/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-07	410-33562-1_TW-07	N	03/23/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-07	TW-07-03232021	N	03/23/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-07	TW-07-03232021	N	03/23/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-07	410-33562-1_TW-07	N	03/23/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-07	TW-07-03232021	N	03/23/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-07	410-33562-1_TW-07	N	03/23/21	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-07	TW-07-03232021	N	03/23/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Acenaphthene	83-32-9	T		U	1.10E-04	1.2E+00		5.3E-01	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Acenaphthene	83-32-9	T		U	2.10E-05	1.2E+00		5.3E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Acenaphthylene	208-96-8	T		U	1.10E-04	6.0E-01		1.2E-01	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Acenaphthylene	208-96-8	T		U	2.10E-05	6.0E-01		1.2E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Anthracene	120-12-7	T	3.60E-05	J	1.10E-04	6.0E+00	6.0E-06	1.8E+00	2.0E-05
TW-07	TW-07-03232021	N	03/23/21	SVOC	Anthracene	120-12-7	T	3.60E-05	J	2.10E-05	6.0E+00	6.0E-06	1.8E+00	2.0E-05
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.10E-04	2.5E-03		3.0E-04	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.10E-05	2.5E-03		3.0E-04	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Benzo(a)pyrene	50-32-8	T	2.20E-05	J	1.10E-04	2.0E-04	1.1E-01	2.5E-04	8.8E-02
TW-07	TW-07-03232021	N	03/23/21	SVOC	Benzo(a)pyrene	50-32-8	T	2.20E-05	J	2.10E-05	2.0E-04	1.1E-01	2.5E-04	8.8E-02
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.40E-05	2.5E-03		2.5E-03	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.10E-05	1.8E-03		1.8E-03	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.50E-04	6.0E-01		1.2E-01	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.30E-05	6.0E-01		1.2E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.10E-04	2.5E-02		2.5E-02	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.10E-05	2.5E-02		2.5E-02	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-04	9.7E-02		8.3E-04	
TW-07	TW-07-03232021	N	03/23/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.20E-05	9.7E-02		8.3E-04	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Chrysene	218-01-9	T		U	1.10E-04	2.5E-01		2.5E-01	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Chrysene	218-01-9	T		U	2.10E-05	2.5E-01		2.5E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.10E-04	2.5E-04		2.5E-04	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.10E-05	2.5E-04		2.5E-04	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Dibenzofuran	132-64-9	T		U	1.10E-04	2.0E-02		7.9E-03	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Dibenzofuran	132-64-9	T		U	2.10E-05	2.0E-02		7.9E-03	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Fluoranthene	206-44-0	T		U	1.10E-04	8.0E-01		8.0E-01	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Fluoranthene	206-44-0	T		U*	2.10E-05	8.0E-01		8.0E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Fluorene	86-73-7	T		U	1.10E-04	8.0E-01		2.9E-01	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Fluorene	86-73-7	T		U	2.10E-05	8.0E-01		2.9E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	1.90E-04	2.5E-03		2.5E-03	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.40E-05	2.5E-03		2.5E-03	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.10E-04	2.7E-02		1.1E-02	
TW-07	TW-07-03232021	N	03/23/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.10E-05	2.7E-02		1.1E-02	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.50E-04	8.0E-02		3.6E-02	
TW-07	TW-07-03232021	N	03/23/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.30E-05	8.0E-02		3.6E-02	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Naphthalene	91-20-3	T		U	1.70E-04	6.5E-03		1.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-07	TW-07-03232021	N	03/23/21	SVOC	Naphthalene	91-20-3	T		U	6.30E-05	6.5E-03		1.2E-03	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-07	TW-07-03232021	N	03/23/21	SVOC	Perylene	198-55-0	T		U*	4.20E-05				
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Phenanthrene	85-01-8	T		U	1.70E-04	6.0E-01		1.2E-01	
TW-07	TW-07-03232021	N	03/23/21	SVOC	Phenanthrene	85-01-8	T		U	6.30E-05	6.0E-01		1.2E-01	
TW-07	410-33562-1_TW-07	N	03/23/21	SVOC	Pyrene	129-00-0	T	1.10E-04		1.10E-04	6.0E-01	1.8E-04	1.2E-01	9.2E-04
TW-07	TW-07-03232021	N	03/23/21	SVOC	Pyrene	129-00-0	T	1.10E-04		4.20E-05	6.0E-01	1.8E-04	1.2E-01	9.2E-04
TW-07	TW07-210520	N	05/20/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-07	TW07-210520	N	05/20/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-07	TW07-210520	N	05/20/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-07	TW07-210520	N	05/20/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-07	TW07-210520	N	05/20/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-07	TW07-210520	N	05/20/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-07	TW07-210520	N	05/20/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-07	TW07-210520	N	05/20/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-07	TW07-210520	N	05/20/21	SVOC	Acenaphthene	83-32-9	T		U	2.20E-05	1.2E+00		5.3E-01	
TW-07	TW07-210520	N	05/20/21	SVOC	Acenaphthylene	208-96-8	T		U	2.20E-05	6.0E-01		1.2E-01	
TW-07	TW07-210520	N	05/20/21	SVOC	Anthracene	120-12-7	T	3.10E-05	J	2.20E-05	6.0E+00	5.2E-06	1.8E+00	1.7E-05
TW-07	TW07-210520	N	05/20/21	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.20E-05	2.5E-03		3.0E-04	
TW-07	TW07-210520	N	05/20/21	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.20E-05	2.0E-04		2.5E-04	
TW-07	TW07-210520	N	05/20/21	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	8.90E-05	2.5E-03		2.5E-03	
TW-07	TW07-210520	N	05/20/21	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.20E-05	1.8E-03		1.8E-03	
TW-07	TW07-210520	N	05/20/21	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	6.70E-05	6.0E-01		1.2E-01	
TW-07	TW07-210520	N	05/20/21	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.20E-05	2.5E-02		2.5E-02	
TW-07	TW07-210520	N	05/20/21	SVOC	1,1-Biphenyl	92-52-4	T		U	4.40E-05	9.7E-02		8.3E-04	
TW-07	TW07-210520	N	05/20/21	SVOC	Chrysene	218-01-9	T		U	2.20E-05	2.5E-01		2.5E-01	
TW-07	TW07-210520	N	05/20/21	SVOC	Dibenz(a,h)anthracene	53-70-3	T	2.40E-05	J	2.20E-05	2.5E-04	9.6E-02	2.5E-04	9.6E-02
TW-07	TW07-210520	N	05/20/21	SVOC	Dibenzofuran	132-64-9	T		U	2.20E-05	2.0E-02		7.9E-03	
TW-07	TW07-210520	N	05/20/21	SVOC	Dibenzothiophene	132-65-0	T		U	4.40E-05				
TW-07	TW07-210520	N	05/20/21	SVOC	Fluoranthene	206-44-0	T		U	2.20E-05	8.0E-01		8.0E-01	
TW-07	TW07-210520	N	05/20/21	SVOC	Fluorene	86-73-7	T		U	2.20E-05	8.0E-01		2.9E-01	
TW-07	TW07-210520	N	05/20/21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	8.90E-05	2.5E-03		2.5E-03	
TW-07	TW07-210520	N	05/20/21	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.20E-05	2.7E-02		1.1E-02	
TW-07	TW07-210520	N	05/20/21	SVOC	2-Methylnaphthalene	91-57-6	T		U	6.70E-05	8.0E-02		3.6E-02	
TW-07	TW07-210520	N	05/20/21	SVOC	Naphthalene	91-20-3	T		U	6.70E-05	6.5E-03		1.2E-03	
TW-07	TW07-210520	N	05/20/21	SVOC	Perylene	198-55-0	T		U	4.40E-05				
TW-07	TW07-210520	N	05/20/21	SVOC	Phenanthrene	85-01-8	T		U	6.70E-05	6.0E-01		1.2E-01	
TW-07	TW07-210520	N	05/20/21	SVOC	Pyrene	129-00-0	T		U	4.40E-05	6.0E-01		1.2E-01	
TW-07	HRP-TW07-211101	N	11/01/21	SVOC	Naphthalene	91-20-3	T		U	6.40E-04	6.5E-03		1.2E-03	
TW-07	HRP-TW-07-220516	N	05/16/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-07	HRP-TW07-221018	N	10/18/22	SVOC	Naphthalene	91-20-3	T		U	1.00E-03	6.5E-03		1.2E-03	
TW-14	PRG24_TW-14	N	02/17/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-14	TW-14_02/17/20	N	02/17/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-14	PRG24_TW-14	N	02/17/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-14	TW-14_02/17/20	N	02/17/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-14	PRG24_TW-14	N	02/17/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-14	TW-14_02/17/20	N	02/17/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-14	PRG24_TW-14	N	02/17/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-14	TW-14_02/17/20	N	02/17/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-14	PRG24_TW-14	N	02/17/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-14	TW-14_02/17/20	N	02/17/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-14	PRG24_TW-14	N	02/17/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-14	TW-14_02/17/20	N	02/17/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-14	PRG24_TW-14	N	02/17/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-14	TW-14_02/17/20	N	02/17/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-14	PRG24_TW-14	N	02/17/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-14	TW-14_02/17/20	N	02/17/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Acenaphthene	83-32-9	T		U	2.00E-04	1.2E+00		5.3E-01	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Acenaphthene	83-32-9	T		U	2.00E-04	1.2E+00		5.3E-01	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Acenaphthylene	208-96-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Anthracene	120-12-7	T		U	2.00E-04	6.0E+00		1.8E+00	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	2.00E-04	2.5E-03		3.0E-04	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	2.00E-04	2.0E-04		2.5E-04	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	2.00E-04	1.8E-03		1.8E-03	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	2.00E-04	2.5E-02		2.5E-02	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	1,1-Biphenyl	92-52-4	T		U	2.00E-04	9.7E-02		8.3E-04	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Chrysene	218-01-9	T		U	2.00E-04	2.5E-01		2.5E-01	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	2.00E-04	2.5E-04		2.5E-04	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Dibenzofuran	132-64-9	T		U	2.00E-04	2.0E-02		7.9E-03	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Fluoranthene	206-44-0	T		U	2.00E-04	8.0E-01		8.0E-01	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Fluorene	86-73-7	T		U	2.00E-04	8.0E-01		2.9E-01	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Fluorene	86-73-7	T		U	2.00E-04	8.0E-01		2.9E-01	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	4.00E-04	2.5E-03		2.5E-03	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	2.00E-04	2.7E-02		1.1E-02	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	3.00E-04	8.0E-02		3.6E-02	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Naphthalene	91-20-3	T		U	3.00E-04	6.5E-03		1.2E-03	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Naphthalene	91-20-3	T		U	3.00E-04	6.5E-03		1.2E-03	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Perylene	198-55-0	T		U	2.00E-04				
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Phenanthrene	85-01-8	T		U	3.00E-04	6.0E-01		1.2E-01	
TW-14	PRG24_TW-14	N	02/17/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_02/17/20	N	02/17/20	SVOC	Pyrene	129-00-0	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-14	PRG25_TW14	N	05/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-14	TW-14_05/11/20	N	05/11/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-14	PRG25_TW14	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-14	TW-14_05/11/20	N	05/11/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-14	PRG25_TW14	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-14	TW-14_05/11/20	N	05/11/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-14	PRG25_TW14	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-14	TW-14_05/11/20	N	05/11/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-14	PRG25_TW14	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-14	TW-14_05/11/20	N	05/11/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-14	PRG25_TW14	N	05/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-14	TW-14_05/11/20	N	05/11/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-14	PRG25_TW14	N	05/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-14	TW-14_05/11/20	N	05/11/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-14	PRG25_TW14	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-14	TW-14_05/11/20	N	05/11/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Acenaphthylene	208-96-8	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Acetophenone	98-86-2	T		U	1.10E-02	2.0E+00		1.9E+00	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Anthracene	120-12-7	T		U	1.00E-04	6.0E+00		1.8E+00	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Atrazine	1912-24-9	T		U	5.00E-03	3.0E-03		3.0E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Benzaldehyde	100-52-7	T		U	1.10E-02	1.9E-01		1.9E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.00E-04	2.5E-03		3.0E-04	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Benzo(a)pyrene	50-32-8	T		U	1.00E-04	2.0E-04		2.5E-04	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-14	PRG25_TW14	N	05/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.00E-04	1.8E-03		1.8E-03	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.00E-04	2.5E-02		2.5E-02	
TW-14	PRG25_TW14	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.00E-04	9.7E-02		8.3E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethoxy)methane	111-91-1	T		U	2.00E-03	6.0E-02		5.9E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	bis(2-Chloroethyl) ether	111-44-4	T		U	2.00E-03	7.1E-04		1.4E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	T		U	1.20E-02	6.0E-03		5.6E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	4-Bromophenyl-phenyl ether	101-55-3	T		U	2.00E-03				
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Butylbenzylphthalate	85-68-7	T		U	5.00E-03	4.1E-01		1.6E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Caprolactam	105-60-2	T		U	1.20E-02	1.0E+01		9.9E+00	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Carbazole	86-74-8	T		U	2.00E-03	8.0E-01		2.9E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	4-Chloro-3-methylphenol	59-50-7	T		U	4.00E-03	2.0E+00		1.4E+00	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	4-Chloroaniline	106-47-8	T		U	1.10E-02	3.9E-03		3.7E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2-Chloronaphthalene	91-58-7	T		U	1.00E-03	1.6E+00		7.5E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2-Chlorophenol	95-57-8	T		U	2.00E-03	1.0E-01		9.1E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	T		U	2.00E-03				
TW-14	PRG25_TW14	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Chrysene	218-01-9	T		U	1.00E-04	2.5E-01		2.5E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.00E-04	2.5E-04		2.5E-04	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Dibenzofuran	132-64-9	T		U	1.00E-04	2.0E-02		7.9E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	3,3'-Dichlorobenzidine	91-94-1	T		U	1.10E-02	1.7E-03		1.3E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2,4-Dichlorophenol	120-83-2	T		U	2.00E-03	6.0E-02		4.6E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Diethylphthalate	84-66-2	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2,4-Dimethylphenol	105-67-9	T		U	1.10E-02	4.0E-01		3.6E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Dimethylphthalate	131-11-3	T		U	5.00E-03	1.6E+01		1.5E+01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Di-n-butylphthalate	84-74-2	T		U	5.00E-03	2.0E+00		9.0E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	T		U	2.20E-02	1.6E-03		1.5E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2,4-Dinitrophenol	51-28-5	T		U	3.20E-02	4.0E-02		3.9E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Di-n-octylphthalate	117-84-0	T		U	1.20E-02	2.0E-01		2.0E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Fluoranthene	206-44-0	T		U	1.00E-04	8.0E-01		8.0E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Fluorene	86-73-7	T		U	1.00E-04	8.0E-01		2.9E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Hexachlorobenzene	118-74-1	T		U	5.00E-04	1.0E-03		9.8E-05	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Hexachlorobutadiene	87-68-3	T		U	2.00E-03	1.0E-02		1.4E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Hexachlorocyclopentadiene	77-47-4	T		U	1.20E-02	5.0E-02		4.1E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Hexachloroethane	67-72-1	T		U	5.00E-03	1.4E-02		3.3E-03	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Isophorone	78-59-1	T		U	2.00E-03	8.2E-01		7.8E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.00E-04	2.7E-02		1.1E-02	
TW-14	PRG25_TW14	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2-Methylnaphthalene	91-57-6	T		U	1.00E-04	8.0E-02		3.6E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2-Methylphenol	95-48-7	T		U	2.00E-03	1.0E+00		9.3E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	4-Methylphenol	106-44-5	T		U	2.00E-03	4.0E-01		3.7E-01	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Naphthalene	91-20-3	T		U	2.00E-04	6.5E-03		1.2E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Naphthalene	91-20-3	T		U	2.00E-04	6.5E-03		1.2E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2-Nitroaniline	88-74-4	T		U	7.00E-03	2.0E-01		1.9E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	3-Nitroaniline	99-09-2	T		U	7.00E-03	3.9E-02		3.8E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	4-Nitroaniline	100-01-6	T		U	3.00E-03	3.9E-02		3.8E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2-Nitrophenol	88-75-5	T		U	1.10E-02				
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	4-Nitrophenol	100-02-7	T		U	3.20E-02				
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	N-Nitrosodiphenylamine	86-30-6	T		U	3.00E-03	1.6E-01		1.2E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	N-Nitroso-di-n-propylamine	621-64-7	T		U	3.00E-03	1.1E-04		1.1E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	T		U	2.00E-03	8.0E-01		7.1E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Pentachlorophenol	87-86-5	T		U	5.00E-03	1.0E-03		4.1E-04	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Perylene	198-55-0	T		U	1.00E-04				
TW-14	PRG25_TW14	N	05/11/20	SVOC	Phenanthrene	85-01-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Phenanthrene	85-01-8	T		U	2.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Phenol	108-95-2	T		U	2.00E-03	6.0E+00		5.8E+00	
TW-14	PRG25_TW14	N	05/11/20	SVOC	Pyrene	129-00-0	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Pyrene	129-00-0	T		U	1.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2,4,5-Trichlorophenol	95-95-4	T		U	2.00E-03	2.0E+00		1.2E+00	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2,4,6-Trichlorophenol	88-06-2	T		U	2.00E-03	2.0E-02		1.2E-02	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2,4-Dinitrotoluene	121-14-2	T		U	5.00E-03	2.5E-03		2.4E-03	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	2,6-Dinitrotoluene	606-20-2	T		U	2.00E-03	5.2E-04		4.9E-04	
TW-14	TW-14_05/11/20	N	05/11/20	SVOC	Nitrobenzene	98-95-3	T		U	2.00E-03	4.0E-02		1.4E-03	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Antimony	7440-36-0	T		U	5.00E-02	6.0E-03		7.8E-03	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Arsenic	7440-38-2	T		U	3.00E-02	1.0E-02		5.2E-04	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Barium	7440-39-3	T	6.62E-02		5.00E-03	2.0E+00	3.3E-02	3.8E+00	1.7E-02
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Beryllium	7440-41-7	T		U	5.00E-03	4.0E-03		2.5E-02	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Cadmium	7440-43-9	T		U	5.00E-03	5.0E-03		1.8E-03	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Chromium (total)	7440-47-3	T		U	1.50E-02	1.0E-01		2.2E+01	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Cobalt	7440-48-4	T		U	5.00E-03	6.0E-03		6.0E-03	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Copper	7440-50-8	T		U	2.00E-02	1.3E+00		8.0E-01	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Lead	7439-92-1	T		U	1.50E-02	1.5E-02		1.5E-02	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Mercury	7439-97-6	T		U	2.00E-04	2.0E-03		5.7E-04	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Molybdenum	7439-98-7	T		U	1.00E-02	1.0E-01		1.0E-01	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Nickel	7440-02-0	T		U	1.00E-02	4.0E-01		3.9E-01	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Selenium	7782-49-2	T		U	5.00E-02	5.0E-02		1.0E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Silver	7440-22-4	T		U	1.00E-02	1.0E-01		9.4E-02	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Thallium	7440-28-0	T		U	3.00E-02	2.0E-03		2.0E-04	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Vanadium	7440-62-2	T		U	1.00E-02	1.0E-01		8.6E-02	
TW-14	TW-14_05/11/20	N	05/11/20	INORG	Zinc	7440-66-6	T		U	2.00E-02	6.0E+00		6.0E+00	
TW-14	TW-14_08/10/20	N	08/10/20	VOC	Benzene	71-43-2	T	8.50E-04	J	1.00E-03	5.0E-03	1.7E-01	4.6E-03	1.8E-01
TW-14	TW-14_08/10/20	N	08/10/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-14	TW-14_08/10/20	N	08/10/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-14	TW-14_08/10/20	N	08/10/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-14	TW-14_08/10/20	N	08/10/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-14	TW-14_08/10/20	N	08/10/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-14	TW-14_08/10/20	N	08/10/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-14	TW-14_08/10/20	N	08/10/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Acenaphthene	83-32-9	T		U	1.10E-04	1.2E+00		5.3E-01	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Acenaphthylene	208-96-8	T	1.10E-03		1.10E-04	6.0E-01	1.8E-03	1.2E-01	9.2E-03
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Anthracene	120-12-7	T		U	1.10E-04	6.0E+00		1.8E+00	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Benzo(a)anthracene	56-55-3	T		U	1.10E-04	2.5E-03		3.0E-04	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Benzo(a)pyrene	50-32-8	T	4.60E-05	J	1.10E-04	2.0E-04	2.3E-01	2.5E-04	1.8E-01
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Benzo(e)pyrene	192-97-2	T		U	1.10E-04	1.8E-03		1.8E-03	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		U	1.60E-04	6.0E-01		1.2E-01	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		U	1.10E-04	2.5E-02		2.5E-02	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	1,1-Biphenyl	92-52-4	T		U	1.10E-04	9.7E-02		8.3E-04	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Chrysene	218-01-9	T		U	1.10E-04	2.5E-01		2.5E-01	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		U	1.10E-04	2.5E-04		2.5E-04	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Dibenzofuran	132-64-9	T		U	1.10E-04	2.0E-02		7.9E-03	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Fluoranthene	206-44-0	T	5.40E-05	J	1.10E-04	8.0E-01	6.8E-05	8.0E-01	6.8E-05
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Fluorene	86-73-7	T		U	1.10E-04	8.0E-01		2.9E-01	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		U	2.00E-04	2.5E-03		2.5E-03	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	1-Methylnaphthalene	90-12-0	T		U	1.10E-04	2.7E-02		1.1E-02	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	2-Methylnaphthalene	91-57-6	T	1.50E-04	J	1.10E-04	8.0E-02	1.9E-03	3.6E-02	4.2E-03
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Naphthalene	91-20-3	T		U	1.80E-04	6.5E-03		1.2E-03	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Perylene	198-55-0	T		U	1.10E-04				
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Phenanthrene	85-01-8	T		U	1.80E-04	6.0E-01		1.2E-01	
TW-14	TW-14_08/11/20	N	08/11/20	SVOC	Pyrene	129-00-0	T	1.50E-04		1.10E-04	6.0E-01	2.5E-04	1.2E-01	1.3E-03
TW-14	410-12267-2383.2_TW-14	N	12/07/20	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-14	TW-14-12072020	N	12/07/20	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-14	TW-14-12072020	N	12/07/20	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-14	TW-14-12072020	N	12/07/20	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-14	TW-14-12072020	N	12/07/20	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-14	TW-14-12072020	N	12/07/20	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-14	410-12267-2383.2_TW-14	N	12/07/20	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-14	TW-14-12072020	N	12/07/20	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-14	TW-14-12072020	N	12/07/20	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-14	TW-14-12072020	N	12/07/20	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Acenaphthene	83-32-9	T		H	1.00E-04	1.2E+00		5.3E-01	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Acenaphthene	83-32-9	T		UH	2.10E-05	1.2E+00		5.3E-01	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Acenaphthylene	208-96-8	T		H	1.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Acenaphthylene	208-96-8	T		UH	2.10E-05	6.0E-01		1.2E-01	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Anthracene	120-12-7	T		H	1.00E-04	6.0E+00		1.8E+00	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Anthracene	120-12-7	T		UH	2.10E-05	6.0E+00		1.8E+00	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Benzo(a)anthracene	56-55-3	T		H	1.00E-04	2.5E-03		3.0E-04	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Benzo(a)anthracene	56-55-3	T		UH	2.10E-05	2.5E-03		3.0E-04	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Benzo(a)pyrene	50-32-8	T		H	1.00E-04	2.0E-04		2.5E-04	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Benzo(a)pyrene	50-32-8	T		UH	2.10E-05	2.0E-04		2.5E-04	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		H	1.90E-04	2.5E-03		2.5E-03	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Benzo(b)fluoranthene	205-99-2	T		UH	8.40E-05	2.5E-03		2.5E-03	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Benzo(e)pyrene	192-97-2	T		H	1.00E-04	1.8E-03		1.8E-03	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Benzo(e)pyrene	192-97-2	T		UH	2.10E-05	1.8E-03		1.8E-03	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		H	1.50E-04	6.0E-01		1.2E-01	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Benzo(g,h,i)perylene	191-24-2	T		UH	6.30E-05	6.0E-01		1.2E-01	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		H	1.00E-04	2.5E-02		2.5E-02	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Benzo(k)fluoranthene	207-08-9	T		UH	2.10E-05	2.5E-02		2.5E-02	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	1,1-Biphenyl	92-52-4	T		H	1.00E-04	9.7E-02		8.3E-04	
TW-14	TW-14-12072020	N	12/07/20	SVOC	1,1-Biphenyl	92-52-4	T		UH	4.20E-05	9.7E-02		8.3E-04	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Chrysene	218-01-9	T		H	1.00E-04	2.5E-01		2.5E-01	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Chrysene	218-01-9	T		UH	2.10E-05	2.5E-01		2.5E-01	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		H	1.00E-04	2.5E-04		2.5E-04	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Dibenz(a,h)anthracene	53-70-3	T		UH	2.10E-05	2.5E-04		2.5E-04	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Dibenzofuran	132-64-9	T		H	1.00E-04	2.0E-02		7.9E-03	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Dibenzofuran	132-64-9	T		UH	2.10E-05	2.0E-02		7.9E-03	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Fluoranthene	206-44-0	T		H	1.00E-04	8.0E-01		8.0E-01	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Fluoranthene	206-44-0	T		UH	2.10E-05	8.0E-01		8.0E-01	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Fluorene	86-73-7	T		H	1.00E-04	8.0E-01		2.9E-01	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Fluorene	86-73-7	T		UH	2.10E-05	8.0E-01		2.9E-01	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		H	1.90E-04	2.5E-03		2.5E-03	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	T		UH	8.40E-05	2.5E-03		2.5E-03	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	1-Methylnaphthalene	90-12-0	T		H	1.00E-04	2.7E-02		1.1E-02	
TW-14	TW-14-12072020	N	12/07/20	SVOC	1-Methylnaphthalene	90-12-0	T		UH	2.10E-05	2.7E-02		1.1E-02	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	2-Methylnaphthalene	91-57-6	T		H	1.50E-04	8.0E-02		3.6E-02	
TW-14	TW-14-12072020	N	12/07/20	SVOC	2-Methylnaphthalene	91-57-6	T		UH	6.30E-05	8.0E-02		3.6E-02	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Naphthalene	91-20-3	T		H	1.70E-04	6.5E-03		1.2E-03	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Naphthalene	91-20-3	T		UH	6.30E-05	6.5E-03		1.2E-03	

Attachment 1-2: Groundwater Concentrations HRP: Potomac River, Alexandria, VA														
Location	Sample ID	Sample Type	Sample Date	Chem Group	Chemical	CASRN	Meas Basis	Conc (mg/L)	Qual	Limit (mg/L)	Drinking Water Criterion (mg/L)	Ratio of Conc to Drinking Water Criterion	Tapwater RSLs (mg/L)	Ratio of Conc to Tapwater RSLs
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Perylene	198-55-0	T		H	1.00E-04				
TW-14	TW-14-12072020	N	12/07/20	SVOC	Perylene	198-55-0	T		UH	4.20E-05				
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Phenanthrene	85-01-8	T		H	1.70E-04	6.0E-01		1.2E-01	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Phenanthrene	85-01-8	T		UH	6.30E-05	6.0E-01		1.2E-01	
TW-14	410-12267-2383.2_TW-14	N	12/07/20	SVOC	Pyrene	129-00-0	T		H	1.00E-04	6.0E-01		1.2E-01	
TW-14	TW-14-12072020	N	12/07/20	SVOC	Pyrene	129-00-0	T		UH	4.20E-05	6.0E-01		1.2E-01	
TW-14	410-33562-1_TW-14	N	03/22/21	VOC	Benzene	71-43-2	T		U	1.00E-03	5.0E-03		4.6E-03	
TW-14	TW-14-03222021	N	03/22/21	VOC	Benzene	71-43-2	T		U	2.00E-04	5.0E-03		4.6E-03	
TW-14	410-33562-1_TW-14	N	03/22/21	VOC	1,2-Dibromoethane	106-93-4	T		U	1.00E-03	5.0E-05		7.5E-05	
TW-14	TW-14-03222021	N	03/22/21	VOC	1,2-Dibromoethane	106-93-4	T		U	3.00E-04	5.0E-05		7.5E-05	
TW-14	410-33562-1_TW-14	N	03/22/21	VOC	1,2-Dichloroethane	107-06-2	T		U	5.00E-03	5.0E-03		1.7E-03	
TW-14	TW-14-03222021	N	03/22/21	VOC	1,2-Dichloroethane	107-06-2	T		U	2.00E-03	5.0E-03		1.7E-03	
TW-14	410-33562-1_TW-14	N	03/22/21	VOC	Ethyl Benzene	100-41-4	T		U	1.00E-03	7.0E-01		1.5E-02	
TW-14	TW-14-03222021	N	03/22/21	VOC	Ethyl Benzene	100-41-4	T		U	2.00E-04	7.0E-01		1.5E-02	
TW-14	410-33562-1_TW-14	N	03/22/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	1.00E-03	4.3E-01		1.4E-01	
TW-14	TW-14-03222021	N	03/22/21	VOC	Methyl tert-butyl ether	1634-04-4	T		U	2.00E-04	4.3E-01		1.4E-01	
TW-14	410-33562-1_TW-14	N	03/22/21	VOC	tert-Butyl alcohol	75-65-0	T		U	2.50E-02	1.6E+00		1.5E+00	
TW-14	TW-14-03222021	N	03/22/21	VOC	tert-Butyl alcohol	75-65-0	T		U	1.00E-02	1.6E+00		1.5E+00	
TW-14	410-33562-1_TW-14	N	03/22/21	VOC	Toluene	108-88-3	T		U	1.00E-03	1.0E+00		1.1E+00	
TW-14	TW-14-03222021	N	03/22/21	VOC	Toluene	108-88-3	T		U	2.00E-04	1.0E+00		1.1E+00	
TW-14	410-33562-1_TW-14	N	03/22/21	VOC	Xylenes (total)	1330-20-7	T		U	3.00E-03	1.0E+01		1.9E-01	
TW-14	TW-14-03222021	N	03/22/21	VOC	Xylenes (total)	1330-20-7	T		U	8.00E-04	1.0E+01		1.9E-01	
TW-14	410-33562-1_TW-14	N	03/22/21	SVOC	Acenaphthene	83-32-9	T		U	1.00E-04	1.2E+00		5.3E-01	
TW-14	TW-14-03222021	N	03/22/21	SVOC	Acenaphthene	83-32-9	T		U	2.10E-05	1.2E+00		5.3E-01	
TW-14	410-33562-1_TW-14	N	03/22/21	SVOC	Acenaphthylene	208-96-8	T	4.80E-04		1.00E-04	6.0E-01	8.0E-04	1.2E-01	4.0E-03
TW-14	TW-14-03222021	N	03/22/21	SVOC	Acenaphthylene	208-96-8	T	4.80E-04		2.10E-05	6.0E-01	8.0E-04	1.2E-01	4.0E-03

ATTACHMENT 2

ProUCL Results

Attachment 2-1 – Soil ProUCL Results

Attachment 2-2 – Groundwater ProUCL Results

ATTACHMENT 2-1
SOIL PROUCL RESULTS

UCL Statistics for Data Sets with Non-Detects			
User Selected Options			
Date/Time of Computation	ProUCL 5.2 11/30/2023 6:53:58 PM		
From File	ProUCL_Export_SO_Avg_20231012_a.xls		
Full Precision	OFF		
Confidence Coefficient	95%		
Number of Bootstrap Operations	10000		
C (soil 1,1,1,2-tetrachloroethane 630-20-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,1,1,2-tetrachloroethane 630-20-6) was not processed!			
C (soil 1,1,1-trichloroethane 71-55-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,1,1-trichloroethane 71-55-6) was not processed!			
C (soil 1,1,2,2-tetrachloroethane 79-34-5)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,1,2,2-tetrachloroethane 79-34-5) was not processed!			

C (soil | 1,1,2-trichloro-1,2,2-trifluoroethane | 76-13-1)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 1,1,2-trichloro-1,2,2-trifluoroethane | 76-13-1) was not processed!

C (soil | 1,1,2-trichloroethane | 79-00-5)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 1,1,2-trichloroethane | 79-00-5) was not processed!

C (soil | 1,1-dichloroethane | 75-34-3)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 1,1-dichloroethane | 75-34-3) was not processed!

C (soil | 1,1-dichloroethene | 75-35-4)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	11
Number of Detects	0	Number of Non-Detects	11

Number of Distinct Detects	0	Number of Distinct Non-Detects	11
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,1-dichloroethene 75-35-4) was not processed!			
C (soil 1,1-dichloropropene 563-58-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,1-dichloropropene 563-58-6) was not processed!			
C (soil 1,2,3-trichlorobenzene 87-61-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,2,3-trichlorobenzene 87-61-6) was not processed!			
C (soil 1,2,3-trichloropropane 96-18-4)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,2,3-trichloropropane 96-18-4) was not processed!			

C (soil | 1,2,4,5-tetrachlorobenzene | 95-94-3)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 1,2,4,5-tetrachlorobenzene | 95-94-3) was not processed!

C (soil | 1,2,4-trichlorobenzene | 120-82-1)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 1,2,4-trichlorobenzene | 120-82-1) was not processed!

C (soil | 1,2,4-trimethylbenzene | 95-63-6)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	9
Number of Distinct Detects	2	Number of Distinct Non-Detects	6
Minimum Detect	0.96	Minimum Non-Detect	6.4000E-4
Maximum Detect	4.4	Maximum Non-Detect	0.0019
Variance Detects	5.917	Percent Non-Detects	81.82%
Mean Detects	2.68	SD Detects	2.432
Median Detects	2.68	CV Detects	0.908
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	0.72	SD of Logged Detects	1.077

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test				
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	0.488	KM Standard Error of Mean	0.54	
90KM SD	1.267	95% KM (BCA) UCL	N/A	
95% KM (t) UCL	1.467	95% KM (Percentile Bootstrap) UCL	N/A	
95% KM (z) UCL	1.377	95% KM Bootstrap t UCL	N/A	
90% KM Chebyshev UCL	2.109	95% KM Chebyshev UCL	2.843	
97.5% KM Chebyshev UCL	3.862	99% KM Chebyshev UCL	5.864	
Gamma GOF Tests on Detected Observations Only				
Not Enough Data to Perform GOF Test				
Gamma Statistics on Detected Data Only				
k hat (MLE)	2.035	k star (bias corrected MLE)	N/A	
Theta hat (MLE)	1.317	Theta star (bias corrected MLE)	N/A	
nu hat (MLE)	8.139	nu star (bias corrected)	N/A	
Mean (detects)	2.68			
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.488	SD (KM)	1.267	
Variance (KM)	1.606	SE of Mean (KM)	0.54	
k hat (KM)	0.148	k star (KM)	0.168	
nu hat (KM)	3.26	nu star (KM)	3.704	
theta hat (KM)	3.292	theta star (KM)	2.897	
80% gamma percentile (KM)	0.579	90% gamma percentile (KM)	1.465	
95% gamma percentile (KM)	2.621	99% gamma percentile (KM)	5.9	
Gamma Kaplan-Meier (KM) Statistics				
		Adjusted Level of Significance (β)	0.0278	
Approximate Chi Square Value (3.70, α)	0.608	Adjusted Chi Square Value (3.70, β)	0.44	
95% KM Approximate Gamma UCL	2.97	95% KM Adjusted Gamma UCL	4.106	
Lognormal GOF Test on Detected Observations Only				
Not Enough Data to Perform GOF Test				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.493	Mean in Log Scale	-4.518	
SD in Original Scale	1.327	SD in Log Scale	2.869	
95% t UCL (assumes normality of ROS data)	1.218	95% Percentile Bootstrap UCL	1.208	
95% BCA Bootstrap UCL	1.691	95% Bootstrap t UCL	79.41	
95% H-UCL (Log ROS)	451.1			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-5.886	KM Geo Mean	0.00278	
KM SD (logged)	3.131	95% Critical H Value (KM-Log)	7.798	
KM Standard Error of Mean (logged)	1.335	95% H-UCL (KM -Log)	843.1	
KM SD (logged)	3.131	95% Critical H Value (KM-Log)	7.798	
KM Standard Error of Mean (logged)	1.335			

DL/2 Statistics				
DL/2 Normal		DL/2 Log-Transformed		
Mean in Original Scale	0.488	Mean in Log Scale	-5.717	
SD in Original Scale	1.329	SD in Log Scale	3.215	
95% t UCL (Assumes normality)	1.214	95% H-Stat UCL	1963	
DL/2 is not a recommended method, provided for comparisons and historical reasons				
Nonparametric Distribution Free UCL Statistics				
Data do not follow a Discernible Distribution				
Suggested UCL to Use				
95% KM (t) UCL	1.467			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.				
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.				
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.				
C (soil 1,2-dibromo-3-chloropropane 96-12-8)				
General Statistics				
Total Number of Observations	11	Number of Distinct Observations	8	
Number of Detects	0	Number of Non-Detects	11	
Number of Distinct Detects	0	Number of Distinct Non-Detects	8	
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!				
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!				
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).				
The data set for variable C (soil 1,2-dibromo-3-chloropropane 96-12-8) was not processed!				
C (soil 1,2-dibromoethane 106-93-4)				
General Statistics				
Total Number of Observations	11	Number of Distinct Observations	10	
Number of Detects	0	Number of Non-Detects	11	
Number of Distinct Detects	0	Number of Distinct Non-Detects	10	
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!				
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!				
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).				
The data set for variable C (soil 1,2-dibromoethane 106-93-4) was not processed!				
C (soil 1,2-dichlorobenzene 95-50-1)				
General Statistics				

Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,2-dichlorobenzene 95-50-1) was not processed!			
C (soil 1,2-dichloroethane 107-06-2)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,2-dichloroethane 107-06-2) was not processed!			
C (soil 1,2-dichloropropane 78-87-5)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,2-dichloropropane 78-87-5) was not processed!			
C (soil 1,2-diphenylhydrazine 122-66-7)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (soil | 1,2-diphenylhydrazine | 122-66-7) was not processed!

C (soil | 1,3,5-trichlorobenzene | 108-70-3)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 1,3,5-trichlorobenzene | 108-70-3) was not processed!

C (soil | 1,3,5-trimethylbenzene | 108-67-8)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	9
Number of Distinct Detects	2	Number of Distinct Non-Detects	6
Minimum Detect	0.31	Minimum Non-Detect	4.3333E-4
Maximum Detect	1.3	Maximum Non-Detect	0.0019
Variance Detects	0.49	Percent Non-Detects	81.82%
Mean Detects	0.805	SD Detects	0.7
Median Detects	0.805	CV Detects	0.87
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-0.454	SD of Logged Detects	1.014

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.147	KM Standard Error of Mean	0.16
90KM SD	0.375	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.437	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.41	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.627	95% KM Chebyshev UCL	0.844
97.5% KM Chebyshev UCL	1.146	99% KM Chebyshev UCL	1.739

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only			
k hat (MLE)	2.258	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.357	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	9.032	nu star (bias corrected)	N/A
Mean (detects)	0.805		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.147	SD (KM)	0.375
Variance (KM)	0.141	SE of Mean (KM)	0.16
k hat (KM)	0.153	k star (KM)	0.172
nu hat (KM)	3.362	nu star (KM)	3.779
theta hat (KM)	0.96	theta star (KM)	0.854
80% gamma percentile (KM)	0.177	90% gamma percentile (KM)	0.441
95% gamma percentile (KM)	0.785	99% gamma percentile (KM)	1.756
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0278
Approximate Chi Square Value (3.78, α)	0.636	Adjusted Chi Square Value (3.78, β)	0.462
95% KM Approximate Gamma UCL	0.871	95% KM Adjusted Gamma UCL	1.2
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.149	Mean in Log Scale	-5.387
SD in Original Scale	0.393	SD in Log Scale	2.702
95% t UCL (assumes normality of ROS data)	0.363	95% Percentile Bootstrap UCL	0.358
95% BCA Bootstrap UCL	0.502	95% Bootstrap t UCL	17.97
95% H-UCL (Log ROS)	57.9		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.419	KM Geo Mean	0.00163
KM SD (logged)	2.828	95% Critical H Value (KM-Log)	7.082
KM Standard Error of Mean (logged)	1.206	95% H-UCL (KM -Log)	50.12
KM SD (logged)	2.828	95% Critical H Value (KM-Log)	7.082
KM Standard Error of Mean (logged)	1.206		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.147	Mean in Log Scale	-5.966
SD in Original Scale	0.393	SD in Log Scale	2.776
95% t UCL (Assumes normality)	0.362	95% H-Stat UCL	54.32
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			

95% KM (t) UCL		0.437	
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil 1,3-dichlorobenzene 541-73-1)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,3-dichlorobenzene 541-73-1) was not processed!			
C (soil 1,3-dichloropropane 142-28-9)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,3-dichloropropane 142-28-9) was not processed!			
C (soil 1,3-dichloropropene (total) 542-75-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,3-dichloropropene (total) 542-75-6) was not processed!			
C (soil 1,4-dichlorobenzene 106-46-7)			

General Statistics			
Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,4-dichlorobenzene 106-46-7) was not processed!			
C (soil 1,4-dioxane 123-91-1)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 1,4-dioxane 123-91-1) was not processed!			
C (soil 1-methylnaphthalene 90-12-0)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	20
Number of Detects	14	Number of Non-Detects	6
Number of Distinct Detects	14	Number of Distinct Non-Detects	6
Minimum Detect	0.056	Minimum Non-Detect	0.193
Maximum Detect	9.8	Maximum Non-Detect	0.22
Variance Detects	11.01	Percent Non-Detects	30%
Mean Detects	1.497	SD Detects	3.318
Median Detects	0.105	CV Detects	2.216
Skewness Detects	2.293	Kurtosis Detects	3.868
Mean of Logged Detects	-1.439	SD of Logged Detects	1.749
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.482	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.825	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.447	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.263	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			

KM Mean	1.075	KM Standard Error of Mean	0.639
90KM SD	2.752	95% KM (BCA) UCL	2.316
95% KM (t) UCL	2.179	95% KM (Percentile Bootstrap) UCL	2.074
95% KM (z) UCL	2.125	95% KM Bootstrap t UCL	16.92
90% KM Chebyshev UCL	2.991	95% KM Chebyshev UCL	3.859
97.5% KM Chebyshev UCL	5.063	99% KM Chebyshev UCL	7.429
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	2.23	Anderson-Darling GOF Test	
5% A-D Critical Value	0.82	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.326	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.246	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.363	k star (bias corrected MLE)	0.333
Theta hat (MLE)	4.128	Theta star (bias corrected MLE)	4.502
nu hat (MLE)	10.16	nu star (bias corrected)	9.314
Mean (detects)	1.497		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	1.051
Maximum	9.8	Median	0.076
SD	2.832	CV	2.694
k hat (MLE)	0.285	k star (bias corrected MLE)	0.276
Theta hat (MLE)	3.687	Theta star (bias corrected MLE)	3.813
nu hat (MLE)	11.4	nu star (bias corrected)	11.03
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (11.03, α)	4.593	Adjusted Chi Square Value (11.03, β)	4.269
95% Gamma Approximate UCL	2.524	95% Gamma Adjusted UCL	2.715
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	1.075	SD (KM)	2.752
Variance (KM)	7.573	SE of Mean (KM)	0.639
k hat (KM)	0.153	k star (KM)	0.163
nu hat (KM)	6.104	nu star (KM)	6.522
theta hat (KM)	7.045	theta star (KM)	6.593
80% gamma percentile (KM)	1.248	90% gamma percentile (KM)	3.219
95% gamma percentile (KM)	5.816	99% gamma percentile (KM)	13.23
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (6.52, α)	1.912	Adjusted Chi Square Value (6.52, β)	1.722
95% KM Approximate Gamma UCL	3.667	95% KM Adjusted Gamma UCL	4.072

Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.769	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.895	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.241	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.208	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.08	Mean in Log Scale	-1.682
SD in Original Scale	2.822	SD in Log Scale	1.496
95% t UCL (assumes normality of ROS data)	2.171	95% Percentile Bootstrap UCL	2.077
95% BCA Bootstrap UCL	2.514	95% Bootstrap t UCL	15.64
95% H-UCL (Log ROS)	1.843		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.751	KM Geo Mean	0.174
KM SD (logged)	1.5	95% Critical H Value (KM-Log)	3.427
KM Standard Error of Mean (logged)	0.353	95% H-UCL (KM -Log)	1.74
KM SD (logged)	1.5	95% Critical H Value (KM-Log)	3.427
KM Standard Error of Mean (logged)	0.353		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.079	Mean in Log Scale	-1.69
SD in Original Scale	2.822	SD in Log Scale	1.5
95% t UCL (Assumes normality)	2.17	95% H-Stat UCL	1.847
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	2.179		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil 2,2-dichloropropane 594-20-7)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2,2-dichloropropane 594-20-7) was not processed!			
C (soil 2,2'-oxybis(1-chloropropane) 108-60-1)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2,2'-oxybis(1-chloropropane) 108-60-1) was not processed!			
C (soil 2,4,5-trichlorophenol 95-95-4)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2,4,5-trichlorophenol 95-95-4) was not processed!			
C (soil 2,4,6-trichlorophenol 88-06-2)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2,4,6-trichlorophenol 88-06-2) was not processed!			

C (soil 2,4-dichlorophenol 120-83-2)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2,4-dichlorophenol 120-83-2) was not processed!			
C (soil 2,4-dimethylphenol 105-67-9)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	2	Number of Non-Detects	18
Number of Distinct Detects	2	Number of Distinct Non-Detects	14
Minimum Detect	0.14	Minimum Non-Detect	0.38
Maximum Detect	0.2	Maximum Non-Detect	0.44
Variance Detects	0.0018	Percent Non-Detects	90%
Mean Detects	0.17	SD Detects	0.0424
Median Detects	0.17	CV Detects	0.25
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-1.788	SD of Logged Detects	0.252
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.17	KM Standard Error of Mean	0.03
90KM SD	0.03	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.222	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.219	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.26	95% KM Chebyshev UCL	0.301
97.5% KM Chebyshev UCL	0.357	99% KM Chebyshev UCL	0.468
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	31.77	k star (bias corrected MLE)	N/A

Theta hat (MLE)	0.00535	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	127.1	nu star (bias corrected)	N/A
Mean (detects)	0.17		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.17	SD (KM)	0.03
Variance (KM)	9.0000E-4	SE of Mean (KM)	0.03
k hat (KM)	32.11	k star (KM)	27.33
nu hat (KM)	1284	nu star (KM)	1093
theta hat (KM)	0.00529	theta star (KM)	0.00622
80% gamma percentile (KM)	0.197	90% gamma percentile (KM)	0.213
95% gamma percentile (KM)	0.227	99% gamma percentile (KM)	0.255
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.038
Approximate Chi Square Value (N/A, α)	1017	Adjusted Chi Square Value (N/A, β)	1012
95% KM Approximate Gamma UCL	0.183	95% KM Adjusted Gamma UCL	0.184
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.169	Mean in Log Scale	-1.788
SD in Original Scale	0.024	SD in Log Scale	0.141
95% t UCL (assumes normality of ROS data)	0.178	95% Percentile Bootstrap UCL	0.178
95% BCA Bootstrap UCL	0.178	95% Bootstrap t UCL	0.18
95% H-UCL (Log ROS)	0.179		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.788	KM Geo Mean	0.167
KM SD (logged)	0.178	95% Critical H Value (KM-Log)	1.773
KM Standard Error of Mean (logged)	0.178	95% H-UCL (KM -Log)	0.183
KM SD (logged)	0.178	95% Critical H Value (KM-Log)	1.773
KM Standard Error of Mean (logged)	0.178		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.197	Mean in Log Scale	-1.629
SD in Original Scale	0.0153	SD in Log Scale	0.0874
95% t UCL (Assumes normality)	0.203	95% H-Stat UCL	N/A
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.222		
Warning: Recommended UCL exceeds the maximum observation			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | 2,4-dinitrophenol | 51-28-5)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 2,4-dinitrophenol | 51-28-5) was not processed!

C (soil | 2,4-dinitrotoluene | 121-14-2)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 2,4-dinitrotoluene | 121-14-2) was not processed!

C (soil | 2,6-dinitrotoluene | 606-20-2)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | 2,6-dinitrotoluene | 606-20-2) was not processed!

C (soil | 2-butanone | 78-93-3)

General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
Number of Detects	3	Number of Non-Detects	8
Number of Distinct Detects	3	Number of Distinct Non-Detects	8
Minimum Detect	0.0285	Minimum Non-Detect	0.012
Maximum Detect	1.8	Maximum Non-Detect	0.038
Variance Detects	0.839	Percent Non-Detects	72.73%
Mean Detects	0.78	SD Detects	0.916
Median Detects	0.51	CV Detects	1.175
Skewness Detects	1.209	Kurtosis Detects	N/A
Mean of Logged Detects	-1.214	SD of Logged Detects	2.125
Warning: Data set has only 3 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.935	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.282	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.227	KM Standard Error of Mean	0.191
90KM SD	0.517	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.573	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.541	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.799	95% KM Chebyshev UCL	1.059
97.5% KM Chebyshev UCL	1.419	99% KM Chebyshev UCL	2.127
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.255	Anderson-Darling GOF Test	
5% A-D Critical Value	0.646	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.232	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.446	Detected data appear Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.635	k star (bias corrected MLE)	N/A
Theta hat (MLE)	1.228	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	3.809	nu star (bias corrected)	N/A
Mean (detects)	0.78		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			

This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean	0.22	
Maximum	1.8	Median	0.01	
SD	0.545	CV	2.479	
k hat (MLE)	0.316	k star (bias corrected MLE)	0.29	
Theta hat (MLE)	0.696	Theta star (bias corrected MLE)	0.758	
nu hat (MLE)	6.947	nu star (bias corrected)	6.385	
Adjusted Level of Significance (β)	0.0278			
Approximate Chi Square Value (6.39, α)	1.84	Adjusted Chi Square Value (6.39, β)	1.471	
95% Gamma Approximate UCL	0.763	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.227	SD (KM)	0.517	
Variance (KM)	0.267	SE of Mean (KM)	0.191	
k hat (KM)	0.192	k star (KM)	0.2	
nu hat (KM)	4.226	nu star (KM)	4.407	
theta hat (KM)	1.18	theta star (KM)	1.131	
80% gamma percentile (KM)	0.299	90% gamma percentile (KM)	0.685	
95% gamma percentile (KM)	1.167	99% gamma percentile (KM)	2.493	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (4.41, α)	0.889	Adjusted Chi Square Value (4.41, β)	0.665	
95% KM Approximate Gamma UCL	1.124	95% KM Adjusted Gamma UCL	1.502	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.951	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.267	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.216	Mean in Log Scale	-4.338	
SD in Original Scale	0.547	SD in Log Scale	2.294	
95% t UCL (assumes normality of ROS data)	0.515	95% Percentile Bootstrap UCL	0.514	
95% BCA Bootstrap UCL	0.704	95% Bootstrap t UCL	15.89	
95% H-UCL (Log ROS)	12.46			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-3.273	KM Geo Mean	0.0379	
KM SD (logged)	1.595	95% Critical H Value (KM-Log)	4.241	
KM Standard Error of Mean (logged)	0.648	95% H-UCL (KM -Log)	1.148	
KM SD (logged)	1.595	95% Critical H Value (KM-Log)	4.241	
KM Standard Error of Mean (logged)	0.648			
DL/2 Statistics				
DL/2 Normal		DL/2 Log-Transformed		

Mean in Original Scale	0.224	Mean in Log Scale	-3.374
SD in Original Scale	0.543	SD in Log Scale	1.711
95% t UCL (Assumes normality)	0.521	95% H-Stat UCL	1.692
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.573		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil 2-chloronaphthalene 91-58-7)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2-chloronaphthalene 91-58-7) was not processed!			
C (soil 2-chlorophenol 95-57-8)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2-chlorophenol 95-57-8) was not processed!			
C (soil 2-chlorotoluene 95-49-8)			

General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2-chlorotoluene 95-49-8) was not processed!			
C (soil 2-hexanone 591-78-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2-hexanone 591-78-6) was not processed!			
C (soil 2-methylnaphthalene 91-57-6)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	19
Number of Detects	14	Number of Non-Detects	6
Number of Distinct Detects	13	Number of Distinct Non-Detects	6
Minimum Detect	0.084	Minimum Non-Detect	0.193
Maximum Detect	16	Maximum Non-Detect	0.22
Variance Detects	28.71	Percent Non-Detects	30%
Mean Detects	2.416	SD Detects	5.358
Median Detects	0.145	CV Detects	2.218
Skewness Detects	2.299	Kurtosis Detects	3.928
Mean of Logged Detects	-1.003	SD of Logged Detects	1.78
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.485	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.825	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.447	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.263	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			

KM Mean	1.726	KM Standard Error of Mean	1.032
90KM SD	4.446	95% KM (BCA) UCL	3.69
95% KM (t) UCL	3.511	95% KM (Percentile Bootstrap) UCL	3.364
95% KM (z) UCL	3.424	95% KM Bootstrap t UCL	23.93
90% KM Chebyshev UCL	4.822	95% KM Chebyshev UCL	6.224
97.5% KM Chebyshev UCL	8.17	99% KM Chebyshev UCL	11.99
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	2.266	Anderson-Darling GOF Test	
5% A-D Critical Value	0.821	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.348	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.246	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.356	k star (bias corrected MLE)	0.327
Theta hat (MLE)	6.79	Theta star (bias corrected MLE)	7.384
nu hat (MLE)	9.962	nu star (bias corrected)	9.161
Mean (detects)	2.416		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	1.694
Maximum	16	Median	0.12
SD	4.574	CV	2.7
k hat (MLE)	0.269	k star (bias corrected MLE)	0.262
Theta hat (MLE)	6.301	Theta star (bias corrected MLE)	6.469
nu hat (MLE)	10.76	nu star (bias corrected)	10.48
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (10.48, α)	4.241	Adjusted Chi Square Value (10.48, β)	3.931
95% Gamma Approximate UCL	4.185	95% Gamma Adjusted UCL	4.514
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	1.726	SD (KM)	4.446
Variance (KM)	19.77	SE of Mean (KM)	1.032
k hat (KM)	0.151	k star (KM)	0.161
nu hat (KM)	6.031	nu star (KM)	6.459
theta hat (KM)	11.45	theta star (KM)	10.69
80% gamma percentile (KM)	1.99	90% gamma percentile (KM)	5.165
95% gamma percentile (KM)	9.36	99% gamma percentile (KM)	21.36
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (6.46, α)	1.879	Adjusted Chi Square Value (6.46, β)	1.691
95% KM Approximate Gamma UCL	5.935	95% KM Adjusted Gamma UCL	6.596

Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.758	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.895	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.259	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.208	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.733	Mean in Log Scale	-1.294
SD in Original Scale	4.56	SD in Log Scale	1.541
95% t UCL (assumes normality of ROS data)	3.496	95% Percentile Bootstrap UCL	3.367
95% BCA Bootstrap UCL	4.068	95% Bootstrap t UCL	23.37
95% H-UCL (Log ROS)	3.096		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.349	KM Geo Mean	0.26
KM SD (logged)	1.533	95% Critical H Value (KM-Log)	3.482
KM Standard Error of Mean (logged)	0.357	95% H-UCL (KM -Log)	2.857
KM SD (logged)	1.533	95% Critical H Value (KM-Log)	3.482
KM Standard Error of Mean (logged)	0.357		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.722	Mean in Log Scale	-1.384
SD in Original Scale	4.564	SD in Log Scale	1.589
95% t UCL (Assumes normality)	3.486	95% H-Stat UCL	3.264
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	3.511		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil 2-methylphenol 95-48-7)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	2	Number of Non-Detects	18
Number of Distinct Detects	2	Number of Distinct Non-Detects	14

Minimum Detect	0.085	Minimum Non-Detect	0.38
Maximum Detect	0.13	Maximum Non-Detect	0.44
Variance Detects	0.00101	Percent Non-Detects	90%
Mean Detects	0.108	SD Detects	0.0318
Median Detects	0.108	CV Detects	0.296
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-2.253	SD of Logged Detects	0.3
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.108	KM Standard Error of Mean	0.0225
90KM SD	0.0225	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.146	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.145	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.175	95% KM Chebyshev UCL	0.206
97.5% KM Chebyshev UCL	0.248	99% KM Chebyshev UCL	0.331
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	22.49	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.00478	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	89.96	nu star (bias corrected)	N/A
Mean (detects)	0.108		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.108	SD (KM)	0.0225
Variance (KM)	5.0625E-4	SE of Mean (KM)	0.0225
k hat (KM)	22.83	k star (KM)	19.44
nu hat (KM)	913.1	nu star (KM)	777.5
theta hat (KM)	0.00471	theta star (KM)	0.00553
80% gamma percentile (KM)	0.127	90% gamma percentile (KM)	0.14
95% gamma percentile (KM)	0.15	99% gamma percentile (KM)	0.172
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.038
Approximate Chi Square Value (777.46, α)	713.8	Adjusted Chi Square Value (777.46, β)	708.9
95% KM Approximate Gamma UCL	0.117	95% KM Adjusted Gamma UCL	0.118
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.107	Mean in Log Scale	-2.253
SD in Original Scale	0.0181	SD in Log Scale	0.167
95% t UCL (assumes normality of ROS data)	0.114	95% Percentile Bootstrap UCL	0.113
95% BCA Bootstrap UCL	0.113	95% Bootstrap t UCL	0.115
95% H-UCL (Log ROS)	0.114		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-2.253	KM Geo Mean	0.105
KM SD (logged)	0.212	95% Critical H Value (KM-Log)	1.793
KM Standard Error of Mean (logged)	0.212	95% H-UCL (KM -Log)	0.117
KM SD (logged)	0.212	95% Critical H Value (KM-Log)	1.793
KM Standard Error of Mean (logged)	0.212		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.19	Mean in Log Scale	-1.676
SD in Original Scale	0.0302	SD in Log Scale	0.212
95% t UCL (Assumes normality)	0.202	95% H-Stat UCL	0.209
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.146		
Warning: Recommended UCL exceeds the maximum observation			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil 2-nitroaniline 88-74-4)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2-nitroaniline 88-74-4) was not processed!			
C (soil 2-nitrophenol 88-75-5)			

General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 2-nitrophenol 88-75-5) was not processed!			
C (soil 3&4-methylphenol 65794-96-9)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	3	Number of Non-Detects	17
Number of Distinct Detects	3	Number of Distinct Non-Detects	13
Minimum Detect	0.088	Minimum Non-Detect	0.38
Maximum Detect	0.12	Maximum Non-Detect	0.44
Variance Detects	2.6133E-4	Percent Non-Detects	85%
Mean Detects	0.103	SD Detects	0.0162
Median Detects	0.1	CV Detects	0.157
Skewness Detects	0.722	Kurtosis Detects	N/A
Mean of Logged Detects	-2.284	SD of Logged Detects	0.156
Warning: Data set has only 3 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.98	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.232	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.103	KM Standard Error of Mean	0.00933
90KM SD	0.0132	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.119	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.118	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.131	95% KM Chebyshev UCL	0.143
97.5% KM Chebyshev UCL	0.161	99% KM Chebyshev UCL	0.196
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.264	Anderson-Darling GOF Test	
5% A-D Critical Value	0.634	Detected data appear Gamma Distributed at 5% Significance Level	

K-S Test Statistic	0.236	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.431	Detected data appear Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	61.48	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.00167	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	368.9	nu star (bias corrected)	N/A
Mean (detects)	0.103		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.0868	Mean	0.102
Maximum	0.12	Median	0.102
SD	0.00904	CV	0.0882
k hat (MLE)	135.8	k star (bias corrected MLE)	115.5
Theta hat (MLE)	7.5485E-4	Theta star (bias corrected MLE)	8.8780E-4
nu hat (MLE)	5431	nu star (bias corrected)	4618
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (N/A, α)	4461	Adjusted Chi Square Value (N/A, β)	4449
95% Gamma Approximate UCL	0.106	95% Gamma Adjusted UCL	N/A
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.103	SD (KM)	0.0132
Variance (KM)	1.7422E-4	SE of Mean (KM)	0.00933
k hat (KM)	60.5	k star (KM)	51.46
nu hat (KM)	2420	nu star (KM)	2058
theta hat (KM)	0.0017	theta star (KM)	0.002
80% gamma percentile (KM)	0.114	90% gamma percentile (KM)	0.121
95% gamma percentile (KM)	0.127	99% gamma percentile (KM)	0.139
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (N/A, α)	1954	Adjusted Chi Square Value (N/A, β)	1946
95% KM Approximate Gamma UCL	0.108	95% KM Adjusted Gamma UCL	0.109
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.99	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.213	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.102	Mean in Log Scale	-2.284

SD in Original Scale	0.00898	SD in Log Scale	0.0873
95% t UCL (assumes normality of ROS data)	0.106	95% Percentile Bootstrap UCL	0.105
95% BCA Bootstrap UCL	0.106	95% Bootstrap t UCL	0.106
95% H-UCL (Log ROS)	N/A		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-2.284	KM Geo Mean	0.102
KM SD (logged)	0.127	95% Critical H Value (KM-Log)	1.746
KM Standard Error of Mean (logged)	0.09	95% H-UCL (KM -Log)	0.108
KM SD (logged)	0.127	95% Critical H Value (KM-Log)	1.746
KM Standard Error of Mean (logged)	0.09		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.185	Mean in Log Scale	-1.713
SD in Original Scale	0.0367	SD in Log Scale	0.254
95% t UCL (Assumes normality)	0.199	95% H-Stat UCL	0.207
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.119		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil 3,3'-dichlorobenzidine 91-94-1)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	13
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	13
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 3,3'-dichlorobenzidine 91-94-1) was not processed!			
C (soil 3-nitroaniline 99-09-2)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20

Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 3-nitroaniline 99-09-2) was not processed!			
C (soil 4,6-dinitro-2-methylphenol 534-52-1)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4,6-dinitro-2-methylphenol 534-52-1) was not processed!			
C (soil 4-bromophenyl-phenyl ether 101-55-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4-bromophenyl-phenyl ether 101-55-3) was not processed!			
C (soil 4-chloro-3-methylphenol 59-50-7)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4-chloro-3-methylphenol 59-50-7) was not processed!			

C (soil 4-chloroaniline 106-47-8)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4-chloroaniline 106-47-8) was not processed!			
C (soil 4-chlorophenyl-phenyl ether 7005-72-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4-chlorophenyl-phenyl ether 7005-72-3) was not processed!			
C (soil 4-chlorotoluene 106-43-4)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4-chlorotoluene 106-43-4) was not processed!			
C (soil 4-methyl-2-pentanone 108-10-1)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11

Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4-methyl-2-pentanone 108-10-1) was not processed!			
C (soil 4-nitroaniline 100-01-6)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4-nitroaniline 100-01-6) was not processed!			
C (soil 4-nitrophenol 100-02-7)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil 4-nitrophenol 100-02-7) was not processed!			
C (soil acenaphthene 83-32-9)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	4	Number of Non-Detects	16
Number of Distinct Detects	4	Number of Distinct Non-Detects	12
Minimum Detect	0.065	Minimum Non-Detect	0.187
Maximum Detect	0.55	Maximum Non-Detect	0.22
Variance Detects	0.0477	Percent Non-Detects	80%
Mean Detects	0.229	SD Detects	0.218
Median Detects	0.15	CV Detects	0.955
Skewness Detects	1.764	Kurtosis Detects	3.285

Mean of Logged Detects	-1.786	SD of Logged Detects	0.89
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.807	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.356	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.143	KM Standard Error of Mean	0.0365
90KM SD	0.102	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.206	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.203	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.253	95% KM Chebyshev UCL	0.302
97.5% KM Chebyshev UCL	0.371	99% KM Chebyshev UCL	0.506
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.348	Anderson-Darling GOF Test	
5% A-D Critical Value	0.661	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.296	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.399	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.757	k star (bias corrected MLE)	0.606
Theta hat (MLE)	0.13	Theta star (bias corrected MLE)	0.377
nu hat (MLE)	14.06	nu star (bias corrected)	4.848
Mean (detects)	0.229		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.049	Mean	0.142
Maximum	0.55	Median	0.117
SD	0.104	CV	0.733
k hat (MLE)	3.62	k star (bias corrected MLE)	3.11
Theta hat (MLE)	0.0391	Theta star (bias corrected MLE)	0.0456
nu hat (MLE)	144.8	nu star (bias corrected)	124.4
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (124.42, α)	99.66	Adjusted Chi Square Value (124.42, β)	97.91
95% Gamma Approximate UCL	0.177	95% Gamma Adjusted UCL	N/A
Estimates of Gamma Parameters using KM Estimates			

Mean (KM)	0.143	SD (KM)	0.102
Variance (KM)	0.0105	SE of Mean (KM)	0.0365
k hat (KM)	1.951	k star (KM)	1.692
nu hat (KM)	78.04	nu star (KM)	67.67
theta hat (KM)	0.0733	theta star (KM)	0.0846
80% gamma percentile (KM)	0.218	90% gamma percentile (KM)	0.29
95% gamma percentile (KM)	0.358	99% gamma percentile (KM)	0.512
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (67.67, α)	49.74	Adjusted Chi Square Value (67.67, β)	48.52
95% KM Approximate Gamma UCL	0.195	95% KM Adjusted Gamma UCL	0.2
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.964	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.244	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.139	Mean in Log Scale	-2.097
SD in Original Scale	0.101	SD in Log Scale	0.444
95% t UCL (assumes normality of ROS data)	0.178	95% Percentile Bootstrap UCL	0.181
95% BCA Bootstrap UCL	0.205	95% Bootstrap t UCL	0.247
95% H-UCL (Log ROS)	0.166		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-2.103	KM Geo Mean	0.122
KM SD (logged)	0.524	95% Critical H Value (KM-Log)	2.043
KM Standard Error of Mean (logged)	0.272	95% H-UCL (KM -Log)	0.179
KM SD (logged)	0.524	95% Critical H Value (KM-Log)	2.043
KM Standard Error of Mean (logged)	0.272		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.126	Mean in Log Scale	-2.201
SD in Original Scale	0.102	SD in Log Scale	0.415
95% t UCL (Assumes normality)	0.165	95% H-Stat UCL	0.145
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.206		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | acenaphthylene | 208-96-8)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	4	Number of Non-Detects	16
Number of Distinct Detects	4	Number of Distinct Non-Detects	12
Minimum Detect	0.067	Minimum Non-Detect	0.187
Maximum Detect	0.29	Maximum Non-Detect	0.22
Variance Detects	0.00965	Percent Non-Detects	80%
Mean Detects	0.147	SD Detects	0.0982
Median Detects	0.115	CV Detects	0.669
Skewness Detects	1.662	Kurtosis Detects	3.108
Mean of Logged Detects	-2.067	SD of Logged Detects	0.61

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.829	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.357	Lilliefors GOF Test
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.109	KM Standard Error of Mean	0.0181
90KM SD	0.0473	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.14	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.138	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.163	95% KM Chebyshev UCL	0.187
97.5% KM Chebyshev UCL	0.222	99% KM Chebyshev UCL	0.289

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.387	Anderson-Darling GOF Test
5% A-D Critical Value	0.659	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.323	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.396	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	3.534	k star (bias corrected MLE)	1.05
Theta hat (MLE)	0.0415	Theta star (bias corrected MLE)	0.14
nu hat (MLE)	28.27	nu star (bias corrected)	8.402
Mean (detects)	0.147		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.0616	Mean	0.109	
Maximum	0.29	Median	0.0986	
SD	0.0472	CV	0.433	
k hat (MLE)	8.702	k star (bias corrected MLE)	7.43	
Theta hat (MLE)	0.0125	Theta star (bias corrected MLE)	0.0147	
nu hat (MLE)	348.1	nu star (bias corrected)	297.2	
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (297.21, α)	258.3	Adjusted Chi Square Value (297.21, β)	255.4	
95% Gamma Approximate UCL	0.125	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.109	SD (KM)	0.0473	
Variance (KM)	0.00224	SE of Mean (KM)	0.0181	
k hat (KM)	5.272	k star (KM)	4.514	
nu hat (KM)	210.9	nu star (KM)	180.6	
theta hat (KM)	0.0206	theta star (KM)	0.024	
80% gamma percentile (KM)	0.148	90% gamma percentile (KM)	0.177	
95% gamma percentile (KM)	0.204	99% gamma percentile (KM)	0.261	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (180.58, α)	150.5	Adjusted Chi Square Value (180.58, β)	148.3	
95% KM Approximate Gamma UCL	0.13	95% KM Adjusted Gamma UCL	0.132	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.936	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.285	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.108	Mean in Log Scale	-2.278	
SD in Original Scale	0.0461	SD in Log Scale	0.303	
95% t UCL (assumes normality of ROS data)	0.126	95% Percentile Bootstrap UCL	0.127	
95% BCA Bootstrap UCL	0.136	95% Bootstrap t UCL	0.148	
95% H-UCL (Log ROS)	0.122			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-2.288	KM Geo Mean	0.101	
KM SD (logged)	0.347	95% Critical H Value (KM-Log)	1.886	
KM Standard Error of Mean (logged)	0.174	95% H-UCL (KM -Log)	0.125	
KM SD (logged)	0.347	95% Critical H Value (KM-Log)	1.886	
KM Standard Error of Mean (logged)	0.174			
DL/2 Statistics				

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.109	Mean in Log Scale	-2.258
SD in Original Scale	0.0437	SD in Log Scale	0.264
95% t UCL (Assumes normality)	0.126	95% H-Stat UCL	0.121
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.14		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil acetone 67-64-1)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	2	Number of Non-Detects	9
Number of Distinct Detects	2	Number of Distinct Non-Detects	8
Minimum Detect	1.6	Minimum Non-Detect	0.032
Maximum Detect	4.9	Maximum Non-Detect	0.0955
Variance Detects	5.445	Percent Non-Detects	81.82%
Mean Detects	3.25	SD Detects	2.333
Median Detects	3.25	CV Detects	0.718
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	1.03	SD of Logged Detects	0.791
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.617	KM Standard Error of Mean	0.608
90KM SD	1.427	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1.72	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1.618	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	2.442	95% KM Chebyshev UCL	3.269
97.5% KM Chebyshev UCL	4.416	99% KM Chebyshev UCL	6.67
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			

k hat (MLE)	3.513	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.925	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	14.05	nu star (bias corrected)	N/A
Mean (detects)	3.25		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.617	SD (KM)	1.427
Variance (KM)	2.035	SE of Mean (KM)	0.608
k hat (KM)	0.187	k star (KM)	0.197
nu hat (KM)	4.116	nu star (KM)	4.327
theta hat (KM)	3.299	theta star (KM)	3.138
80% gamma percentile (KM)	0.806	90% gamma percentile (KM)	1.866
95% gamma percentile (KM)	3.194	99% gamma percentile (KM)	6.858
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0278
Approximate Chi Square Value (4.33, α)	0.855	Adjusted Chi Square Value (4.33, β)	0.637
95% KM Approximate Gamma UCL	3.123	95% KM Adjusted Gamma UCL	4.191
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.615	Mean in Log Scale	-2.801
SD in Original Scale	1.497	SD in Log Scale	1.968
95% t UCL (assumes normality of ROS data)	1.433	95% Percentile Bootstrap UCL	1.371
95% BCA Bootstrap UCL	1.805	95% Bootstrap t UCL	58.06
95% H-UCL (Log ROS)	9.944		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-2.629	KM Geo Mean	0.0722
KM SD (logged)	1.741	95% Critical H Value (KM-Log)	4.567
KM Standard Error of Mean (logged)	0.742	95% H-UCL (KM -Log)	4.06
KM SD (logged)	1.741	95% Critical H Value (KM-Log)	4.567
KM Standard Error of Mean (logged)	0.742		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.624	Mean in Log Scale	-2.461
SD in Original Scale	1.493	SD in Log Scale	1.771
95% t UCL (Assumes normality)	1.44	95% H-Stat UCL	5.477
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	1.72		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | acetophenone | 98-86-2)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	17
Number of Detects	2	Number of Non-Detects	18
Number of Distinct Detects	2	Number of Distinct Non-Detects	15
Minimum Detect	0.068	Minimum Non-Detect	0.38
Maximum Detect	0.56	Maximum Non-Detect	0.51
Variance Detects	0.121	Percent Non-Detects	90%
Mean Detects	0.314	SD Detects	0.348
Median Detects	0.314	CV Detects	1.108
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-1.634	SD of Logged Detects	1.491

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0926	KM Standard Error of Mean	0.0339
90KM SD	0.107	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.151	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.148	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.194	95% KM Chebyshev UCL	0.24
97.5% KM Chebyshev UCL	0.304	99% KM Chebyshev UCL	0.43

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	1.19	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.264	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	4.761	nu star (bias corrected)	N/A
Mean (detects)	0.314		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.0926	SD (KM)	0.107
Variance (KM)	0.0115	SE of Mean (KM)	0.0339
k hat (KM)	0.746	k star (KM)	0.667
nu hat (KM)	29.83	nu star (KM)	26.69
theta hat (KM)	0.124	theta star (KM)	0.139
80% gamma percentile (KM)	0.152	90% gamma percentile (KM)	0.235

95% gamma percentile (KM)	0.321	99% gamma percentile (KM)	0.526
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.038
Approximate Chi Square Value (26.69, α)	15.91	Adjusted Chi Square Value (26.69, β)	15.25
95% KM Approximate Gamma UCL	0.155	95% KM Adjusted Gamma UCL	0.162
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.0946	Mean in Log Scale	-2.585
SD in Original Scale	0.111	SD in Log Scale	0.537
95% t UCL (assumes normality of ROS data)	0.138	95% Percentile Bootstrap UCL	0.142
95% BCA Bootstrap UCL	0.17	95% Bootstrap t UCL	0.364
95% H-UCL (Log ROS)	0.112		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-2.583	KM Geo Mean	0.0756
KM SD (logged)	0.46	95% Critical H Value (KM-Log)	1.981
KM Standard Error of Mean (logged)	0.145	95% H-UCL (KM -Log)	0.103
KM SD (logged)	0.46	95% Critical H Value (KM-Log)	1.981
KM Standard Error of Mean (logged)	0.145		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.214	Mean in Log Scale	-1.602
SD in Original Scale	0.0881	SD in Log Scale	0.349
95% t UCL (Assumes normality)	0.248	95% H-Stat UCL	0.249
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.151		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil acrylonitrile 107-13-1)			

General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil acrylonitrile 107-13-1) was not processed!			
C (soil aluminum 7429-90-5)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	19
		Number of Missing Observations	0
Minimum	1200	Mean	8051
Maximum	13000	Median	8500
SD	3040	Std. Error of Mean	679.8
Coefficient of Variation	0.378	Skewness	-0.783
Normal GOF Test			
Shapiro Wilk Test Statistic	0.931	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.868	Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.191	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.223	Data appear Normal at 1% Significance Level	
Data appear Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	9226	95% Adjusted-CLT UCL (Chen-1995)	9042
		95% Modified-t UCL (Johnson-1978)	9207
Gamma GOF Test			
A-D Test Statistic	1.417	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.745	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.256	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.195	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	4.434	k star (bias corrected MLE)	3.803
Theta hat (MLE)	1816	Theta star (bias corrected MLE)	2117
nu hat (MLE)	177.4	nu star (bias corrected)	152.1
MLE Mean (bias corrected)	8051	MLE Sd (bias corrected)	4129
		Approximate Chi Square Value (0.05)	124.6
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	122.6

Assuming Gamma Distribution			
95% Approximate Gamma UCL	9828	95% Adjusted Gamma UCL	9986
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.756	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.274	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	7.09	Mean of logged Data	8.877
Maximum of Logged Data	9.473	SD of logged Data	0.585
Assuming Lognormal Distribution			
95% H-UCL	11277	90% Chebyshev (MVUE) UCL	11882
95% Chebyshev (MVUE) UCL	13452	97.5% Chebyshev (MVUE) UCL	15631
99% Chebyshev (MVUE) UCL	19911		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	9169	95% BCA Bootstrap UCL	9054
95% Standard Bootstrap UCL	9137	95% Bootstrap-t UCL	9105
95% Hall's Bootstrap UCL	9072	95% Percentile Bootstrap UCL	9112
90% Chebyshev(Mean, Sd) UCL	10090	95% Chebyshev(Mean, Sd) UCL	11014
97.5% Chebyshev(Mean, Sd) UCL	12296	99% Chebyshev(Mean, Sd) UCL	14815
Suggested UCL to Use			
95% Student's-t UCL	9226		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.			
C (soil aniline 62-53-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | aniline | 62-53-3) was not processed!

C (soil | anthracene | 120-12-7)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	4	Number of Non-Detects	16
Number of Distinct Detects	4	Number of Distinct Non-Detects	12
Minimum Detect	0.14	Minimum Non-Detect	0.187
Maximum Detect	0.69	Maximum Non-Detect	0.22
Variance Detects	0.0509	Percent Non-Detects	80%
Mean Detects	0.403	SD Detects	0.226
Median Detects	0.39	CV Detects	0.56
Skewness Detects	0.328	Kurtosis Detects	1.405
Mean of Logged Detects	-1.056	SD of Logged Detects	0.665

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.969	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.237	Lilliefors GOF Test
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.193	KM Standard Error of Mean	0.0353
90KM SD	0.137	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.253	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.251	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.298	95% KM Chebyshev UCL	0.346
97.5% KM Chebyshev UCL	0.413	99% KM Chebyshev UCL	0.543

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.287	Anderson-Darling GOF Test
5% A-D Critical Value	0.659	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.258	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.396	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	3.59	k star (bias corrected MLE)	1.064
Theta hat (MLE)	0.112	Theta star (bias corrected MLE)	0.378
nu hat (MLE)	28.72	nu star (bias corrected)	8.513
Mean (detects)	0.403		

Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean	0.165	
Maximum	0.69	Median	0.105	
SD	0.158	CV	0.954	
k hat (MLE)	1.612	k star (bias corrected MLE)	1.404	
Theta hat (MLE)	0.102	Theta star (bias corrected MLE)	0.118	
nu hat (MLE)	64.5	nu star (bias corrected)	56.16	
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (56.16, α)	39.93	Adjusted Chi Square Value (56.16, β)	38.85	
95% Gamma Approximate UCL	0.232	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.193	SD (KM)	0.137	
Variance (KM)	0.0187	SE of Mean (KM)	0.0353	
k hat (KM)	1.986	k star (KM)	1.721	
nu hat (KM)	79.44	nu star (KM)	68.86	
theta hat (KM)	0.0969	theta star (KM)	0.112	
80% gamma percentile (KM)	0.293	90% gamma percentile (KM)	0.388	
95% gamma percentile (KM)	0.479	99% gamma percentile (KM)	0.683	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (68.86, α)	50.76	Adjusted Chi Square Value (68.86, β)	49.53	
95% KM Approximate Gamma UCL	0.261	95% KM Adjusted Gamma UCL	0.268	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.933	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.287	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.19	Mean in Log Scale	-1.818	
SD in Original Scale	0.143	SD in Log Scale	0.509	
95% t UCL (assumes normality of ROS data)	0.246	95% Percentile Bootstrap UCL	0.246	
95% BCA Bootstrap UCL	0.264	95% Bootstrap t UCL	0.301	
95% H-UCL (Log ROS)	0.234			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-1.784	KM Geo Mean	0.168	
KM SD (logged)	0.446	95% Critical H Value (KM-Log)	1.969	
KM Standard Error of Mean (logged)	0.115	95% H-UCL (KM -Log)	0.227	
KM SD (logged)	0.446	95% Critical H Value (KM-Log)	1.969	

KM Standard Error of Mean (logged)		0.115	
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.16	Mean in Log Scale	-2.055
SD in Original Scale	0.153	SD in Log Scale	0.578
95% t UCL (Assumes normality)	0.22	95% H-Stat UCL	0.2
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.253		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil antimony 7440-36-0)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	17
Number of Detects	2	Number of Non-Detects	18
Number of Distinct Detects	2	Number of Distinct Non-Detects	15
Minimum Detect	1.367	Minimum Non-Detect	0.737
Maximum Detect	1.6	Maximum Non-Detect	2.5
Variance Detects	0.0272	Percent Non-Detects	90%
Mean Detects	1.483	SD Detects	0.165
Median Detects	1.483	CV Detects	0.111
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	0.391	SD of Logged Detects	0.111
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.986	KM Standard Error of Mean	0.207
90KM SD	0.358	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1.343	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1.326	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	1.606	95% KM Chebyshev UCL	1.887
97.5% KM Chebyshev UCL	2.278	99% KM Chebyshev UCL	3.044
Gamma GOF Tests on Detected Observations Only			

Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	161.3	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.0092	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	645.3	nu star (bias corrected)	N/A
Mean (detects)	1.483		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.986	SD (KM)	0.358
Variance (KM)	0.128	SE of Mean (KM)	0.207
k hat (KM)	7.563	k star (KM)	6.462
nu hat (KM)	302.5	nu star (KM)	258.5
theta hat (KM)	0.13	theta star (KM)	0.153
80% gamma percentile (KM)	1.288	90% gamma percentile (KM)	1.504
95% gamma percentile (KM)	1.698	99% gamma percentile (KM)	2.103
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.038
Approximate Chi Square Value (258.48, α)	222.3	Adjusted Chi Square Value (258.48, β)	219.6
95% KM Approximate Gamma UCL	1.146	95% KM Adjusted Gamma UCL	1.16
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.068	Mean in Log Scale	0.0525
SD in Original Scale	0.186	SD in Log Scale	0.16
95% t UCL (assumes normality of ROS data)	1.139	95% Percentile Bootstrap UCL	1.138
95% BCA Bootstrap UCL	1.152	95% Bootstrap t UCL	1.161
95% H-UCL (Log ROS)	1.139		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-0.0734	KM Geo Mean	0.929
KM SD (logged)	0.332	95% Critical H Value (KM-Log)	1.874
KM Standard Error of Mean (logged)	0.191	95% H-UCL (KM -Log)	1.132
KM SD (logged)	0.332	95% Critical H Value (KM-Log)	1.874
KM Standard Error of Mean (logged)	0.191		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.911	Mean in Log Scale	-0.168
SD in Original Scale	0.32	SD in Log Scale	0.426
95% t UCL (Assumes normality)	1.035	95% H-Stat UCL	1.12
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			

Suggested UCL to Use

95% KM (t) UCL 1.343

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | arsenic | 7440-38-2)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	3	Mean	7.01
Maximum	25	Median	5.658
SD	4.731	Std. Error of Mean	1.058
Coefficient of Variation	0.675	Skewness	3.146

Normal GOF Test

Shapiro Wilk Test Statistic	0.646	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.242	Lilliefors GOF Test
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	8.839	95% Adjusted-CLT UCL (Chen-1995)	9.545
		95% Modified-t UCL (Johnson-1978)	8.963

Gamma GOF Test

A-D Test Statistic	0.917	Anderson-Darling Gamma GOF Test
5% A-D Critical Value	0.746	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.188	Kolmogorov-Smirnov Gamma GOF Test
5% K-S Critical Value	0.195	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	4.003	k star (bias corrected MLE)	3.436
Theta hat (MLE)	1.751	Theta star (bias corrected MLE)	2.04
nu hat (MLE)	160.1	nu star (bias corrected)	137.5
MLE Mean (bias corrected)	7.01	MLE Sd (bias corrected)	3.781
		Approximate Chi Square Value (0.05)	111.4
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	109.5

Assuming Gamma Distribution

95% Approximate Gamma UCL	8.652	95% Adjusted Gamma UCL	8.798

Lognormal GOF Test

Shapiro Wilk Test Statistic		0.916	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value		0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic		0.15	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value		0.176	Data appear Lognormal at 10% Significance Level	
Data appear Approximate Lognormal at 10% Significance Level				
Lognormal Statistics				
Minimum of Logged Data		1.099	Mean of logged Data	1.817
Maximum of Logged Data		3.219	SD of logged Data	0.476
Assuming Lognormal Distribution				
95% H-UCL		8.571	90% Chebyshev (MVUE) UCL	9.11
95% Chebyshev (MVUE) UCL		10.13	97.5% Chebyshev (MVUE) UCL	11.55
99% Chebyshev (MVUE) UCL		14.35		
Nonparametric Distribution Free UCL Statistics				
Data appear to follow a Discernible Distribution				
Nonparametric Distribution Free UCLs				
95% CLT UCL		8.75	95% BCA Bootstrap UCL	9.753
95% Standard Bootstrap UCL		8.706	95% Bootstrap-t UCL	10.81
95% Hall's Bootstrap UCL		15.96	95% Percentile Bootstrap UCL	8.875
90% Chebyshev(Mean, Sd) UCL		10.18	95% Chebyshev(Mean, Sd) UCL	11.62
97.5% Chebyshev(Mean, Sd) UCL		13.62	99% Chebyshev(Mean, Sd) UCL	17.54
Suggested UCL to Use				
95% Adjusted Gamma UCL		8.798		
When a data set follows an approximate distribution passing only one of the GOF tests,				
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL				
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.				
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.				
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.				
C (soil barium 7440-39-3)				
General Statistics				
Total Number of Observations		20	Number of Distinct Observations	18
			Number of Missing Observations	0
Minimum		41	Mean	63.93
Maximum		140	Median	59.08
SD		22.74	Std. Error of Mean	5.085
Coefficient of Variation		0.356	Skewness	2.273
Normal GOF Test				
Shapiro Wilk Test Statistic		0.766	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value		0.868	Data Not Normal at 1% Significance Level	

Lilliefors Test Statistic		0.264	Lilliefors GOF Test		
1% Lilliefors Critical Value		0.223	Data Not Normal at 1% Significance Level		
Data Not Normal at 1% Significance Level					
Assuming Normal Distribution					
95% Normal UCL			95% UCLs (Adjusted for Skewness)		
95% Student's-t UCL		72.72	95% Adjusted-CLT UCL (Chen-1995)		75.05
			95% Modified-t UCL (Johnson-1978)		73.15
Gamma GOF Test					
A-D Test Statistic		0.897	Anderson-Darling Gamma GOF Test		
5% A-D Critical Value		0.742	Data Not Gamma Distributed at 5% Significance Level		
K-S Test Statistic		0.218	Kolmogorov-Smirnov Gamma GOF Test		
5% K-S Critical Value		0.194	Data Not Gamma Distributed at 5% Significance Level		
Data Not Gamma Distributed at 5% Significance Level					
Gamma Statistics					
k hat (MLE)		11.14	k star (bias corrected MLE)		9.499
Theta hat (MLE)		5.741	Theta star (bias corrected MLE)		6.73
nu hat (MLE)		445.4	nu star (bias corrected)		380
MLE Mean (bias corrected)		63.93	MLE Sd (bias corrected)		20.74
			Approximate Chi Square Value (0.05)		335.8
Adjusted Level of Significance		0.038	Adjusted Chi Square Value		332.5
Assuming Gamma Distribution					
95% Approximate Gamma UCL		72.34	95% Adjusted Gamma UCL		73.05
Lognormal GOF Test					
Shapiro Wilk Test Statistic		0.899	Shapiro Wilk Lognormal GOF Test		
10% Shapiro Wilk Critical Value		0.92	Data Not Lognormal at 10% Significance Level		
Lilliefors Test Statistic		0.195	Lilliefors Lognormal GOF Test		
10% Lilliefors Critical Value		0.176	Data Not Lognormal at 10% Significance Level		
Data Not Lognormal at 10% Significance Level					
Lognormal Statistics					
Minimum of Logged Data		3.714	Mean of logged Data		4.112
Maximum of Logged Data		4.942	SD of logged Data		0.292
Assuming Lognormal Distribution					
95% H-UCL		72.11	90% Chebyshev (MVUE) UCL		76.2
95% Chebyshev (MVUE) UCL		81.91	97.5% Chebyshev (MVUE) UCL		89.83
99% Chebyshev (MVUE) UCL		105.4			
Nonparametric Distribution Free UCL Statistics					
Data do not follow a Discernible Distribution					
Nonparametric Distribution Free UCLs					
95% CLT UCL		72.29	95% BCA Bootstrap UCL		75.25
95% Standard Bootstrap UCL		72.04	95% Bootstrap-t UCL		79.54

95% Hall's Bootstrap UCL	114.4	95% Percentile Bootstrap UCL	72.59
90% Chebyshev(Mean, Sd) UCL	79.18	95% Chebyshev(Mean, Sd) UCL	86.09
97.5% Chebyshev(Mean, Sd) UCL	95.68	99% Chebyshev(Mean, Sd) UCL	114.5
Suggested UCL to Use			
95% Student's-t UCL	72.72		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil benzene 71-43-2)			
General Statistics			
Total Number of Observations	21	Number of Distinct Observations	18
Number of Detects	7	Number of Non-Detects	14
Number of Distinct Detects	7	Number of Distinct Non-Detects	11
Minimum Detect	0.001	Minimum Non-Detect	4.6667E-4
Maximum Detect	1.5	Maximum Non-Detect	0.27
Variance Detects	0.294	Percent Non-Detects	66.67%
Mean Detects	0.304	SD Detects	0.542
Median Detects	0.07	CV Detects	1.785
Skewness Detects	2.378	Kurtosis Detects	5.764
Mean of Logged Detects	-2.704	SD of Logged Detects	2.279
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.617	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.73	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.372	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.35	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.105	KM Standard Error of Mean	0.0761
90KM SD	0.323	95% KM (BCA) UCL	0.247
95% KM (t) UCL	0.236	95% KM (Percentile Bootstrap) UCL	0.242
95% KM (z) UCL	0.23	95% KM Bootstrap t UCL	0.961
90% KM Chebyshev UCL	0.333	95% KM Chebyshev UCL	0.437
97.5% KM Chebyshev UCL	0.58	99% KM Chebyshev UCL	0.862
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.385	Anderson-Darling GOF Test	
5% A-D Critical Value	0.763	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.278	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.33	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			

k hat (MLE)	0.43	k star (bias corrected MLE)	0.341
Theta hat (MLE)	0.707	Theta star (bias corrected MLE)	0.891
nu hat (MLE)	6.018	nu star (bias corrected)	4.772
Mean (detects)	0.304		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.001	Mean	0.108
Maximum	1.5	Median	0.01
SD	0.329	CV	3.05
k hat (MLE)	0.38	k star (bias corrected MLE)	0.358
Theta hat (MLE)	0.284	Theta star (bias corrected MLE)	0.302
nu hat (MLE)	15.96	nu star (bias corrected)	15.02
Adjusted Level of Significance (β)	0.0383		
Approximate Chi Square Value (15.02, α)	7.274	Adjusted Chi Square Value (15.02, β)	6.862
95% Gamma Approximate UCL	0.223	95% Gamma Adjusted UCL	0.236
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.105	SD (KM)	0.323
Variance (KM)	0.104	SE of Mean (KM)	0.0761
k hat (KM)	0.106	k star (KM)	0.122
nu hat (KM)	4.438	nu star (KM)	5.137
theta hat (KM)	0.992	theta star (KM)	0.857
80% gamma percentile (KM)	0.0939	90% gamma percentile (KM)	0.299
95% gamma percentile (KM)	0.597	99% gamma percentile (KM)	1.503
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (5.14, α)	1.216	Adjusted Chi Square Value (5.14, β)	1.078
95% KM Approximate Gamma UCL	0.443	95% KM Adjusted Gamma UCL	0.5
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.931	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.208	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.102	Mean in Log Scale	-5.881
SD in Original Scale	0.331	SD in Log Scale	2.776
95% t UCL (assumes normality of ROS data)	0.227	95% Percentile Bootstrap UCL	0.237
95% BCA Bootstrap UCL	0.328	95% Bootstrap t UCL	1.238
95% H-UCL (Log ROS)	4.002		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-5.554	KM Geo Mean	0.00387
KM SD (logged)	2.564	95% Critical H Value (KM-Log)	5.126
KM Standard Error of Mean (logged)	0.67	95% H-UCL (KM -Log)	1.957
KM SD (logged)	2.564	95% Critical H Value (KM-Log)	5.126
KM Standard Error of Mean (logged)	0.67		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.123	Mean in Log Scale	-4.68
SD in Original Scale	0.327	SD in Log Scale	2.676
95% t UCL (Assumes normality)	0.247	95% H-Stat UCL	8.05
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM Adjusted Gamma UCL	0.5		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil benzidine 92-87-5)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil benzidine 92-87-5) was not processed!			
C (soil benzo(a)anthracene 56-55-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	17
Number of Detects	8	Number of Non-Detects	12
Number of Distinct Detects	8	Number of Distinct Non-Detects	9

Minimum Detect	0.07	Minimum Non-Detect	0.192
Maximum Detect	1.8	Maximum Non-Detect	0.22
Variance Detects	0.476	Percent Non-Detects	60%
Mean Detects	0.588	SD Detects	0.69
Median Detects	0.3	CV Detects	1.174
Skewness Detects	1.174	Kurtosis Detects	-0.187
Mean of Logged Detects	-1.286	SD of Logged Detects	1.379
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.775	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.749	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.256	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.333	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.285	KM Standard Error of Mean	0.114
90KM SD	0.477	95% KM (BCA) UCL	0.482
95% KM (t) UCL	0.482	95% KM (Percentile Bootstrap) UCL	0.48
95% KM (z) UCL	0.473	95% KM Bootstrap t UCL	0.808
90% KM Chebyshev UCL	0.628	95% KM Chebyshev UCL	0.783
97.5% KM Chebyshev UCL	0.998	99% KM Chebyshev UCL	1.422
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.623	Anderson-Darling GOF Test	
5% A-D Critical Value	0.744	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.276	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.304	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.788	k star (bias corrected MLE)	0.576
Theta hat (MLE)	0.746	Theta star (bias corrected MLE)	1.02
nu hat (MLE)	12.61	nu star (bias corrected)	9.217
Mean (detects)	0.588		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	0.262
Maximum	1.8	Median	0.072
SD	0.502	CV	1.918
k hat (MLE)	0.431	k star (bias corrected MLE)	0.399
Theta hat (MLE)	0.608	Theta star (bias corrected MLE)	0.656

nu hat (MLE)	17.22	nu star (bias corrected)	15.97
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (15.97, α)	7.942	Adjusted Chi Square Value (15.97, β)	7.496
95% Gamma Approximate UCL	0.527	95% Gamma Adjusted UCL	0.558
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.285	SD (KM)	0.477
Variance (KM)	0.228	SE of Mean (KM)	0.114
k hat (KM)	0.356	k star (KM)	0.336
nu hat (KM)	14.25	nu star (KM)	13.44
theta hat (KM)	0.8	theta star (KM)	0.848
80% gamma percentile (KM)	0.448	90% gamma percentile (KM)	0.828
95% gamma percentile (KM)	1.256	99% gamma percentile (KM)	2.353
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (13.44, α)	6.193	Adjusted Chi Square Value (13.44, β)	5.807
95% KM Approximate Gamma UCL	0.619	95% KM Adjusted Gamma UCL	0.66
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.843	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.851	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.248	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.265	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Approximate Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.296	Mean in Log Scale	-1.916
SD in Original Scale	0.485	SD in Log Scale	1.025
95% t UCL (assumes normality of ROS data)	0.484	95% Percentile Bootstrap UCL	0.485
95% BCA Bootstrap UCL	0.543	95% Bootstrap t UCL	0.854
95% H-UCL (Log ROS)	0.467		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-2.017	KM Geo Mean	0.133
KM SD (logged)	1.021	95% Critical H Value (KM-Log)	2.665
KM Standard Error of Mean (logged)	0.253	95% H-UCL (KM -Log)	0.418
KM SD (logged)	1.021	95% Critical H Value (KM-Log)	2.665
KM Standard Error of Mean (logged)	0.253		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.296	Mean in Log Scale	-1.889
SD in Original Scale	0.485	SD in Log Scale	0.979
95% t UCL (Assumes normality)	0.483	95% H-Stat UCL	0.438
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			

Suggested UCL to Use

95% KM (t) UCL 0.482

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.

Please verify the data were collected from random locations.

If the data were collected using judgmental or other non-random methods,
then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | benzo(a)pyrene | 50-32-8)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	7	Number of Non-Detects	13
Number of Distinct Detects	6	Number of Distinct Non-Detects	10
Minimum Detect	0.065	Minimum Non-Detect	0.19
Maximum Detect	1.5	Maximum Non-Detect	0.22
Variance Detects	0.275	Percent Non-Detects	65%
Mean Detects	0.429	SD Detects	0.525
Median Detects	0.25	CV Detects	1.223
Skewness Detects	1.785	Kurtosis Detects	3.043
Mean of Logged Detects	-1.484	SD of Logged Detects	1.235

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.765	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.73	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.289	Lilliefors GOF Test
1% Lilliefors Critical Value	0.35	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.196	KM Standard Error of Mean	0.0809
90KM SD	0.334	95% KM (BCA) UCL	0.356
95% KM (t) UCL	0.336	95% KM (Percentile Bootstrap) UCL	0.341
95% KM (z) UCL	0.329	95% KM Bootstrap t UCL	0.662
90% KM Chebyshev UCL	0.439	95% KM Chebyshev UCL	0.549
97.5% KM Chebyshev UCL	0.701	99% KM Chebyshev UCL	1.001

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.414	Anderson-Darling GOF Test
5% A-D Critical Value	0.73	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.233	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.321	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	0.915	k star (bias corrected MLE)	0.618
Theta hat (MLE)	0.469	Theta star (bias corrected MLE)	0.694
nu hat (MLE)	12.81	nu star (bias corrected)	8.653
Mean (detects)	0.429		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.166
Maximum	1.5	Median	0.0375
SD	0.356	CV	2.15
k hat (MLE)	0.453	k star (bias corrected MLE)	0.418
Theta hat (MLE)	0.365	Theta star (bias corrected MLE)	0.396
nu hat (MLE)	18.12	nu star (bias corrected)	16.74
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (16.74, α)	8.486	Adjusted Chi Square Value (16.74, β)	8.023
95% Gamma Approximate UCL	0.327	95% Gamma Adjusted UCL	0.345

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.196	SD (KM)	0.334
Variance (KM)	0.112	SE of Mean (KM)	0.0809
k hat (KM)	0.345	k star (KM)	0.326
nu hat (KM)	13.78	nu star (KM)	13.05
theta hat (KM)	0.57	theta star (KM)	0.602
80% gamma percentile (KM)	0.307	90% gamma percentile (KM)	0.573
95% gamma percentile (KM)	0.874	99% gamma percentile (KM)	1.648

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (13.05, α)	5.925	Adjusted Chi Square Value (13.05, β)	5.549
95% KM Approximate Gamma UCL	0.432	95% KM Adjusted Gamma UCL	0.462

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.903	Shapiro Wilk GOF Test
10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.221	Lilliefors GOF Test
10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level

Detected Data appear Lognormal at 10% Significance Level

Note GOF tests may be unreliable for small sample sizes

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.201	Mean in Log Scale	-2.2
SD in Original Scale	0.342	SD in Log Scale	0.912
95% t UCL (assumes normality of ROS data)	0.333	95% Percentile Bootstrap UCL	0.336

95% BCA Bootstrap UCL	0.406	95% Bootstrap t UCL	0.72
95% H-UCL (Log ROS)	0.284		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-2.243	KM Geo Mean	0.106
KM SD (logged)	0.881	95% Critical H Value (KM-Log)	2.467
KM Standard Error of Mean (logged)	0.219	95% H-UCL (KM -Log)	0.258
KM SD (logged)	0.881	95% Critical H Value (KM-Log)	2.467
KM Standard Error of Mean (logged)	0.219		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.216	Mean in Log Scale	-2.012
SD in Original Scale	0.336	SD in Log Scale	0.801
95% t UCL (Assumes normality)	0.345	95% H-Stat UCL	0.284
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.336		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil benzo(b)fluoranthene 205-99-2)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	9	Number of Non-Detects	11
Number of Distinct Detects	8	Number of Distinct Non-Detects	8
Minimum Detect	0.069	Minimum Non-Detect	0.192
Maximum Detect	2.8	Maximum Non-Detect	0.22
Variance Detects	0.961	Percent Non-Detects	55%
Mean Detects	0.721	SD Detects	0.98
Median Detects	0.13	CV Detects	1.359
Skewness Detects	1.607	Kurtosis Detects	1.621
Mean of Logged Detects	-1.2	SD of Logged Detects	1.408
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.728	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.764	Detected Data Not Normal at 1% Significance Level	

Lilliefors Test Statistic		0.282	Lilliefors GOF Test	
1% Lilliefors Critical Value		0.316	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Approximate Normal at 1% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	0.381	KM Standard Error of Mean	0.164	
90KM SD	0.692	95% KM (BCA) UCL	0.671	
95% KM (t) UCL	0.665	95% KM (Percentile Bootstrap) UCL	0.66	
95% KM (z) UCL	0.651	95% KM Bootstrap t UCL	1.303	
90% KM Chebyshev UCL	0.874	95% KM Chebyshev UCL	1.097	
97.5% KM Chebyshev UCL	1.407	99% KM Chebyshev UCL	2.016	
Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.74	Anderson-Darling GOF Test		
5% A-D Critical Value	0.756	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.308	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.29	Detected Data Not Gamma Distributed at 5% Significance Level		
Detected data follow Appr. Gamma Distribution at 5% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Gamma Statistics on Detected Data Only				
k hat (MLE)	0.693	k star (bias corrected MLE)	0.536	
Theta hat (MLE)	1.041	Theta star (bias corrected MLE)	1.345	
nu hat (MLE)	12.47	nu star (bias corrected)	9.649	
Mean (detects)	0.721			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean	0.352	
Maximum	2.8	Median	0.101	
SD	0.724	CV	2.054	
k hat (MLE)	0.407	k star (bias corrected MLE)	0.379	
Theta hat (MLE)	0.867	Theta star (bias corrected MLE)	0.93	
nu hat (MLE)	16.26	nu star (bias corrected)	15.15	
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (15.15, α)	7.369	Adjusted Chi Square Value (15.15, β)	6.943	
95% Gamma Approximate UCL	0.725	95% Gamma Adjusted UCL	0.769	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.381	SD (KM)	0.692	
Variance (KM)	0.48	SE of Mean (KM)	0.164	
k hat (KM)	0.302	k star (KM)	0.29	
nu hat (KM)	12.08	nu star (KM)	11.6	
theta hat (KM)	1.26	theta star (KM)	1.312	

80% gamma percentile (KM)	0.579	90% gamma percentile (KM)	1.127
95% gamma percentile (KM)	1.76	99% gamma percentile (KM)	3.412
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (11.60, α)	4.968	Adjusted Chi Square Value (11.60, β)	4.628
95% KM Approximate Gamma UCL	0.889	95% KM Adjusted Gamma UCL	0.954
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.861	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.859	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.28	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.252	Detected Data Not Lognormal at 10% Significance Level	
Detected Data appear Approximate Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.394	Mean in Log Scale	-1.712
SD in Original Scale	0.706	SD in Log Scale	1.064
95% t UCL (assumes normality of ROS data)	0.667	95% Percentile Bootstrap UCL	0.669
95% BCA Bootstrap UCL	0.771	95% Bootstrap t UCL	1.348
95% H-UCL (Log ROS)	0.619		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.808	KM Geo Mean	0.164
KM SD (logged)	1.059	95% Critical H Value (KM-Log)	2.721
KM Standard Error of Mean (logged)	0.26	95% H-UCL (KM -Log)	0.556
KM SD (logged)	1.059	95% Critical H Value (KM-Log)	2.721
KM Standard Error of Mean (logged)	0.26		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.38	Mean in Log Scale	-1.8
SD in Original Scale	0.71	SD in Log Scale	1.071
95% t UCL (Assumes normality)	0.655	95% H-Stat UCL	0.574
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.665		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
When a data set follows an approximate distribution passing only one of the GOF tests,			
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | benzo(g,h,i)perylene | 191-24-2)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	4	Number of Non-Detects	16
Number of Distinct Detects	4	Number of Distinct Non-Detects	12
Minimum Detect	0.14	Minimum Non-Detect	0.187
Maximum Detect	0.64	Maximum Non-Detect	0.22
Variance Detects	0.0522	Percent Non-Detects	80%
Mean Detects	0.383	SD Detects	0.228
Median Detects	0.375	CV Detects	0.597
Skewness Detects	0.118	Kurtosis Detects	-3.265
Mean of Logged Detects	-1.123	SD of Logged Detects	0.689

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.95	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.219	Lilliefors GOF Test
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.189	KM Standard Error of Mean	0.0339
90KM SD	0.131	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.247	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.244	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.29	95% KM Chebyshev UCL	0.336
97.5% KM Chebyshev UCL	0.4	99% KM Chebyshev UCL	0.526

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.276	Anderson-Darling GOF Test
5% A-D Critical Value	0.659	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.254	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.396	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	3.245	k star (bias corrected MLE)	0.978
Theta hat (MLE)	0.118	Theta star (bias corrected MLE)	0.391
nu hat (MLE)	25.96	nu star (bias corrected)	7.823
Mean (detects)	0.383		

Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean	0.153	
Maximum	0.64	Median	0.0941	
SD	0.154	CV	1.007	
k hat (MLE)	1.527	k star (bias corrected MLE)	1.331	
Theta hat (MLE)	0.1	Theta star (bias corrected MLE)	0.115	
nu hat (MLE)	61.06	nu star (bias corrected)	53.24	
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (53.24, α)	37.48	Adjusted Chi Square Value (53.24, β)	36.43	
95% Gamma Approximate UCL	0.218	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.189	SD (KM)	0.131	
Variance (KM)	0.0172	SE of Mean (KM)	0.0339	
k hat (KM)	2.062	k star (KM)	1.786	
nu hat (KM)	82.48	nu star (KM)	71.44	
theta hat (KM)	0.0914	theta star (KM)	0.106	
80% gamma percentile (KM)	0.286	90% gamma percentile (KM)	0.377	
95% gamma percentile (KM)	0.464	99% gamma percentile (KM)	0.658	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (71.44, α)	52.98	Adjusted Chi Square Value (71.44, β)	51.72	
95% KM Approximate Gamma UCL	0.254	95% KM Adjusted Gamma UCL	0.26	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.947	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.234	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.181	Mean in Log Scale	-1.868	
SD in Original Scale	0.14	SD in Log Scale	0.506	
95% t UCL (assumes normality of ROS data)	0.235	95% Percentile Bootstrap UCL	0.236	
95% BCA Bootstrap UCL	0.253	95% Bootstrap t UCL	0.364	
95% H-UCL (Log ROS)	0.222			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-1.797	KM Geo Mean	0.166	
KM SD (logged)	0.43	95% Critical H Value (KM-Log)	1.955	
KM Standard Error of Mean (logged)	0.111	95% H-UCL (KM -Log)	0.22	
KM SD (logged)	0.43	95% Critical H Value (KM-Log)	1.955	

KM Standard Error of Mean (logged)		0.111	
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.156	Mean in Log Scale	-2.069
SD in Original Scale	0.147	SD in Log Scale	0.559
95% t UCL (Assumes normality)	0.213	95% H-Stat UCL	0.193
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.247		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil benzo(k)fluoranthene 207-08-9)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	14
Number of Detects	4	Number of Non-Detects	16
Number of Distinct Detects	3	Number of Distinct Non-Detects	12
Minimum Detect	0.2	Minimum Non-Detect	0.187
Maximum Detect	1	Maximum Non-Detect	0.22
Variance Detects	0.177	Percent Non-Detects	80%
Mean Detects	0.56	SD Detects	0.421
Median Detects	0.52	CV Detects	0.751
Skewness Detects	0.124	Kurtosis Detects	-5.29
Mean of Logged Detects	-0.848	SD of Logged Detects	0.882
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.813	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.304	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.262	KM Standard Error of Mean	0.057
90KM SD	0.221	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.361	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.356	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.433	95% KM Chebyshev UCL	0.511
97.5% KM Chebyshev UCL	0.618	99% KM Chebyshev UCL	0.829

Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.599	Anderson-Darling GOF Test		
5% A-D Critical Value	0.661	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.34	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.398	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Gamma Statistics on Detected Data Only				
k hat (MLE)	2.013	k star (bias corrected MLE)	0.67	
Theta hat (MLE)	0.278	Theta star (bias corrected MLE)	0.836	
nu hat (MLE)	16.1	nu star (bias corrected)	5.359	
Mean (detects)	0.56			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean	0.12	
Maximum	1	Median	0.01	
SD	0.281	CV	2.341	
k hat (MLE)	0.382	k star (bias corrected MLE)	0.358	
Theta hat (MLE)	0.314	Theta star (bias corrected MLE)	0.335	
nu hat (MLE)	15.29	nu star (bias corrected)	14.33	
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (14.33, α)	6.801	Adjusted Chi Square Value (14.33, β)	6.393	
95% Gamma Approximate UCL	0.253	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.262	SD (KM)	0.221	
Variance (KM)	0.0488	SE of Mean (KM)	0.057	
k hat (KM)	1.408	k star (KM)	1.23	
nu hat (KM)	56.3	nu star (KM)	49.19	
theta hat (KM)	0.186	theta star (KM)	0.213	
80% gamma percentile (KM)	0.414	90% gamma percentile (KM)	0.573	
95% gamma percentile (KM)	0.73	99% gamma percentile (KM)	1.089	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (49.19, α)	34.09	Adjusted Chi Square Value (49.19, β)	33.09	
95% KM Approximate Gamma UCL	0.378	95% KM Adjusted Gamma UCL	0.389	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.778	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data Not Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.306	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Approximate Lognormal at 10% Significance Level				

Note GOF tests may be unreliable for small sample sizes

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.133	Mean in Log Scale	-3.194
SD in Original Scale	0.276	SD in Log Scale	1.342
95% t UCL (assumes normality of ROS data)	0.239	95% Percentile Bootstrap UCL	0.239
95% BCA Bootstrap UCL	0.279	95% Bootstrap t UCL	0.585
95% H-UCL (Log ROS)	0.267		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.509	KM Geo Mean	0.221
KM SD (logged)	0.475	95% Critical H Value (KM-Log)	1.996
KM Standard Error of Mean (logged)	0.123	95% H-UCL (KM -Log)	0.308
KM SD (logged)	0.475	95% Critical H Value (KM-Log)	1.996
KM Standard Error of Mean (logged)	0.123		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.192	Mean in Log Scale	-2.014
SD in Original Scale	0.252	SD in Log Scale	0.694
95% t UCL (Assumes normality)	0.289	95% H-Stat UCL	0.242

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 1% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.361		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | benzoic acid | 65-85-0)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	9
Number of Detects	1	Number of Non-Detects	19
Number of Distinct Detects	1	Number of Distinct Non-Detects	9

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | benzoic acid | 65-85-0) was not processed!

C (soil | beryllium | 7440-41-7)

General Statistics			
Total Number of Observations	20	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	0.31	Mean	0.754
Maximum	2	Median	0.664
SD	0.375	Std. Error of Mean	0.0839
Coefficient of Variation	0.497	Skewness	2.417
Normal GOF Test			
Shapiro Wilk Test Statistic	0.715	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.299	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	0.9	95% Adjusted-CLT UCL (Chen-1995)	0.941
		95% Modified-t UCL (Johnson-1978)	0.907
Gamma GOF Test			
A-D Test Statistic	1.214	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.744	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.245	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.194	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	6.105	k star (bias corrected MLE)	5.223
Theta hat (MLE)	0.124	Theta star (bias corrected MLE)	0.144
nu hat (MLE)	244.2	nu star (bias corrected)	208.9
MLE Mean (bias corrected)	0.754	MLE Sd (bias corrected)	0.33
		Approximate Chi Square Value (0.05)	176.5
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	174.1
Assuming Gamma Distribution			
95% Approximate Gamma UCL	0.893	95% Adjusted Gamma UCL	0.905
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.899	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.215	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-1.171	Mean of logged Data	-0.366
Maximum of Logged Data	0.693	SD of logged Data	0.396

Assuming Lognormal Distribution				
95% H-UCL	0.894	90% Chebyshev (MVUE) UCL	0.95	
95% Chebyshev (MVUE) UCL	1.042	97.5% Chebyshev (MVUE) UCL	1.17	
99% Chebyshev (MVUE) UCL	1.421			
Nonparametric Distribution Free UCL Statistics				
Data do not follow a Discernible Distribution				
Nonparametric Distribution Free UCLs				
95% CLT UCL	0.892	95% BCA Bootstrap UCL	0.948	
95% Standard Bootstrap UCL	0.889	95% Bootstrap-t UCL	1.081	
95% Hall's Bootstrap UCL	1.74	95% Percentile Bootstrap UCL	0.898	
90% Chebyshev(Mean, Sd) UCL	1.006	95% Chebyshev(Mean, Sd) UCL	1.12	
97.5% Chebyshev(Mean, Sd) UCL	1.278	99% Chebyshev(Mean, Sd) UCL	1.589	
Suggested UCL to Use				
95% Student's-t UCL	0.9			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.				
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.				
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.				
C (soil bis(2-chloroethoxy)methane 111-91-1)				
General Statistics				
Total Number of Observations	20	Number of Distinct Observations	15	
Number of Detects	0	Number of Non-Detects	20	
Number of Distinct Detects	0	Number of Distinct Non-Detects	15	
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!				
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!				
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).				
The data set for variable C (soil bis(2-chloroethoxy)methane 111-91-1) was not processed!				
C (soil bis(2-chloroethyl) ether 111-44-4)				
General Statistics				
Total Number of Observations	20	Number of Distinct Observations	15	
Number of Detects	0	Number of Non-Detects	20	
Number of Distinct Detects	0	Number of Distinct Non-Detects	15	
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!				
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!				
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).				
The data set for variable C (soil bis(2-chloroethyl) ether 111-44-4) was not processed!				

C (soil | bis(2-ethylhexyl)phthalate | 117-81-7)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	2	Number of Non-Detects	18
Number of Distinct Detects	2	Number of Distinct Non-Detects	14
Minimum Detect	0.12	Minimum Non-Detect	0.38
Maximum Detect	0.39	Maximum Non-Detect	0.44
Variance Detects	0.0365	Percent Non-Detects	90%
Mean Detects	0.255	SD Detects	0.191
Median Detects	0.255	CV Detects	0.749
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-1.531	SD of Logged Detects	0.833

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.154	KM Standard Error of Mean	0.0446
90KM SD	0.0893	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.231	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.227	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.288	95% KM Chebyshev UCL	0.348
97.5% KM Chebyshev UCL	0.433	99% KM Chebyshev UCL	0.598

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	3.198	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.0797	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	12.79	nu star (bias corrected)	N/A
Mean (detects)	0.255		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.154	SD (KM)	0.0893
Variance (KM)	0.00797	SE of Mean (KM)	0.0446
k hat (KM)	2.965	k star (KM)	2.553
nu hat (KM)	118.6	nu star (KM)	102.1
theta hat (KM)	0.0519	theta star (KM)	0.0602
80% gamma percentile (KM)	0.224	90% gamma percentile (KM)	0.283
95% gamma percentile (KM)	0.338	99% gamma percentile (KM)	0.46

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.038
Approximate Chi Square Value (102.13, α)	79.82	Adjusted Chi Square Value (102.13, β)	78.26
95% KM Approximate Gamma UCL	0.197	95% KM Adjusted Gamma UCL	0.201
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.144	Mean in Log Scale	-1.998
SD in Original Scale	0.0643	SD in Log Scale	0.325
95% t UCL (assumes normality of ROS data)	0.169	95% Percentile Bootstrap UCL	0.17
95% BCA Bootstrap UCL	0.182	95% Bootstrap t UCL	0.205
95% H-UCL (Log ROS)	0.164		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.973	KM Geo Mean	0.139
KM SD (logged)	0.39	95% Critical H Value (KM-Log)	1.92
KM Standard Error of Mean (logged)	0.195	95% H-UCL (KM -Log)	0.178
KM SD (logged)	0.39	95% Critical H Value (KM-Log)	1.92
KM Standard Error of Mean (logged)	0.195		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.205	Mean in Log Scale	-1.604
SD in Original Scale	0.0476	SD in Log Scale	0.196
95% t UCL (Assumes normality)	0.224	95% H-Stat UCL	0.222
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.231		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil bromobenzene 108-86-1)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (soil | bromobenzene | 108-86-1) was not processed!

C (soil | bromochloromethane | 74-97-5)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | bromochloromethane | 74-97-5) was not processed!

C (soil | bromodichloromethane | 75-27-4)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | bromodichloromethane | 75-27-4) was not processed!

C (soil | bromoform | 75-25-2)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | bromoform | 75-25-2) was not processed!

C (soil | bromomethane | 74-83-9)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil bromomethane 74-83-9) was not processed!			
C (soil butylbenzylphthalate 85-68-7)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil butylbenzylphthalate 85-68-7) was not processed!			
C (soil cadmium 7440-43-9)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	8	Number of Non-Detects	12
Number of Distinct Detects	7	Number of Distinct Non-Detects	9
Minimum Detect	0.21	Minimum Non-Detect	0.187
Maximum Detect	0.52	Maximum Non-Detect	0.5
Variance Detects	0.00851	Percent Non-Detects	60%
Mean Detects	0.351	SD Detects	0.0922
Median Detects	0.34	CV Detects	0.263
Skewness Detects	0.506	Kurtosis Detects	1.028
Mean of Logged Detects	-1.078	SD of Logged Detects	0.268
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.971	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.749	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.172	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.333	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.286	KM Standard Error of Mean	0.0271

90KM SD	0.0927	95% KM (BCA) UCL	0.332
95% KM (t) UCL	0.333	95% KM (Percentile Bootstrap) UCL	0.33
95% KM (z) UCL	0.331	95% KM Bootstrap t UCL	0.331
90% KM Chebyshev UCL	0.368	95% KM Chebyshev UCL	0.405
97.5% KM Chebyshev UCL	0.456	99% KM Chebyshev UCL	0.556
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.197	Anderson-Darling GOF Test	
5% A-D Critical Value	0.716	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.143	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	16.44	k star (bias corrected MLE)	10.36
Theta hat (MLE)	0.0213	Theta star (bias corrected MLE)	0.0339
nu hat (MLE)	263.1	nu star (bias corrected)	165.7
Mean (detects)	0.351		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.179	Mean	0.283
Maximum	0.52	Median	0.264
SD	0.0872	CV	0.308
k hat (MLE)	12.19	k star (bias corrected MLE)	10.39
Theta hat (MLE)	0.0232	Theta star (bias corrected MLE)	0.0272
nu hat (MLE)	487.6	nu star (bias corrected)	415.8
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (415.75, α)	369.5	Adjusted Chi Square Value (415.75, β)	366
95% Gamma Approximate UCL	0.318	95% Gamma Adjusted UCL	0.321
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.286	SD (KM)	0.0927
Variance (KM)	0.00859	SE of Mean (KM)	0.0271
k hat (KM)	9.551	k star (KM)	8.152
nu hat (KM)	382.1	nu star (KM)	326.1
theta hat (KM)	0.03	theta star (KM)	0.0351
80% gamma percentile (KM)	0.366	90% gamma percentile (KM)	0.42
95% gamma percentile (KM)	0.469	99% gamma percentile (KM)	0.57
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (326.08, α)	285.2	Adjusted Chi Square Value (326.08, β)	282.2
95% KM Approximate Gamma UCL	0.327	95% KM Adjusted Gamma UCL	0.331

Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.977	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.851	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.15	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.265	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.286	Mean in Log Scale	-1.288
SD in Original Scale	0.0833	SD in Log Scale	0.269
95% t UCL (assumes normality of ROS data)	0.318	95% Percentile Bootstrap UCL	0.317
95% BCA Bootstrap UCL	0.322	95% Bootstrap t UCL	0.328
95% H-UCL (Log ROS)	0.32		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.301	KM Geo Mean	0.272
KM SD (logged)	0.319	95% Critical H Value (KM-Log)	1.865
KM Standard Error of Mean (logged)	0.0977	95% H-UCL (KM -Log)	0.328
KM SD (logged)	0.319	95% Critical H Value (KM-Log)	1.865
KM Standard Error of Mean (logged)	0.0977		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.244	Mean in Log Scale	-1.51
SD in Original Scale	0.112	SD in Log Scale	0.468
95% t UCL (Assumes normality)	0.287	95% H-Stat UCL	0.305
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.333		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil carbazole 86-74-8)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	4	Number of Non-Detects	16
Number of Distinct Detects	4	Number of Distinct Non-Detects	12
Minimum Detect	0.23	Minimum Non-Detect	0.187
Maximum Detect	0.46	Maximum Non-Detect	0.22
Variance Detects	0.0109	Percent Non-Detects	80%
Mean Detects	0.318	SD Detects	0.104

Median Detects	0.29	CV Detects	0.329
Skewness Detects	1.125	Kurtosis Detects	0.318
Mean of Logged Detects	-1.185	SD of Logged Detects	0.313
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.9	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.241	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.213	KM Standard Error of Mean	0.0171
90KM SD	0.0661	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.242	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.241	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.264	95% KM Chebyshev UCL	0.287
97.5% KM Chebyshev UCL	0.319	99% KM Chebyshev UCL	0.383
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.325	Anderson-Darling GOF Test	
5% A-D Critical Value	0.657	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.272	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.395	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	13.32	k star (bias corrected MLE)	3.496
Theta hat (MLE)	0.0238	Theta star (bias corrected MLE)	0.0908
nu hat (MLE)	106.5	nu star (bias corrected)	27.97
Mean (detects)	0.318		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	0.0715
Maximum	0.46	Median	0.01
SD	0.133	CV	1.858
k hat (MLE)	0.496	k star (bias corrected MLE)	0.455
Theta hat (MLE)	0.144	Theta star (bias corrected MLE)	0.157
nu hat (MLE)	19.83	nu star (bias corrected)	18.19
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (18.19, α)	9.526	Adjusted Chi Square Value (18.19, β)	9.032
95% Gamma Approximate UCL	0.137	95% Gamma Adjusted UCL	N/A

Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.213	SD (KM)	0.0661
Variance (KM)	0.00437	SE of Mean (KM)	0.0171
k hat (KM)	10.36	k star (KM)	8.839
nu hat (KM)	414.4	nu star (KM)	353.6
theta hat (KM)	0.0205	theta star (KM)	0.0241
80% gamma percentile (KM)	0.27	90% gamma percentile (KM)	0.308
95% gamma percentile (KM)	0.343	99% gamma percentile (KM)	0.414
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (353.56, α)	311	Adjusted Chi Square Value (353.56, β)	307.8
95% KM Approximate Gamma UCL	0.242	95% KM Adjusted Gamma UCL	0.244
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.929	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.24	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.119	Mean in Log Scale	-2.401
SD in Original Scale	0.111	SD in Log Scale	0.676
95% t UCL (assumes normality of ROS data)	0.162	95% Percentile Bootstrap UCL	0.161
95% BCA Bootstrap UCL	0.172	95% Bootstrap t UCL	0.19
95% H-UCL (Log ROS)	0.16		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.58	KM Geo Mean	0.206
KM SD (logged)	0.232	95% Critical H Value (KM-Log)	1.805
KM Standard Error of Mean (logged)	0.0598	95% H-UCL (KM -Log)	0.233
KM SD (logged)	0.232	95% Critical H Value (KM-Log)	1.805
KM Standard Error of Mean (logged)	0.0598		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.143	Mean in Log Scale	-2.081
SD in Original Scale	0.0986	SD in Log Scale	0.478
95% t UCL (Assumes normality)	0.181	95% H-Stat UCL	0.174
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.242		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | carbon disulfide | 75-15-0)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | carbon disulfide | 75-15-0) was not processed!

C (soil | carbon tetrachloride | 56-23-5)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | carbon tetrachloride | 56-23-5) was not processed!

C (soil | chlorobenzene | 108-90-7)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | chlorobenzene | 108-90-7) was not processed!

C (soil | chloroethane | 75-00-3)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil chloroethane 75-00-3) was not processed!			
C (soil chloroform 67-66-3)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	11
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil chloroform 67-66-3) was not processed!			
C (soil chloromethane 74-87-3)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil chloromethane 74-87-3) was not processed!			
C (soil chromium (total) 7440-47-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	17
		Number of Missing Observations	0
Minimum	11.43	Mean	86.49
Maximum	1400	Median	16.67
SD	309.2	Std. Error of Mean	69.14
Coefficient of Variation	3.575	Skewness	4.471

Normal GOF Test			
Shapiro Wilk Test Statistic	0.246	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.526	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	206	95% Adjusted-CLT UCL (Chen-1995)	274.1
		95% Modified-t UCL (Johnson-1978)	217.6
Gamma GOF Test			
A-D Test Statistic	6.326	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.812	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.506	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.206	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	0.457	k star (bias corrected MLE)	0.422
Theta hat (MLE)	189.3	Theta star (bias corrected MLE)	205.1
nu hat (MLE)	18.28	nu star (bias corrected)	16.87
MLE Mean (bias corrected)	86.49	MLE Sd (bias corrected)	133.2
		Approximate Chi Square Value (0.05)	8.578
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	8.112
Assuming Gamma Distribution			
95% Approximate Gamma UCL	170.1	95% Adjusted Gamma UCL	179.8
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.429	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.354	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	2.437	Mean of logged Data	3.05
Maximum of Logged Data	7.244	SD of logged Data	1.011
Assuming Lognormal Distribution			
95% H-UCL	65.09	90% Chebyshev (MVUE) UCL	59.75
95% Chebyshev (MVUE) UCL	71.44	97.5% Chebyshev (MVUE) UCL	87.67
99% Chebyshev (MVUE) UCL	119.5		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			

Nonparametric Distribution Free UCLs			
95% CLT UCL	200.2	95% BCA Bootstrap UCL	294.4
95% Standard Bootstrap UCL	197.1	95% Bootstrap-t UCL	6873
95% Hall's Bootstrap UCL	2986	95% Percentile Bootstrap UCL	224.5
90% Chebyshev(Mean, Sd) UCL	293.9	95% Chebyshev(Mean, Sd) UCL	387.9
97.5% Chebyshev(Mean, Sd) UCL	518.3	99% Chebyshev(Mean, Sd) UCL	774.4
Suggested UCL to Use			
95% Student's-t UCL	206		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil chrysene 218-01-9)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	9	Number of Non-Detects	11
Number of Distinct Detects	8	Number of Distinct Non-Detects	8
Minimum Detect	0.063	Minimum Non-Detect	0.192
Maximum Detect	2.9	Maximum Non-Detect	0.22
Variance Detects	0.972	Percent Non-Detects	55%
Mean Detects	0.757	SD Detects	0.986
Median Detects	0.16	CV Detects	1.302
Skewness Detects	1.548	Kurtosis Detects	1.831
Mean of Logged Detects	-1.127	SD of Logged Detects	1.411
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.754	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.764	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.289	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.316	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Approximate Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.403	KM Standard Error of Mean	0.167
90KM SD	0.701	95% KM (BCA) UCL	0.689
95% KM (t) UCL	0.691	95% KM (Percentile Bootstrap) UCL	0.683
95% KM (z) UCL	0.677	95% KM Bootstrap t UCL	0.974
90% KM Chebyshev UCL	0.903	95% KM Chebyshev UCL	1.129
97.5% KM Chebyshev UCL	1.443	99% KM Chebyshev UCL	2.061

Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.679	Anderson-Darling GOF Test	
5% A-D Critical Value	0.754	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.287	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.29	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.711	k star (bias corrected MLE)	0.548
Theta hat (MLE)	1.065	Theta star (bias corrected MLE)	1.382
nu hat (MLE)	12.79	nu star (bias corrected)	9.863
Mean (detects)	0.757		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	0.373
Maximum	2.9	Median	0.11
SD	0.735	CV	1.971
k hat (MLE)	0.407	k star (bias corrected MLE)	0.379
Theta hat (MLE)	0.916	Theta star (bias corrected MLE)	0.983
nu hat (MLE)	16.27	nu star (bias corrected)	15.16
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (15.16, α)	7.374	Adjusted Chi Square Value (15.16, β)	6.947
95% Gamma Approximate UCL	0.766	95% Gamma Adjusted UCL	0.813
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.403	SD (KM)	0.701
Variance (KM)	0.492	SE of Mean (KM)	0.167
k hat (KM)	0.329	k star (KM)	0.313
nu hat (KM)	13.18	nu star (KM)	12.53
theta hat (KM)	1.222	theta star (KM)	1.285
80% gamma percentile (KM)	0.624	90% gamma percentile (KM)	1.181
95% gamma percentile (KM)	1.816	99% gamma percentile (KM)	3.457
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (12.53, α)	5.58	Adjusted Chi Square Value (12.53, β)	5.217
95% KM Approximate Gamma UCL	0.904	95% KM Adjusted Gamma UCL	0.967
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.883	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.859	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.247	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.252	Detected Data appear Lognormal at 10% Significance Level	

Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.414	Mean in Log Scale	-1.647
SD in Original Scale	0.715	SD in Log Scale	1.07
95% t UCL (assumes normality of ROS data)	0.691	95% Percentile Bootstrap UCL	0.69
95% BCA Bootstrap UCL	0.793	95% Bootstrap t UCL	1
95% H-UCL (Log ROS)	0.669		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.733	KM Geo Mean	0.177
KM SD (logged)	1.072	95% Critical H Value (KM-Log)	2.74
KM Standard Error of Mean (logged)	0.272	95% H-UCL (KM -Log)	0.616
KM SD (logged)	1.072	95% Critical H Value (KM-Log)	2.74
KM Standard Error of Mean (logged)	0.272		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.396	Mean in Log Scale	-1.767
SD in Original Scale	0.722	SD in Log Scale	1.092
95% t UCL (Assumes normality)	0.675	95% H-Stat UCL	0.621
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.691		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
When a data set follows an approximate distribution passing only one of the GOF tests,			
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil cis-1,2-dichloroethene 156-59-2)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil cis-1,2-dichloroethene 156-59-2) was not processed!			
C (soil cobalt 7440-48-4)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	19
		Number of Missing Observations	0
Minimum	4.2	Mean	9.066
Maximum	18	Median	8.45
SD	3.38	Std. Error of Mean	0.756
Coefficient of Variation	0.373	Skewness	0.972
Normal GOF Test			
Shapiro Wilk Test Statistic	0.934	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.868	Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.147	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.223	Data appear Normal at 1% Significance Level	
Data appear Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	10.37	95% Adjusted-CLT UCL (Chen-1995)	10.48
		95% Modified-t UCL (Johnson-1978)	10.4
Gamma GOF Test			
A-D Test Statistic	0.234	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.743	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.132	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.194	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	8.148	k star (bias corrected MLE)	6.959
Theta hat (MLE)	1.113	Theta star (bias corrected MLE)	1.303
nu hat (MLE)	325.9	nu star (bias corrected)	278.4
MLE Mean (bias corrected)	9.066	MLE Sd (bias corrected)	3.437
		Approximate Chi Square Value (0.05)	240.7
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	238
Assuming Gamma Distribution			
95% Approximate Gamma UCL	10.48	95% Adjusted Gamma UCL	10.61
Lognormal GOF Test			

Shapiro Wilk Test Statistic	0.986	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.122	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data appear Lognormal at 10% Significance Level	
Data appear Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	1.435	Mean of logged Data	2.142
Maximum of Logged Data	2.89	SD of logged Data	0.362
Assuming Lognormal Distribution			
95% H-UCL	10.64	90% Chebyshev (MVUE) UCL	11.3
95% Chebyshev (MVUE) UCL	12.32	97.5% Chebyshev (MVUE) UCL	13.73
99% Chebyshev (MVUE) UCL	16.5		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	10.31	95% BCA Bootstrap UCL	10.48
95% Standard Bootstrap UCL	10.28	95% Bootstrap-t UCL	10.62
95% Hall's Bootstrap UCL	10.71	95% Percentile Bootstrap UCL	10.32
90% Chebyshev(Mean, Sd) UCL	11.33	95% Chebyshev(Mean, Sd) UCL	12.36
97.5% Chebyshev(Mean, Sd) UCL	13.79	99% Chebyshev(Mean, Sd) UCL	16.59
Suggested UCL to Use			
95% Student's-t UCL	10.37		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil copper 7440-50-8)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	19
		Number of Missing Observations	0
Minimum	11	Mean	70.3
Maximum	1000	Median	16.05
SD	219.1	Std. Error of Mean	48.99
Coefficient of Variation	3.117	Skewness	4.456
Normal GOF Test			
Shapiro Wilk Test Statistic	0.27	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.483	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			

Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	155	95% Adjusted-CLT UCL (Chen-1995)	203
		95% Modified-t UCL (Johnson-1978)	163.1
Gamma GOF Test			
A-D Test Statistic	4.797	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.796	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.379	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.204	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	0.573	k star (bias corrected MLE)	0.52
Theta hat (MLE)	122.8	Theta star (bias corrected MLE)	135.2
nu hat (MLE)	22.9	nu star (bias corrected)	20.8
MLE Mean (bias corrected)	70.3	MLE Sd (bias corrected)	97.49
		Approximate Chi Square Value (0.05)	11.44
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	10.89
Assuming Gamma Distribution			
95% Approximate Gamma UCL	127.8	95% Adjusted Gamma UCL	134.2
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.603	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.235	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	2.398	Mean of logged Data	3.166
Maximum of Logged Data	6.908	SD of logged Data	0.97
Assuming Lognormal Distribution			
95% H-UCL	67.59	90% Chebyshev (MVUE) UCL	63.39
95% Chebyshev (MVUE) UCL	75.45	97.5% Chebyshev (MVUE) UCL	92.2
99% Chebyshev (MVUE) UCL	125.1		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	150.9	95% BCA Bootstrap UCL	218.9
95% Standard Bootstrap UCL	148.7	95% Bootstrap-t UCL	1579
95% Hall's Bootstrap UCL	821.8	95% Percentile Bootstrap UCL	167.7
90% Chebyshev(Mean, Sd) UCL	217.3	95% Chebyshev(Mean, Sd) UCL	283.8
97.5% Chebyshev(Mean, Sd) UCL	376.2	99% Chebyshev(Mean, Sd) UCL	557.7

Suggested UCL to Use

95% Student's-t UCL 155

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.

Please verify the data were collected from random locations.

If the data were collected using judgmental or other non-random methods,
then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | cumene | 98-82-8)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	9
Number of Distinct Detects	2	Number of Distinct Non-Detects	6
Minimum Detect	0.14	Minimum Non-Detect	7.1000E-4
Maximum Detect	0.49	Maximum Non-Detect	0.0019
Variance Detects	0.0613	Percent Non-Detects	81.82%
Mean Detects	0.315	SD Detects	0.247
Median Detects	0.315	CV Detects	0.786
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-1.34	SD of Logged Detects	0.886

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0579	KM Standard Error of Mean	0.0607
90KM SD	0.142	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.168	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.158	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.24	95% KM Chebyshev UCL	0.322
97.5% KM Chebyshev UCL	0.437	99% KM Chebyshev UCL	0.662

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	2.865	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.11	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	11.46	nu star (bias corrected)	N/A

Mean (detects)	0.315		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.0579	SD (KM)	0.142
Variance (KM)	0.0203	SE of Mean (KM)	0.0607
k hat (KM)	0.165	k star (KM)	0.181
nu hat (KM)	3.634	nu star (KM)	3.976
theta hat (KM)	0.35	theta star (KM)	0.32
80% gamma percentile (KM)	0.072	90% gamma percentile (KM)	0.175
95% gamma percentile (KM)	0.306	99% gamma percentile (KM)	0.673
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0278
Approximate Chi Square Value (3.98, α)	0.712	Adjusted Chi Square Value (3.98, β)	0.522
95% KM Approximate Gamma UCL	0.323	95% KM Adjusted Gamma UCL	0.441
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.0591	Mean in Log Scale	-5.65
SD in Original Scale	0.149	SD in Log Scale	2.361
95% t UCL (assumes normality of ROS data)	0.14	95% Percentile Bootstrap UCL	0.137
95% BCA Bootstrap UCL	0.192	95% Bootstrap t UCL	3.986
95% H-UCL (Log ROS)	4.985		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.176	KM Geo Mean	0.00208
KM SD (logged)	2.295	95% Critical H Value (KM-Log)	5.834
KM Standard Error of Mean (logged)	0.979	95% H-UCL (KM -Log)	1.999
KM SD (logged)	2.295	95% Critical H Value (KM-Log)	5.834
KM Standard Error of Mean (logged)	0.979		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0579	Mean in Log Scale	-6.082
SD in Original Scale	0.149	SD in Log Scale	2.377
95% t UCL (Assumes normality)	0.14	95% H-Stat UCL	3.57
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.168		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

C (soil | cyanide (total) | 57-12-5)

General Statistics

Total Number of Observations	16	Number of Distinct Observations	15
Number of Detects	4	Number of Non-Detects	12
Number of Distinct Detects	4	Number of Distinct Non-Detects	11
Minimum Detect	0.66	Minimum Non-Detect	0.327
Maximum Detect	2.2	Maximum Non-Detect	0.65
Variance Detects	0.462	Percent Non-Detects	75%
Mean Detects	1.291	SD Detects	0.68
Median Detects	1.153	CV Detects	0.526
Skewness Detects	0.94	Kurtosis Detects	-0.0067
Mean of Logged Detects	0.152	SD of Logged Detects	0.524

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.94	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.215	Lilliefors GOF Test
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.568	KM Standard Error of Mean	0.147
90KM SD	0.511	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.826	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.81	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	1.01	95% KM Chebyshev UCL	1.211
97.5% KM Chebyshev UCL	1.489	99% KM Chebyshev UCL	2.035

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.234	Anderson-Darling GOF Test
5% A-D Critical Value	0.659	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.225	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.396	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	5.005	k star (bias corrected MLE)	1.418
Theta hat (MLE)	0.258	Theta star (bias corrected MLE)	0.911
nu hat (MLE)	40.04	nu star (bias corrected)	11.34
Mean (detects)	1.291		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean	0.33	
Maximum	2.2	Median	0.01	
SD	0.649	CV	1.964	
k hat (MLE)	0.299	k star (bias corrected MLE)	0.285	
Theta hat (MLE)	1.105	Theta star (bias corrected MLE)	1.161	
nu hat (MLE)	9.566	nu star (bias corrected)	9.106	
Adjusted Level of Significance (β)	0.0335			
Approximate Chi Square Value (9.11, α)	3.391	Adjusted Chi Square Value (9.11, β)	3.005	
95% Gamma Approximate UCL	0.887	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.568	SD (KM)	0.511	
Variance (KM)	0.261	SE of Mean (KM)	0.147	
k hat (KM)	1.235	k star (KM)	1.045	
nu hat (KM)	39.52	nu star (KM)	33.45	
theta hat (KM)	0.46	theta star (KM)	0.543	
80% gamma percentile (KM)	0.91	90% gamma percentile (KM)	1.293	
95% gamma percentile (KM)	1.675	99% gamma percentile (KM)	2.558	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (33.45, α)	21.22	Adjusted Chi Square Value (33.45, β)	20.12	
95% KM Approximate Gamma UCL	0.895	95% KM Adjusted Gamma UCL	0.944	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.983	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.185	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.412	Mean in Log Scale	-1.571	
SD in Original Scale	0.606	SD in Log Scale	1.07	
95% t UCL (assumes normality of ROS data)	0.678	95% Percentile Bootstrap UCL	0.671	
95% BCA Bootstrap UCL	0.751	95% Bootstrap t UCL	0.962	
95% H-UCL (Log ROS)	0.802			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-0.801	KM Geo Mean	0.449	
KM SD (logged)	0.595	95% Critical H Value (KM-Log)	2.155	
KM Standard Error of Mean (logged)	0.172	95% H-UCL (KM -Log)	0.746	
KM SD (logged)	0.595	95% Critical H Value (KM-Log)	2.155	
KM Standard Error of Mean (logged)	0.172			
DL/2 Statistics				
DL/2 Normal		DL/2 Log-Transformed		

Mean in Original Scale	0.498	Mean in Log Scale	-1.076
SD in Original Scale	0.565	SD in Log Scale	0.804
95% t UCL (Assumes normality)	0.746	95% H-Stat UCL	0.778
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.826		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil dibenz(a,h)anthracene 53-70-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	14
Number of Detects	2	Number of Non-Detects	18
Number of Distinct Detects	2	Number of Distinct Non-Detects	13
Minimum Detect	0.21	Minimum Non-Detect	0.187
Maximum Detect	0.24	Maximum Non-Detect	0.26
Variance Detects	4.5000E-4	Percent Non-Detects	90%
Mean Detects	0.225	SD Detects	0.0212
Median Detects	0.225	CV Detects	0.0943
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-1.494	SD of Logged Detects	0.0944
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.191	KM Standard Error of Mean	0.00421
90KM SD	0.0128	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.198	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.198	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.203	95% KM Chebyshev UCL	0.209
97.5% KM Chebyshev UCL	0.217	99% KM Chebyshev UCL	0.233
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	224.7	k star (bias corrected MLE)	N/A

Theta hat (MLE)	0.001	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	898.7	nu star (bias corrected)	N/A
Mean (detects)	0.225		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.191	SD (KM)	0.0128
Variance (KM)	1.6440E-4	SE of Mean (KM)	0.00421
k hat (KM)	221.6	k star (KM)	188.4
nu hat (KM)	8863	nu star (KM)	7535
theta hat (KM)	8.6139E-4	theta star (KM)	0.00101
80% gamma percentile (KM)	0.202	90% gamma percentile (KM)	0.209
95% gamma percentile (KM)	0.214	99% gamma percentile (KM)	0.225
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.038
Approximate Chi Square Value (N/A, α)	7334	Adjusted Chi Square Value (N/A, β)	7318
95% KM Approximate Gamma UCL	0.196	95% KM Adjusted Gamma UCL	0.196
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.153	Mean in Log Scale	-1.888
SD in Original Scale	0.0272	SD in Log Scale	0.155
95% t UCL (assumes normality of ROS data)	0.164	95% Percentile Bootstrap UCL	0.164
95% BCA Bootstrap UCL	0.167	95% Bootstrap t UCL	0.175
95% H-UCL (Log ROS)	0.163		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.658	KM Geo Mean	0.19
KM SD (logged)	0.0611	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	0.0201	95% H-UCL (KM -Log)	N/A
KM SD (logged)	0.0611	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	0.0201		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.114	Mean in Log Scale	-2.211
SD in Original Scale	0.0391	SD in Log Scale	0.256
95% t UCL (Assumes normality)	0.129	95% H-Stat UCL	0.126
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.198		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | dibenzofuran | 132-64-9)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	19
Number of Detects	7	Number of Non-Detects	13
Number of Distinct Detects	7	Number of Distinct Non-Detects	12
Minimum Detect	0.077	Minimum Non-Detect	0.382
Maximum Detect	3.6	Maximum Non-Detect	0.44
Variance Detects	2.119	Percent Non-Detects	65%
Mean Detects	1.077	SD Detects	1.456
Median Detects	0.27	CV Detects	1.352
Skewness Detects	1.279	Kurtosis Detects	-0.123
Mean of Logged Detects	-0.941	SD of Logged Detects	1.608

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.74	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.73	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.319	Lilliefors GOF Test
1% Lilliefors Critical Value	0.35	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.466	KM Standard Error of Mean	0.224
90KM SD	0.917	95% KM (BCA) UCL	0.865
95% KM (t) UCL	0.852	95% KM (Percentile Bootstrap) UCL	0.839
95% KM (z) UCL	0.833	95% KM Bootstrap t UCL	2.012
90% KM Chebyshev UCL	1.136	95% KM Chebyshev UCL	1.44
97.5% KM Chebyshev UCL	1.862	99% KM Chebyshev UCL	2.69

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.583	Anderson-Darling GOF Test
5% A-D Critical Value	0.745	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.238	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.325	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	0.608	k star (bias corrected MLE)	0.443
Theta hat (MLE)	1.771	Theta star (bias corrected MLE)	2.432
nu hat (MLE)	8.51	nu star (bias corrected)	6.196
Mean (detects)	1.077		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	0.395
Maximum	3.6	Median	0.01
SD	0.967	CV	2.446
k hat (MLE)	0.307	k star (bias corrected MLE)	0.295
Theta hat (MLE)	1.286	Theta star (bias corrected MLE)	1.342
nu hat (MLE)	12.3	nu star (bias corrected)	11.79
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (11.79, α)	5.088	Adjusted Chi Square Value (11.79, β)	4.743
95% Gamma Approximate UCL	0.916	95% Gamma Adjusted UCL	0.983
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.466	SD (KM)	0.917
Variance (KM)	0.841	SE of Mean (KM)	0.224
k hat (KM)	0.258	k star (KM)	0.252
nu hat (KM)	10.31	nu star (KM)	10.1
theta hat (KM)	1.806	theta star (KM)	1.844
80% gamma percentile (KM)	0.678	90% gamma percentile (KM)	1.396
95% gamma percentile (KM)	2.247	99% gamma percentile (KM)	4.507
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (10.10, α)	4.004	Adjusted Chi Square Value (10.10, β)	3.705
95% KM Approximate Gamma UCL	1.174	95% KM Adjusted Gamma UCL	1.269
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.868	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.23	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.467	Mean in Log Scale	-1.625
SD in Original Scale	0.938	SD in Log Scale	1.056
95% t UCL (assumes normality of ROS data)	0.83	95% Percentile Bootstrap UCL	0.831
95% BCA Bootstrap UCL	0.965	95% Bootstrap t UCL	2.675
95% H-UCL (Log ROS)	0.664		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.709	KM Geo Mean	0.181
KM SD (logged)	1.115	95% Critical H Value (KM-Log)	2.805
KM Standard Error of Mean (logged)	0.331	95% H-UCL (KM -Log)	0.691
KM SD (logged)	1.115	95% Critical H Value (KM-Log)	2.805
KM Standard Error of Mean (logged)	0.331		

DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.508	Mean in Log Scale	-1.37
SD in Original Scale	0.923	SD in Log Scale	0.96
95% t UCL (Assumes normality)	0.865	95% H-Stat UCL	0.71
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.852		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil dibromochloromethane 124-48-1)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil dibromochloromethane 124-48-1) was not processed!			
C (soil dibromomethane 74-95-3)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil dibromomethane 74-95-3) was not processed!			

C (soil | dichlorodifluoromethane | 75-71-8)**General Statistics**

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | dichlorodifluoromethane | 75-71-8) was not processed!

C (soil | diethyl ether | 60-29-7)**General Statistics**

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | diethyl ether | 60-29-7) was not processed!

C (soil | diethylphthalate | 84-66-2)**General Statistics**

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | diethylphthalate | 84-66-2) was not processed!

C (soil | diisopropyl ether | 108-20-3)**General Statistics**

Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil diisopropyl ether 108-20-3) was not processed!			
C (soil dimethylphthalate 131-11-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil dimethylphthalate 131-11-3) was not processed!			
C (soil di-n-butylphthalate 84-74-2)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil di-n-butylphthalate 84-74-2) was not processed!			
C (soil di-n-octylphthalate 117-84-0)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil di-n-octylphthalate 117-84-0) was not processed!			

C (soil | ethyl benzene | 100-41-4)

General Statistics

Total Number of Observations	21	Number of Distinct Observations	18
Number of Detects	10	Number of Non-Detects	11
Number of Distinct Detects	10	Number of Distinct Non-Detects	8
Minimum Detect	0.019	Minimum Non-Detect	4.4333E-4
Maximum Detect	1.4	Maximum Non-Detect	0.23
Variance Detects	0.219	Percent Non-Detects	52.38%
Mean Detects	0.406	SD Detects	0.467
Median Detects	0.165	CV Detects	1.152
Skewness Detects	1.261	Kurtosis Detects	0.752
Mean of Logged Detects	-1.68	SD of Logged Detects	1.443

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.815	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.781	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.293	Lilliefors GOF Test
1% Lilliefors Critical Value	0.304	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.197	KM Standard Error of Mean	0.0842
90KM SD	0.366	95% KM (BCA) UCL	0.351
95% KM (t) UCL	0.342	95% KM (Percentile Bootstrap) UCL	0.344
95% KM (z) UCL	0.335	95% KM Bootstrap t UCL	0.45
90% KM Chebyshev UCL	0.45	95% KM Chebyshev UCL	0.564
97.5% KM Chebyshev UCL	0.723	99% KM Chebyshev UCL	1.035

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.347	Anderson-Darling GOF Test
5% A-D Critical Value	0.756	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.204	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.276	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.767	k star (bias corrected MLE)	0.603
Theta hat (MLE)	0.529	Theta star (bias corrected MLE)	0.673
nu hat (MLE)	15.33	nu star (bias corrected)	12.07
Mean (detects)	0.406		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.199
Maximum	1.4	Median	0.01
SD	0.373	CV	1.881
k hat (MLE)	0.411	k star (bias corrected MLE)	0.384
Theta hat (MLE)	0.483	Theta star (bias corrected MLE)	0.517
nu hat (MLE)	17.25	nu star (bias corrected)	16.12
Adjusted Level of Significance (β)	0.0383		
Approximate Chi Square Value (16.12, α)	8.045	Adjusted Chi Square Value (16.12, β)	7.609
95% Gamma Approximate UCL	0.398	95% Gamma Adjusted UCL	0.421
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.197	SD (KM)	0.366
Variance (KM)	0.134	SE of Mean (KM)	0.0842
k hat (KM)	0.29	k star (KM)	0.28
nu hat (KM)	12.18	nu star (KM)	11.77
theta hat (KM)	0.679	theta star (KM)	0.703
80% gamma percentile (KM)	0.297	90% gamma percentile (KM)	0.585
95% gamma percentile (KM)	0.92	99% gamma percentile (KM)	1.799
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (11.77, α)	5.076	Adjusted Chi Square Value (11.77, β)	4.742
95% KM Approximate Gamma UCL	0.457	95% KM Adjusted Gamma UCL	0.489
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.954	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.869	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.139	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.241	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.197	Mean in Log Scale	-3.52
SD in Original Scale	0.374	SD in Log Scale	2.105
95% t UCL (assumes normality of ROS data)	0.338	95% Percentile Bootstrap UCL	0.338
95% BCA Bootstrap UCL	0.374	95% Bootstrap t UCL	0.444
95% H-UCL (Log ROS)	2.078		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-4.652	KM Geo Mean	0.00954
KM SD (logged)	3.138	95% Critical H Value (KM-Log)	6.156
KM Standard Error of Mean (logged)	0.747	95% H-UCL (KM -Log)	98.54
KM SD (logged)	3.138	95% Critical H Value (KM-Log)	6.156
KM Standard Error of Mean (logged)	0.747		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.204	Mean in Log Scale	-4.093
SD in Original Scale	0.372	SD in Log Scale	2.931
95% t UCL (Assumes normality)	0.344	95% H-Stat UCL	54.13

DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.342		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil ethyl tert-butyl ether 637-92-3)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil ethyl tert-butyl ether 637-92-3) was not processed!			
C (soil fluoranthene 206-44-0)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	9	Number of Non-Detects	11
Number of Distinct Detects	9	Number of Distinct Non-Detects	8
Minimum Detect	0.0825	Minimum Non-Detect	0.192
Maximum Detect	3	Maximum Non-Detect	0.22
Variance Detects	1.412	Percent Non-Detects	55%
Mean Detects	1.043	SD Detects	1.188
Median Detects	0.22	CV Detects	1.14
Skewness Detects	0.805	Kurtosis Detects	-1.234
Mean of Logged Detects	-0.825	SD of Logged Detects	1.507
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.791	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.764	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.311	Lilliefors GOF Test	

1% Lilliefors Critical Value		0.316	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	0.533	KM Standard Error of Mean		0.209
90KM SD	0.882	95% KM (BCA) UCL		0.894
95% KM (t) UCL	0.895	95% KM (Percentile Bootstrap) UCL		0.88
95% KM (z) UCL	0.877	95% KM Bootstrap t UCL		1.067
90% KM Chebyshev UCL	1.161	95% KM Chebyshev UCL		1.445
97.5% KM Chebyshev UCL	1.84	99% KM Chebyshev UCL		2.616
Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.739	Anderson-Darling GOF Test		
5% A-D Critical Value	0.755	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.283	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.29	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Gamma Statistics on Detected Data Only				
k hat (MLE)	0.698	k star (bias corrected MLE)		0.539
Theta hat (MLE)	1.494	Theta star (bias corrected MLE)		1.933
nu hat (MLE)	12.56	nu star (bias corrected)		9.708
Mean (detects)	1.043			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean		0.5
Maximum	3	Median		0.11
SD	0.922	CV		1.844
k hat (MLE)	0.374	k star (bias corrected MLE)		0.352
Theta hat (MLE)	1.337	Theta star (bias corrected MLE)		1.423
nu hat (MLE)	14.97	nu star (bias corrected)		14.06
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (14.06, α)	6.613	Adjusted Chi Square Value (14.06, β)		6.212
95% Gamma Approximate UCL	1.064	95% Gamma Adjusted UCL		1.132
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.533	SD (KM)		0.882
Variance (KM)	0.778	SE of Mean (KM)		0.209
k hat (KM)	0.365	k star (KM)		0.343
nu hat (KM)	14.59	nu star (KM)		13.74
theta hat (KM)	1.46	theta star (KM)		1.551
80% gamma percentile (KM)	0.841	90% gamma percentile (KM)		1.543

95% gamma percentile (KM)	2.331	99% gamma percentile (KM)	4.347
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (13.74, α)	6.393	Adjusted Chi Square Value (13.74, β)	6
95% KM Approximate Gamma UCL	1.145	95% KM Adjusted Gamma UCL	1.22
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.842	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.859	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.232	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.252	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Approximate Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.543	Mean in Log Scale	-1.514
SD in Original Scale	0.9	SD in Log Scale	1.202
95% t UCL (assumes normality of ROS data)	0.891	95% Percentile Bootstrap UCL	0.882
95% BCA Bootstrap UCL	0.961	95% Bootstrap t UCL	1.088
95% H-UCL (Log ROS)	1.019		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.574	KM Geo Mean	0.207
KM SD (logged)	1.183	95% Critical H Value (KM-Log)	2.91
KM Standard Error of Mean (logged)	0.293	95% H-UCL (KM -Log)	0.92
KM SD (logged)	1.183	95% Critical H Value (KM-Log)	2.91
KM Standard Error of Mean (logged)	0.293		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.525	Mean in Log Scale	-1.631
SD in Original Scale	0.908	SD in Log Scale	1.232
95% t UCL (Assumes normality)	0.876	95% H-Stat UCL	0.972
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.895		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

C (soil | fluorene | 86-73-7)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	4	Number of Non-Detects	16
Number of Distinct Detects	4	Number of Distinct Non-Detects	12
Minimum Detect	0.11	Minimum Non-Detect	0.187
Maximum Detect	0.8	Maximum Non-Detect	0.22
Variance Detects	0.0924	Percent Non-Detects	80%
Mean Detects	0.363	SD Detects	0.304
Median Detects	0.27	CV Detects	0.839
Skewness Detects	1.534	Kurtosis Detects	2.544
Mean of Logged Detects	-1.271	SD of Logged Detects	0.827

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.869	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.306	Lilliefors GOF Test
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.161	KM Standard Error of Mean	0.0401
90KM SD	0.155	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.23	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.226	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.281	95% KM Chebyshev UCL	0.335
97.5% KM Chebyshev UCL	0.411	99% KM Chebyshev UCL	0.559

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.257	Anderson-Darling GOF Test
5% A-D Critical Value	0.66	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.227	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.398	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	2.103	k star (bias corrected MLE)	0.692
Theta hat (MLE)	0.172	Theta star (bias corrected MLE)	0.524
nu hat (MLE)	16.82	nu star (bias corrected)	5.538
Mean (detects)	0.363		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean	0.0991	
Maximum	0.8	Median	0.0188	
SD	0.184	CV	1.858	
k hat (MLE)	0.637	k star (bias corrected MLE)	0.575	
Theta hat (MLE)	0.156	Theta star (bias corrected MLE)	0.172	
nu hat (MLE)	25.49	nu star (bias corrected)	23	
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (23.00, α)	13.09	Adjusted Chi Square Value (23.00, β)	12.5	
95% Gamma Approximate UCL	0.174	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.161	SD (KM)	0.155	
Variance (KM)	0.0241	SE of Mean (KM)	0.0401	
k hat (KM)	1.07	k star (KM)	0.943	
nu hat (KM)	42.82	nu star (KM)	37.73	
theta hat (KM)	0.15	theta star (KM)	0.17	
80% gamma percentile (KM)	0.259	90% gamma percentile (KM)	0.375	
95% gamma percentile (KM)	0.491	99% gamma percentile (KM)	0.761	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (37.73, α)	24.66	Adjusted Chi Square Value (37.73, β)	23.83	
95% KM Approximate Gamma UCL	0.246	95% KM Adjusted Gamma UCL	0.254	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.992	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.187	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.151	Mean in Log Scale	-2.138	
SD in Original Scale	0.164	SD in Log Scale	0.594	
95% t UCL (assumes normality of ROS data)	0.214	95% Percentile Bootstrap UCL	0.216	
95% BCA Bootstrap UCL	0.255	95% Bootstrap t UCL	0.384	
95% H-UCL (Log ROS)	0.188			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-2.02	KM Geo Mean	0.133	
KM SD (logged)	0.493	95% Critical H Value (KM-Log)	2.012	
KM Standard Error of Mean (logged)	0.127	95% H-UCL (KM -Log)	0.188	
KM SD (logged)	0.493	95% Critical H Value (KM-Log)	2.012	
KM Standard Error of Mean (logged)	0.127			
DL/2 Statistics				
DL/2 Normal		DL/2 Log-Transformed		

Mean in Original Scale	0.152	Mean in Log Scale	-2.098
SD in Original Scale	0.162	SD in Log Scale	0.538
95% t UCL (Assumes normality)	0.215	95% H-Stat UCL	0.183
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.23		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil hexachlorobenzene 118-74-1)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil hexachlorobenzene 118-74-1) was not processed!			
C (soil hexachlorobutadiene 87-68-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	18
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	18
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil hexachlorobutadiene 87-68-3) was not processed!			
C (soil hexachlorocyclopentadiene 77-47-4)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil hexachlorocyclopentadiene 77-47-4) was not processed!			
C (soil hexachloroethane 67-72-1)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil hexachloroethane 67-72-1) was not processed!			
C (soil indeno(1,2,3-cd)pyrene 193-39-5)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	4	Number of Non-Detects	16
Number of Distinct Detects	4	Number of Distinct Non-Detects	12
Minimum Detect	0.15	Minimum Non-Detect	0.187
Maximum Detect	0.73	Maximum Non-Detect	0.22
Variance Detects	0.0905	Percent Non-Detects	80%
Mean Detects	0.418	SD Detects	0.301
Median Detects	0.395	CV Detects	0.721
Skewness Detects	0.111	Kurtosis Detects	-5.322
Mean of Logged Detects	-1.115	SD of Logged Detects	0.835
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.828	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.295	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.212	KM Standard Error of Mean	0.0408
90KM SD	0.156	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.282	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.279	95% KM Bootstrap t UCL	N/A

90% KM Chebyshev UCL	0.334	95% KM Chebyshev UCL	0.389
97.5% KM Chebyshev UCL	0.466	99% KM Chebyshev UCL	0.618
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.542	Anderson-Darling GOF Test	
5% A-D Critical Value	0.66	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.323	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.398	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	2.219	k star (bias corrected MLE)	0.721
Theta hat (MLE)	0.188	Theta star (bias corrected MLE)	0.579
nu hat (MLE)	17.75	nu star (bias corrected)	5.77
Mean (detects)	0.418		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.0656	Mean	0.218
Maximum	0.73	Median	0.165
SD	0.165	CV	0.758
k hat (MLE)	3.062	k star (bias corrected MLE)	2.636
Theta hat (MLE)	0.0711	Theta star (bias corrected MLE)	0.0825
nu hat (MLE)	122.5	nu star (bias corrected)	105.5
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (105.46, α)	82.76	Adjusted Chi Square Value (105.46, β)	81.17
95% Gamma Approximate UCL	0.277	95% Gamma Adjusted UCL	N/A
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.212	SD (KM)	0.156
Variance (KM)	0.0243	SE of Mean (KM)	0.0408
k hat (KM)	1.844	k star (KM)	1.6
nu hat (KM)	73.75	nu star (KM)	64.02
theta hat (KM)	0.115	theta star (KM)	0.132
80% gamma percentile (KM)	0.325	90% gamma percentile (KM)	0.434
95% gamma percentile (KM)	0.539	99% gamma percentile (KM)	0.776
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (64.02, α)	46.61	Adjusted Chi Square Value (64.02, β)	45.44
95% KM Approximate Gamma UCL	0.29	95% KM Adjusted Gamma UCL	0.298
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.814	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level	

Lilliefors Test Statistic	0.284	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.222	Mean in Log Scale	-1.646
SD in Original Scale	0.16	SD in Log Scale	0.472
95% t UCL (assumes normality of ROS data)	0.283	95% Percentile Bootstrap UCL	0.283
95% BCA Bootstrap UCL	0.305	95% Bootstrap t UCL	0.466
95% H-UCL (Log ROS)	0.267		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.691	KM Geo Mean	0.184
KM SD (logged)	0.436	95% Critical H Value (KM-Log)	1.96
KM Standard Error of Mean (logged)	0.121	95% H-UCL (KM -Log)	0.247
KM SD (logged)	0.436	95% Critical H Value (KM-Log)	1.96
KM Standard Error of Mean (logged)	0.121		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.163	Mean in Log Scale	-2.067
SD in Original Scale	0.177	SD in Log Scale	0.592
95% t UCL (Assumes normality)	0.232	95% H-Stat UCL	0.201
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.282		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil iron 7439-89-6)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	17
		Number of Missing Observations	0
Minimum	11000	Mean	39083
Maximum	330000	Median	24583
SD	68835	Std. Error of Mean	15392
Coefficient of Variation	1.761	Skewness	4.394
Normal GOF Test			
Shapiro Wilk Test Statistic	0.326	Shapiro Wilk GOF Test	

1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.453	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	65698	95% Adjusted-CLT UCL (Chen-1995)	80562
		95% Modified-t UCL (Johnson-1978)	68219
Gamma GOF Test			
A-D Test Statistic	3.402	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.761	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.364	Kolmogorov-Smimov Gamma GOF Test	
5% K-S Critical Value	0.198	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.35	k star (bias corrected MLE)	1.181
Theta hat (MLE)	28946	Theta star (bias corrected MLE)	33093
nu hat (MLE)	54.01	nu star (bias corrected)	47.24
MLE Mean (bias corrected)	39083	MLE Sd (bias corrected)	35964
		Approximate Chi Square Value (0.05)	32.47
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	31.5
Assuming Gamma Distribution			
95% Approximate Gamma UCL	56867	95% Adjusted Gamma UCL	58614
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.702	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.266	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	9.306	Mean of logged Data	10.16
Maximum of Logged Data	12.71	SD of logged Data	0.686
Assuming Lognormal Distribution			
95% H-UCL	46382	90% Chebyshev (MVUE) UCL	48048
95% Chebyshev (MVUE) UCL	55208	97.5% Chebyshev (MVUE) UCL	65146
99% Chebyshev (MVUE) UCL	84668		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	64401	95% BCA Bootstrap UCL	85650

95% Standard Bootstrap UCL	63701	95% Bootstrap-t UCL	225162
95% Hall's Bootstrap UCL	205367	95% Percentile Bootstrap UCL	69400
90% Chebyshev(Mean, Sd) UCL	85259	95% Chebyshev(Mean, Sd) UCL	106175
97.5% Chebyshev(Mean, Sd) UCL	135206	99% Chebyshev(Mean, Sd) UCL	192231
Suggested UCL to Use			
95% Student's-t UCL	65698		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil isophorone 78-59-1)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil isophorone 78-59-1) was not processed!			
C (soil lead 7439-92-1)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	18
		Number of Missing Observations	0
Minimum	7.2	Mean	15.76
Maximum	64.63	Median	12.73
SD	12.33	Std. Error of Mean	2.758
Coefficient of Variation	0.783	Skewness	3.625
Normal GOF Test			
Shapiro Wilk Test Statistic	0.532	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.376	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			

Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	20.53	95% Adjusted-CLT UCL (Chen-1995)	22.68
		95% Modified-t UCL (Johnson-1978)	20.9
Gamma GOF Test			
A-D Test Statistic	1.737	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.746	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.296	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.195	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	3.605	k star (bias corrected MLE)	3.098
Theta hat (MLE)	4.371	Theta star (bias corrected MLE)	5.087
nu hat (MLE)	144.2	nu star (bias corrected)	123.9
MLE Mean (bias corrected)	15.76	MLE Sd (bias corrected)	8.954
		Approximate Chi Square Value (0.05)	99.2
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	97.46
Assuming Gamma Distribution			
95% Approximate Gamma UCL	19.69	95% Adjusted Gamma UCL	20.04
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.828	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.244	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	1.974	Mean of logged Data	2.612
Maximum of Logged Data	4.169	SD of logged Data	0.477
Assuming Lognormal Distribution			
95% H-UCL	19.01	90% Chebyshev (MVUE) UCL	20.2
95% Chebyshev (MVUE) UCL	22.48	97.5% Chebyshev (MVUE) UCL	25.63
99% Chebyshev (MVUE) UCL	31.83		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	20.3	95% BCA Bootstrap UCL	24.19
95% Standard Bootstrap UCL	20.2	95% Bootstrap-t UCL	31.17
95% Hall's Bootstrap UCL	41.96	95% Percentile Bootstrap UCL	20.73
90% Chebyshev(Mean, Sd) UCL	24.03	95% Chebyshev(Mean, Sd) UCL	27.78
97.5% Chebyshev(Mean, Sd) UCL	32.98	99% Chebyshev(Mean, Sd) UCL	43.2

Suggested UCL to Use

95% Student's-t UCL 20.53

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | manganese | 7439-96-5)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	61	Mean	292.1
Maximum	2700	Median	130
SD	580	Std. Error of Mean	129.7
Coefficient of Variation	1.986	Skewness	4.17

Normal GOF Test

Shapiro Wilk Test Statistic	0.377	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.42	Lilliefors GOF Test
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	516.3	95% Adjusted-CLT UCL (Chen-1995)	634.6
		95% Modified-t UCL (Johnson-1978)	536.5

Gamma GOF Test

A-D Test Statistic	2.666	Anderson-Darling Gamma GOF Test
5% A-D Critical Value	0.769	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.305	Kolmogorov-Smirnov Gamma GOF Test
5% K-S Critical Value	0.2	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.978	k star (bias corrected MLE)	0.864
Theta hat (MLE)	298.8	Theta star (bias corrected MLE)	337.9
nu hat (MLE)	39.1	nu star (bias corrected)	34.57
MLE Mean (bias corrected)	292.1	MLE Sd (bias corrected)	314.2
		Approximate Chi Square Value (0.05)	22.12
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	21.33

Assuming Gamma Distribution

95% Approximate Gamma UCL	456.4	95% Adjusted Gamma UCL	473.3

Lognormal GOF Test

Shapiro Wilk Test Statistic		0.803	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value		0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic		0.2	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value		0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level				
Lognormal Statistics				
Minimum of Logged Data		4.111	Mean of logged Data	5.085
Maximum of Logged Data		7.901	SD of logged Data	0.854
Assuming Lognormal Distribution				
95% H-UCL		374.7	90% Chebyshev (MVUE) UCL	369.6
95% Chebyshev (MVUE) UCL		434.1	97.5% Chebyshev (MVUE) UCL	523.6
99% Chebyshev (MVUE) UCL		699.4		
Nonparametric Distribution Free UCL Statistics				
Data do not follow a Discernible Distribution				
Nonparametric Distribution Free UCLs				
95% CLT UCL		505.4	95% BCA Bootstrap UCL	685.2
95% Standard Bootstrap UCL		499	95% Bootstrap-t UCL	1892
95% Hall's Bootstrap UCL		1464	95% Percentile Bootstrap UCL	538.5
90% Chebyshev(Mean, Sd) UCL		681.1	95% Chebyshev(Mean, Sd) UCL	857.3
97.5% Chebyshev(Mean, Sd) UCL		1102	99% Chebyshev(Mean, Sd) UCL	1582
Suggested UCL to Use				
95% Student's-t UCL		516.3		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.				
Please verify the data were collected from random locations.				
If the data were collected using judgmental or other non-random methods,				
then contact a statistician to correctly calculate UCLs.				
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.				
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.				
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.				
C (soil mercury 7439-97-6)				
General Statistics				
Total Number of Observations		20	Number of Distinct Observations	18
			Number of Missing Observations	0
Minimum		0.011	Mean	0.0376
Maximum		0.16	Median	0.029
SD		0.0329	Std. Error of Mean	0.00735
Coefficient of Variation		0.875	Skewness	2.982
Normal GOF Test				

Shapiro Wilk Test Statistic		0.667	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value		0.868	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic		0.269	Lilliefors GOF Test	
1% Lilliefors Critical Value		0.223	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level				
Assuming Normal Distribution				
95% Normal UCL		95% UCLs (Adjusted for Skewness)		
95% Student's-t UCL	0.0503	95% Adjusted-CLT UCL (Chen-1995)		0.0549
		95% Modified-t UCL (Johnson-1978)		0.0511
Gamma GOF Test				
A-D Test Statistic	0.628	Anderson-Darling Gamma GOF Test		
5% A-D Critical Value	0.751	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.189	Kolmogorov-Smirnov Gamma GOF Test		
5% K-S Critical Value	0.196	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Gamma Statistics				
k hat (MLE)	2.375	k star (bias corrected MLE)		2.052
Theta hat (MLE)	0.0158	Theta star (bias corrected MLE)		0.0183
nu hat (MLE)	94.98	nu star (bias corrected)		82.07
MLE Mean (bias corrected)	0.0376	MLE Sd (bias corrected)		0.0262
		Approximate Chi Square Value (0.05)		62.19
Adjusted Level of Significance	0.038	Adjusted Chi Square Value		60.83
Assuming Gamma Distribution				
95% Approximate Gamma UCL	0.0496	95% Adjusted Gamma UCL		0.0507
Lognormal GOF Test				
Shapiro Wilk Test Statistic	0.959	Shapiro Wilk Lognormal GOF Test		
10% Shapiro Wilk Critical Value	0.92	Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.138	Lilliefors Lognormal GOF Test		
10% Lilliefors Critical Value	0.176	Data appear Lognormal at 10% Significance Level		
Data appear Lognormal at 10% Significance Level				
Lognormal Statistics				
Minimum of Logged Data	-4.51	Mean of logged Data		-3.506
Maximum of Logged Data	-1.833	SD of logged Data		0.64
Assuming Lognormal Distribution				
95% H-UCL	0.0506	90% Chebyshev (MVUE) UCL		0.0529
95% Chebyshev (MVUE) UCL	0.0604	97.5% Chebyshev (MVUE) UCL		0.0708
99% Chebyshev (MVUE) UCL	0.0912			
Nonparametric Distribution Free UCL Statistics				
Data appear to follow a Discernible Distribution				
Nonparametric Distribution Free UCLs				

95% CLT UCL	0.0497	95% BCA Bootstrap UCL	0.0567
95% Standard Bootstrap UCL	0.0494	95% Bootstrap-t UCL	0.0638
95% Hall's Bootstrap UCL	0.102	95% Percentile Bootstrap UCL	0.0507
90% Chebyshev(Mean, Sd) UCL	0.0596	95% Chebyshev(Mean, Sd) UCL	0.0696
97.5% Chebyshev(Mean, Sd) UCL	0.0835	99% Chebyshev(Mean, Sd) UCL	0.111
Suggested UCL to Use			
95% Adjusted Gamma UCL	0.0507		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil methyl acetate 79-20-9)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	3	Number of Non-Detects	8
Number of Distinct Detects	3	Number of Distinct Non-Detects	5
Minimum Detect	0.0041	Minimum Non-Detect	0.00133
Maximum Detect	0.95	Maximum Non-Detect	0.0019
Variance Detects	0.234	Percent Non-Detects	72.73%
Mean Detects	0.535	SD Detects	0.483
Median Detects	0.65	CV Detects	0.904
Skewness Detects	-1.012	Kurtosis Detects	N/A
Mean of Logged Detects	-1.993	SD of Logged Detects	3.04
Warning: Data set has only 3 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.957	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.261	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.147	KM Standard Error of Mean	0.116
90KM SD	0.314	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.357	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.338	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.495	95% KM Chebyshev UCL	0.653
97.5% KM Chebyshev UCL	0.872	99% KM Chebyshev UCL	1.302
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.514	Anderson-Darling GOF Test	

5% A-D Critical Value	0.654	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.4	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.45	Detected data appear Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.469	k star (bias corrected MLE)	N/A
Theta hat (MLE)	1.139	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	2.816	nu star (bias corrected)	N/A
Mean (detects)	0.535		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.0041	Mean	0.153
Maximum	0.95	Median	0.01
SD	0.327	CV	2.135
k hat (MLE)	0.336	k star (bias corrected MLE)	0.305
Theta hat (MLE)	0.456	Theta star (bias corrected MLE)	0.502
nu hat (MLE)	7.388	nu star (bias corrected)	6.706
Adjusted Level of Significance (β)	0.0278		
Approximate Chi Square Value (6.71, α)	2.011	Adjusted Chi Square Value (6.71, β)	1.619
95% Gamma Approximate UCL	0.511	95% Gamma Adjusted UCL	N/A
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.147	SD (KM)	0.314
Variance (KM)	0.0989	SE of Mean (KM)	0.116
k hat (KM)	0.218	k star (KM)	0.219
nu hat (KM)	4.793	nu star (KM)	4.819
theta hat (KM)	0.674	theta star (KM)	0.67
80% gamma percentile (KM)	0.202	90% gamma percentile (KM)	0.444
95% gamma percentile (KM)	0.738	99% gamma percentile (KM)	1.537
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (4.82, α)	1.07	Adjusted Chi Square Value (4.82, β)	0.814
95% KM Approximate Gamma UCL	0.661	95% KM Adjusted Gamma UCL	0.869
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.802	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.363	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			

Mean in Original Scale	0.146	Mean in Log Scale	-10.39
SD in Original Scale	0.33	SD in Log Scale	5.946
95% t UCL (assumes normality of ROS data)	0.326	95% Percentile Bootstrap UCL	0.319
95% BCA Bootstrap UCL	0.378	95% Bootstrap t UCL	39.08
95% H-UCL (Log ROS)	1.131E+15		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-5.358	KM Geo Mean	0.00471
KM SD (logged)	2.435	95% Critical H Value (KM-Log)	6.159
KM Standard Error of Mean (logged)	0.899	95% H-UCL (KM -Log)	10.46
KM SD (logged)	2.435	95% Critical H Value (KM-Log)	6.159
KM Standard Error of Mean (logged)	0.899		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.146	Mean in Log Scale	-5.689
SD in Original Scale	0.33	SD in Log Scale	2.737
95% t UCL (Assumes normality)	0.327	95% H-Stat UCL	54.76
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.357		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil methyl tert-butyl ether 1634-04-4)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	11
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil methyl tert-butyl ether 1634-04-4) was not processed!			
C (soil methylcyclohexane 108-87-2)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	9

Number of Distinct Detects	2	Number of Distinct Non-Detects	6
Minimum Detect	5.3	Minimum Non-Detect	7.2333E-4
Maximum Detect	22	Maximum Non-Detect	0.0019
Variance Detects	139.4	Percent Non-Detects	81.82%
Mean Detects	13.65	SD Detects	11.81
Median Detects	13.65	CV Detects	0.865
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	2.379	SD of Logged Detects	1.006
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	2.482	KM Standard Error of Mean	2.71
90KM SD	6.355	95% KM (BCA) UCL	N/A
95% KM (t) UCL	7.394	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	6.94	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	10.61	95% KM Chebyshev UCL	14.29
97.5% KM Chebyshev UCL	19.41	99% KM Chebyshev UCL	29.45
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	2.286	k star (bias corrected MLE)	N/A
Theta hat (MLE)	5.971	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	9.145	nu star (bias corrected)	N/A
Mean (detects)	13.65		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	2.482	SD (KM)	6.355
Variance (KM)	40.39	SE of Mean (KM)	2.71
k hat (KM)	0.153	k star (KM)	0.172
nu hat (KM)	3.356	nu star (KM)	3.774
theta hat (KM)	16.27	theta star (KM)	14.47
80% gamma percentile (KM)	2.986	90% gamma percentile (KM)	7.465
95% gamma percentile (KM)	13.28	99% gamma percentile (KM)	29.72
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0278
Approximate Chi Square Value (3.77, α)	0.635	Adjusted Chi Square Value (3.77, β)	0.461
95% KM Approximate Gamma UCL	14.76	95% KM Adjusted Gamma UCL	20.34
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	2.523	Mean in Log Scale	-2.518
SD in Original Scale	6.649	SD in Log Scale	2.682
95% t UCL (assumes normality of ROS data)	6.157	95% Percentile Bootstrap UCL	6.06
95% BCA Bootstrap UCL	8.508	95% Bootstrap t UCL	295.1
95% H-UCL (Log ROS)	894.4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-5.484	KM Geo Mean	0.00415
KM SD (logged)	3.719	95% Critical H Value (KM-Log)	9.192
KM Standard Error of Mean (logged)	1.586	95% H-UCL (KM -Log)	207716
KM SD (logged)	3.719	95% Critical H Value (KM-Log)	9.192
KM Standard Error of Mean (logged)	1.586		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	2.482	Mean in Log Scale	-5.404
SD in Original Scale	6.666	SD in Log Scale	3.871
95% t UCL (Assumes normality)	6.125	95% H-Stat UCL	971043
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	7.394		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil methylene chloride 75-09-2)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	9
Number of Detects	3	Number of Non-Detects	8
Number of Distinct Detects	3	Number of Distinct Non-Detects	6
Minimum Detect	6.2000E-4	Minimum Non-Detect	5.6000E-4
Maximum Detect	6.9000E-4	Maximum Non-Detect	1.6
Variance Detects	1.4333E-9	Percent Non-Detects	72.73%
Mean Detects	6.6333E-4	SD Detects	3.7859E-5
Median Detects	6.8000E-4	CV Detects	0.0571
Skewness Detects	-1.597	Kurtosis Detects	N/A
Mean of Logged Detects	-7.319	SD of Logged Detects	0.058
Warning: Data set has only 3 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			

Normal GOF Test on Detects Only				
Shapiro Wilk Test Statistic	0.855	Shapiro Wilk GOF Test		
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level		
Lilliefors Test Statistic	0.337	Lilliefors GOF Test		
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level		
Detected Data appear Normal at 1% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	6.3750E-4	KM Standard Error of Mean	3.1930E-5	
90KM SD	5.2142E-5	95% KM (BCA) UCL	N/A	
95% KM (t) UCL	6.9537E-4	95% KM (Percentile Bootstrap) UCL	N/A	
95% KM (z) UCL	6.9002E-4	95% KM Bootstrap t UCL	N/A	
90% KM Chebyshev UCL	7.3329E-4	95% KM Chebyshev UCL	7.7668E-4	
97.5% KM Chebyshev UCL	8.3690E-4	99% KM Chebyshev UCL	9.5520E-4	
Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.461	Anderson-Darling GOF Test		
5% A-D Critical Value	0.635	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.374	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.431	Detected data appear Gamma Distributed at 5% Significance Level		
Detected Data Not Gamma Distributed at 5% Significance Level				
Gamma Statistics on Detected Data Only				
k hat (MLE)	450.8	k star (bias corrected MLE)	N/A	
Theta hat (MLE)	1.4716E-6	Theta star (bias corrected MLE)	N/A	
nu hat (MLE)	2705	nu star (bias corrected)	N/A	
Mean (detects)	6.6333E-4			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	6.2000E-4	Mean	0.00745	
Maximum	0.01	Median	0.01	
SD	0.00436	CV	0.585	
k hat (MLE)	1.261	k star (bias corrected MLE)	0.978	
Theta hat (MLE)	0.00591	Theta star (bias corrected MLE)	0.00762	
nu hat (MLE)	27.74	nu star (bias corrected)	21.51	
Adjusted Level of Significance (β)	0.0278			
Approximate Chi Square Value (21.51, α)	11.97	Adjusted Chi Square Value (21.51, β)	10.83	
95% Gamma Approximate UCL	0.0134	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	6.3750E-4	SD (KM)	5.2142E-5	
Variance (KM)	2.7188E-9	SE of Mean (KM)	3.1930E-5	

k hat (KM)	149.5	k star (KM)	108.8
nu hat (KM)	3289	nu star (KM)	2393
theta hat (KM)	4.2647E-6	theta star (KM)	5.8607E-6
80% gamma percentile (KM)	6.8829E-4	90% gamma percentile (KM)	7.1698E-4
95% gamma percentile (KM)	7.4126E-4	99% gamma percentile (KM)	7.8825E-4
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (N/A, α)	2280	Adjusted Chi Square Value (N/A, β)	2262
95% KM Approximate Gamma UCL	6.6899E-4	95% KM Adjusted Gamma UCL	6.7430E-4
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.85	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.339	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	6.4015E-4	Mean in Log Scale	-7.355
SD in Original Scale	3.5199E-5	SD in Log Scale	0.0557
95% t UCL (assumes normality of ROS data)	6.5939E-4	95% Percentile Bootstrap UCL	6.5686E-4
95% BCA Bootstrap UCL	6.5539E-4	95% Bootstrap t UCL	6.5833E-4
95% H-UCL (Log ROS)	N/A		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.361	KM Geo Mean	6.3531E-4
KM SD (logged)	0.0836	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	0.0512	95% H-UCL (KM -Log)	N/A
KM SD (logged)	0.0836	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	0.0512		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.101	Mean in Log Scale	-5.038
SD in Original Scale	0.245	SD in Log Scale	2.51
95% t UCL (Assumes normality)	0.235	95% H-Stat UCL	23.15
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	6.9537E-4		
Warning: Recommended UCL exceeds the maximum observation			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

C (soil | naphthalene | 91-20-3)

General Statistics

Total Number of Observations	30	Number of Distinct Observations	28
Number of Detects	23	Number of Non-Detects	7
Number of Distinct Detects	21	Number of Distinct Non-Detects	7
Minimum Detect	0.053	Minimum Non-Detect	0.0622
Maximum Detect	11	Maximum Non-Detect	0.217
Variance Detects	8.016	Percent Non-Detects	23.33%
Mean Detects	1.605	SD Detects	2.831
Median Detects	0.183	CV Detects	1.764
Skewness Detects	2.438	Kurtosis Detects	5.71
Mean of Logged Detects	-0.884	SD of Logged Detects	1.711

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.612	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.881	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.31	Lilliefors GOF Test
1% Lilliefors Critical Value	0.209	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.25	KM Standard Error of Mean	0.468
90KM SD	2.509	95% KM (BCA) UCL	2.094
95% KM (t) UCL	2.046	95% KM (Percentile Bootstrap) UCL	2.071
95% KM (z) UCL	2.02	95% KM Bootstrap t UCL	2.903
90% KM Chebyshev UCL	2.655	95% KM Chebyshev UCL	3.291
97.5% KM Chebyshev UCL	4.175	99% KM Chebyshev UCL	5.91

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.383	Anderson-Darling GOF Test
5% A-D Critical Value	0.811	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.242	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.193	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.472	k star (bias corrected MLE)	0.44
Theta hat (MLE)	3.4	Theta star (bias corrected MLE)	3.652
nu hat (MLE)	21.72	nu star (bias corrected)	20.22
Mean (detects)	1.605		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.233
Maximum	11	Median	0.125
SD	2.56	CV	2.076
k hat (MLE)	0.344	k star (bias corrected MLE)	0.332
Theta hat (MLE)	3.587	Theta star (bias corrected MLE)	3.719
nu hat (MLE)	20.63	nu star (bias corrected)	19.9
Adjusted Level of Significance (β)	0.041		
Approximate Chi Square Value (19.90, α)	10.78	Adjusted Chi Square Value (19.90, β)	10.39
95% Gamma Approximate UCL	2.277	95% Gamma Adjusted UCL	2.362
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	1.25	SD (KM)	2.509
Variance (KM)	6.294	SE of Mean (KM)	0.468
k hat (KM)	0.248	k star (KM)	0.246
nu hat (KM)	14.89	nu star (KM)	14.73
theta hat (KM)	5.036	theta star (KM)	5.089
80% gamma percentile (KM)	1.803	90% gamma percentile (KM)	3.756
95% gamma percentile (KM)	6.082	99% gamma percentile (KM)	12.29
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (14.73, α)	7.077	Adjusted Chi Square Value (14.73, β)	6.771
95% KM Approximate Gamma UCL	2.602	95% KM Adjusted Gamma UCL	2.719
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.9	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.928	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.204	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.165	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.248	Mean in Log Scale	-1.327
SD in Original Scale	2.552	SD in Log Scale	1.734
95% t UCL (assumes normality of ROS data)	2.04	95% Percentile Bootstrap UCL	2.071
95% BCA Bootstrap UCL	2.316	95% Bootstrap t UCL	2.9
95% H-UCL (Log ROS)	3.702		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.282	KM Geo Mean	0.277
KM SD (logged)	1.644	95% Critical H Value (KM-Log)	3.381
KM Standard Error of Mean (logged)	0.309	95% H-UCL (KM -Log)	3.011
KM SD (logged)	1.644	95% Critical H Value (KM-Log)	3.381
KM Standard Error of Mean (logged)	0.309		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.249	Mean in Log Scale	-1.303
SD in Original Scale	2.552	SD in Log Scale	1.697
95% t UCL (Assumes normality)	2.04	95% H-Stat UCL	3.411

DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	2.046		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil n-butylbenzene 104-51-8)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	9
Number of Distinct Detects	2	Number of Distinct Non-Detects	6
Minimum Detect	0.056	Minimum Non-Detect	5.1000E-4
Maximum Detect	0.43	Maximum Non-Detect	0.0019
Variance Detects	0.0699	Percent Non-Detects	81.82%
Mean Detects	0.243	SD Detects	0.264
Median Detects	0.243	CV Detects	1.088
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-1.863	SD of Logged Detects	1.441
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.0446	KM Standard Error of Mean	0.0524
90KM SD	0.123	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.14	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.131	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.202	95% KM Chebyshev UCL	0.273
97.5% KM Chebyshev UCL	0.372	99% KM Chebyshev UCL	0.566
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			

Gamma Statistics on Detected Data Only				
k hat (MLE)	1.255	k star (bias corrected MLE)	N/A	
Theta hat (MLE)	0.194	Theta star (bias corrected MLE)	N/A	
nu hat (MLE)	5.021	nu star (bias corrected)	N/A	
Mean (detects)	0.243			
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.0446	SD (KM)	0.123	
Variance (KM)	0.0151	SE of Mean (KM)	0.0524	
k hat (KM)	0.132	k star (KM)	0.156	
nu hat (KM)	2.897	nu star (KM)	3.44	
theta hat (KM)	0.339	theta star (KM)	0.285	
80% gamma percentile (KM)	0.0502	90% gamma percentile (KM)	0.133	
95% gamma percentile (KM)	0.243	99% gamma percentile (KM)	0.561	
Gamma Kaplan-Meier (KM) Statistics				
		Adjusted Level of Significance (β)	0.0278	
Approximate Chi Square Value (3.44, α)	0.514	Adjusted Chi Square Value (3.44, β)	0.367	
95% KM Approximate Gamma UCL	0.299	95% KM Adjusted Gamma UCL	0.418	
Lognormal GOF Test on Detected Observations Only				
Not Enough Data to Perform GOF Test				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.0443	Mean in Log Scale	-8.877	
SD in Original Scale	0.129	SD in Log Scale	3.842	
95% t UCL (assumes normality of ROS data)	0.115	95% Percentile Bootstrap UCL	0.117	
95% BCA Bootstrap UCL	0.162	95% Bootstrap t UCL	38.36	
95% H-UCL (Log ROS)	22637			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-6.541	KM Geo Mean	0.00144	
KM SD (logged)	2.248	95% Critical H Value (KM-Log)	5.724	
KM Standard Error of Mean (logged)	0.958	95% H-UCL (KM -Log)	1.055	
KM SD (logged)	2.248	95% Critical H Value (KM-Log)	5.724	
KM Standard Error of Mean (logged)	0.958			
DL/2 Statistics				
DL/2 Normal		DL/2 Log-Transformed		
Mean in Original Scale	0.0448	Mean in Log Scale	-6.207	
SD in Original Scale	0.129	SD in Log Scale	2.227	
95% t UCL (Assumes normality)	0.115	95% H-Stat UCL	1.309	
DL/2 is not a recommended method, provided for comparisons and historical reasons				
Nonparametric Distribution Free UCL Statistics				
Data do not follow a Discernible Distribution				
Suggested UCL to Use				
95% KM (t) UCL	0.14			

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.

Please verify the data were collected from random locations.

If the data were collected using judgmental or other non-random methods,
then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | nickel | 7440-02-0)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	17
		Number of Missing Observations	0
Minimum	8.467	Mean	48.92
Maximum	730	Median	13.16
SD	160.3	Std. Error of Mean	35.85
Coefficient of Variation	3.278	Skewness	4.469

Normal GOF Test

Shapiro Wilk Test Statistic	0.253	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.517	Lilliefors GOF Test
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	110.9	95% Adjusted-CLT UCL (Chen-1995)	146.2
		95% Modified-t UCL (Johnson-1978)	116.9

Gamma GOF Test

A-D Test Statistic	5.832	Anderson-Darling Gamma GOF Test
5% A-D Critical Value	0.798	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.469	Kolmogorov-Smirnov Gamma GOF Test
5% K-S Critical Value	0.204	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.545	k star (bias corrected MLE)	0.497
Theta hat (MLE)	89.72	Theta star (bias corrected MLE)	98.47
nu hat (MLE)	21.81	nu star (bias corrected)	19.87
MLE Mean (bias corrected)	48.92	MLE Sd (bias corrected)	69.41
		Approximate Chi Square Value (0.05)	10.76
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	10.23

Assuming Gamma Distribution

95% Approximate Gamma UCL	90.38	95% Adjusted Gamma UCL	95.05
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.479	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.311	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	2.136	Mean of logged Data	2.741
Maximum of Logged Data	6.593	SD of logged Data	0.941
Assuming Lognormal Distribution			
95% H-UCL	41.83	90% Chebyshev (MVUE) UCL	39.79
95% Chebyshev (MVUE) UCL	47.21	97.5% Chebyshev (MVUE) UCL	57.51
99% Chebyshev (MVUE) UCL	77.73		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	107.9	95% BCA Bootstrap UCL	157
95% Standard Bootstrap UCL	106.3	95% Bootstrap-t UCL	2196
95% Hall's Bootstrap UCL	914.5	95% Percentile Bootstrap UCL	120.5
90% Chebyshev(Mean, Sd) UCL	156.5	95% Chebyshev(Mean, Sd) UCL	205.2
97.5% Chebyshev(Mean, Sd) UCL	272.8	99% Chebyshev(Mean, Sd) UCL	405.7
Suggested UCL to Use			
95% Student's-t UCL	110.9		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil nitrobenzene 98-95-3)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | nitrobenzene | 98-95-3) was not processed!

C (soil | n-nitrosodimethylamine | 62-75-9)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | n-nitrosodimethylamine | 62-75-9) was not processed!

C (soil | n-nitroso-di-n-propylamine | 621-64-7)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | n-nitroso-di-n-propylamine | 621-64-7) was not processed!

C (soil | n-nitrosodiphenylamine | 86-30-6)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | n-nitrosodiphenylamine | 86-30-6) was not processed!

C (soil | n-propylbenzene | 103-65-1)

General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	9
Number of Distinct Detects	2	Number of Distinct Non-Detects	6
Minimum Detect	0.13	Minimum Non-Detect	3.8333E-4
Maximum Detect	0.7	Maximum Non-Detect	0.0019
Variance Detects	0.162	Percent Non-Detects	81.82%
Mean Detects	0.415	SD Detects	0.403
Median Detects	0.415	CV Detects	0.971
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-1.198	SD of Logged Detects	1.19
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.0758	KM Standard Error of Mean	0.0856
90KM SD	0.201	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.231	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.217	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.333	95% KM Chebyshev UCL	0.449
97.5% KM Chebyshev UCL	0.611	99% KM Chebyshev UCL	0.928
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.715	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.242	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	6.861	nu star (bias corrected)	N/A
Mean (detects)	0.415		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.0758	SD (KM)	0.201
Variance (KM)	0.0403	SE of Mean (KM)	0.0856
k hat (KM)	0.142	k star (KM)	0.164
nu hat (KM)	3.131	nu star (KM)	3.61
theta hat (KM)	0.532	theta star (KM)	0.462
80% gamma percentile (KM)	0.0884	90% gamma percentile (KM)	0.227
95% gamma percentile (KM)	0.409	99% gamma percentile (KM)	0.929
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0278
Approximate Chi Square Value (3.61, α)	0.574	Adjusted Chi Square Value (3.61, β)	0.413
95% KM Approximate Gamma UCL	0.477	95% KM Adjusted Gamma UCL	0.662

Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.0759	Mean in Log Scale	-6.991
SD in Original Scale	0.211	SD in Log Scale	3.173
95% t UCL (assumes normality of ROS data)	0.191	95% Percentile Bootstrap UCL	0.192
95% BCA Bootstrap UCL	0.267	95% Bootstrap t UCL	20.64
95% H-UCL (Log ROS)	389.3		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.654	KM Geo Mean	0.00129
KM SD (logged)	2.597	95% Critical H Value (KM-Log)	6.538
KM Standard Error of Mean (logged)	1.107	95% H-UCL (KM -Log)	8.058
KM SD (logged)	2.597	95% Critical H Value (KM-Log)	6.538
KM Standard Error of Mean (logged)	1.107		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0761	Mean in Log Scale	-6.112
SD in Original Scale	0.211	SD in Log Scale	2.501
95% t UCL (Assumes normality)	0.191	95% H-Stat UCL	7.437
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.231		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil pcbs (total) 1336-36-3)			
General Statistics			
Total Number of Observations	6	Number of Distinct Observations	6
Number of Detects	0	Number of Non-Detects	6
Number of Distinct Detects	0	Number of Distinct Non-Detects	6
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil pcbs (total) 1336-36-3) was not processed!			

C (soil p-cymene 99-87-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	9
Number of Distinct Detects	2	Number of Distinct Non-Detects	6
Minimum Detect	0.057	Minimum Non-Detect	4.5667E-4
Maximum Detect	0.3	Maximum Non-Detect	0.0019
Variance Detects	0.0295	Percent Non-Detects	81.82%
Mean Detects	0.179	SD Detects	0.172
Median Detects	0.179	CV Detects	0.963
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-2.034	SD of Logged Detects	1.174
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.0328	KM Standard Error of Mean	0.0367
90KM SD	0.086	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.0993	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.0932	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.143	95% KM Chebyshev UCL	0.193
97.5% KM Chebyshev UCL	0.262	99% KM Chebyshev UCL	0.398
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.755	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.102	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	7.02	nu star (bias corrected)	N/A
Mean (detects)	0.179		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.0328	SD (KM)	0.086
Variance (KM)	0.0074	SE of Mean (KM)	0.0367
k hat (KM)	0.146	k star (KM)	0.167
nu hat (KM)	3.204	nu star (KM)	3.664
theta hat (KM)	0.225	theta star (KM)	0.197
80% gamma percentile (KM)	0.0387	90% gamma percentile (KM)	0.0985
95% gamma percentile (KM)	0.177	99% gamma percentile (KM)	0.399
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0278

Approximate Chi Square Value (3.66, α)	0.593	Adjusted Chi Square Value (3.66, β)	0.428
95% KM Approximate Gamma UCL	0.203	95% KM Adjusted Gamma UCL	0.281
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.0327	Mean in Log Scale	-7.748
SD in Original Scale	0.0903	SD in Log Scale	3.13
95% t UCL (assumes normality of ROS data)	0.082	95% Percentile Bootstrap UCL	0.0822
95% BCA Bootstrap UCL	0.114	95% Bootstrap t UCL	8.246
95% H-UCL (Log ROS)	129.5		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.663	KM Geo Mean	0.00128
KM SD (logged)	2.21	95% Critical H Value (KM-Log)	5.638
KM Standard Error of Mean (logged)	0.943	95% H-UCL (KM -Log)	0.757
KM SD (logged)	2.21	95% Critical H Value (KM-Log)	5.638
KM Standard Error of Mean (logged)	0.943		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0331	Mean in Log Scale	-6.248
SD in Original Scale	0.0901	SD in Log Scale	2.155
95% t UCL (Assumes normality)	0.0824	95% H-Stat UCL	0.841
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.0993		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil pentachloronitrobenzene 82-68-8)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil pentachloronitrobenzene 82-68-8) was not processed!			

C (soil pentachlorophenol 87-86-5)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil pentachlorophenol 87-86-5) was not processed!			
C (soil phenanthrene 85-01-8)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	20
Number of Detects	14	Number of Non-Detects	6
Number of Distinct Detects	14	Number of Distinct Non-Detects	6
Minimum Detect	0.067	Minimum Non-Detect	0.193
Maximum Detect	7	Maximum Non-Detect	0.22
Variance Detects	4.828	Percent Non-Detects	30%
Mean Detects	1.319	SD Detects	2.197
Median Detects	0.202	CV Detects	1.666
Skewness Detects	1.917	Kurtosis Detects	2.841
Mean of Logged Detects	-1.071	SD of Logged Detects	1.692
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.648	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.825	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.348	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.263	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.951	KM Standard Error of Mean	0.431
90KM SD	1.859	95% KM (BCA) UCL	1.707
95% KM (t) UCL	1.697	95% KM (Percentile Bootstrap) UCL	1.678
95% KM (z) UCL	1.66	95% KM Bootstrap t UCL	2.776
90% KM Chebyshev UCL	2.245	95% KM Chebyshev UCL	2.831
97.5% KM Chebyshev UCL	3.644	99% KM Chebyshev UCL	5.242
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	1.238	Anderson-Darling GOF Test	
5% A-D Critical Value	0.798	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.264	Kolmogorov-Smirnov GOF	

5% K-S Critical Value	0.242	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.475	k star (bias corrected MLE)	0.421
Theta hat (MLE)	2.776	Theta star (bias corrected MLE)	3.133
nu hat (MLE)	13.3	nu star (bias corrected)	11.79
Mean (detects)	1.319		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	0.926
Maximum	7	Median	0.091
SD	1.919	CV	2.072
k hat (MLE)	0.33	k star (bias corrected MLE)	0.314
Theta hat (MLE)	2.803	Theta star (bias corrected MLE)	2.948
nu hat (MLE)	13.22	nu star (bias corrected)	12.57
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (12.57, α)	5.602	Adjusted Chi Square Value (12.57, β)	5.238
95% Gamma Approximate UCL	2.077	95% Gamma Adjusted UCL	2.222
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.951	SD (KM)	1.859
Variance (KM)	3.454	SE of Mean (KM)	0.431
k hat (KM)	0.262	k star (KM)	0.256
nu hat (KM)	10.47	nu star (KM)	10.23
theta hat (KM)	3.634	theta star (KM)	3.718
80% gamma percentile (KM)	1.392	90% gamma percentile (KM)	2.849
95% gamma percentile (KM)	4.571	99% gamma percentile (KM)	9.14
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (10.23, α)	4.086	Adjusted Chi Square Value (10.23, β)	3.783
95% KM Approximate Gamma UCL	2.38	95% KM Adjusted Gamma UCL	2.571
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.85	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.895	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.195	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.208	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Approximate Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.955	Mean in Log Scale	-1.425
SD in Original Scale	1.905	SD in Log Scale	1.505
95% t UCL (assumes normality of ROS data)	1.691	95% Percentile Bootstrap UCL	1.692

95% BCA Bootstrap UCL	1.915	95% Bootstrap t UCL	2.632
95% H-UCL (Log ROS)	2.447		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.478	KM Geo Mean	0.228
KM SD (logged)	1.506	95% Critical H Value (KM-Log)	3.437
KM Standard Error of Mean (logged)	0.353	95% H-UCL (KM -Log)	2.326
KM SD (logged)	1.506	95% Critical H Value (KM-Log)	3.437
KM Standard Error of Mean (logged)	0.353		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.954	Mean in Log Scale	-1.432
SD in Original Scale	1.905	SD in Log Scale	1.51
95% t UCL (Assumes normality)	1.691	95% H-Stat UCL	2.462
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Lognormal Distributed at 10% Significance Level			
Suggested UCL to Use			
KM (t) UCL	1.697		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil phenol 108-95-2)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil phenol 108-95-2) was not processed!			
C (soil pyrene 129-00-0)			
General Statistics			

Total Number of Observations	20	Number of Distinct Observations	16
Number of Detects	9	Number of Non-Detects	11
Number of Distinct Detects	8	Number of Distinct Non-Detects	8
Minimum Detect	0.0885	Minimum Non-Detect	0.192
Maximum Detect	2.9	Maximum Non-Detect	0.22
Variance Detects	1.389	Percent Non-Detects	55%
Mean Detects	0.999	SD Detects	1.179
Median Detects	0.19	CV Detects	1.18
Skewness Detects	1.041	Kurtosis Detects	-0.556
Mean of Logged Detects	-0.837	SD of Logged Detects	1.45
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.756	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.764	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.309	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.316	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Approximate Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.525	KM Standard Error of Mean	0.204
90KM SD	0.86	95% KM (BCA) UCL	0.879
95% KM (t) UCL	0.878	95% KM (Percentile Bootstrap) UCL	0.87
95% KM (z) UCL	0.861	95% KM Bootstrap t UCL	1.224
90% KM Chebyshev UCL	1.138	95% KM Chebyshev UCL	1.416
97.5% KM Chebyshev UCL	1.801	99% KM Chebyshev UCL	2.558
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.774	Anderson-Darling GOF Test	
5% A-D Critical Value	0.754	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.308	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.29	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.721	k star (bias corrected MLE)	0.554
Theta hat (MLE)	1.386	Theta star (bias corrected MLE)	1.801
nu hat (MLE)	12.97	nu star (bias corrected)	9.979
Mean (detects)	0.999		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	0.516
Maximum	2.9	Median	0.125
SD	0.891	CV	1.725

k hat (MLE)	0.516	k star (bias corrected MLE)	0.472
Theta hat (MLE)	1.001	Theta star (bias corrected MLE)	1.094
nu hat (MLE)	20.64	nu star (bias corrected)	18.88
Adjusted Level of Significance (β)	0.038		
Approximate Chi Square Value (18.88, α)	10.03	Adjusted Chi Square Value (18.88, β)	9.52
95% Gamma Approximate UCL	0.972	95% Gamma Adjusted UCL	1.024
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.525	SD (KM)	0.86
Variance (KM)	0.74	SE of Mean (KM)	0.204
k hat (KM)	0.373	k star (KM)	0.35
nu hat (KM)	14.91	nu star (KM)	14.01
theta hat (KM)	1.409	theta star (KM)	1.5
80% gamma percentile (KM)	0.832	90% gamma percentile (KM)	1.516
95% gamma percentile (KM)	2.283	99% gamma percentile (KM)	4.24
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (14.01, α)	6.576	Adjusted Chi Square Value (14.01, β)	6.176
95% KM Approximate Gamma UCL	1.119	95% KM Adjusted Gamma UCL	1.191
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.838	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.859	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.271	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.252	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.546	Mean in Log Scale	-1.372
SD in Original Scale	0.874	SD in Log Scale	1.1
95% t UCL (assumes normality of ROS data)	0.884	95% Percentile Bootstrap UCL	0.882
95% BCA Bootstrap UCL	0.957	95% Bootstrap t UCL	1.257
95% H-UCL (Log ROS)	0.938		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-1.487	KM Geo Mean	0.226
KM SD (logged)	1.108	95% Critical H Value (KM-Log)	2.794
KM Standard Error of Mean (logged)	0.276	95% H-UCL (KM -Log)	0.85
KM SD (logged)	1.108	95% Critical H Value (KM-Log)	2.794
KM Standard Error of Mean (logged)	0.276		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.505	Mean in Log Scale	-1.637
SD in Original Scale	0.892	SD in Log Scale	1.199
95% t UCL (Assumes normality)	0.85	95% H-Stat UCL	0.895
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			

Detected Data appear Approximate Normal Distributed at 1% Significance Level

Suggested UCL to Use

95% KM (t) UCL 0.878

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.

Please verify the data were collected from random locations.

If the data were collected using judgmental or other non-random methods,

then contact a statistician to correctly calculate UCLs.

When a data set follows an approximate distribution passing only one of the GOF tests,

it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | pyridine | 110-86-1)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	15
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	15

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | pyridine | 110-86-1) was not processed!

C (soil | sec-butylbenzene | 135-98-8)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	9
Number of Distinct Detects	2	Number of Distinct Non-Detects	6
Minimum Detect	0.041	Minimum Non-Detect	9.6333E-4
Maximum Detect	0.19	Maximum Non-Detect	0.0019
Variance Detects	0.0111	Percent Non-Detects	81.82%
Mean Detects	0.116	SD Detects	0.105
Median Detects	0.116	CV Detects	0.912
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-2.427	SD of Logged Detects	1.084

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only				
Not Enough Data to Perform GOF Test				
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	0.0218	KM Standard Error of Mean	0.0232	
90KM SD	0.0544	95% KM (BCA) UCL	N/A	
95% KM (t) UCL	0.0638	95% KM (Percentile Bootstrap) UCL	N/A	
95% KM (z) UCL	0.06	95% KM Bootstrap t UCL	N/A	
90% KM Chebyshev UCL	0.0914	95% KM Chebyshev UCL	0.123	
97.5% KM Chebyshev UCL	0.167	99% KM Chebyshev UCL	0.253	
Gamma GOF Tests on Detected Observations Only				
Not Enough Data to Perform GOF Test				
Gamma Statistics on Detected Data Only				
k hat (MLE)	2.01	k star (bias corrected MLE)	N/A	
Theta hat (MLE)	0.0575	Theta star (bias corrected MLE)	N/A	
nu hat (MLE)	8.039	nu star (bias corrected)	N/A	
Mean (detects)	0.116			
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.0218	SD (KM)	0.0544	
Variance (KM)	0.00296	SE of Mean (KM)	0.0232	
k hat (KM)	0.16	k star (KM)	0.177	
nu hat (KM)	3.528	nu star (KM)	3.899	
theta hat (KM)	0.136	theta star (KM)	0.123	
80% gamma percentile (KM)	0.0268	90% gamma percentile (KM)	0.0657	
95% gamma percentile (KM)	0.116	99% gamma percentile (KM)	0.256	
Gamma Kaplan-Meier (KM) Statistics				
		Adjusted Level of Significance (β)	0.0278	
Approximate Chi Square Value (3.90, α)	0.682	Adjusted Chi Square Value (3.90, β)	0.498	
95% KM Approximate Gamma UCL	0.125	95% KM Adjusted Gamma UCL	0.171	
Lognormal GOF Test on Detected Observations Only				
Not Enough Data to Perform GOF Test				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.0212	Mean in Log Scale	-7.703	
SD in Original Scale	0.0573	SD in Log Scale	2.89	
95% t UCL (assumes normality of ROS data)	0.0525	95% Percentile Bootstrap UCL	0.0522	
95% BCA Bootstrap UCL	0.073	95% Bootstrap t UCL	3.545	
95% H-UCL (Log ROS)	21.71			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-6.124	KM Geo Mean	0.00219	
KM SD (logged)	1.773	95% Critical H Value (KM-Log)	4.638	
KM Standard Error of Mean (logged)	0.756	95% H-UCL (KM -Log)	0.142	
KM SD (logged)	1.773	95% Critical H Value (KM-Log)	4.638	

KM Standard Error of Mean (logged)		0.756	
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0217	Mean in Log Scale	-6.252
SD in Original Scale	0.0571	SD in Log Scale	1.931
95% t UCL (Assumes normality)	0.0529	95% H-Stat UCL	0.262
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.0638		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil selenium 7782-49-2)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	14
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	14
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil selenium 7782-49-2) was not processed!			
C (soil silver 7440-22-4)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	14
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	14
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil silver 7440-22-4) was not processed!			
C (soil styrene 100-42-5)			

General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil styrene 100-42-5) was not processed!			
C (soil t-amyl methyl ether 994-05-8)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil t-amyl methyl ether 994-05-8) was not processed!			
C (soil tert-butyl alcohol 75-65-0)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (soil tert-butyl alcohol 75-65-0) was not processed!			
C (soil tert-butylbenzene 98-06-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	11
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | tert-butylbenzene | 98-06-6) was not processed!

C (soil | tetrachloroethene | 127-18-4)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | tetrachloroethene | 127-18-4) was not processed!

C (soil | tetrahydrofuran | 109-99-9)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | tetrahydrofuran | 109-99-9) was not processed!

C (soil | thallium | 7440-28-0)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	17
Number of Detects	3	Number of Non-Detects	17
Number of Distinct Detects	3	Number of Distinct Non-Detects	14
Minimum Detect	1.35	Minimum Non-Detect	0.877
Maximum Detect	1.45	Maximum Non-Detect	2.5
Variance Detects	0.0025	Percent Non-Detects	85%
Mean Detects	1.4	SD Detects	0.05
Median Detects	1.4	CV Detects	0.0357
Skewness Detects	6.017E-14	Kurtosis Detects	N/A
Mean of Logged Detects	0.336	SD of Logged Detects	0.0357

Warning: Data set has only 3 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only				
Shapiro Wilk Test Statistic	1	Shapiro Wilk GOF Test		
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level		
Lilliefors Test Statistic	0.175	Lilliefors GOF Test		
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level		
Detected Data appear Normal at 1% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	1.051	KM Standard Error of Mean	0.101	
90KM SD	0.248	95% KM (BCA) UCL	N/A	
95% KM (t) UCL	1.226	95% KM (Percentile Bootstrap) UCL	N/A	
95% KM (z) UCL	1.218	95% KM Bootstrap t UCL	N/A	
90% KM Chebyshev UCL	1.355	95% KM Chebyshev UCL	1.492	
97.5% KM Chebyshev UCL	1.683	99% KM Chebyshev UCL	2.058	
Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.246	Anderson-Darling GOF Test		
5% A-D Critical Value	0.635	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.224	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.431	Detected data appear Gamma Distributed at 5% Significance Level		
Detected Data Not Gamma Distributed at 5% Significance Level				
Gamma Statistics on Detected Data Only				
k hat (MLE)	1175	k star (bias corrected MLE)	N/A	
Theta hat (MLE)	0.00119	Theta star (bias corrected MLE)	N/A	
nu hat (MLE)	7052	nu star (bias corrected)	N/A	
Mean (detects)	1.4			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	1.169	Mean	1.264	
Maximum	1.45	Median	1.26	
SD	0.0754	CV	0.0596	
k hat (MLE)	306.6	k star (bias corrected MLE)	260.6	
Theta hat (MLE)	0.00412	Theta star (bias corrected MLE)	0.00485	
nu hat (MLE)	12264	nu star (bias corrected)	10426	
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (N/A, α)	10190	Adjusted Chi Square Value (N/A, β)	10171	
95% Gamma Approximate UCL	1.293	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	1.051	SD (KM)	0.248	

Variance (KM)	0.0614	SE of Mean (KM)	0.101
k hat (KM)	17.99	k star (KM)	15.32
nu hat (KM)	719.6	nu star (KM)	613
theta hat (KM)	0.0584	theta star (KM)	0.0686
80% gamma percentile (KM)	1.268	90% gamma percentile (KM)	1.407
95% gamma percentile (KM)	1.528	99% gamma percentile (KM)	1.774
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (612.96, α)	556.5	Adjusted Chi Square Value (612.96, β)	552.3
95% KM Approximate Gamma UCL	1.158	95% KM Adjusted Gamma UCL	1.167
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	1	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.176	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.27	Mean in Log Scale	0.238
SD in Original Scale	0.0712	SD in Log Scale	0.0546
95% t UCL (assumes normality of ROS data)	1.298	95% Percentile Bootstrap UCL	1.296
95% BCA Bootstrap UCL	1.299	95% Bootstrap t UCL	1.304
95% H-UCL (Log ROS)	N/A		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	0.0243	KM Geo Mean	1.025
KM SD (logged)	0.221	95% Critical H Value (KM-Log)	1.799
KM Standard Error of Mean (logged)	0.0903	95% H-UCL (KM -Log)	1.15
KM SD (logged)	0.221	95% Critical H Value (KM-Log)	1.799
KM Standard Error of Mean (logged)	0.0903		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.88	Mean in Log Scale	-0.205
SD in Original Scale	0.331	SD in Log Scale	0.418
95% t UCL (Assumes normality)	1.008	95% H-Stat UCL	1.072
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	1.226		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

C (soil | toluene | 108-88-3)

General Statistics

Total Number of Observations	21	Number of Distinct Observations	17
Number of Detects	3	Number of Non-Detects	18
Number of Distinct Detects	3	Number of Distinct Non-Detects	14
Minimum Detect	4.8000E-4	Minimum Non-Detect	5.5667E-4
Maximum Detect	13	Maximum Non-Detect	0.44
Variance Detects	45.88	Percent Non-Detects	85.71%
Mean Detects	5.4	SD Detects	6.773
Median Detects	3.2	CV Detects	1.254
Skewness Detects	1.307	Kurtosis Detects	N/A
Mean of Logged Detects	-1.305	SD of Logged Detects	5.533

Warning: Data set has only 3 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.921	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.294	Lilliefors GOF Test
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.772	KM Standard Error of Mean	0.753
90KM SD	2.818	95% KM (BCA) UCL	N/A
95% KM (t) UCL	2.071	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	2.011	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	3.031	95% KM Chebyshev UCL	4.054
97.5% KM Chebyshev UCL	5.475	99% KM Chebyshev UCL	8.265

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.397	Anderson-Darling GOF Test
5% A-D Critical Value	0.681	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.338	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.46	Detected data appear Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.239	k star (bias corrected MLE)	N/A
Theta hat (MLE)	22.58	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	1.435	nu star (bias corrected)	N/A
Mean (detects)	5.4		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	4.8000E-4	Mean	0.78
Maximum	13	Median	0.01
SD	2.885	CV	3.699
k hat (MLE)	0.191	k star (bias corrected MLE)	0.195
Theta hat (MLE)	4.088	Theta star (bias corrected MLE)	3.994
nu hat (MLE)	8.014	nu star (bias corrected)	8.202
Adjusted Level of Significance (β)	0.0383		
Approximate Chi Square Value (8.20, α)	2.853	Adjusted Chi Square Value (8.20, β)	2.615
95% Gamma Approximate UCL	2.243	95% Gamma Adjusted UCL	N/A
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.772	SD (KM)	2.818
Variance (KM)	7.939	SE of Mean (KM)	0.753
k hat (KM)	0.075	k star (KM)	0.0961
nu hat (KM)	3.152	nu star (KM)	4.035
theta hat (KM)	10.29	theta star (KM)	8.035
80% gamma percentile (KM)	0.504	90% gamma percentile (KM)	2.019
95% gamma percentile (KM)	4.489	99% gamma percentile (KM)	12.51
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (4.03, α)	0.735	Adjusted Chi Square Value (4.03, β)	0.638
95% KM Approximate Gamma UCL	4.234	95% KM Adjusted Gamma UCL	4.881
95% KM Adjusted Gamma UCL (use when $k \leq 1$ and $15 < n < 50$)			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.851	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.339	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.772	Mean in Log Scale	-6.73
SD in Original Scale	2.887	SD in Log Scale	3.143
95% t UCL (assumes normality of ROS data)	1.859	95% Percentile Bootstrap UCL	2.01
95% BCA Bootstrap UCL	2.781	95% Bootstrap t UCL	1684
95% H-UCL (Log ROS)	12.73		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.736	KM Geo Mean	0.00119
KM SD (logged)	2.799	95% Critical H Value (KM-Log)	5.544
KM Standard Error of Mean (logged)	0.748	95% H-UCL (KM -Log)	1.915
KM SD (logged)	2.799	95% Critical H Value (KM-Log)	5.544

KM Standard Error of Mean (logged)		0.748	
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.822	Mean in Log Scale	-4.289
SD in Original Scale	2.874	SD in Log Scale	3.18
95% t UCL (Assumes normality)	1.904	95% H-Stat UCL	181.4
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	2.071		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil trans-1,2-dichloroethene 156-60-5)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTv).			
The data set for variable C (soil trans-1,2-dichloroethene 156-60-5) was not processed!			
C (soil trans-1,4-dichloro-2-butene 110-57-6)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	11
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTv).			

The data set for variable C (soil | trans-1,4-dichloro-2-butene | 110-57-6) was not processed!

C (soil | trichloroethene | 79-01-6)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	8

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | trichloroethene | 79-01-6) was not processed!

C (soil | trichlorofluoromethane | 75-69-4)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | trichlorofluoromethane | 75-69-4) was not processed!

C (soil | vanadium | 7440-62-2)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	15	Mean	32.42
Maximum	110	Median	27.08
SD	20.53	Std. Error of Mean	4.59
Coefficient of Variation	0.633	Skewness	3.187

Normal GOF Test

Shapiro Wilk Test Statistic	0.593	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.868	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.365	Lilliefors GOF Test
1% Lilliefors Critical Value	0.223	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	40.36	95% Adjusted-CLT UCL (Chen-1995)	43.46
		95% Modified-t UCL (Johnson-1978)	40.9
Gamma GOF Test			
A-D Test Statistic	1.884	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.745	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.309	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.195	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	4.724	k star (bias corrected MLE)	4.048
Theta hat (MLE)	6.863	Theta star (bias corrected MLE)	8.008
nu hat (MLE)	188.9	nu star (bias corrected)	161.9
MLE Mean (bias corrected)	32.42	MLE Sd (bias corrected)	16.11
		Approximate Chi Square Value (0.05)	133.5
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	131.5
Assuming Gamma Distribution			
95% Approximate Gamma UCL	39.32	95% Adjusted Gamma UCL	39.93
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.825	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.27	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	2.708	Mean of logged Data	3.369
Maximum of Logged Data	4.7	SD of logged Data	0.426
Assuming Lognormal Distribution			
95% H-UCL	38.51	90% Chebyshev (MVUE) UCL	40.97
95% Chebyshev (MVUE) UCL	45.18	97.5% Chebyshev (MVUE) UCL	51.03
99% Chebyshev (MVUE) UCL	62.52		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	39.97	95% BCA Bootstrap UCL	44.3
95% Standard Bootstrap UCL	39.73	95% Bootstrap-t UCL	50.33
95% Hall's Bootstrap UCL	67.5	95% Percentile Bootstrap UCL	40.68
90% Chebyshev(Mean, Sd) UCL	46.19	95% Chebyshev(Mean, Sd) UCL	52.43
97.5% Chebyshev(Mean, Sd) UCL	61.08	99% Chebyshev(Mean, Sd) UCL	78.09

Suggested UCL to Use

95% Student's-t UCL 40.36

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (soil | vinyl chloride | 75-01-4)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	11
Number of Distinct Detects	0	Number of Distinct Non-Detects	10

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (soil | vinyl chloride | 75-01-4) was not processed!

C (soil | xylenes (total) | 1330-20-7)

General Statistics

Total Number of Observations	21	Number of Distinct Observations	21
Number of Detects	10	Number of Non-Detects	11
Number of Distinct Detects	10	Number of Distinct Non-Detects	11
Minimum Detect	0.003	Minimum Non-Detect	7.5333E-4
Maximum Detect	19.5	Maximum Non-Detect	0.34
Variance Detects	36.01	Percent Non-Detects	52.38%
Mean Detects	2.82	SD Detects	6.001
Median Detects	0.715	CV Detects	2.128
Skewness Detects	2.917	Kurtosis Detects	8.737
Mean of Logged Detects	-0.843	SD of Logged Detects	2.499

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.518	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.781	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.394	Lilliefors GOF Test
1% Lilliefors Critical Value	0.304	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.345	KM Standard Error of Mean	0.96
90KM SD	4.173	95% KM (BCA) UCL	3.185
95% KM (t) UCL	3	95% KM (Percentile Bootstrap) UCL	3.128
95% KM (z) UCL	2.924	95% KM Bootstrap t UCL	14.23
90% KM Chebyshev UCL	4.224	95% KM Chebyshev UCL	5.528
97.5% KM Chebyshev UCL	7.339	99% KM Chebyshev UCL	10.89

Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.41	Anderson-Darling GOF Test		
5% A-D Critical Value	0.803	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.221	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.286	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Gamma Statistics on Detected Data Only				
k hat (MLE)	0.357	k star (bias corrected MLE)	0.316	
Theta hat (MLE)	7.909	Theta star (bias corrected MLE)	8.917	
nu hat (MLE)	7.132	nu star (bias corrected)	6.326	
Mean (detects)	2.82			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.003	Mean	1.348	
Maximum	19.5	Median	0.01	
SD	4.275	CV	3.17	
k hat (MLE)	0.231	k star (bias corrected MLE)	0.23	
Theta hat (MLE)	5.834	Theta star (bias corrected MLE)	5.866	
nu hat (MLE)	9.706	nu star (bias corrected)	9.653	
Adjusted Level of Significance (β)	0.0383			
Approximate Chi Square Value (9.65, α)	3.726	Adjusted Chi Square Value (9.65, β)	3.447	
95% Gamma Approximate UCL	3.493	95% Gamma Adjusted UCL	3.775	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	1.345	SD (KM)	4.173	
Variance (KM)	17.41	SE of Mean (KM)	0.96	
k hat (KM)	0.104	k star (KM)	0.121	
nu hat (KM)	4.363	nu star (KM)	5.073	
theta hat (KM)	12.95	theta star (KM)	11.13	
80% gamma percentile (KM)	1.188	90% gamma percentile (KM)	3.817	
95% gamma percentile (KM)	7.668	99% gamma percentile (KM)	19.4	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (5.07, α)	1.186	Adjusted Chi Square Value (5.07, β)	1.05	
95% KM Approximate Gamma UCL	5.752	95% KM Adjusted Gamma UCL	6.496	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.955	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.869	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.221	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.241	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.344	Mean in Log Scale	-3.865
SD in Original Scale	4.276	SD in Log Scale	3.434
95% t UCL (assumes normality of ROS data)	2.953	95% Percentile Bootstrap UCL	3.084
95% BCA Bootstrap UCL	4.23	95% Bootstrap t UCL	14.13
95% H-UCL (Log ROS)	1298		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-3.782	KM Geo Mean	0.0228
KM SD (logged)	3.313	95% Critical H Value (KM-Log)	6.474
KM Standard Error of Mean (logged)	0.812	95% H-UCL (KM -Log)	667.2
KM SD (logged)	3.313	95% Critical H Value (KM-Log)	6.474
KM Standard Error of Mean (logged)	0.812		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.357	Mean in Log Scale	-3.383
SD in Original Scale	4.272	SD in Log Scale	3.282
95% t UCL (Assumes normality)	2.965	95% H-Stat UCL	822.7
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM Adjusted Gamma UCL	6.496		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (soil zinc 7440-66-6)			
General Statistics			
Total Number of Observations	20	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	25	Mean	44.02
Maximum	84.5	Median	41.67
SD	14.6	Std. Error of Mean	3.265
Coefficient of Variation	0.332	Skewness	1.322
Normal GOF Test			

Shapiro Wilk Test Statistic	0.898	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.868	Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.164	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.223	Data appear Normal at 1% Significance Level	
Data appear Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	49.66	95% Adjusted-CLT UCL (Chen-1995)	50.42
		95% Modified-t UCL (Johnson-1978)	49.83
Gamma GOF Test			
A-D Test Statistic	0.338	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.742	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.125	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.194	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	11	k star (bias corrected MLE)	9.386
Theta hat (MLE)	4.001	Theta star (bias corrected MLE)	4.69
nu hat (MLE)	440.1	nu star (bias corrected)	375.4
MLE Mean (bias corrected)	44.02	MLE Sd (bias corrected)	14.37
		Approximate Chi Square Value (0.05)	331.5
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	328.3
Assuming Gamma Distribution			
95% Approximate Gamma UCL	49.85	95% Adjusted Gamma UCL	50.34
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.974	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.92	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.105	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.176	Data appear Lognormal at 10% Significance Level	
Data appear Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	3.219	Mean of logged Data	3.739
Maximum of Logged Data	4.437	SD of logged Data	0.304
Assuming Lognormal Distribution			
95% H-UCL	50.11	90% Chebyshev (MVUE) UCL	53.02
95% Chebyshev (MVUE) UCL	57.14	97.5% Chebyshev (MVUE) UCL	62.86
99% Chebyshev (MVUE) UCL	74.09		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			

95% CLT UCL	49.39	95% BCA Bootstrap UCL	50.44
95% Standard Bootstrap UCL	49.28	95% Bootstrap-t UCL	51.4
95% Hall's Bootstrap UCL	52.11	95% Percentile Bootstrap UCL	49.47
90% Chebyshev(Mean, Sd) UCL	53.81	95% Chebyshev(Mean, Sd) UCL	58.25
97.5% Chebyshev(Mean, Sd) UCL	64.41	99% Chebyshev(Mean, Sd) UCL	76.5
Suggested UCL to Use			
95% Student's-t UCL	49.66		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

ATTACHMENT 2-2
GROUNDWATER PROUCL RESULTS

UCL Statistics for Data Sets with Non-Detects			
User Selected Options			
Date/Time of Computation	ProUCL 5.2 10/11/2023 10:05:27 PM		
From File	ProUCL_Export_GW_AVG_20231011.xls		
Full Precision	OFF		
Confidence Coefficient	95%		
Number of Bootstrap Operations	10000		
C (groundwater 1,1,1,2-tetrachloroethane 630-20-6)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,1,1,2-tetrachloroethane 630-20-6) was not processed!			
C (groundwater 1,1,1-trichloroethane 71-55-6)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,1,1-trichloroethane 71-55-6) was not processed!			
C (groundwater 1,1,2,2-tetrachloroethane 79-34-5)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (groundwater | 1,1,2,2-tetrachloroethane | 79-34-5) was not processed!

C (groundwater | 1,1,2-trichloro-1,2,2-trifluoroethane | 76-13-1)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,1,2-trichloro-1,2,2-trifluoroethane | 76-13-1) was not processed!

C (groundwater | 1,1,2-trichloroethane | 79-00-5)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,1,2-trichloroethane | 79-00-5) was not processed!

C (groundwater | 1,1-biphenyl | 92-52-4)

General Statistics

Total Number of Observations	31	Number of Distinct Observations	11
Number of Detects	4	Number of Non-Detects	27
Number of Distinct Detects	4	Number of Distinct Non-Detects	7
Minimum Detect	4.6000E-5	Minimum Non-Detect	9.9333E-5
Maximum Detect	5.0000E-4	Maximum Non-Detect	0.05
Variance Detects	3.6397E-8	Percent Non-Detects	87.1%
Mean Detects	2.3400E-4	SD Detects	1.9078E-4
Median Detects	1.9500E-4	CV Detects	0.815
Skewness Detects	1.157	Kurtosis Detects	2.253
Mean of Logged Detects	-8.668	SD of Logged Detects	0.985

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.901	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level

Lilliefors Test Statistic		0.321	Lilliefors GOF Test	
1% Lilliefors Critical Value		0.413	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	1.5343E-4	KM Standard Error of Mean	6.7970E-5	
90KM SD	1.5574E-4	95% KM (BCA) UCL	N/A	
95% KM (t) UCL	2.6879E-4	95% KM (Percentile Bootstrap) UCL	N/A	
95% KM (z) UCL	2.6523E-4	95% KM Bootstrap t UCL	N/A	
90% KM Chebyshev UCL	3.5734E-4	95% KM Chebyshev UCL	4.4970E-4	
97.5% KM Chebyshev UCL	5.7790E-4	99% KM Chebyshev UCL	8.2972E-4	
Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.307	Anderson-Darling GOF Test		
5% A-D Critical Value	0.661	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.246	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.399	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Gamma Statistics on Detected Data Only				
k hat (MLE)	1.771	k star (bias corrected MLE)	0.609	
Theta hat (MLE)	1.3214E-4	Theta star (bias corrected MLE)	3.8399E-4	
nu hat (MLE)	14.17	nu star (bias corrected)	4.875	
Mean (detects)	2.3400E-4			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	4.6000E-5	Mean	0.00874	
Maximum	0.01	Median	0.01	
SD	0.00333	CV	0.381	
k hat (MLE)	1.427	k star (bias corrected MLE)	1.311	
Theta hat (MLE)	0.00612	Theta star (bias corrected MLE)	0.00667	
nu hat (MLE)	88.48	nu star (bias corrected)	81.25	
Adjusted Level of Significance (β)	0.0413			
Approximate Chi Square Value (81.25, α)	61.48	Adjusted Chi Square Value (81.25, β)	60.52	
95% Gamma Approximate UCL	0.0116	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	1.5343E-4	SD (KM)	1.5574E-4	
Variance (KM)	2.4255E-8	SE of Mean (KM)	6.7970E-5	
k hat (KM)	0.971	k star (KM)	0.898	
nu hat (KM)	60.17	nu star (KM)	55.68	

theta hat (KM)	1.5808E-4	theta star (KM)	1.7083E-4
80% gamma percentile (KM)	2.4894E-4	90% gamma percentile (KM)	3.6273E-4
95% gamma percentile (KM)	4.7751E-4	99% gamma percentile (KM)	7.4616E-4
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (55.68, α)	39.53	Adjusted Chi Square Value (55.68, β)	38.78
95% KM Approximate Gamma UCL	2.1610E-4	95% KM Adjusted Gamma UCL	2.2032E-4
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.933	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.29	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.5079E-4	Mean in Log Scale	-9.269
SD in Original Scale	1.6218E-4	SD in Log Scale	0.993
95% t UCL (assumes normality of ROS data)	2.0023E-4	95% Percentile Bootstrap UCL	2.0141E-4
95% BCA Bootstrap UCL	2.1055E-4	95% Bootstrap t UCL	2.2295E-4
95% H-UCL (Log ROS)	2.3914E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.233	KM Geo Mean	9.7717E-5
KM SD (logged)	0.917	95% Critical H Value (KM-Log)	2.329
KM Standard Error of Mean (logged)	0.4	95% H-UCL (KM -Log)	2.1986E-4
KM SD (logged)	0.917	95% Critical H Value (KM-Log)	2.329
KM Standard Error of Mean (logged)	0.4		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00478	Mean in Log Scale	-6.087
SD in Original Scale	0.00443	SD in Log Scale	1.772
95% t UCL (Assumes normality)	0.00613	95% H-Stat UCL	0.0336
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	2.6879E-4		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

C (groundwater 1,1-dichloroethane 75-34-3)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,1-dichloroethane 75-34-3) was not processed!			
C (groundwater 1,1-dichloroethene 75-35-4)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	1	Number of Non-Detects	35
Number of Distinct Detects	1	Number of Distinct Non-Detects	4
Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,1-dichloroethene 75-35-4) was not processed!			
C (groundwater 1,1-dichloropropene 563-58-6)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,1-dichloropropene 563-58-6) was not processed!			
C (groundwater 1,2,3-trichlorobenzene 87-61-6)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,2,3-trichlorobenzene 87-61-6) was not processed!			
C (groundwater 1,2,3-trichloropropane 96-18-4)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,2,3-trichloropropane 96-18-4) was not processed!			
C (groundwater 1,2,4,5-tetrachlorobenzene 95-94-3)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	6
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	6
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,2,4,5-tetrachlorobenzene 95-94-3) was not processed!			
C (groundwater 1,2,4-trichlorobenzene 120-82-1)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,2,4-trichlorobenzene 120-82-1) was not processed!			

C (groundwater | 1,2,4-trimethylbenzene | 95-63-6)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,2,4-trimethylbenzene | 95-63-6) was not processed!

C (groundwater | 1,2-dibromo-3-chloropropane | 96-12-8)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,2-dibromo-3-chloropropane | 96-12-8) was not processed!

C (groundwater | 1,2-dibromoethane | 106-93-4)

General Statistics

Total Number of Observations	43	Number of Distinct Observations	9
Number of Detects	1	Number of Non-Detects	42
Number of Distinct Detects	1	Number of Distinct Non-Detects	8

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,2-dibromoethane | 106-93-4) was not processed!

C (groundwater | 1,2-dichlorobenzene | 95-50-1)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,2-dichlorobenzene | 95-50-1) was not processed!

C (groundwater | 1,2-dichloroethane | 107-06-2)

General Statistics

Total Number of Observations	43	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	43
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,2-dichloroethane | 107-06-2) was not processed!

C (groundwater | 1,2-dichloropropane | 78-87-5)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,2-dichloropropane | 78-87-5) was not processed!

C (groundwater | 1,2-diphenylhydrazine | 122-66-7)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	6
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	6

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,2-diphenylhydrazine | 122-66-7) was not processed!

C (groundwater | 1,3,5-trichlorobenzene | 108-70-3)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,3,5-trichlorobenzene | 108-70-3) was not processed!

C (groundwater | 1,3,5-trimethylbenzene | 108-67-8)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,3,5-trimethylbenzene | 108-67-8) was not processed!

C (groundwater | 1,3-dichlorobenzene | 541-73-1)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 1,3-dichlorobenzene | 541-73-1) was not processed!

C (groundwater | 1,3-dichloropropane | 142-28-9)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	3

Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,3-dichloropropane 142-28-9) was not processed!			
C (groundwater 1,3-dichloropropane (total) 542-75-6)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,3-dichloropropane (total) 542-75-6) was not processed!			
C (groundwater 1,4-dichlorobenzene 106-46-7)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 1,4-dichlorobenzene 106-46-7) was not processed!			
C (groundwater 1,4-dioxane 123-91-1)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (groundwater | 1,4-dioxane | 123-91-1) was not processed!

C (groundwater | 1-methylnaphthalene | 90-12-0)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	14
Number of Detects	5	Number of Non-Detects	15
Number of Distinct Detects	5	Number of Distinct Non-Detects	9
Minimum Detect	2.5000E-5	Minimum Non-Detect	9.2167E-5
Maximum Detect	0.002	Maximum Non-Detect	0.0056
Variance Detects	6.8810E-7	Percent Non-Detects	75%
Mean Detects	5.9550E-4	SD Detects	8.2952E-4
Median Detects	2.2500E-4	CV Detects	1.393
Skewness Detects	1.725	Kurtosis Detects	2.854
Mean of Logged Detects	-8.524	SD of Logged Detects	1.854

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.784	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.686	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.272	Lilliefors GOF Test
1% Lilliefors Critical Value	0.396	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	4.3464E-4	KM Standard Error of Mean	2.8596E-4
90KM SD	6.7669E-4	95% KM (BCA) UCL	9.9464E-4
95% KM (t) UCL	9.2911E-4	95% KM (Percentile Bootstrap) UCL	9.4722E-4
95% KM (z) UCL	9.0501E-4	95% KM Bootstrap t UCL	0.00298
90% KM Chebyshev UCL	0.00129	95% KM Chebyshev UCL	0.00168
97.5% KM Chebyshev UCL	0.00222	99% KM Chebyshev UCL	0.00328

Note: KM UCLs may be biased low with this dataset. Other substitution method recommended

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.276	Anderson-Darling GOF Test
5% A-D Critical Value	0.708	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.226	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.37	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	0.567	k star (bias corrected MLE)	0.36
Theta hat (MLE)	0.00105	Theta star (bias corrected MLE)	0.00165
nu hat (MLE)	5.675	nu star (bias corrected)	3.603
Mean (detects)	5.9550E-4		

Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	2.5000E-5	Mean	0.00765	
Maximum	0.01	Median	0.01	
SD	0.0042	CV	0.548	
k hat (MLE)	0.83	k star (bias corrected MLE)	0.739	
Theta hat (MLE)	0.00922	Theta star (bias corrected MLE)	0.0104	
nu hat (MLE)	33.2	nu star (bias corrected)	29.55	
Adjusted Level of Significance (β)	0.038			
Approximate Chi Square Value (29.55, α)	18.14	Adjusted Chi Square Value (29.55, β)	17.43	
95% Gamma Approximate UCL	0.0125	95% Gamma Adjusted UCL	0.013	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	4.3464E-4	SD (KM)	6.7669E-4	
Variance (KM)	4.5790E-7	SE of Mean (KM)	2.8596E-4	
k hat (KM)	0.413	k star (KM)	0.384	
nu hat (KM)	16.5	nu star (KM)	15.36	
theta hat (KM)	0.00105	theta star (KM)	0.00113	
80% gamma percentile (KM)	6.9793E-4	90% gamma percentile (KM)	0.00124	
95% gamma percentile (KM)	0.00183	99% gamma percentile (KM)	0.00333	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (15.36, α)	7.513	Adjusted Chi Square Value (15.36, β)	7.082	
95% KM Approximate Gamma UCL	8.8864E-4	95% KM Adjusted Gamma UCL	9.4278E-4	
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.942	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.806	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.206	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.319	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	2.7043E-4	Mean in Log Scale	-9.069	
SD in Original Scale	4.5626E-4	SD in Log Scale	1.283	
95% t UCL (assumes normality of ROS data)	4.4684E-4	95% Percentile Bootstrap UCL	4.5635E-4	
95% BCA Bootstrap UCL	5.5078E-4	95% Bootstrap t UCL	6.9185E-4	
95% H-UCL (Log ROS)	6.4711E-4			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-9.049	KM Geo Mean	1.1751E-4	

KM SD (logged)	1.634	95% Critical H Value (KM-Log)	3.656
KM Standard Error of Mean (logged)	0.695	95% H-UCL (KM -Log)	0.00176
KM SD (logged)	1.634	95% Critical H Value (KM-Log)	3.656
KM Standard Error of Mean (logged)	0.695		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00181	Mean in Log Scale	-7.004
SD in Original Scale	0.00112	SD in Log Scale	1.719
95% t UCL (Assumes normality)	0.00224	95% H-Stat UCL	0.0178
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	9.2911E-4		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater 2,2-dichloropropane 594-20-7)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 2,2-dichloropropane 594-20-7) was not processed!			
C (groundwater 2,2'-oxybis(1-chloropropane) 108-60-1)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2,2'-oxybis(1-chloropropane) | 108-60-1) was not processed!

C (groundwater | 2,4,5-trichlorophenol | 95-95-4)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2,4,5-trichlorophenol | 95-95-4) was not processed!

C (groundwater | 2,4,6-trichlorophenol | 88-06-2)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2,4,6-trichlorophenol | 88-06-2) was not processed!

C (groundwater | 2,4-dichlorophenol | 120-83-2)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2,4-dichlorophenol | 120-83-2) was not processed!

C (groundwater | 2,4-dimethylphenol | 105-67-9)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	1	Number of Non-Detects	41
Number of Distinct Detects	1	Number of Distinct Non-Detects	9

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2,4-dimethylphenol | 105-67-9) was not processed!

C (groundwater | 2,4-dinitrophenol | 51-28-5)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	12
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	12

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2,4-dinitrophenol | 51-28-5) was not processed!

C (groundwater | 2,4-dinitrotoluene | 121-14-2)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2,4-dinitrotoluene | 121-14-2) was not processed!

C (groundwater | 2,6-dinitrotoluene | 606-20-2)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42

Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 2,6-dinitrotoluene 606-20-2) was not processed!			
C (groundwater 2-butanone 78-93-3)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	6
Number of Detects	3	Number of Non-Detects	33
Number of Distinct Detects	2	Number of Distinct Non-Detects	5
Minimum Detect	0.001	Minimum Non-Detect	0.01
Maximum Detect	0.012	Maximum Non-Detect	0.05
Variance Detects	4.0333E-5	Percent Non-Detects	91.67%
Mean Detects	0.00467	SD Detects	0.00635
Median Detects	0.001	CV Detects	1.361
Skewness Detects	1.732	Kurtosis Detects	N/A
Mean of Logged Detects	-6.079	SD of Logged Detects	1.435
Warning: Data set has only 3 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.75	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.753	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.385	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Approximate Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.00152	KM Standard Error of Mean	6.2607E-4
90KM SD	0.00234	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.00258	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.00255	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.0034	95% KM Chebyshev UCL	0.00425
97.5% KM Chebyshev UCL	0.00543	99% KM Chebyshev UCL	0.00775
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.612	Anderson-Darling GOF Test	
5% A-D Critical Value	0.642	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.432	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.442	Detected data appear Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level				
Gamma Statistics on Detected Data Only				
k hat (MLE)	0.829	k star (bias corrected MLE)	N/A	
Theta hat (MLE)	0.00563	Theta star (bias corrected MLE)	N/A	
nu hat (MLE)	4.977	nu star (bias corrected)	N/A	
Mean (detects)	0.00467			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.001	Mean	0.00956	
Maximum	0.012	Median	0.01	
SD	0.00213	CV	0.223	
k hat (MLE)	6.623	k star (bias corrected MLE)	6.089	
Theta hat (MLE)	0.00144	Theta star (bias corrected MLE)	0.00157	
nu hat (MLE)	476.8	nu star (bias corrected)	438.4	
Adjusted Level of Significance (β)	0.0428			
Approximate Chi Square Value (438.43, α)	390.9	Adjusted Chi Square Value (438.43, β)	388.9	
95% Gamma Approximate UCL	0.0107	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.00152	SD (KM)	0.00234	
Variance (KM)	5.4875E-6	SE of Mean (KM)	6.2607E-4	
k hat (KM)	0.423	k star (KM)	0.406	
nu hat (KM)	30.47	nu star (KM)	29.26	
theta hat (KM)	0.0036	theta star (KM)	0.00375	
80% gamma percentile (KM)	0.00246	90% gamma percentile (KM)	0.00429	
95% gamma percentile (KM)	0.0063	99% gamma percentile (KM)	0.0113	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (29.26, α)	17.91	Adjusted Chi Square Value (29.26, β)	17.51	
95% KM Approximate Gamma UCL	0.00249	95% KM Adjusted Gamma UCL	0.00255	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.75	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.789	Detected Data Not Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.385	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Approximate Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.00179	Mean in Log Scale	-6.739	
SD in Original Scale	0.00213	SD in Log Scale	0.886	

95% t UCL (assumes normality of ROS data)	0.00239	95% Percentile Bootstrap UCL	0.00242
95% BCA Bootstrap UCL	0.00266	95% Bootstrap t UCL	0.00287
95% H-UCL (Log ROS)	0.00246		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.789	KM Geo Mean	0.00113
KM SD (logged)	0.529	95% Critical H Value (KM-Log)	1.932
KM Standard Error of Mean (logged)	0.141	95% H-UCL (KM -Log)	0.00154
KM SD (logged)	0.529	95% Critical H Value (KM-Log)	1.932
KM Standard Error of Mean (logged)	0.141		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0084	Mean in Log Scale	-4.987
SD in Original Scale	0.00585	SD in Log Scale	0.684
95% t UCL (Assumes normality)	0.01	95% H-Stat UCL	0.0109
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.00258		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
When a data set follows an approximate distribution passing only one of the GOF tests,			
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater 2-chloronaphthalene 91-58-7)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (groundwater | 2-chloronaphthalene | 91-58-7) was not processed!

C (groundwater | 2-chlorophenol | 95-57-8)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2-chlorophenol | 95-57-8) was not processed!

C (groundwater | 2-chlorotoluene | 95-49-8)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2-chlorotoluene | 95-49-8) was not processed!

C (groundwater | 2-hexanone | 591-78-6)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 2-hexanone | 591-78-6) was not processed!

C (groundwater | 2-methylnaphthalene | 91-57-6)

General Statistics

Total Number of Observations	43	Number of Distinct Observations	20
Number of Detects	5	Number of Non-Detects	38
Number of Distinct Detects	5	Number of Distinct Non-Detects	15
Minimum Detect	1.1200E-4	Minimum Non-Detect	1.3842E-4
Maximum Detect	0.004	Maximum Non-Detect	0.0056
Variance Detects	2.8276E-6	Percent Non-Detects	88.37%
Mean Detects	0.00101	SD Detects	0.00168
Median Detects	2.0000E-4	CV Detects	1.661
Skewness Detects	2.164	Kurtosis Detects	4.718
Mean of Logged Detects	-7.872	SD of Logged Detects	1.459
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.641	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.397	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	2.7421E-4	KM Standard Error of Mean	1.3844E-4
90KM SD	6.8642E-4	95% KM (BCA) UCL	6.1083E-4
95% KM (t) UCL	5.0707E-4	95% KM (Percentile Bootstrap) UCL	5.2225E-4
95% KM (z) UCL	5.0193E-4	95% KM Bootstrap t UCL	0.00152
90% KM Chebyshev UCL	6.8954E-4	95% KM Chebyshev UCL	8.7767E-4
97.5% KM Chebyshev UCL	0.00114	99% KM Chebyshev UCL	0.00165
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.633	Anderson-Darling GOF Test	
5% A-D Critical Value	0.704	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.313	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.369	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.629	k star (bias corrected MLE)	0.385
Theta hat (MLE)	0.00161	Theta star (bias corrected MLE)	0.00263
nu hat (MLE)	6.285	nu star (bias corrected)	3.847
Mean (detects)	0.00101		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	1.1200E-4	Mean	0.00895

Maximum	0.01	Median	0.01
SD	0.00296	CV	0.331
k hat (MLE)	2.006	k star (bias corrected MLE)	1.882
Theta hat (MLE)	0.00446	Theta star (bias corrected MLE)	0.00476
nu hat (MLE)	172.5	nu star (bias corrected)	161.8
Adjusted Level of Significance (β)	0.0444		
Approximate Chi Square Value (161.83, α)	133.4	Adjusted Chi Square Value (161.83, β)	132.5
95% Gamma Approximate UCL	0.0109	95% Gamma Adjusted UCL	0.0109
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	2.7421E-4	SD (KM)	6.8642E-4
Variance (KM)	4.7117E-7	SE of Mean (KM)	1.3844E-4
k hat (KM)	0.16	k star (KM)	0.164
nu hat (KM)	13.72	nu star (KM)	14.1
theta hat (KM)	0.00172	theta star (KM)	0.00167
80% gamma percentile (KM)	3.1962E-4	90% gamma percentile (KM)	8.2153E-4
95% gamma percentile (KM)	0.00148	99% gamma percentile (KM)	0.00336
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (14.10, α)	6.64	Adjusted Chi Square Value (14.10, β)	6.462
95% KM Approximate Gamma UCL	5.8230E-4	95% KM Adjusted Gamma UCL	5.9836E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.863	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.806	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.271	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.319	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	2.3540E-4	Mean in Log Scale	-9.039
SD in Original Scale	6.0032E-4	SD in Log Scale	0.946
95% t UCL (assumes normality of ROS data)	3.8938E-4	95% Percentile Bootstrap UCL	4.0930E-4
95% BCA Bootstrap UCL	5.3473E-4	95% Bootstrap t UCL	9.1847E-4
95% H-UCL (Log ROS)	2.5994E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-8.786	KM Geo Mean	1.5286E-4
KM SD (logged)	0.692	95% Critical H Value (KM-Log)	2.056
KM Standard Error of Mean (logged)	0.161	95% H-UCL (KM -Log)	2.4183E-4
KM SD (logged)	0.692	95% Critical H Value (KM-Log)	2.056
KM Standard Error of Mean (logged)	0.161		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	

Mean in Original Scale	0.00103	Mean in Log Scale	-7.612
SD in Original Scale	0.00114	SD in Log Scale	1.26
95% t UCL (Assumes normality)	0.00132	95% H-Stat UCL	0.00184
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM Adjusted Gamma UCL	5.9836E-4		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater 2-methylphenol 95-48-7)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	13
Number of Detects	5	Number of Non-Detects	37
Number of Distinct Detects	5	Number of Distinct Non-Detects	9
Minimum Detect	6.0000E-4	Minimum Non-Detect	0.002
Maximum Detect	0.006	Maximum Non-Detect	0.011
Variance Detects	5.3780E-6	Percent Non-Detects	88.1%
Mean Detects	0.00186	SD Detects	0.00232
Median Detects	9.0000E-4	CV Detects	1.247
Skewness Detects	2.213	Kurtosis Detects	4.92
Mean of Logged Detects	-6.717	SD of Logged Detects	0.915
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.615	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.445	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.001	KM Standard Error of Mean	2.1167E-4
90KM SD	9.5538E-4	95% KM (BCA) UCL	0.0014
95% KM (t) UCL	0.00136	95% KM (Percentile Bootstrap) UCL	0.00139
95% KM (z) UCL	0.00135	95% KM Bootstrap t UCL	0.00186
90% KM Chebyshev UCL	0.00164	95% KM Chebyshev UCL	0.00193
97.5% KM Chebyshev UCL	0.00233	99% KM Chebyshev UCL	0.00311

Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.918	Anderson-Darling GOF Test	
5% A-D Critical Value	0.688	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.431	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.363	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.304	k star (bias corrected MLE)	0.655
Theta hat (MLE)	0.00143	Theta star (bias corrected MLE)	0.00284
nu hat (MLE)	13.04	nu star (bias corrected)	6.549
Mean (detects)	0.00186		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	6.0000E-4	Mean	0.00903
Maximum	0.01	Median	0.01
SD	0.00276	CV	0.306
k hat (MLE)	3.502	k star (bias corrected MLE)	3.268
Theta hat (MLE)	0.00258	Theta star (bias corrected MLE)	0.00276
nu hat (MLE)	294.2	nu star (bias corrected)	274.5
Adjusted Level of Significance (β)	0.0443		
Approximate Chi Square Value (274.50, α)	237.1	Adjusted Chi Square Value (274.50, β)	235.9
95% Gamma Approximate UCL	0.0105	95% Gamma Adjusted UCL	0.0105
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.001	SD (KM)	9.5538E-4
Variance (KM)	9.1275E-7	SE of Mean (KM)	2.1167E-4
k hat (KM)	1.103	k star (KM)	1.04
nu hat (KM)	92.67	nu star (KM)	87.38
theta hat (KM)	9.0961E-4	theta star (KM)	9.6463E-4
80% gamma percentile (KM)	0.00161	90% gamma percentile (KM)	0.00229
95% gamma percentile (KM)	0.00296	99% gamma percentile (KM)	0.00453
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (87.38, α)	66.83	Adjusted Chi Square Value (87.38, β)	66.19
95% KM Approximate Gamma UCL	0.00131	95% KM Adjusted Gamma UCL	0.00132
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.749	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.806	Detected Data Not Lognormal at 10% Significance Level	

Lilliefors Test Statistic		0.382	Lilliefors GOF Test	
10% Lilliefors Critical Value		0.319	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale		0.00111	Mean in Log Scale	-6.999
SD in Original Scale		9.3028E-4	SD in Log Scale	0.593
95% t UCL (assumes normality of ROS data)		0.00135	95% Percentile Bootstrap UCL	0.00136
95% BCA Bootstrap UCL		0.00148	95% Bootstrap t UCL	0.00155
95% H-UCL (Log ROS)		0.00131		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)		-7.049	KM Geo Mean	8.6865E-4
KM SD (logged)		0.411	95% Critical H Value (KM-Log)	1.838
KM Standard Error of Mean (logged)		0.128	95% H-UCL (KM -Log)	0.00106
KM SD (logged)		0.411	95% Critical H Value (KM-Log)	1.838
KM Standard Error of Mean (logged)		0.128		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
DL/2 Statistics				
DL/2 Normal			DL/2 Log-Transformed	
Mean in Original Scale		0.00243	Mean in Log Scale	-6.341
SD in Original Scale		0.00197	SD in Log Scale	0.795
95% t UCL (Assumes normality)		0.00294	95% H-Stat UCL	0.00316
DL/2 is not a recommended method, provided for comparisons and historical reasons				
Nonparametric Distribution Free UCL Statistics				
Data do not follow a Discernible Distribution				
Suggested UCL to Use				
95% KM (t) UCL		0.00136		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.				
Please verify the data were collected from random locations.				
If the data were collected using judgmental or other non-random methods,				
then contact a statistician to correctly calculate UCLs.				
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.				
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.				
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.				
C (groundwater 2-nitroaniline 88-74-4)				
General Statistics				
Total Number of Observations		42	Number of Distinct Observations	11
Number of Detects		0	Number of Non-Detects	42
Number of Distinct Detects		0	Number of Distinct Non-Detects	11

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 2-nitroaniline 88-74-4) was not processed!			
C (groundwater 2-nitrophenol 88-75-5)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 2-nitrophenol 88-75-5) was not processed!			
C (groundwater 3&4-methylphenol 65794-96-9)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	6
Number of Detects	1	Number of Non-Detects	12
Number of Distinct Detects	1	Number of Distinct Non-Detects	5
Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!			
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 3&4-methylphenol 65794-96-9) was not processed!			
C (groundwater 3,3'-dichlorobenzidine 91-94-1)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 3,3'-dichlorobenzidine 91-94-1) was not processed!			

C (groundwater 3-nitroaniline 99-09-2)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	11
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	11
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 3-nitroaniline 99-09-2) was not processed!			
C (groundwater 4,6-dinitro-2-methylphenol 534-52-1)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	12
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	12
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 4,6-dinitro-2-methylphenol 534-52-1) was not processed!			
C (groundwater 4-bromophenyl-phenyl ether 101-55-3)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 4-bromophenyl-phenyl ether 101-55-3) was not processed!			
C (groundwater 4-chloro-3-methylphenol 59-50-7)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 4-chloro-3-methylphenol | 59-50-7) was not processed!

C (groundwater | 4-chloroaniline | 106-47-8)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 4-chloroaniline | 106-47-8) was not processed!

C (groundwater | 4-chlorophenyl-phenyl ether | 7005-72-3)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 4-chlorophenyl-phenyl ether | 7005-72-3) was not processed!

C (groundwater | 4-chlorotoluene | 106-43-4)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 4-chlorotoluene | 106-43-4) was not processed!

C (groundwater | 4-methyl-2-pentanone | 108-10-1)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 4-methyl-2-pentanone | 108-10-1) was not processed!

C (groundwater | 4-methylphenol | 106-44-5)

General Statistics

Total Number of Observations	30	Number of Distinct Observations	4
Number of Detects	1	Number of Non-Detects	29
Number of Distinct Detects	1	Number of Distinct Non-Detects	3

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 4-methylphenol | 106-44-5) was not processed!

C (groundwater | 4-nitroaniline | 100-01-6)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	10

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | 4-nitroaniline | 100-01-6) was not processed!

C (groundwater | 4-nitrophenol | 100-02-7)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	12
Number of Detects	0	Number of Non-Detects	42

Number of Distinct Detects	0	Number of Distinct Non-Detects	12
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater 4-nitrophenol 100-02-7) was not processed!			
C (groundwater acenaphthene 83-32-9)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	21
Number of Detects	10	Number of Non-Detects	33
Number of Distinct Detects	10	Number of Distinct Non-Detects	12
Minimum Detect	2.6333E-5	Minimum Non-Detect	9.2167E-5
Maximum Detect	0.002	Maximum Non-Detect	0.0056
Variance Detects	4.2352E-7	Percent Non-Detects	76.74%
Mean Detects	7.8725E-4	SD Detects	6.5078E-4
Median Detects	6.5000E-4	CV Detects	0.827
Skewness Detects	0.925	Kurtosis Detects	0.15
Mean of Logged Detects	-7.672	SD of Logged Detects	1.359
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.899	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.781	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.204	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.304	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	3.4127E-4	KM Standard Error of Mean	1.0534E-4
90KM SD	4.9054E-4	95% KM (BCA) UCL	5.3426E-4
95% KM (t) UCL	5.1844E-4	95% KM (Percentile Bootstrap) UCL	5.2677E-4
95% KM (z) UCL	5.1454E-4	95% KM Bootstrap t UCL	5.8010E-4
90% KM Chebyshev UCL	6.5729E-4	95% KM Chebyshev UCL	8.0044E-4
97.5% KM Chebyshev UCL	9.9912E-4	99% KM Chebyshev UCL	0.00139
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.369	Anderson-Darling GOF Test	
5% A-D Critical Value	0.747	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.187	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.273	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.089	k star (bias corrected MLE)	0.829

Theta hat (MLE)	7.2304E-4	Theta star (bias corrected MLE)	9.4983E-4
nu hat (MLE)	21.78	nu star (bias corrected)	16.58
Mean (detects)	7.8725E-4		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	2.6333E-5	Mean	0.00786
Maximum	0.01	Median	0.01
SD	0.00395	CV	0.503
k hat (MLE)	1.198	k star (bias corrected MLE)	1.13
Theta hat (MLE)	0.00656	Theta star (bias corrected MLE)	0.00695
nu hat (MLE)	103.1	nu star (bias corrected)	97.2
Adjusted Level of Significance (β)	0.0444		
Approximate Chi Square Value (97.20, α)	75.46	Adjusted Chi Square Value (97.20, β)	74.79
95% Gamma Approximate UCL	0.0101	95% Gamma Adjusted UCL	0.0102
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	3.4127E-4	SD (KM)	4.9054E-4
Variance (KM)	2.4063E-7	SE of Mean (KM)	1.0534E-4
k hat (KM)	0.484	k star (KM)	0.466
nu hat (KM)	41.62	nu star (KM)	40.05
theta hat (KM)	7.0512E-4	theta star (KM)	7.3277E-4
80% gamma percentile (KM)	5.5834E-4	90% gamma percentile (KM)	9.3672E-4
95% gamma percentile (KM)	0.00134	99% gamma percentile (KM)	0.00235
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (40.05, α)	26.55	Adjusted Chi Square Value (40.05, β)	26.17
95% KM Approximate Gamma UCL	5.1478E-4	95% KM Adjusted Gamma UCL	5.2231E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.857	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.869	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.259	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.241	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	2.7680E-4	Mean in Log Scale	-8.961
SD in Original Scale	4.2336E-4	SD in Log Scale	1.241
95% t UCL (assumes normality of ROS data)	3.8539E-4	95% Percentile Bootstrap UCL	3.8821E-4
95% BCA Bootstrap UCL	4.1771E-4	95% Bootstrap t UCL	4.5628E-4
95% H-UCL (Log ROS)	4.6043E-4		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-8.964	KM Geo Mean	1.2790E-4
KM SD (logged)	1.429	95% Critical H Value (KM-Log)	2.879
KM Standard Error of Mean (logged)	0.453	95% H-UCL (KM -Log)	6.6929E-4
KM SD (logged)	1.429	95% Critical H Value (KM-Log)	2.879
KM Standard Error of Mean (logged)	0.453		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00101	Mean in Log Scale	-7.533
SD in Original Scale	0.00101	SD in Log Scale	1.26
95% t UCL (Assumes normality)	0.00127	95% H-Stat UCL	0.00199
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	5.1844E-4		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater acenaphthylene 208-96-8)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	3	Number of Non-Detects	40
Number of Distinct Detects	3	Number of Distinct Non-Detects	15
Minimum Detect	6.8667E-5	Minimum Non-Detect	8.9350E-5
Maximum Detect	7.9000E-4	Maximum Non-Detect	0.0056
Variance Detects	1.7154E-7	Percent Non-Detects	93.02%
Mean Detects	3.1178E-4	SD Detects	4.1417E-4
Median Detects	7.6667E-5	CV Detects	1.328
Skewness Detects	1.731	Kurtosis Detects	N/A
Mean of Logged Detects	-8.735	SD of Logged Detects	1.38
Warning: Data set has only 3 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.758	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.382	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level	

Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	9.8286E-5	KM Standard Error of Mean	3.0992E-5
90KM SD	1.3318E-4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1.5041E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1.4926E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	1.9126E-4	95% KM Chebyshev UCL	2.3338E-4
97.5% KM Chebyshev UCL	2.9183E-4	99% KM Chebyshev UCL	4.0665E-4
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.576	Anderson-Darling GOF Test	
5% A-D Critical Value	0.642	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.421	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.442	Detected data appear Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.885	k star (bias corrected MLE)	N/A
Theta hat (MLE)	3.5233E-4	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	5.309	nu star (bias corrected)	N/A
Mean (detects)	3.1178E-4		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	6.8667E-5	Mean	0.00932
Maximum	0.01	Median	0.01
SD	0.0025	CV	0.268
k hat (MLE)	2.446	k star (bias corrected MLE)	2.291
Theta hat (MLE)	0.00381	Theta star (bias corrected MLE)	0.00407
nu hat (MLE)	210.3	nu star (bias corrected)	197
Adjusted Level of Significance (β)	0.0444		
Approximate Chi Square Value (196.99, α)	165.5	Adjusted Chi Square Value (196.99, β)	164.5
95% Gamma Approximate UCL	0.0111	95% Gamma Adjusted UCL	N/A
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	9.8286E-5	SD (KM)	1.3318E-4
Variance (KM)	1.7736E-8	SE of Mean (KM)	3.0992E-5
k hat (KM)	0.545	k star (KM)	0.522
nu hat (KM)	46.84	nu star (KM)	44.9
theta hat (KM)	1.8046E-4	theta star (KM)	1.8823E-4
80% gamma percentile (KM)	1.6169E-4	90% gamma percentile (KM)	2.6351E-4
95% gamma percentile (KM)	3.7176E-4	99% gamma percentile (KM)	6.3690E-4

Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (44.90, α)	30.53	Adjusted Chi Square Value (44.90, β)	30.12
95% KM Approximate Gamma UCL	1.4455E-4	95% KM Adjusted Gamma UCL	1.4652E-4
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.784	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.789	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.371	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Approximate Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.1134E-4	Mean in Log Scale	-9.402
SD in Original Scale	1.2403E-4	SD in Log Scale	0.727
95% t UCL (assumes normality of ROS data)	1.4315E-4	95% Percentile Bootstrap UCL	1.4532E-4
95% BCA Bootstrap UCL	1.6116E-4	95% Bootstrap t UCL	1.7477E-4
95% H-UCL (Log ROS)	1.3586E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.446	KM Geo Mean	7.9015E-5
KM SD (logged)	0.446	95% Critical H Value (KM-Log)	1.864
KM Standard Error of Mean (logged)	0.112	95% H-UCL (KM -Log)	9.9249E-5
KM SD (logged)	0.446	95% Critical H Value (KM-Log)	1.864
KM Standard Error of Mean (logged)	0.112		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.3969E-4	Mean in Log Scale	-7.73
SD in Original Scale	0.00105	SD in Log Scale	1.317
95% t UCL (Assumes normality)	0.00121	95% H-Stat UCL	0.00182
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	1.5041E-4		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (groundwater | acetone | 67-64-1)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	13
Number of Detects	12	Number of Non-Detects	24
Number of Distinct Detects	9	Number of Distinct Non-Detects	4
Minimum Detect	0.001	Minimum Non-Detect	0.02
Maximum Detect	0.028	Maximum Non-Detect	0.1
Variance Detects	5.4745E-5	Percent Non-Detects	66.67%
Mean Detects	0.00552	SD Detects	0.0074
Median Detects	0.0032	CV Detects	1.341
Skewness Detects	2.979	Kurtosis Detects	9.47
Mean of Logged Detects	-5.669	SD of Logged Detects	0.922

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.582	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.805	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.331	Lilliefors GOF Test
1% Lilliefors Critical Value	0.281	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.00449	KM Standard Error of Mean	0.00123
90KM SD	0.00533	95% KM (BCA) UCL	0.00669
95% KM (t) UCL	0.00657	95% KM (Percentile Bootstrap) UCL	0.00661
95% KM (z) UCL	0.00652	95% KM Bootstrap t UCL	0.00892
90% KM Chebyshev UCL	0.00818	95% KM Chebyshev UCL	0.00985
97.5% KM Chebyshev UCL	0.0122	99% KM Chebyshev UCL	0.0167

Note: KM UCLs may be biased low with this dataset. Other substitution method recommended

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.745	Anderson-Darling GOF Test
5% A-D Critical Value	0.752	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.259	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.251	Detected Data Not Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.206	k star (bias corrected MLE)	0.96
Theta hat (MLE)	0.00457	Theta star (bias corrected MLE)	0.00575
nu hat (MLE)	28.95	nu star (bias corrected)	23.04
Mean (detects)	0.00552		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.001	Mean	0.00867	
Maximum	0.028	Median	0.01	
SD	0.00478	CV	0.551	
k hat (MLE)	2.685	k star (bias corrected MLE)	2.48	
Theta hat (MLE)	0.00323	Theta star (bias corrected MLE)	0.0035	
nu hat (MLE)	193.3	nu star (bias corrected)	178.6	
Adjusted Level of Significance (β)	0.0428			
Approximate Chi Square Value (178.55, α)	148.6	Adjusted Chi Square Value (178.55, β)	147.4	
95% Gamma Approximate UCL	0.0104	95% Gamma Adjusted UCL	0.0105	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.00449	SD (KM)	0.00533	
Variance (KM)	2.8442E-5	SE of Mean (KM)	0.00123	
k hat (KM)	0.71	k star (KM)	0.67	
nu hat (KM)	51.14	nu star (KM)	48.21	
theta hat (KM)	0.00633	theta star (KM)	0.00671	
80% gamma percentile (KM)	0.0074	90% gamma percentile (KM)	0.0114	
95% gamma percentile (KM)	0.0155	99% gamma percentile (KM)	0.0255	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (48.21, α)	33.27	Adjusted Chi Square Value (48.21, β)	32.71	
95% KM Approximate Gamma UCL	0.00651	95% KM Adjusted Gamma UCL	0.00662	
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.934	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.883	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.187	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.223	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.00436	Mean in Log Scale	-5.755	
SD in Original Scale	0.00472	SD in Log Scale	0.765	
95% t UCL (assumes normality of ROS data)	0.00569	95% Percentile Bootstrap UCL	0.00576	
95% BCA Bootstrap UCL	0.00639	95% Bootstrap t UCL	0.00684	
95% H-UCL (Log ROS)	0.00559			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-5.764	KM Geo Mean	0.00314	
KM SD (logged)	0.779	95% Critical H Value (KM-Log)	2.15	
KM Standard Error of Mean (logged)	0.218	95% H-UCL (KM -Log)	0.00565	
KM SD (logged)	0.779	95% Critical H Value (KM-Log)	2.15	
KM Standard Error of Mean (logged)	0.218			
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				

DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0157	Mean in Log Scale	-4.588
SD in Original Scale	0.0136	SD in Log Scale	1.047
95% t UCL (Assumes normality)	0.0195	95% H-Stat UCL	0.0271
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM Adjusted Gamma UCL	0.00662		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
When a data set follows an approximate distribution passing only one of the GOF tests,			
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater acetophenone 98-86-2)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater acetophenone 98-86-2) was not processed!			
C (groundwater acrylonitrile 107-13-1)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater acrylonitrile 107-13-1) was not processed!			
C (groundwater aluminum 7429-90-5)			
General Statistics			
Total Number of Observations	12	Number of Distinct Observations	11
Number of Detects	10	Number of Non-Detects	2
Number of Distinct Detects	10	Number of Distinct Non-Detects	1
Minimum Detect	0.072	Minimum Non-Detect	0.05
Maximum Detect	9.534	Maximum Non-Detect	0.05
Variance Detects	8.68	Percent Non-Detects	16.67%
Mean Detects	1.329	SD Detects	2.946
Median Detects	0.23	CV Detects	2.217
Skewness Detects	2.938	Kurtosis Detects	8.827
Mean of Logged Detects	-1.124	SD of Logged Detects	1.549
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.492	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.781	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.413	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.304	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	1.116	KM Standard Error of Mean	0.79
90KM SD	2.596	95% KM (BCA) UCL	2.633
95% KM (t) UCL	2.534	95% KM (Percentile Bootstrap) UCL	2.556
95% KM (z) UCL	2.415	95% KM Bootstrap t UCL	20.81
90% KM Chebyshev UCL	3.485	95% KM Chebyshev UCL	4.558
97.5% KM Chebyshev UCL	6.048	99% KM Chebyshev UCL	8.974
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	1.24	Anderson-Darling GOF Test	
5% A-D Critical Value	0.785	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.329	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.282	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.457	k star (bias corrected MLE)	0.387
Theta hat (MLE)	2.905	Theta star (bias corrected MLE)	3.435
nu hat (MLE)	9.148	nu star (bias corrected)	7.737
Mean (detects)	1.329		

Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.01	Mean	1.109	
Maximum	9.534	Median	0.17	
SD	2.714	CV	2.447	
k hat (MLE)	0.369	k star (bias corrected MLE)	0.332	
Theta hat (MLE)	3.007	Theta star (bias corrected MLE)	3.338	
nu hat (MLE)	8.852	nu star (bias corrected)	7.973	
Adjusted Level of Significance (β)	0.029			
Approximate Chi Square Value (7.97, α)	2.719	Adjusted Chi Square Value (7.97, β)	2.274	
95% Gamma Approximate UCL	3.252	95% Gamma Adjusted UCL	3.889	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	1.116	SD (KM)	2.596	
Variance (KM)	6.737	SE of Mean (KM)	0.79	
k hat (KM)	0.185	k star (KM)	0.194	
nu hat (KM)	4.434	nu star (KM)	4.659	
theta hat (KM)	6.039	theta star (KM)	5.747	
80% gamma percentile (KM)	1.447	90% gamma percentile (KM)	3.373	
95% gamma percentile (KM)	5.793	99% gamma percentile (KM)	12.49	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (4.66, α)	0.998	Adjusted Chi Square Value (4.66, β)	0.769	
95% KM Approximate Gamma UCL	5.208	95% KM Adjusted Gamma UCL	6.763	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.862	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.869	Detected Data Not Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.201	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.241	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Approximate Lognormal at 10% Significance Level				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	1.109	Mean in Log Scale	-1.729	
SD in Original Scale	2.714	SD in Log Scale	1.997	
95% t UCL (assumes normality of ROS data)	2.516	95% Percentile Bootstrap UCL	2.559	
95% BCA Bootstrap UCL	3.441	95% Bootstrap t UCL	19.72	
95% H-UCL (Log ROS)	25.76			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-1.436	KM Geo Mean	0.238	
KM SD (logged)	1.512	95% Critical H Value (KM-Log)	3.922	
KM Standard Error of Mean (logged)	0.46	95% H-UCL (KM -Log)	4.464	
KM SD (logged)	1.512	95% Critical H Value (KM-Log)	3.922	

KM Standard Error of Mean (logged)		0.46	
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.112	Mean in Log Scale	-1.551
SD in Original Scale	2.713	SD in Log Scale	1.721
95% t UCL (Assumes normality)	2.518	95% H-Stat UCL	8.945
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Lognormal Distributed at 10% Significance Level			
Suggested UCL to Use			
KM (t) UCL	2.534		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater aniline 62-53-3)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	7
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	7
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater aniline 62-53-3) was not processed!			
C (groundwater anthracene 120-12-7)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	5	Number of Non-Detects	38
Number of Distinct Detects	5	Number of Distinct Non-Detects	13
Minimum Detect	3.4250E-5	Minimum Non-Detect	8.9350E-5
Maximum Detect	1.6240E-4	Maximum Non-Detect	0.0056
Variance Detects	2.7907E-9	Percent Non-Detects	88.37%
Mean Detects	7.4230E-5	SD Detects	5.2827E-5

Median Detects	4.8000E-5	CV Detects	N/A
Skewness Detects	1.618	Kurtosis Detects	2.35
Mean of Logged Detects	-9.68	SD of Logged Detects	0.628
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.812	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.29	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	6.7932E-5	KM Standard Error of Mean	1.8670E-5
90KM SD	4.2392E-5	95% KM (BCA) UCL	1.0245E-4
95% KM (t) UCL	9.9333E-5	95% KM (Percentile Bootstrap) UCL	1.0284E-4
95% KM (z) UCL	9.8641E-5	95% KM Bootstrap t UCL	2.2840E-4
90% KM Chebyshev UCL	1.2394E-4	95% KM Chebyshev UCL	1.4931E-4
97.5% KM Chebyshev UCL	1.8452E-4	99% KM Chebyshev UCL	2.5369E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.418	Anderson-Darling GOF Test	
5% A-D Critical Value	0.683	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.296	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.359	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	3.062	k star (bias corrected MLE)	1.358
Theta hat (MLE)	2.4246E-5	Theta star (bias corrected MLE)	5.4663E-5
nu hat (MLE)	30.62	nu star (bias corrected)	13.58
Mean (detects)	7.4230E-5		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	3.4250E-5	Mean	0.00885
Maximum	0.01	Median	0.01
SD	0.00322	CV	0.364
k hat (MLE)	1.209	k star (bias corrected MLE)	1.14
Theta hat (MLE)	0.00732	Theta star (bias corrected MLE)	0.00776
nu hat (MLE)	104	nu star (bias corrected)	98.05
Adjusted Level of Significance (β)	0.0444		

Approximate Chi Square Value (98.05, α)	76.21	Adjusted Chi Square Value (98.05, β)	75.54
95% Gamma Approximate UCL	0.0114	95% Gamma Adjusted UCL	0.0115
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	6.7932E-5	SD (KM)	4.2392E-5
Variance (KM)	1.7970E-9	SE of Mean (KM)	1.8670E-5
k hat (KM)	2.568	k star (KM)	2.404
nu hat (KM)	220.8	nu star (KM)	206.8
theta hat (KM)	2.6453E-5	theta star (KM)	2.8254E-5
80% gamma percentile (KM)	9.9500E-5	90% gamma percentile (KM)	1.2660E-4
95% gamma percentile (KM)	1.5219E-4	99% gamma percentile (KM)	2.0834E-4
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (206.77, α)	174.5	Adjusted Chi Square Value (206.77, β)	173.5
95% KM Approximate Gamma UCL	8.0497E-5	95% KM Adjusted Gamma UCL	8.0973E-5
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.91	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.806	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.263	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.319	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	6.4908E-5	Mean in Log Scale	-9.761
SD in Original Scale	3.4708E-5	SD in Log Scale	0.485
95% t UCL (assumes normality of ROS data)	7.3811E-5	95% Percentile Bootstrap UCL	7.3892E-5
95% BCA Bootstrap UCL	7.5191E-5	95% Bootstrap t UCL	7.5874E-5
95% H-UCL (Log ROS)	7.4720E-5		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.749	KM Geo Mean	5.8372E-5
KM SD (logged)	0.518	95% Critical H Value (KM-Log)	1.914
KM Standard Error of Mean (logged)	0.237	95% H-UCL (KM -Log)	7.7808E-5
KM SD (logged)	0.518	95% Critical H Value (KM-Log)	1.914
KM Standard Error of Mean (logged)	0.237		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.2428E-4	Mean in Log Scale	-7.785
SD in Original Scale	0.00106	SD in Log Scale	1.353
95% t UCL (Assumes normality)	0.0012	95% H-Stat UCL	0.00186
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			

Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	9.9333E-5		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater antimony 7440-36-0)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	6
Number of Detects	2	Number of Non-Detects	39
Number of Distinct Detects	2	Number of Distinct Non-Detects	4
Minimum Detect	4.1000E-4	Minimum Non-Detect	0.001
Maximum Detect	5.5000E-4	Maximum Non-Detect	0.05
Variance Detects	9.8000E-9	Percent Non-Detects	95.12%
Mean Detects	4.8000E-4	SD Detects	9.8995E-5
Median Detects	4.8000E-4	CV Detects	0.206
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-7.652	SD of Logged Detects	0.208
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	4.8000E-4	KM Standard Error of Mean	7.0000E-5
90KM SD	7.0000E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	5.9787E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	5.9514E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	6.9000E-4	95% KM Chebyshev UCL	7.8512E-4
97.5% KM Chebyshev UCL	9.1715E-4	99% KM Chebyshev UCL	0.00118
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	46.68	k star (bias corrected MLE)	N/A
Theta hat (MLE)	1.0282E-5	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	186.7	nu star (bias corrected)	N/A
Mean (detects)	4.8000E-4		
Estimates of Gamma Parameters using KM Estimates			

Mean (KM)	4.8000E-4	SD (KM)	7.0000E-5
Variance (KM)	4.9000E-9	SE of Mean (KM)	7.0000E-5
k hat (KM)	47.02	k star (KM)	43.6
nu hat (KM)	3856	nu star (KM)	3575
theta hat (KM)	1.0208E-5	theta star (KM)	1.1010E-5
80% gamma percentile (KM)	5.3987E-4	90% gamma percentile (KM)	5.7520E-4
95% gamma percentile (KM)	6.0550E-4	99% gamma percentile (KM)	6.6511E-4
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0441
Approximate Chi Square Value (N/A, α)	3437	Adjusted Chi Square Value (N/A, β)	3432
95% KM Approximate Gamma UCL	4.9926E-4	95% KM Adjusted Gamma UCL	4.9998E-4
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	4.9432E-4	Mean in Log Scale	-7.652
SD in Original Scale	1.4338E-4	SD in Log Scale	0.287
95% t UCL (assumes normality of ROS data)	5.3203E-4	95% Percentile Bootstrap UCL	5.3213E-4
95% BCA Bootstrap UCL	5.3260E-4	95% Bootstrap t UCL	5.3451E-4
95% H-UCL (Log ROS)	5.3623E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.652	KM Geo Mean	4.7487E-4
KM SD (logged)	0.147	95% Critical H Value (KM-Log)	1.706
KM Standard Error of Mean (logged)	0.147	95% H-UCL (KM -Log)	4.9942E-4
KM SD (logged)	0.147	95% Critical H Value (KM-Log)	1.706
KM Standard Error of Mean (logged)	0.147		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0181	Mean in Log Scale	-4.74
SD in Original Scale	0.011	SD in Log Scale	1.727
95% t UCL (Assumes normality)	0.021	95% H-Stat UCL	0.0946
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	5.9787E-4		
Warning: Recommended UCL exceeds the maximum observation			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

C (groundwater | arsenic | 7440-38-2)

General Statistics

Total Number of Observations	41	Number of Distinct Observations	13
Number of Detects	11	Number of Non-Detects	30
Number of Distinct Detects	11	Number of Distinct Non-Detects	2
Minimum Detect	7.1000E-4	Minimum Non-Detect	8.0000E-4
Maximum Detect	0.0115	Maximum Non-Detect	0.03
Variance Detects	1.1052E-5	Percent Non-Detects	73.17%
Mean Detects	0.00417	SD Detects	0.00332
Median Detects	0.00425	CV Detects	0.798
Skewness Detects	1.008	Kurtosis Detects	0.942
Mean of Logged Detects	-5.832	SD of Logged Detects	0.946

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.9	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.792	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.149	Lilliefors GOF Test
1% Lilliefors Critical Value	0.291	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.00388	KM Standard Error of Mean	9.6331E-4
90KM SD	0.00318	95% KM (BCA) UCL	0.00556
95% KM (t) UCL	0.0055	95% KM (Percentile Bootstrap) UCL	0.00549
95% KM (z) UCL	0.00546	95% KM Bootstrap t UCL	0.00615
90% KM Chebyshev UCL	0.00677	95% KM Chebyshev UCL	0.00808
97.5% KM Chebyshev UCL	0.0099	99% KM Chebyshev UCL	0.0135

Note: KM UCLs may be biased low with this dataset. Other substitution method recommended

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.328	Anderson-Darling GOF Test
5% A-D Critical Value	0.742	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.161	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.26	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.566	k star (bias corrected MLE)	1.2
Theta hat (MLE)	0.00266	Theta star (bias corrected MLE)	0.00347
nu hat (MLE)	34.46	nu star (bias corrected)	26.39
Mean (detects)	0.00417		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	7.1000E-4	Mean	0.00856	
Maximum	0.0139	Median	0.01	
SD	0.00323	CV	0.377	
k hat (MLE)	3.226	k star (bias corrected MLE)	3.006	
Theta hat (MLE)	0.00265	Theta star (bias corrected MLE)	0.00285	
nu hat (MLE)	264.5	nu star (bias corrected)	246.5	
Adjusted Level of Significance (β)	0.0441			
Approximate Chi Square Value (246.50, α)	211.1	Adjusted Chi Square Value (246.50, β)	210	
95% Gamma Approximate UCL	0.00999	95% Gamma Adjusted UCL	0.0101	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.00388	SD (KM)	0.00318	
Variance (KM)	1.0123E-5	SE of Mean (KM)	9.6331E-4	
k hat (KM)	1.487	k star (KM)	1.395	
nu hat (KM)	121.9	nu star (KM)	114.4	
theta hat (KM)	0.00261	theta star (KM)	0.00278	
80% gamma percentile (KM)	0.00605	90% gamma percentile (KM)	0.00823	
95% gamma percentile (KM)	0.0104	99% gamma percentile (KM)	0.0152	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (114.35, α)	90.67	Adjusted Chi Square Value (114.35, β)	89.9	
95% KM Approximate Gamma UCL	0.00489	95% KM Adjusted Gamma UCL	0.00494	
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.924	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.876	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.198	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.231	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.00409	Mean in Log Scale	-5.963	
SD in Original Scale	0.00416	SD in Log Scale	1.013	
95% t UCL (assumes normality of ROS data)	0.00519	95% Percentile Bootstrap UCL	0.00523	
95% BCA Bootstrap UCL	0.00537	95% Bootstrap t UCL	0.00553	
95% H-UCL (Log ROS)	0.00627			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-5.95	KM Geo Mean	0.0026	
KM SD (logged)	0.949	95% Critical H Value (KM-Log)	2.297	
KM Standard Error of Mean (logged)	0.287	95% H-UCL (KM -Log)	0.00577	
KM SD (logged)	0.949	95% Critical H Value (KM-Log)	2.297	
KM Standard Error of Mean (logged)	0.287			
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				

DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0117	Mean in Log Scale	-4.726
SD in Original Scale	0.00543	SD in Log Scale	1.001
95% t UCL (Assumes normality)	0.0132	95% H-Stat UCL	0.0212
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.0055		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater atrazine 1912-24-9)			
General Statistics			
Total Number of Observations	30	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	30
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater atrazine 1912-24-9) was not processed!			
C (groundwater barium 7440-39-3)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	40
		Number of Missing Observations	0
Minimum	0.0098	Mean	0.0824
Maximum	0.342	Median	0.0495
SD	0.0779	Std. Error of Mean	0.0122
Coefficient of Variation	0.946	Skewness	1.66
Normal GOF Test			
Shapiro Wilk Test Statistic	0.807	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.92	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.19	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.16	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			

Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	0.103	95% Adjusted-CLT UCL (Chen-1995)	0.106
		95% Modified-t UCL (Johnson-1978)	0.103
Gamma GOF Test			
A-D Test Statistic	0.673	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.769	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.154	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.141	Data Not Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.405	k star (bias corrected MLE)	1.318
Theta hat (MLE)	0.0587	Theta star (bias corrected MLE)	0.0625
nu hat (MLE)	115.2	nu star (bias corrected)	108.1
MLE Mean (bias corrected)	0.0824	MLE Sd (bias corrected)	0.0718
		Approximate Chi Square Value (0.05)	85.08
Adjusted Level of Significance	0.0441	Adjusted Chi Square Value	84.34
Assuming Gamma Distribution			
95% Approximate Gamma UCL	0.105	95% Adjusted Gamma UCL	0.106
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.971	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.95	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.111	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.126	Data appear Lognormal at 10% Significance Level	
Data appear Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-4.625	Mean of logged Data	-2.893
Maximum of Logged Data	-1.073	SD of logged Data	0.913
Assuming Lognormal Distribution			
95% H-UCL	0.116	90% Chebyshev (MVUE) UCL	0.123
95% Chebyshev (MVUE) UCL	0.142	97.5% Chebyshev (MVUE) UCL	0.167
99% Chebyshev (MVUE) UCL	0.217		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	0.102	95% BCA Bootstrap UCL	0.107
95% Standard Bootstrap UCL	0.102	95% Bootstrap-t UCL	0.109
95% Hall's Bootstrap UCL	0.108	95% Percentile Bootstrap UCL	0.103
90% Chebyshev(Mean, Sd) UCL	0.119	95% Chebyshev(Mean, Sd) UCL	0.135

97.5% Chebyshev(Mean, Sd) UCL	0.158	99% Chebyshev(Mean, Sd) UCL	0.203
Suggested UCL to Use			
95% Adjusted Gamma UCL	0.106		
When a data set follows an approximate distribution passing only one of the GOF tests, it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater benzaldehyde 100-52-7)			
General Statistics			
Total Number of Observations	30	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	30
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater benzaldehyde 100-52-7) was not processed!			
C (groundwater benzene 71-43-2)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	16
Number of Detects	9	Number of Non-Detects	34
Number of Distinct Detects	9	Number of Distinct Non-Detects	8
Minimum Detect	2.0000E-4	Minimum Non-Detect	6.7000E-4
Maximum Detect	0.007	Maximum Non-Detect	0.005
Variance Detects	4.9950E-6	Percent Non-Detects	79.07%
Mean Detects	0.00212	SD Detects	0.00223
Median Detects	0.001	CV Detects	1.056
Skewness Detects	1.509	Kurtosis Detects	2.015
Mean of Logged Detects	-6.694	SD of Logged Detects	1.157
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.829	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.764	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.247	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.316	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	8.0293E-4	KM Standard Error of Mean	2.1321E-4	
90KM SD	0.0012	95% KM (BCA) UCL	0.00121	
95% KM (t) UCL	0.00116	95% KM (Percentile Bootstrap) UCL	0.00119	
95% KM (z) UCL	0.00115	95% KM Bootstrap t UCL	0.00137	
90% KM Chebyshev UCL	0.00144	95% KM Chebyshev UCL	0.00173	
97.5% KM Chebyshev UCL	0.00213	99% KM Chebyshev UCL	0.00292	
Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.226	Anderson-Darling GOF Test		
5% A-D Critical Value	0.742	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.192	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.286	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Gamma Statistics on Detected Data Only				
k hat (MLE)	1.069	k star (bias corrected MLE)	0.787	
Theta hat (MLE)	0.00198	Theta star (bias corrected MLE)	0.00269	
nu hat (MLE)	19.24	nu star (bias corrected)	14.16	
Mean (detects)	0.00212			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	2.0000E-4	Mean	0.00835	
Maximum	0.01	Median	0.01	
SD	0.00339	CV	0.406	
k hat (MLE)	2.098	k star (bias corrected MLE)	1.967	
Theta hat (MLE)	0.00398	Theta star (bias corrected MLE)	0.00424	
nu hat (MLE)	180.4	nu star (bias corrected)	169.2	
Adjusted Level of Significance (β)	0.0444			
Approximate Chi Square Value (169.18, α)	140.1	Adjusted Chi Square Value (169.18, β)	139.2	
95% Gamma Approximate UCL	0.0101	95% Gamma Adjusted UCL	0.0101	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	8.0293E-4	SD (KM)	0.0012	
Variance (KM)	1.4443E-6	SE of Mean (KM)	2.1321E-4	
k hat (KM)	0.446	k star (KM)	0.431	
nu hat (KM)	38.39	nu star (KM)	37.04	
theta hat (KM)	0.0018	theta star (KM)	0.00186	
80% gamma percentile (KM)	0.00131	90% gamma percentile (KM)	0.00224	
95% gamma percentile (KM)	0.00325	99% gamma percentile (KM)	0.00578	
Gamma Kaplan-Meier (KM) Statistics				

Approximate Chi Square Value (37.04, α)	24.11	Adjusted Chi Square Value (37.04, β)	23.75
95% KM Approximate Gamma UCL	0.00123	95% KM Adjusted Gamma UCL	0.00125
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.981	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.859	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.129	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.252	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	8.0612E-4	Mean in Log Scale	-7.666
SD in Original Scale	0.00122	SD in Log Scale	0.965
95% t UCL (assumes normality of ROS data)	0.00112	95% Percentile Bootstrap UCL	0.00113
95% BCA Bootstrap UCL	0.00124	95% Bootstrap t UCL	0.00145
95% H-UCL (Log ROS)	0.00105		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.591	KM Geo Mean	5.0494E-4
KM SD (logged)	0.82	95% Critical H Value (KM-Log)	2.173
KM Standard Error of Mean (logged)	0.257	95% H-UCL (KM -Log)	9.3040E-4
KM SD (logged)	0.82	95% Critical H Value (KM-Log)	2.173
KM Standard Error of Mean (logged)	0.257		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.2234E-4	Mean in Log Scale	-7.361
SD in Original Scale	0.00123	SD in Log Scale	0.713
95% t UCL (Assumes normality)	0.00124	95% H-Stat UCL	0.00103
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.00116		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater benzidine 92-87-5)			

General Statistics			
Total Number of Observations	13	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater benzidine 92-87-5) was not processed!			
C (groundwater benzo(a)anthracene 56-55-3)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	4	Number of Non-Detects	39
Number of Distinct Detects	4	Number of Distinct Non-Detects	14
Minimum Detect	3.8000E-5	Minimum Non-Detect	9.2167E-5
Maximum Detect	1.1050E-4	Maximum Non-Detect	0.0056
Variance Detects	1.0262E-9	Percent Non-Detects	90.7%
Mean Detects	6.4375E-5	SD Detects	3.2035E-5
Median Detects	5.4500E-5	CV Detects	N/A
Skewness Detects	1.543	Kurtosis Detects	2.536
Mean of Logged Detects	-9.733	SD of Logged Detects	0.455
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.867	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.304	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	5.9250E-5	KM Standard Error of Mean	1.1901E-5
90KM SD	2.4342E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	7.9267E-5	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	7.8825E-5	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	9.4953E-5	95% KM Chebyshev UCL	1.1113E-4
97.5% KM Chebyshev UCL	1.3357E-4	99% KM Chebyshev UCL	1.7766E-4
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.332	Anderson-Darling GOF Test	
5% A-D Critical Value	0.659	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.265	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.396	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	6.22	k star (bias corrected MLE)	1.722
Theta hat (MLE)	1.0350E-5	Theta star (bias corrected MLE)	3.7391E-5
nu hat (MLE)	49.76	nu star (bias corrected)	13.77
Mean (detects)	6.4375E-5		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	3.8000E-5	Mean	0.00908
Maximum	0.01	Median	0.01
SD	0.00292	CV	0.322
k hat (MLE)	1.46	k star (bias corrected MLE)	1.374
Theta hat (MLE)	0.00622	Theta star (bias corrected MLE)	0.00661
nu hat (MLE)	125.5	nu star (bias corrected)	118.1
Adjusted Level of Significance (β)	0.0444		
Approximate Chi Square Value (118.12, α)	94.03	Adjusted Chi Square Value (118.12, β)	93.28
95% Gamma Approximate UCL	0.0114	95% Gamma Adjusted UCL	N/A
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	5.9250E-5	SD (KM)	2.4342E-5
Variance (KM)	5.925E-10	SE of Mean (KM)	1.1901E-5
k hat (KM)	5.925	k star (KM)	5.527
nu hat (KM)	509.5	nu star (KM)	475.3
theta hat (KM)	1.0001E-5	theta star (KM)	1.0720E-5
80% gamma percentile (KM)	7.8768E-5	90% gamma percentile (KM)	9.2966E-5
95% gamma percentile (KM)	1.0585E-4	99% gamma percentile (KM)	1.3296E-4
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (475.31, α)	425.8	Adjusted Chi Square Value (475.31, β)	424.1
95% KM Approximate Gamma UCL	6.6146E-5	95% KM Adjusted Gamma UCL	6.6399E-5
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.947	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.239	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	5.8077E-5	Mean in Log Scale	-9.813

SD in Original Scale	2.1245E-5	SD in Log Scale	0.345
95% t UCL (assumes normality of ROS data)	6.3527E-5	95% Percentile Bootstrap UCL	6.3483E-5
95% BCA Bootstrap UCL	6.4111E-5	95% Bootstrap t UCL	6.4451E-5
95% H-UCL (Log ROS)	6.3947E-5		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.803	KM Geo Mean	5.5312E-5
KM SD (logged)	0.353	95% Critical H Value (KM-Log)	1.808
KM Standard Error of Mean (logged)	0.179	95% H-UCL (KM -Log)	6.4975E-5
KM SD (logged)	0.353	95% Critical H Value (KM-Log)	1.808
KM Standard Error of Mean (logged)	0.179		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.2365E-4	Mean in Log Scale	-7.782
SD in Original Scale	0.00106	SD in Log Scale	1.34
95% t UCL (Assumes normality)	0.0012	95% H-Stat UCL	0.00182
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	7.9267E-5		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater benzo(a)pyrene 50-32-8)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	7	Number of Non-Detects	36
Number of Distinct Detects	7	Number of Distinct Non-Detects	11
Minimum Detect	2.2000E-5	Minimum Non-Detect	5.0000E-4
Maximum Detect	7.2500E-5	Maximum Non-Detect	0.0056
Variance Detects	3.555E-10	Percent Non-Detects	83.72%
Mean Detects	4.8786E-5	SD Detects	1.8854E-5
Median Detects	5.4000E-5	CV Detects	N/A
Skewness Detects	-0.471	Kurtosis Detects	-1.118
Mean of Logged Detects	-10.01	SD of Logged Detects	0.457
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.93	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.73	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.18	Lilliefors GOF Test	

1% Lilliefors Critical Value	0.35	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	4.8786E-5	KM Standard Error of Mean	7.1263E-6
90KM SD	1.7456E-5	95% KM (BCA) UCL	6.0300E-5
95% KM (t) UCL	6.0772E-5	95% KM (Percentile Bootstrap) UCL	6.0188E-5
95% KM (z) UCL	6.0507E-5	95% KM Bootstrap t UCL	6.0875E-5
90% KM Chebyshev UCL	7.0165E-5	95% KM Chebyshev UCL	7.9848E-5
97.5% KM Chebyshev UCL	9.3289E-5	99% KM Chebyshev UCL	1.1969E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.447	Anderson-Darling GOF Test	
5% A-D Critical Value	0.709	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.224	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.313	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	6.415	k star (bias corrected MLE)	3.761
Theta hat (MLE)	7.6055E-6	Theta star (bias corrected MLE)	1.2973E-5
nu hat (MLE)	89.8	nu star (bias corrected)	52.65
Mean (detects)	4.8786E-5		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	2.2000E-5	Mean	0.00838
Maximum	0.01	Median	0.01
SD	0.00372	CV	0.444
k hat (MLE)	0.839	k star (bias corrected MLE)	0.796
Theta hat (MLE)	0.00999	Theta star (bias corrected MLE)	0.0105
nu hat (MLE)	72.17	nu star (bias corrected)	68.47
Adjusted Level of Significance (β)	0.0444		
Approximate Chi Square Value (68.47, α)	50.42	Adjusted Chi Square Value (68.47, β)	49.89
95% Gamma Approximate UCL	0.0114	95% Gamma Adjusted UCL	0.0115
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	4.8786E-5	SD (KM)	1.7456E-5
Variance (KM)	3.047E-10	SE of Mean (KM)	7.1263E-6
k hat (KM)	7.811	k star (KM)	7.282
nu hat (KM)	671.7	nu star (KM)	626.2

theta hat (KM)	6.2458E-6	theta star (KM)	6.6999E-6
80% gamma percentile (KM)	6.2995E-5	90% gamma percentile (KM)	7.2912E-5
95% gamma percentile (KM)	8.1821E-5	99% gamma percentile (KM)	1.0034E-4
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (626.21, α)	569.2	Adjusted Chi Square Value (626.21, β)	567.3
95% KM Approximate Gamma UCL	5.3676E-5	95% KM Adjusted Gamma UCL	5.3854E-5
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.873	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.233	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	4.8604E-5	Mean in Log Scale	-10.01
SD in Original Scale	1.9539E-5	SD in Log Scale	0.399
95% t UCL (assumes normality of ROS data)	5.3615E-5	95% Percentile Bootstrap UCL	5.3608E-5
95% BCA Bootstrap UCL	5.4028E-5	95% Bootstrap t UCL	5.4270E-5
95% H-UCL (Log ROS)	5.4589E-5		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-10.01	KM Geo Mean	4.5036E-5
KM SD (logged)	0.423	95% Critical H Value (KM-Log)	1.848
KM Standard Error of Mean (logged)	0.173	95% H-UCL (KM -Log)	5.5577E-5
KM SD (logged)	0.423	95% Critical H Value (KM-Log)	1.848
KM Standard Error of Mean (logged)	0.173		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.2131E-4	Mean in Log Scale	-7.827
SD in Original Scale	0.00106	SD in Log Scale	1.413
95% t UCL (Assumes normality)	0.00119	95% H-Stat UCL	0.00202
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	6.0772E-5		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

C (groundwater | benzo(b)fluoranthene | 205-99-2)

General Statistics

Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	1	Number of Non-Detects	42
Number of Distinct Detects	1	Number of Distinct Non-Detects	17

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | benzo(b)fluoranthene | 205-99-2) was not processed!

C (groundwater | benzo(e)pyrene | 192-97-2)

General Statistics

Total Number of Observations	7	Number of Distinct Observations	7
Number of Detects	2	Number of Non-Detects	5
Number of Distinct Detects	2	Number of Distinct Non-Detects	5
Minimum Detect	3.0000E-5	Minimum Non-Detect	9.2167E-5
Maximum Detect	1.2300E-4	Maximum Non-Detect	1.0917E-4
Variance Detects	4.3245E-9	Percent Non-Detects	71.43%
Mean Detects	7.6500E-5	SD Detects	6.5761E-5
Median Detects	7.6500E-5	CV Detects	N/A
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-9.709	SD of Logged Detects	0.998

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach, refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance, but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).

The Chebyshev UCL often results in gross overestimates of the mean.

Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	4.3286E-5	KM Standard Error of Mean	1.7395E-5
90KM SD	3.2543E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	7.7087E-5	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	7.1898E-5	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	9.5471E-5	95% KM Chebyshev UCL	1.1911E-4
97.5% KM Chebyshev UCL	1.5192E-4	99% KM Chebyshev UCL	2.1636E-4

Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	2.321	k star (bias corrected MLE)	N/A
Theta hat (MLE)	3.2956E-5	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	9.285	nu star (bias corrected)	N/A
Mean (detects)	7.6500E-5		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	4.3286E-5	SD (KM)	3.2543E-5
Variance (KM)	1.0591E-9	SE of Mean (KM)	1.7395E-5
k hat (KM)	1.769	k star (KM)	1.106
nu hat (KM)	24.77	nu star (KM)	15.49
theta hat (KM)	2.4467E-5	theta star (KM)	3.9130E-5
80% gamma percentile (KM)	6.9064E-5	90% gamma percentile (KM)	9.7217E-5
95% gamma percentile (KM)	1.2515E-4	99% gamma percentile (KM)	1.8954E-4
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0158
Approximate Chi Square Value (15.49, α)	7.601	Adjusted Chi Square Value (15.49, β)	6.012
95% KM Approximate Gamma UCL	8.8189E-5	95% KM Adjusted Gamma UCL	1.1150E-4
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	4.3286E-5	Mean in Log Scale	-10.21
SD in Original Scale	3.5151E-5	SD in Log Scale	0.533
95% t UCL (assumes normality of ROS data)	6.9102E-5	95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A	95% Bootstrap t UCL	N/A
95% H-UCL (Log ROS)	7.3415E-5		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-10.21	KM Geo Mean	3.6700E-5
KM SD (logged)	0.494	95% Critical H Value (KM-Log)	2.45
KM Standard Error of Mean (logged)	0.264	95% H-UCL (KM -Log)	6.7934E-5
KM SD (logged)	0.494	95% Critical H Value (KM-Log)	2.45
KM Standard Error of Mean (logged)	0.264		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	5.8969E-5	Mean in Log Scale	-9.822
SD in Original Scale	2.9526E-5	SD in Log Scale	0.418
95% t UCL (Assumes normality)	8.0654E-5	95% H-Stat UCL	8.7801E-5
DL/2 is not a recommended method, provided for comparisons and historical reasons			

Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
Recommendation cannot be provided			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater benzo(g,h,i)perylene 191-24-2)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	2	Number of Non-Detects	41
Number of Distinct Detects	2	Number of Distinct Non-Detects	16
Minimum Detect	7.7000E-5	Minimum Non-Detect	1.3842E-4
Maximum Detect	1.1000E-4	Maximum Non-Detect	0.0056
Variance Detects	5.445E-10	Percent Non-Detects	95.35%
Mean Detects	9.3500E-5	SD Detects	2.3335E-5
Median Detects	9.3500E-5	CV Detects	N/A
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-9.293	SD of Logged Detects	0.252
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	9.3500E-5	KM Standard Error of Mean	1.6500E-5
90KM SD	1.6500E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1.2125E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1.2064E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	1.4300E-4	95% KM Chebyshev UCL	1.6542E-4
97.5% KM Chebyshev UCL	1.9654E-4	99% KM Chebyshev UCL	2.5767E-4
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	31.77	k star (bias corrected MLE)	N/A
Theta hat (MLE)	2.9426E-6	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	127.1	nu star (bias corrected)	N/A
Mean (detects)	9.3500E-5		

Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	9.3500E-5	SD (KM)	1.6500E-5
Variance (KM)	2.723E-10	SE of Mean (KM)	1.6500E-5
k hat (KM)	32.11	k star (KM)	29.89
nu hat (KM)	2762	nu star (KM)	2570
theta hat (KM)	2.9118E-6	theta star (KM)	3.1285E-6
80% gamma percentile (KM)	1.0751E-4	90% gamma percentile (KM)	1.1598E-4
95% gamma percentile (KM)	1.2330E-4	99% gamma percentile (KM)	1.3782E-4
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0444
Approximate Chi Square Value (N/A, α)	2453	Adjusted Chi Square Value (N/A, β)	2449
95% KM Approximate Gamma UCL	9.7951E-5	95% KM Adjusted Gamma UCL	9.8108E-5
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	9.5535E-5	Mean in Log Scale	-9.293
SD in Original Scale	2.7194E-5	SD in Log Scale	0.276
95% t UCL (assumes normality of ROS data)	1.0251E-4	95% Percentile Bootstrap UCL	1.0244E-4
95% BCA Bootstrap UCL	1.0330E-4	95% Bootstrap t UCL	1.0344E-4
95% H-UCL (Log ROS)	1.0303E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.293	KM Geo Mean	9.2033E-5
KM SD (logged)	0.178	95% Critical H Value (KM-Log)	1.701
KM Standard Error of Mean (logged)	0.178	95% H-UCL (KM -Log)	9.7989E-5
KM SD (logged)	0.178	95% Critical H Value (KM-Log)	1.701
KM Standard Error of Mean (logged)	0.178		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.2735E-4	Mean in Log Scale	-7.725
SD in Original Scale	0.00106	SD in Log Scale	1.253
95% t UCL (Assumes normality)	0.0012	95% H-Stat UCL	0.00162
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	1.2125E-4		
Warning: Recommended UCL exceeds the maximum observation			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (groundwater | benzo(k)fluoranthene | 207-08-9)

General Statistics

Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	4	Number of Non-Detects	39
Number of Distinct Detects	4	Number of Distinct Non-Detects	14
Minimum Detect	3.6000E-5	Minimum Non-Detect	9.2167E-5
Maximum Detect	9.1500E-5	Maximum Non-Detect	0.0056
Variance Detects	5.758E-10	Percent Non-Detects	90.7%
Mean Detects	5.8250E-5	SD Detects	2.3995E-5
Median Detects	5.2750E-5	CV Detects	N/A
Skewness Detects	1.174	Kurtosis Detects	1.416
Mean of Logged Detects	-9.811	SD of Logged Detects	0.395

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.929	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.246	Lilliefors GOF Test
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	5.8250E-5	KM Standard Error of Mean	1.1997E-5
90KM SD	2.0780E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	7.8429E-5	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	7.7984E-5	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	9.4242E-5	95% KM Chebyshev UCL	1.1055E-4
97.5% KM Chebyshev UCL	1.3317E-4	99% KM Chebyshev UCL	1.7762E-4

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.246	Anderson-Darling GOF Test
5% A-D Critical Value	0.658	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.199	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.395	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	8.499	k star (bias corrected MLE)	2.291
Theta hat (MLE)	6.8541E-6	Theta star (bias corrected MLE)	2.5422E-5
nu hat (MLE)	67.99	nu star (bias corrected)	18.33
Mean (detects)	5.8250E-5		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	3.6000E-5	Mean	0.00908	
Maximum	0.01	Median	0.01	
SD	0.00292	CV	0.322	
k hat (MLE)	1.435	k star (bias corrected MLE)	1.351	
Theta hat (MLE)	0.00632	Theta star (bias corrected MLE)	0.00672	
nu hat (MLE)	123.4	nu star (bias corrected)	116.1	
Adjusted Level of Significance (β)	0.0444			
Approximate Chi Square Value (116.15, α)	92.27	Adjusted Chi Square Value (116.15, β)	91.53	
95% Gamma Approximate UCL	0.0114	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	5.8250E-5	SD (KM)	2.0780E-5	
Variance (KM)	4.318E-10	SE of Mean (KM)	1.1997E-5	
k hat (KM)	7.858	k star (KM)	7.325	
nu hat (KM)	675.8	nu star (KM)	630	
theta hat (KM)	7.4131E-6	theta star (KM)	7.9522E-6	
80% gamma percentile (KM)	7.5170E-5	90% gamma percentile (KM)	8.6970E-5	
95% gamma percentile (KM)	9.7567E-5	99% gamma percentile (KM)	1.1959E-4	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (629.95, α)	572.7	Adjusted Chi Square Value (629.95, β)	570.8	
95% KM Approximate Gamma UCL	6.4070E-5	95% KM Adjusted Gamma UCL	6.4282E-5	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.983	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.185	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	5.8767E-5	Mean in Log Scale	-9.811	
SD in Original Scale	2.3066E-5	SD in Log Scale	0.374	
95% t UCL (assumes normality of ROS data)	6.4683E-5	95% Percentile Bootstrap UCL	6.4601E-5	
95% BCA Bootstrap UCL	6.5296E-5	95% Bootstrap t UCL	6.5707E-5	
95% H-UCL (Log ROS)	6.5357E-5			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-9.811	KM Geo Mean	5.4859E-5	
KM SD (logged)	0.342	95% Critical H Value (KM-Log)	1.801	
KM Standard Error of Mean (logged)	0.197	95% H-UCL (KM -Log)	6.3952E-5	
KM SD (logged)	0.342	95% Critical H Value (KM-Log)	1.801	
KM Standard Error of Mean (logged)	0.197			

Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.2308E-4	Mean in Log Scale	-7.789
SD in Original Scale	0.00106	SD in Log Scale	1.35
95% t UCL (Assumes normality)	0.0012	95% H-Stat UCL	0.00184
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	7.8429E-5		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater benzoic acid 65-85-0)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	6
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	6
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater benzoic acid 65-85-0) was not processed!			
C (groundwater beryllium 7440-41-7)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	12
Number of Detects	10	Number of Non-Detects	31
Number of Distinct Detects	10	Number of Distinct Non-Detects	2
Minimum Detect	6.7000E-5	Minimum Non-Detect	4.0000E-4
Maximum Detect	0.0089	Maximum Non-Detect	0.005
Variance Detects	6.7422E-6	Percent Non-Detects	75.61%
Mean Detects	0.00211	SD Detects	0.0026
Median Detects	0.00135	CV Detects	1.233
Skewness Detects	2.358	Kurtosis Detects	6.099
Mean of Logged Detects	-6.883	SD of Logged Detects	1.49
Normal GOF Test on Detects Only			

Shapiro Wilk Test Statistic	0.705	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.781	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.332	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.304	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.00109	KM Standard Error of Mean	3.4626E-4
90KM SD	0.00159	95% KM (BCA) UCL	0.00178
95% KM (t) UCL	0.00168	95% KM (Percentile Bootstrap) UCL	0.00171
95% KM (z) UCL	0.00166	95% KM Bootstrap t UCL	0.00193
90% KM Chebyshev UCL	0.00213	95% KM Chebyshev UCL	0.0026
97.5% KM Chebyshev UCL	0.00326	99% KM Chebyshev UCL	0.00454
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.431	Anderson-Darling GOF Test	
5% A-D Critical Value	0.755	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.189	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.275	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.821	k star (bias corrected MLE)	0.641
Theta hat (MLE)	0.00257	Theta star (bias corrected MLE)	0.00328
nu hat (MLE)	16.42	nu star (bias corrected)	12.83
Mean (detects)	0.00211		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	6.7000E-5	Mean	0.00807
Maximum	0.01	Median	0.01
SD	0.00365	CV	0.452
k hat (MLE)	1.609	k star (bias corrected MLE)	1.508
Theta hat (MLE)	0.00502	Theta star (bias corrected MLE)	0.00536
nu hat (MLE)	132	nu star (bias corrected)	123.6
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (123.64, α)	98.96	Adjusted Chi Square Value (123.64, β)	98.16
95% Gamma Approximate UCL	0.0101	95% Gamma Adjusted UCL	0.0102
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.00109	SD (KM)	0.00159
Variance (KM)	2.5383E-6	SE of Mean (KM)	3.4626E-4
k hat (KM)	0.471	k star (KM)	0.453

nu hat (KM)	38.65	nu star (KM)	37.16
theta hat (KM)	0.00232	theta star (KM)	0.00241
80% gamma percentile (KM)	0.00179	90% gamma percentile (KM)	0.00302
95% gamma percentile (KM)	0.00435	99% gamma percentile (KM)	0.00766
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (37.16, α)	24.2	Adjusted Chi Square Value (37.16, β)	23.82
95% KM Approximate Gamma UCL	0.00168	95% KM Adjusted Gamma UCL	0.00171
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.887	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.869	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.248	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.241	Detected Data Not Lognormal at 10% Significance Level	
Detected Data appear Approximate Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.00109	Mean in Log Scale	-7.724
SD in Original Scale	0.00166	SD in Log Scale	1.434
95% t UCL (assumes normality of ROS data)	0.00152	95% Percentile Bootstrap UCL	0.00155
95% BCA Bootstrap UCL	0.00166	95% Bootstrap t UCL	0.00182
95% H-UCL (Log ROS)	0.00237		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.861	KM Geo Mean	3.8552E-4
KM SD (logged)	1.569	95% Critical H Value (KM-Log)	3.046
KM Standard Error of Mean (logged)	0.427	95% H-UCL (KM -Log)	0.00281
KM SD (logged)	1.569	95% Critical H Value (KM-Log)	3.046
KM Standard Error of Mean (logged)	0.427		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00212	Mean in Log Scale	-6.517
SD in Original Scale	0.00144	SD in Log Scale	1.101
95% t UCL (Assumes normality)	0.0025	95% H-Stat UCL	0.00416
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM Adjusted Gamma UCL	0.00171		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (groundwater | bis(2-chloroethoxy)methane | 111-91-1)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | bis(2-chloroethoxy)methane | 111-91-1) was not processed!

C (groundwater | bis(2-chloroethyl) ether | 111-44-4)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | bis(2-chloroethyl) ether | 111-44-4) was not processed!

C (groundwater | bis(2-ethylhexyl)phthalate | 117-81-7)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	10

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | bis(2-ethylhexyl)phthalate | 117-81-7) was not processed!

C (groundwater | bromobenzene | 108-86-1)

General Statistics			
Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater bromobenzene 108-86-1) was not processed!			
C (groundwater bromochloromethane 74-97-5)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater bromochloromethane 74-97-5) was not processed!			
C (groundwater bromodichloromethane 75-27-4)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater bromodichloromethane 75-27-4) was not processed!			
C (groundwater bromoform 75-25-2)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater bromoform 75-25-2) was not processed!			
C (groundwater bromomethane 74-83-9)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater bromomethane 74-83-9) was not processed!			
C (groundwater butylbenzylphthalate 85-68-7)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater butylbenzylphthalate 85-68-7) was not processed!			
C (groundwater cadmium 7440-43-9)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	22
Number of Detects	25	Number of Non-Detects	16
Number of Distinct Detects	22	Number of Distinct Non-Detects	1
Minimum Detect	4.2500E-5	Minimum Non-Detect	0.005
Maximum Detect	0.0115	Maximum Non-Detect	0.005
Variance Detects	6.7907E-6	Percent Non-Detects	39.02%
Mean Detects	0.00218	SD Detects	0.00261
Median Detects	0.0016	CV Detects	1.195
Skewness Detects	2.367	Kurtosis Detects	6.484
Mean of Logged Detects	-6.898	SD of Logged Detects	1.512

Normal GOF Test on Detects Only				
Shapiro Wilk Test Statistic	0.733	Shapiro Wilk GOF Test		
1% Shapiro Wilk Critical Value	0.886	Detected Data Not Normal at 1% Significance Level		
Lilliefors Test Statistic	0.246	Lilliefors GOF Test		
1% Lilliefors Critical Value	0.201	Detected Data Not Normal at 1% Significance Level		
Detected Data Not Normal at 1% Significance Level				
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs				
KM Mean	0.00187	KM Standard Error of Mean	3.7082E-4	
90KM SD	0.00214	95% KM (BCA) UCL	0.00253	
95% KM (t) UCL	0.0025	95% KM (Percentile Bootstrap) UCL	0.00252	
95% KM (z) UCL	0.00248	95% KM Bootstrap t UCL	0.00272	
90% KM Chebyshev UCL	0.00298	95% KM Chebyshev UCL	0.00349	
97.5% KM Chebyshev UCL	0.00419	99% KM Chebyshev UCL	0.00556	
Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.426	Anderson-Darling GOF Test		
5% A-D Critical Value	0.782	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.152	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.181	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Gamma Statistics on Detected Data Only				
k hat (MLE)	0.775	k star (bias corrected MLE)	0.708	
Theta hat (MLE)	0.00281	Theta star (bias corrected MLE)	0.00308	
nu hat (MLE)	38.73	nu star (bias corrected)	35.42	
Mean (detects)	0.00218			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	4.2500E-5	Mean	0.00523	
Maximum	0.0115	Median	0.0028	
SD	0.00436	CV	0.833	
k hat (MLE)	0.792	k star (bias corrected MLE)	0.751	
Theta hat (MLE)	0.0066	Theta star (bias corrected MLE)	0.00697	
nu hat (MLE)	64.96	nu star (bias corrected)	61.54	
Adjusted Level of Significance (β)	0.0441			
Approximate Chi Square Value (61.54, α)	44.5	Adjusted Chi Square Value (61.54, β)	43.97	
95% Gamma Approximate UCL	0.00724	95% Gamma Adjusted UCL	0.00732	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.00187	SD (KM)	0.00214	
Variance (KM)	4.5964E-6	SE of Mean (KM)	3.7082E-4	

k hat (KM)	0.762	k star (KM)	0.723
nu hat (KM)	62.49	nu star (KM)	59.25
theta hat (KM)	0.00246	theta star (KM)	0.00259
80% gamma percentile (KM)	0.00307	90% gamma percentile (KM)	0.00466
95% gamma percentile (KM)	0.0063	99% gamma percentile (KM)	0.0102
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (59.25, α)	42.55	Adjusted Chi Square Value (59.25, β)	42.04
95% KM Approximate Gamma UCL	0.00261	95% KM Adjusted Gamma UCL	0.00264
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.918	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.931	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.22	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.159	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.00181	Mean in Log Scale	-7.028
SD in Original Scale	0.00221	SD in Log Scale	1.371
95% t UCL (assumes normality of ROS data)	0.00239	95% Percentile Bootstrap UCL	0.00241
95% BCA Bootstrap UCL	0.00253	95% Bootstrap t UCL	0.00266
95% H-UCL (Log ROS)	0.00416		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.005	KM Geo Mean	9.0762E-4
KM SD (logged)	1.442	95% Critical H Value (KM-Log)	2.88
KM Standard Error of Mean (logged)	0.291	95% H-UCL (KM -Log)	0.00495
KM SD (logged)	1.442	95% Critical H Value (KM-Log)	2.88
KM Standard Error of Mean (logged)	0.291		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00231	Mean in Log Scale	-6.544
SD in Original Scale	0.00202	SD in Log Scale	1.254
95% t UCL (Assumes normality)	0.00284	95% H-Stat UCL	0.00533
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM Adjusted Gamma UCL	0.00264		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (groundwater | caprolactam | 105-60-2)

General Statistics

Total Number of Observations	30	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	30
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | caprolactam | 105-60-2) was not processed!

C (groundwater | carbazole | 86-74-8)

General Statistics

Total Number of Observations	42	Number of Distinct Observations	11
Number of Detects	2	Number of Non-Detects	40
Number of Distinct Detects	2	Number of Distinct Non-Detects	9
Minimum Detect	8.0000E-4	Minimum Non-Detect	0.002
Maximum Detect	9.0000E-4	Maximum Non-Detect	0.011
Variance Detects	5.0000E-9	Percent Non-Detects	95.24%
Mean Detects	8.5000E-4	SD Detects	7.0711E-5
Median Detects	8.5000E-4	CV Detects	0.0832
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-7.072	SD of Logged Detects	0.0833

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	8.5000E-4	KM Standard Error of Mean	5.0000E-5
90KM SD	5.0000E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	9.3414E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	9.3224E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.001	95% KM Chebyshev UCL	0.00107
97.5% KM Chebyshev UCL	0.00116	99% KM Chebyshev UCL	0.00135

Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	288.7	k star (bias corrected MLE)	N/A
Theta hat (MLE)	2.9446E-6	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	1155	nu star (bias corrected)	N/A
Mean (detects)	8.5000E-4		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	8.5000E-4	SD (KM)	5.0000E-5
Variance (KM)	2.5000E-9	SE of Mean (KM)	5.0000E-5
k hat (KM)	289	k star (KM)	268.4
nu hat (KM)	24276	nu star (KM)	22543
theta hat (KM)	2.9412E-6	theta star (KM)	3.1672E-6
80% gamma percentile (KM)	8.9333E-4	90% gamma percentile (KM)	9.1714E-4
95% gamma percentile (KM)	9.3711E-4	99% gamma percentile (KM)	9.7534E-4
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0443
Approximate Chi Square Value (N/A, α)	22195	Adjusted Chi Square Value (N/A, β)	22183
95% KM Approximate Gamma UCL	8.6333E-4	95% KM Adjusted Gamma UCL	8.6381E-4
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	8.5300E-4	Mean in Log Scale	-7.072
SD in Original Scale	8.8712E-5	SD in Log Scale	0.104
95% t UCL (assumes normality of ROS data)	8.7603E-4	95% Percentile Bootstrap UCL	8.7545E-4
95% BCA Bootstrap UCL	8.7610E-4	95% Bootstrap t UCL	8.7771E-4
95% H-UCL (Log ROS)	8.7681E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.072	KM Geo Mean	8.4853E-4
KM SD (logged)	0.0589	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	0.0589	95% H-UCL (KM -Log)	N/A
KM SD (logged)	0.0589	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	0.0589		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00232	Mean in Log Scale	-6.371
SD in Original Scale	0.0019	SD in Log Scale	0.763
95% t UCL (Assumes normality)	0.00281	95% H-Stat UCL	0.00294
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			

Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	9.3414E-4		
Warning: Recommended UCL exceeds the maximum observation			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater carbon disulfide 75-15-0)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater carbon disulfide 75-15-0) was not processed!			
C (groundwater carbon tetrachloride 56-23-5)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater carbon tetrachloride 56-23-5) was not processed!			
C (groundwater chlorobenzene 108-90-7)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	1	Number of Non-Detects	35
Number of Distinct Detects	1	Number of Distinct Non-Detects	4
Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!			
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (groundwater | chlorobenzene | 108-90-7) was not processed!

C (groundwater | chloroethane | 75-00-3)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | chloroethane | 75-00-3) was not processed!

C (groundwater | chloroform | 67-66-3)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | chloroform | 67-66-3) was not processed!

C (groundwater | chloromethane | 74-87-3)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | chloromethane | 74-87-3) was not processed!

C (groundwater | chromium (total) | 7440-47-3)

General Statistics

Total Number of Observations	41	Number of Distinct Observations	18
Number of Detects	19	Number of Non-Detects	22
Number of Distinct Detects	15	Number of Distinct Non-Detects	3
Minimum Detect	9.6000E-4	Minimum Non-Detect	0.001
Maximum Detect	0.036	Maximum Non-Detect	0.015
Variance Detects	6.1573E-5	Percent Non-Detects	53.66%
Mean Detects	0.00405	SD Detects	0.00785
Median Detects	0.0021	CV Detects	1.937
Skewness Detects	4.169	Kurtosis Detects	17.77
Mean of Logged Detects	-6.053	SD of Logged Detects	0.807
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.364	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.863	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.402	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.229	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.00285	KM Standard Error of Mean	8.8194E-4
90KM SD	0.00539	95% KM (BCA) UCL	0.00457
95% KM (t) UCL	0.00433	95% KM (Percentile Bootstrap) UCL	0.00444
95% KM (z) UCL	0.0043	95% KM Bootstrap t UCL	0.00911
90% KM Chebyshev UCL	0.00549	95% KM Chebyshev UCL	0.00669
97.5% KM Chebyshev UCL	0.00835	99% KM Chebyshev UCL	0.0116
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	2.862	Anderson-Darling GOF Test	
5% A-D Critical Value	0.768	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.313	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.204	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.054	k star (bias corrected MLE)	0.923
Theta hat (MLE)	0.00384	Theta star (bias corrected MLE)	0.00439
nu hat (MLE)	40.05	nu star (bias corrected)	35.06
Mean (detects)	0.00405		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	9.6000E-4	Mean	0.00728
Maximum	0.036	Median	0.01

SD	0.00609	CV	0.835
k hat (MLE)	1.573	k star (bias corrected MLE)	1.474
Theta hat (MLE)	0.00463	Theta star (bias corrected MLE)	0.00494
nu hat (MLE)	129	nu star (bias corrected)	120.9
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (120.88, α)	96.49	Adjusted Chi Square Value (120.88, β)	95.69
95% Gamma Approximate UCL	0.00913	95% Gamma Adjusted UCL	0.0092
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.00285	SD (KM)	0.00539
Variance (KM)	2.9039E-5	SE of Mean (KM)	8.8194E-4
k hat (KM)	0.279	k star (KM)	0.275
nu hat (KM)	22.89	nu star (KM)	22.55
theta hat (KM)	0.0102	theta star (KM)	0.0104
80% gamma percentile (KM)	0.00426	90% gamma percentile (KM)	0.00848
95% gamma percentile (KM)	0.0134	99% gamma percentile (KM)	0.0263
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (22.55, α)	12.75	Adjusted Chi Square Value (22.55, β)	12.48
95% KM Approximate Gamma UCL	0.00503	95% KM Adjusted Gamma UCL	0.00514
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.767	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.917	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.247	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.18	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.00287	Mean in Log Scale	-6.311
SD in Original Scale	0.00547	SD in Log Scale	0.786
95% t UCL (assumes normality of ROS data)	0.00431	95% Percentile Bootstrap UCL	0.00452
95% BCA Bootstrap UCL	0.00552	95% Bootstrap t UCL	0.00817
95% H-UCL (Log ROS)	0.00322		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.271	KM Geo Mean	0.00189
KM SD (logged)	0.679	95% Critical H Value (KM-Log)	2.037
KM Standard Error of Mean (logged)	0.129	95% H-UCL (KM -Log)	0.00296
KM SD (logged)	0.679	95% Critical H Value (KM-Log)	2.037
KM Standard Error of Mean (logged)	0.129		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00506	Mean in Log Scale	-5.74
SD in Original Scale	0.00576	SD in Log Scale	1.008

95% t UCL (Assumes normality)	0.00658	95% H-Stat UCL	0.00779
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.00433		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater chrysene 218-01-9)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	4	Number of Non-Detects	39
Number of Distinct Detects	4	Number of Distinct Non-Detects	14
Minimum Detect	4.3000E-5	Minimum Non-Detect	9.2167E-5
Maximum Detect	1.1300E-4	Maximum Non-Detect	0.0056
Variance Detects	1.0020E-9	Percent Non-Detects	90.7%
Mean Detects	6.7000E-5	SD Detects	3.1654E-5
Median Detects	5.6000E-5	CV Detects	N/A
Skewness Detects	1.649	Kurtosis Detects	2.746
Mean of Logged Detects	-9.684	SD of Logged Detects	0.424
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.836	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.313	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	6.1889E-5	KM Standard Error of Mean	1.1623E-5
90KM SD	2.3953E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	8.1439E-5	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	8.1008E-5	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	9.6759E-5	95% KM Chebyshev UCL	1.1255E-4
97.5% KM Chebyshev UCL	1.3448E-4	99% KM Chebyshev UCL	1.7754E-4

Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.399	Anderson-Darling GOF Test		
5% A-D Critical Value	0.658	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.28	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.395	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Gamma Statistics on Detected Data Only				
k hat (MLE)	7.035	k star (bias corrected MLE)	1.925	
Theta hat (MLE)	9.5241E-6	Theta star (bias corrected MLE)	3.4799E-5	
nu hat (MLE)	56.28	nu star (bias corrected)	15.4	
Mean (detects)	6.7000E-5			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	4.3000E-5	Mean	0.00908	
Maximum	0.01	Median	0.01	
SD	0.00292	CV	0.322	
k hat (MLE)	1.476	k star (bias corrected MLE)	1.389	
Theta hat (MLE)	0.00615	Theta star (bias corrected MLE)	0.00654	
nu hat (MLE)	127	nu star (bias corrected)	119.4	
Adjusted Level of Significance (β)	0.0444			
Approximate Chi Square Value (119.43, α)	95.2	Adjusted Chi Square Value (119.43, β)	94.45	
95% Gamma Approximate UCL	0.0114	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	6.1889E-5	SD (KM)	2.3953E-5	
Variance (KM)	5.738E-10	SE of Mean (KM)	1.1623E-5	
k hat (KM)	6.676	k star (KM)	6.225	
nu hat (KM)	574.1	nu star (KM)	535.4	
theta hat (KM)	9.2709E-6	theta star (KM)	9.9414E-6	
80% gamma percentile (KM)	8.1229E-5	90% gamma percentile (KM)	9.5039E-5	
95% gamma percentile (KM)	1.0752E-4	99% gamma percentile (KM)	1.3363E-4	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (535.38, α)	482.7	Adjusted Chi Square Value (535.38, β)	481	
95% KM Approximate Gamma UCL	6.8641E-5	95% KM Adjusted Gamma UCL	6.8888E-5	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.907	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.255	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level		

Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	6.0891E-5	Mean in Log Scale	-9.757
SD in Original Scale	2.0552E-5	SD in Log Scale	0.319
95% t UCL (assumes normality of ROS data)	6.6163E-5	95% Percentile Bootstrap UCL	6.6124E-5
95% BCA Bootstrap UCL	6.6716E-5	95% Bootstrap t UCL	6.7009E-5
95% H-UCL (Log ROS)	6.6503E-5		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.75	KM Geo Mean	5.8310E-5
KM SD (logged)	0.326	95% Critical H Value (KM-Log)	1.792
KM Standard Error of Mean (logged)	0.163	95% H-UCL (KM -Log)	6.7296E-5
KM SD (logged)	0.326	95% Critical H Value (KM-Log)	1.792
KM Standard Error of Mean (logged)	0.163		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.2390E-4	Mean in Log Scale	-7.777
SD in Original Scale	0.00106	SD in Log Scale	1.333
95% t UCL (Assumes normality)	0.0012	95% H-Stat UCL	0.0018
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	8.1439E-5		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater cis-1,2-dichloroethene 156-59-2)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater cis-1,2-dichloroethene 156-59-2) was not processed!			

C (groundwater | cobalt | 7440-48-4)

General Statistics

Total Number of Observations	41	Number of Distinct Observations	35
Number of Detects	35	Number of Non-Detects	6
Number of Distinct Detects	34	Number of Distinct Non-Detects	1
Minimum Detect	0.0024	Minimum Non-Detect	0.005
Maximum Detect	0.805	Maximum Non-Detect	0.005
Variance Detects	0.0315	Percent Non-Detects	14.63%
Mean Detects	0.108	SD Detects	0.178
Median Detects	0.024	CV Detects	1.651
Skewness Detects	2.532	Kurtosis Detects	6.804
Mean of Logged Detects	-3.443	SD of Logged Detects	1.659

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.64	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.91	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.277	Lilliefors GOF Test
1% Lilliefors Critical Value	0.172	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0923	KM Standard Error of Mean	0.0263
90KM SD	0.166	95% KM (BCA) UCL	0.142
95% KM (t) UCL	0.137	95% KM (Percentile Bootstrap) UCL	0.138
95% KM (z) UCL	0.136	95% KM Bootstrap t UCL	0.159
90% KM Chebyshev UCL	0.171	95% KM Chebyshev UCL	0.207
97.5% KM Chebyshev UCL	0.256	99% KM Chebyshev UCL	0.354

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.215	Anderson-Darling GOF Test
5% A-D Critical Value	0.81	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.161	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.157	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.52	k star (bias corrected MLE)	0.495
Theta hat (MLE)	0.207	Theta star (bias corrected MLE)	0.217
nu hat (MLE)	36.43	nu star (bias corrected)	34.64
Mean (detects)	0.108		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.0024	Mean	0.0933	
Maximum	0.805	Median	0.0182	
SD	0.167	CV	1.794	
k hat (MLE)	0.51	k star (bias corrected MLE)	0.489	
Theta hat (MLE)	0.183	Theta star (bias corrected MLE)	0.191	
nu hat (MLE)	41.85	nu star (bias corrected)	40.12	
Adjusted Level of Significance (β)	0.0441			
Approximate Chi Square Value (40.12, α)	26.6	Adjusted Chi Square Value (40.12, β)	26.2	
95% Gamma Approximate UCL	0.141	95% Gamma Adjusted UCL	0.143	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.0923	SD (KM)	0.166	
Variance (KM)	0.0275	SE of Mean (KM)	0.0263	
k hat (KM)	0.31	k star (KM)	0.304	
nu hat (KM)	25.43	nu star (KM)	24.9	
theta hat (KM)	0.298	theta star (KM)	0.304	
80% gamma percentile (KM)	0.142	90% gamma percentile (KM)	0.272	
95% gamma percentile (KM)	0.421	99% gamma percentile (KM)	0.807	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (24.90, α)	14.53	Adjusted Chi Square Value (24.90, β)	14.24	
95% KM Approximate Gamma UCL	0.158	95% KM Adjusted Gamma UCL	0.161	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.942	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.944	Detected Data Not Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.132	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.136	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Approximate Lognormal at 10% Significance Level				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	0.0922	Mean in Log Scale	-3.852	
SD in Original Scale	0.168	SD in Log Scale	1.846	
95% t UCL (assumes normality of ROS data)	0.136	95% Percentile Bootstrap UCL	0.138	
95% BCA Bootstrap UCL	0.148	95% Bootstrap t UCL	0.16	
95% H-UCL (Log ROS)	0.317			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-3.771	KM Geo Mean	0.023	
KM SD (logged)	1.708	95% Critical H Value (KM-Log)	3.235	
KM Standard Error of Mean (logged)	0.272	95% H-UCL (KM -Log)	0.238	
KM SD (logged)	1.708	95% Critical H Value (KM-Log)	3.235	
KM Standard Error of Mean (logged)	0.272			
DL/2 Statistics				
DL/2 Normal		DL/2 Log-Transformed		
Mean in Original Scale	0.0922	Mean in Log Scale	-3.816	

SD in Original Scale	0.168	SD in Log Scale	1.781
95% t UCL (Assumes normality)	0.136	95% H-Stat UCL	0.275
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Lognormal Distributed at 10% Significance Level			
Suggested UCL to Use			
KM H-UCL	0.238		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater copper 7440-50-8)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	17
Number of Detects	16	Number of Non-Detects	25
Number of Distinct Detects	16	Number of Distinct Non-Detects	1
Minimum Detect	6.6500E-4	Minimum Non-Detect	0.02
Maximum Detect	0.11	Maximum Non-Detect	0.02
Variance Detects	7.5242E-4	Percent Non-Detects	60.98%
Mean Detects	0.0184	SD Detects	0.0274
Median Detects	0.0106	CV Detects	1.488
Skewness Detects	2.771	Kurtosis Detects	8.804
Mean of Logged Detects	-4.883	SD of Logged Detects	1.454
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.645	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.844	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.301	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.248	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.0112	KM Standard Error of Mean	0.00317
90KM SD	0.0181	95% KM (BCA) UCL	0.0169
95% KM (t) UCL	0.0166	95% KM (Percentile Bootstrap) UCL	0.0168
95% KM (z) UCL	0.0165	95% KM Bootstrap t UCL	0.0198
90% KM Chebyshev UCL	0.0208	95% KM Chebyshev UCL	0.0251
97.5% KM Chebyshev UCL	0.0311	99% KM Chebyshev UCL	0.0428

Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.457	Anderson-Darling GOF Test		
5% A-D Critical Value	0.78	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.157	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.224	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Gamma Statistics on Detected Data Only				
k hat (MLE)	0.682	k star (bias corrected MLE)	0.596	
Theta hat (MLE)	0.027	Theta star (bias corrected MLE)	0.0309	
nu hat (MLE)	21.83	nu star (bias corrected)	19.07	
Mean (detects)	0.0184			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	6.6500E-4	Mean	0.015	
Maximum	0.11	Median	0.01	
SD	0.0176	CV	1.171	
k hat (MLE)	1.379	k star (bias corrected MLE)	1.294	
Theta hat (MLE)	0.0109	Theta star (bias corrected MLE)	0.0116	
nu hat (MLE)	113.1	nu star (bias corrected)	106.1	
Adjusted Level of Significance (β)	0.0441			
Approximate Chi Square Value (106.12, α)	83.34	Adjusted Chi Square Value (106.12, β)	82.61	
95% Gamma Approximate UCL	0.0192	95% Gamma Adjusted UCL	0.0193	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.0112	SD (KM)	0.0181	
Variance (KM)	3.2763E-4	SE of Mean (KM)	0.00317	
k hat (KM)	0.386	k star (KM)	0.374	
nu hat (KM)	31.62	nu star (KM)	30.64	
theta hat (KM)	0.0291	theta star (KM)	0.0301	
80% gamma percentile (KM)	0.018	90% gamma percentile (KM)	0.0321	
95% gamma percentile (KM)	0.0478	99% gamma percentile (KM)	0.0875	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (30.64, α)	19	Adjusted Chi Square Value (30.64, β)	18.66	
95% KM Approximate Gamma UCL	0.0181	95% KM Adjusted Gamma UCL	0.0185	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.963	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.906	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.16	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.196	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.0111	Mean in Log Scale	-5.276
SD in Original Scale	0.0184	SD in Log Scale	1.254
95% t UCL (assumes normality of ROS data)	0.0159	95% Percentile Bootstrap UCL	0.0163
95% BCA Bootstrap UCL	0.0183	95% Bootstrap t UCL	0.0206
95% H-UCL (Log ROS)	0.019		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-5.252	KM Geo Mean	0.00524
KM SD (logged)	1.236	95% Critical H Value (KM-Log)	2.624
KM Standard Error of Mean (logged)	0.305	95% H-UCL (KM -Log)	0.0188
KM SD (logged)	1.236	95% Critical H Value (KM-Log)	2.624
KM Standard Error of Mean (logged)	0.305		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0133	Mean in Log Scale	-4.714
SD in Original Scale	0.0173	SD in Log Scale	0.901
95% t UCL (Assumes normality)	0.0178	95% H-Stat UCL	0.0185
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM Adjusted Gamma UCL	0.0185		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater cumene 98-82-8)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	7
Number of Detects	5	Number of Non-Detects	31
Number of Distinct Detects	4	Number of Distinct Non-Detects	4
Minimum Detect	4.0000E-4	Minimum Non-Detect	0.001
Maximum Detect	0.002	Maximum Non-Detect	0.025
Variance Detects	3.4800E-7	Percent Non-Detects	86.11%
Mean Detects	0.00104	SD Detects	5.8992E-4
Median Detects	0.001	CV Detects	0.567

Skewness Detects	1.235	Kurtosis Detects	2.533
Mean of Logged Detects	-6.997	SD of Logged Detects	0.577
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.888	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.327	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	7.2941E-4	KM Standard Error of Mean	1.5995E-4
90KM SD	3.8770E-4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	9.9967E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	9.9251E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.00121	95% KM Chebyshev UCL	0.00143
97.5% KM Chebyshev UCL	0.00173	99% KM Chebyshev UCL	0.00232
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.321	Anderson-Darling GOF Test	
5% A-D Critical Value	0.681	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.265	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.358	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	4.051	k star (bias corrected MLE)	1.754
Theta hat (MLE)	2.5673E-4	Theta star (bias corrected MLE)	5.9304E-4
nu hat (MLE)	40.51	nu star (bias corrected)	17.54
Mean (detects)	0.00104		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	4.0000E-4	Mean	0.00876
Maximum	0.01	Median	0.01
SD	0.00315	CV	0.36
k hat (MLE)	2.664	k star (bias corrected MLE)	2.46
Theta hat (MLE)	0.00329	Theta star (bias corrected MLE)	0.00356
nu hat (MLE)	191.8	nu star (bias corrected)	177.1
Adjusted Level of Significance (β)	0.0428		
Approximate Chi Square Value (177.13, α)	147.4	Adjusted Chi Square Value (177.13, β)	146.1
95% Gamma Approximate UCL	0.0105	95% Gamma Adjusted UCL	0.0106

Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	7.2941E-4	SD (KM)	3.8770E-4	
Variance (KM)	1.5031E-7	SE of Mean (KM)	1.5995E-4	
k hat (KM)	3.54	k star (KM)	3.263	
nu hat (KM)	254.9	nu star (KM)	234.9	
theta hat (KM)	2.0607E-4	theta star (KM)	2.2353E-4	
80% gamma percentile (KM)	0.00103	90% gamma percentile (KM)	0.00127	
95% gamma percentile (KM)	0.00149	99% gamma percentile (KM)	0.00198	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (234.95, α)	200.5	Adjusted Chi Square Value (234.95, β)	199	
95% KM Approximate Gamma UCL	8.5488E-4	95% KM Adjusted Gamma UCL	8.6108E-4	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.949	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.806	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.238	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.319	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	6.7728E-4	Mean in Log Scale	-7.407	
SD in Original Scale	3.4937E-4	SD in Log Scale	0.468	
95% t UCL (assumes normality of ROS data)	7.7566E-4	95% Percentile Bootstrap UCL	7.7619E-4	
95% BCA Bootstrap UCL	7.9448E-4	95% Bootstrap t UCL	8.0077E-4	
95% H-UCL (Log ROS)	7.8590E-4			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-7.336	KM Geo Mean	6.5155E-4	
KM SD (logged)	0.459	95% Critical H Value (KM-Log)	1.881	
KM Standard Error of Mean (logged)	0.243	95% H-UCL (KM -Log)	8.3783E-4	
KM SD (logged)	0.459	95% Critical H Value (KM-Log)	1.881	
KM Standard Error of Mean (logged)	0.243			
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
DL/2 Statistics				
DL/2 Normal		DL/2 Log-Transformed		
Mean in Original Scale	0.00272	Mean in Log Scale	-6.499	
SD in Original Scale	0.00362	SD in Log Scale	1.051	
95% t UCL (Assumes normality)	0.00374	95% H-Stat UCL	0.00404	
DL/2 is not a recommended method, provided for comparisons and historical reasons				
Nonparametric Distribution Free UCL Statistics				
Detected Data appear Normal Distributed at 1% Significance Level				
Suggested UCL to Use				

95% KM (t) UCL		9.9967E-4	
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater cyclohexane 110-82-7)			
General Statistics			
Total Number of Observations	24	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	24
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater cyclohexane 110-82-7) was not processed!			
C (groundwater dibenz(a,h)anthracene 53-70-3)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	5	Number of Non-Detects	38
Number of Distinct Detects	5	Number of Distinct Non-Detects	13
Minimum Detect	2.4000E-5	Minimum Non-Detect	1.0620E-4
Maximum Detect	5.2500E-5	Maximum Non-Detect	0.0056
Variance Detects	1.327E-10	Percent Non-Detects	88.37%
Mean Detects	3.6700E-5	SD Detects	1.1520E-5
Median Detects	3.4000E-5	CV Detects	N/A
Skewness Detects	0.493	Kurtosis Detects	-1.275
Mean of Logged Detects	-10.25	SD of Logged Detects	0.314
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.959	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.193	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	3.6700E-5	KM Standard Error of Mean	5.1517E-6
90KM SD	1.0303E-5	95% KM (BCA) UCL	4.5750E-5
95% KM (t) UCL	4.5365E-5	95% KM (Percentile Bootstrap) UCL	4.6125E-5
95% KM (z) UCL	4.5174E-5	95% KM Bootstrap t UCL	5.4440E-5
90% KM Chebyshev UCL	5.2155E-5	95% KM Chebyshev UCL	5.9156E-5

97.5% KM Chebyshev UCL		6.8872E-5	99% KM Chebyshev UCL		8.7959E-5
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended					
Gamma GOF Tests on Detected Observations Only					
A-D Test Statistic		0.213	Anderson-Darling GOF Test		
5% A-D Critical Value		0.679	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic		0.177	Kolmogorov-Smirnov GOF		
5% K-S Critical Value		0.357	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level					
Note GOF tests may be unreliable for small sample sizes					
Gamma Statistics on Detected Data Only					
k hat (MLE)		12.84	k star (bias corrected MLE)		5.271
Theta hat (MLE)		2.8574E-6	Theta star (bias corrected MLE)		6.9628E-6
nu hat (MLE)		128.4	nu star (bias corrected)		52.71
Mean (detects)		3.6700E-5			
Gamma ROS Statistics using Imputed Non-Detects					
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs					
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)					
For such situations, GROS method may yield incorrect values of UCLs and BTVs					
This is especially true when the sample size is small.					
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates					
Minimum		2.4000E-5	Mean		0.00884
Maximum		0.01	Median		0.01
SD		0.00323	CV		0.366
k hat (MLE)		1.073	k star (bias corrected MLE)		1.014
Theta hat (MLE)		0.00824	Theta star (bias corrected MLE)		0.00872
nu hat (MLE)		92.3	nu star (bias corrected)		87.19
Adjusted Level of Significance (β)		0.0444			
Approximate Chi Square Value (87.19, α)		66.66	Adjusted Chi Square Value (87.19, β)		66.04
95% Gamma Approximate UCL		0.0116	95% Gamma Adjusted UCL		0.0117
Estimates of Gamma Parameters using KM Estimates					
Mean (KM)		3.6700E-5	SD (KM)		1.0303E-5
Variance (KM)		1.062E-10	SE of Mean (KM)		5.1517E-6
k hat (KM)		12.69	k star (KM)		11.82
nu hat (KM)		1091	nu star (KM)		1016
theta hat (KM)		2.8926E-6	theta star (KM)		3.1055E-6
80% gamma percentile (KM)		4.5253E-5	90% gamma percentile (KM)		5.0873E-5
95% gamma percentile (KM)		5.5841E-5	99% gamma percentile (KM)		6.5979E-5
Gamma Kaplan-Meier (KM) Statistics					
Approximate Chi Square Value (N/A, α)		943.3	Adjusted Chi Square Value (N/A, β)		940.9
95% KM Approximate Gamma UCL		3.9540E-5	95% KM Adjusted Gamma UCL		3.9642E-5
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended					
Lognormal GOF Test on Detected Observations Only					

Shapiro Wilk Test Statistic		0.976	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value		0.806	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic		0.159	Lilliefors GOF Test	
10% Lilliefors Critical Value		0.319	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	3.6786E-5	Mean in Log Scale	-10.25	
SD in Original Scale	1.1018E-5	SD in Log Scale	0.292	
95% t UCL (assumes normality of ROS data)	3.9612E-5	95% Percentile Bootstrap UCL	3.9575E-5	
95% BCA Bootstrap UCL	3.9894E-5	95% Bootstrap t UCL	3.9899E-5	
95% H-UCL (Log ROS)	3.9878E-5			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-10.25	KM Geo Mean	3.5281E-5	
KM SD (logged)	0.281	95% Critical H Value (KM-Log)	1.759	
KM Standard Error of Mean (logged)	0.141	95% H-UCL (KM -Log)	3.9613E-5	
KM SD (logged)	0.281	95% Critical H Value (KM-Log)	1.759	
KM Standard Error of Mean (logged)	0.141			
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
DL/2 Statistics				
DL/2 Normal		DL/2 Log-Transformed		
Mean in Original Scale	9.2086E-4	Mean in Log Scale	-7.837	
SD in Original Scale	0.00106	SD in Log Scale	1.427	
95% t UCL (Assumes normality)	0.00119	95% H-Stat UCL	0.00206	
DL/2 is not a recommended method, provided for comparisons and historical reasons				
Nonparametric Distribution Free UCL Statistics				
Detected Data appear Normal Distributed at 1% Significance Level				
Suggested UCL to Use				
95% KM (t) UCL	4.5365E-5			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.				
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.				
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.				
C (groundwater dibenzofuran 132-64-9)				
General Statistics				
Total Number of Observations	43	Number of Distinct Observations	18	
Number of Detects	5	Number of Non-Detects	38	
Number of Distinct Detects	5	Number of Distinct Non-Detects	13	
Minimum Detect	2.0000E-5	Minimum Non-Detect	9.2167E-5	
Maximum Detect	4.3200E-4	Maximum Non-Detect	0.01	
Variance Detects	2.7998E-8	Percent Non-Detects	88.37%	

Mean Detects	1.3913E-4	SD Detects	1.6733E-4
Median Detects	9.8667E-5	CV Detects	1.203
Skewness Detects	1.998	Kurtosis Detects	4.185
Mean of Logged Detects	-9.402	SD of Logged Detects	1.139
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.736	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.392	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	1.1249E-4	KM Standard Error of Mean	5.7106E-5
90KM SD	1.3422E-4	95% KM (BCA) UCL	2.2600E-4
95% KM (t) UCL	2.0854E-4	95% KM (Percentile Bootstrap) UCL	2.1630E-4
95% KM (z) UCL	2.0642E-4	95% KM Bootstrap t UCL	4.1738E-4
90% KM Chebyshev UCL	2.8380E-4	95% KM Chebyshev UCL	3.6141E-4
97.5% KM Chebyshev UCL	4.6911E-4	99% KM Chebyshev UCL	6.8069E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.372	Anderson-Darling GOF Test	
5% A-D Critical Value	0.69	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.299	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.364	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.095	k star (bias corrected MLE)	0.571
Theta hat (MLE)	1.2710E-4	Theta star (bias corrected MLE)	2.4358E-4
nu hat (MLE)	10.95	nu star (bias corrected)	5.712
Mean (detects)	1.3913E-4		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	2.0000E-5	Mean	0.00885
Maximum	0.01	Median	0.01
SD	0.0032	CV	0.361
k hat (MLE)	1.288	k star (bias corrected MLE)	1.214
Theta hat (MLE)	0.00687	Theta star (bias corrected MLE)	0.00729
nu hat (MLE)	110.8	nu star (bias corrected)	104.4

Adjusted Level of Significance (β)	0.0444		
Approximate Chi Square Value (104.37, α)	81.8	Adjusted Chi Square Value (104.37, β)	81.1
95% Gamma Approximate UCL	0.0113	95% Gamma Adjusted UCL	0.0114
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	1.1249E-4	SD (KM)	1.3422E-4
Variance (KM)	1.8014E-8	SE of Mean (KM)	5.7106E-5
k hat (KM)	0.702	k star (KM)	0.669
nu hat (KM)	60.41	nu star (KM)	57.52
theta hat (KM)	1.6015E-4	theta star (KM)	1.6817E-4
80% gamma percentile (KM)	1.8514E-4	90% gamma percentile (KM)	2.8538E-4
95% gamma percentile (KM)	3.8920E-4	99% gamma percentile (KM)	6.3800E-4
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (57.52, α)	41.09	Adjusted Chi Square Value (57.52, β)	40.61
95% KM Approximate Gamma UCL	1.5748E-4	95% KM Adjusted Gamma UCL	1.5935E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.963	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.806	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.233	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.319	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	9.4765E-5	Mean in Log Scale	-9.656
SD in Original Scale	1.0160E-4	SD in Log Scale	0.879
95% t UCL (assumes normality of ROS data)	1.2083E-4	95% Percentile Bootstrap UCL	1.2159E-4
95% BCA Bootstrap UCL	1.2717E-4	95% Bootstrap t UCL	1.3298E-4
95% H-UCL (Log ROS)	1.2749E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.623	KM Geo Mean	6.6203E-5
KM SD (logged)	0.983	95% Critical H Value (KM-Log)	2.343
KM Standard Error of Mean (logged)	0.442	95% H-UCL (KM -Log)	1.5308E-4
KM SD (logged)	0.983	95% Critical H Value (KM-Log)	2.343
KM Standard Error of Mean (logged)	0.442		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00142	Mean in Log Scale	-7.01
SD in Original Scale	0.00103	SD in Log Scale	1.271
95% t UCL (Assumes normality)	0.00169	95% H-Stat UCL	0.00343
DL/2 is not a recommended method, provided for comparisons and historical reasons			

Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	2.0854E-4		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater dibenzothiophene 132-65-0)			
General Statistics			
Total Number of Observations	3	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	3
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater dibenzothiophene 132-65-0) was not processed!			
C (groundwater dibromochloromethane 124-48-1)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater dibromochloromethane 124-48-1) was not processed!			
C (groundwater dibromomethane 74-95-3)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	3
Number of Detects	0	Number of Non-Detects	13

Number of Distinct Detects	0	Number of Distinct Non-Detects	3
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater dibromomethane 74-95-3) was not processed!			
C (groundwater dichlorodifluoromethane 75-71-8)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater dichlorodifluoromethane 75-71-8) was not processed!			
C (groundwater diethyl ether 60-29-7)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater diethyl ether 60-29-7) was not processed!			
C (groundwater diethylphthalate 84-66-2)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (groundwater | diethylphthalate | 84-66-2) was not processed!

C (groundwater | diisopropyl ether | 108-20-3)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	5
Number of Detects	2	Number of Non-Detects	11
Number of Distinct Detects	2	Number of Distinct Non-Detects	3
Minimum Detect	4.6000E-4	Minimum Non-Detect	4.0500E-4
Maximum Detect	0.0028	Maximum Non-Detect	0.001
Variance Detects	2.7378E-6	Percent Non-Detects	84.62%
Mean Detects	0.00163	SD Detects	0.00165
Median Detects	0.00163	CV Detects	1.015
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-6.781	SD of Logged Detects	1.277

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	6.1462E-4	KM Standard Error of Mean	2.4874E-4
90KM SD	6.3142E-4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.00106	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.00102	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.00136	95% KM Chebyshev UCL	0.0017
97.5% KM Chebyshev UCL	0.00217	99% KM Chebyshev UCL	0.00309

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	1.526	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.00107	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	6.105	nu star (bias corrected)	N/A
Mean (detects)	0.00163		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	6.1462E-4	SD (KM)	6.3142E-4
Variance (KM)	3.9869E-7	SE of Mean (KM)	2.4874E-4
k hat (KM)	0.947	k star (KM)	0.78
nu hat (KM)	24.63	nu star (KM)	20.28
theta hat (KM)	6.4868E-4	theta star (KM)	7.8785E-4
80% gamma percentile (KM)	0.00101	90% gamma percentile (KM)	0.0015

95% gamma percentile (KM)	0.00201	99% gamma percentile (KM)	0.00321
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0301
Approximate Chi Square Value (20.28, α)	11.06	Adjusted Chi Square Value (20.28, β)	10.1
95% KM Approximate Gamma UCL	0.00113	95% KM Adjusted Gamma UCL	0.00123
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	4.7364E-4	Mean in Log Scale	-8.368
SD in Original Scale	7.3935E-4	SD in Log Scale	1.197
95% t UCL (assumes normality of ROS data)	8.3911E-4	95% Percentile Bootstrap UCL	8.3957E-4
95% BCA Bootstrap UCL	0.00105	95% Bootstrap t UCL	0.0016
95% H-UCL (Log ROS)	0.00143		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.604	KM Geo Mean	4.9839E-4
KM SD (logged)	0.502	95% Critical H Value (KM-Log)	2.114
KM Standard Error of Mean (logged)	0.204	95% H-UCL (KM -Log)	7.6799E-4
KM SD (logged)	0.502	95% Critical H Value (KM-Log)	2.114
KM Standard Error of Mean (logged)	0.204		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	4.7788E-4	Mean in Log Scale	-8.024
SD in Original Scale	7.0334E-4	SD in Log Scale	0.694
95% t UCL (Assumes normality)	8.2556E-4	95% H-Stat UCL	6.6923E-4
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.00106		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater dimethylphthalate 131-11-3)			

General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater dimethylphthalate 131-11-3) was not processed!			
C (groundwater di-n-butylphthalate 84-74-2)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	1	Number of Non-Detects	41
Number of Distinct Detects	1	Number of Distinct Non-Detects	9
Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!			
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater di-n-butylphthalate 84-74-2) was not processed!			
C (groundwater di-n-octylphthalate 117-84-0)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater di-n-octylphthalate 117-84-0) was not processed!			
C (groundwater ethanol 64-17-5)			
General Statistics			
Total Number of Observations	6	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	6
Number of Distinct Detects	0	Number of Distinct Non-Detects	1
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | ethanol | 64-17-5) was not processed!

C (groundwater | ethyl benzene | 100-41-4)

General Statistics

Total Number of Observations	43	Number of Distinct Observations	10
Number of Detects	4	Number of Non-Detects	39
Number of Distinct Detects	2	Number of Distinct Non-Detects	9
Minimum Detect	0.001	Minimum Non-Detect	6.5000E-4
Maximum Detect	0.002	Maximum Non-Detect	0.005
Variance Detects	2.5000E-7	Percent Non-Detects	90.7%
Mean Detects	0.00175	SD Detects	5.0000E-4
Median Detects	0.002	CV Detects	0.286
Skewness Detects	-2	Kurtosis Detects	4
Mean of Logged Detects	-6.388	SD of Logged Detects	0.347

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.63	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.687	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.441	Lilliefors GOF Test
1% Lilliefors Critical Value	0.413	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	7.6308E-4	KM Standard Error of Mean	6.6853E-5
90KM SD	3.6144E-4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	8.7552E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	8.7304E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	9.6363E-4	95% KM Chebyshev UCL	0.00105
97.5% KM Chebyshev UCL	0.00118	99% KM Chebyshev UCL	0.00143

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.962	Anderson-Darling GOF Test
5% A-D Critical Value	0.657	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.469	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.395	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	12.74	k star (bias corrected MLE)	3.352
Theta hat (MLE)	1.3735E-4	Theta star (bias corrected MLE)	5.2208E-4
nu hat (MLE)	101.9	nu star (bias corrected)	26.82
Mean (detects)	0.00175		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	0.001	Mean	0.00923	
Maximum	0.01	Median	0.01	
SD	0.00243	CV	0.263	
k hat (MLE)	5.977	k star (bias corrected MLE)	5.575	
Theta hat (MLE)	0.00154	Theta star (bias corrected MLE)	0.00166	
nu hat (MLE)	514	nu star (bias corrected)	479.5	
Adjusted Level of Significance (β)	0.0444			
Approximate Chi Square Value (479.46, α)	429.7	Adjusted Chi Square Value (479.46, β)	428.1	
95% Gamma Approximate UCL	0.0103	95% Gamma Adjusted UCL	N/A	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	7.6308E-4	SD (KM)	3.6144E-4	
Variance (KM)	1.3064E-7	SE of Mean (KM)	6.6853E-5	
k hat (KM)	4.457	k star (KM)	4.162	
nu hat (KM)	383.3	nu star (KM)	357.9	
theta hat (KM)	1.7120E-4	theta star (KM)	1.8335E-4	
80% gamma percentile (KM)	0.00105	90% gamma percentile (KM)	0.00126	
95% gamma percentile (KM)	0.00146	99% gamma percentile (KM)	0.00189	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (357.92, α)	315.1	Adjusted Chi Square Value (357.92, β)	313.7	
95% KM Approximate Gamma UCL	8.6684E-4	95% KM Adjusted Gamma UCL	8.7068E-4	
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.63	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.792	Detected Data Not Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.441	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.346	Detected Data Not Lognormal at 10% Significance Level		
Detected Data Not Lognormal at 10% Significance Level				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	5.3833E-4	Mean in Log Scale	-7.795	
SD in Original Scale	4.6723E-4	SD in Log Scale	0.718	
95% t UCL (assumes normality of ROS data)	6.5817E-4	95% Percentile Bootstrap UCL	6.6125E-4	
95% BCA Bootstrap UCL	6.8635E-4	95% Bootstrap t UCL	7.0789E-4	
95% H-UCL (Log ROS)	6.7076E-4			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-7.241	KM Geo Mean	7.1679E-4	
KM SD (logged)	0.304	95% Critical H Value (KM-Log)	1.778	
KM Standard Error of Mean (logged)	0.0563	95% H-UCL (KM -Log)	8.1607E-4	
KM SD (logged)	0.304	95% Critical H Value (KM-Log)	1.778	
KM Standard Error of Mean (logged)	0.0563			

DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	7.8746E-4	Mean in Log Scale	-7.377
SD in Original Scale	6.8348E-4	SD in Log Scale	0.602
95% t UCL (Assumes normality)	9.6277E-4	95% H-Stat UCL	9.0124E-4
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	8.7552E-4		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater ethyl tert-butyl ether 637-92-3)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater ethyl tert-butyl ether 637-92-3) was not processed!			
C (groundwater ethylene glycol 107-21-1)			
General Statistics			
Total Number of Observations	6	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	6
Number of Distinct Detects	0	Number of Distinct Non-Detects	1
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater ethylene glycol 107-21-1) was not processed!			
C (groundwater fluoranthene 206-44-0)			

General Statistics			
Total Number of Observations	43	Number of Distinct Observations	19
Number of Detects	7	Number of Non-Detects	36
Number of Distinct Detects	7	Number of Distinct Non-Detects	12
Minimum Detect	5.4000E-5	Minimum Non-Detect	9.2167E-5
Maximum Detect	2.0000E-4	Maximum Non-Detect	0.0056
Variance Detects	2.9294E-9	Percent Non-Detects	83.72%
Mean Detects	1.0458E-4	SD Detects	5.4124E-5
Median Detects	9.2500E-5	CV Detects	0.518
Skewness Detects	0.904	Kurtosis Detects	0.0106
Mean of Logged Detects	-9.277	SD of Logged Detects	0.506
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.887	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.73	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.224	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.35	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	9.8736E-5	KM Standard Error of Mean	1.8857E-5
90KM SD	4.9366E-5	95% KM (BCA) UCL	1.3343E-4
95% KM (t) UCL	1.3045E-4	95% KM (Percentile Bootstrap) UCL	1.3158E-4
95% KM (z) UCL	1.2975E-4	95% KM Bootstrap t UCL	1.5130E-4
90% KM Chebyshev UCL	1.5531E-4	95% KM Chebyshev UCL	1.8093E-4
97.5% KM Chebyshev UCL	2.1650E-4	99% KM Chebyshev UCL	2.8636E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.384	Anderson-Darling GOF Test	
5% A-D Critical Value	0.71	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.254	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.313	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	4.663	k star (bias corrected MLE)	2.76
Theta hat (MLE)	2.2428E-5	Theta star (bias corrected MLE)	3.7895E-5
nu hat (MLE)	65.28	nu star (bias corrected)	38.64
Mean (detects)	1.0458E-4		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	5.4000E-5	Mean	0.00839	
Maximum	0.01	Median	0.01	
SD	0.0037	CV	0.441	
k hat (MLE)	0.988	k star (bias corrected MLE)	0.935	
Theta hat (MLE)	0.00849	Theta star (bias corrected MLE)	0.00897	
nu hat (MLE)	85	nu star (bias corrected)	80.4	
Adjusted Level of Significance (β)	0.0444			
Approximate Chi Square Value (80.40, α)	60.74	Adjusted Chi Square Value (80.40, β)	60.15	
95% Gamma Approximate UCL	0.0111	95% Gamma Adjusted UCL	0.0112	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	9.8736E-5	SD (KM)	4.9366E-5	
Variance (KM)	2.4370E-9	SE of Mean (KM)	1.8857E-5	
k hat (KM)	4	k star (KM)	3.737	
nu hat (KM)	344	nu star (KM)	321.4	
theta hat (KM)	2.4682E-5	theta star (KM)	2.6423E-5	
80% gamma percentile (KM)	1.3722E-4	90% gamma percentile (KM)	1.6721E-4	
95% gamma percentile (KM)	1.9491E-4	99% gamma percentile (KM)	2.5426E-4	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (321.37, α)	280.8	Adjusted Chi Square Value (321.37, β)	279.5	
95% KM Approximate Gamma UCL	1.1299E-4	95% KM Adjusted Gamma UCL	1.1352E-4	
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.909	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.838	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.239	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Lognormal ROS Statistics Using Imputed Non-Detects				
Mean in Original Scale	9.6034E-5	Mean in Log Scale	-9.337	
SD in Original Scale	4.2248E-5	SD in Log Scale	0.417	
95% t UCL (assumes normality of ROS data)	1.0687E-4	95% Percentile Bootstrap UCL	1.0686E-4	
95% BCA Bootstrap UCL	1.0781E-4	95% Bootstrap t UCL	1.0838E-4	
95% H-UCL (Log ROS)	1.0823E-4			
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution				
KM Mean (logged)	-9.337	KM Geo Mean	8.8110E-5	
KM SD (logged)	0.466	95% Critical H Value (KM-Log)	1.877	
KM Standard Error of Mean (logged)	0.178	95% H-UCL (KM -Log)	1.1244E-4	
KM SD (logged)	0.466	95% Critical H Value (KM-Log)	1.877	
KM Standard Error of Mean (logged)	0.178			
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				

DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.2565E-4	Mean in Log Scale	-7.747
SD in Original Scale	0.00106	SD in Log Scale	1.288
95% t UCL (Assumes normality)	0.0012	95% H-Stat UCL	0.00169
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	1.3045E-4		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater fluorene 86-73-7)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	22
Number of Detects	11	Number of Non-Detects	32
Number of Distinct Detects	9	Number of Distinct Non-Detects	13
Minimum Detect	5.0000E-5	Minimum Non-Detect	9.2167E-5
Maximum Detect	0.002	Maximum Non-Detect	0.0056
Variance Detects	2.8738E-7	Percent Non-Detects	74.42%
Mean Detects	6.1312E-4	SD Detects	5.3608E-4
Median Detects	6.0000E-4	CV Detects	0.874
Skewness Detects	1.825	Kurtosis Detects	4.509
Mean of Logged Detects	-7.798	SD of Logged Detects	1.066
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.828	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.205	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	3.4217E-4	KM Standard Error of Mean	8.6287E-5
90KM SD	3.9744E-4	95% KM (BCA) UCL	4.9845E-4
95% KM (t) UCL	4.8731E-4	95% KM (Percentile Bootstrap) UCL	4.9051E-4
95% KM (z) UCL	4.8410E-4	95% KM Bootstrap t UCL	5.3413E-4
90% KM Chebyshev UCL	6.0104E-4	95% KM Chebyshev UCL	7.1829E-4
97.5% KM Chebyshev UCL	8.8104E-4	99% KM Chebyshev UCL	0.0012
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			

A-D Test Statistic		0.308	Anderson-Darling GOF Test	
5% A-D Critical Value		0.744	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic		0.148	Kolmogorov-Smirnov GOF	
5% K-S Critical Value		0.26	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level				
Gamma Statistics on Detected Data Only				
k hat (MLE)	1.389	k star (bias corrected MLE)	1.071	
Theta hat (MLE)	4.4134E-4	Theta star (bias corrected MLE)	5.7250E-4	
nu hat (MLE)	30.56	nu star (bias corrected)	23.56	
Mean (detects)	6.1312E-4			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	5.0000E-5	Mean	0.0076	
Maximum	0.01	Median	0.01	
SD	0.00415	CV	0.546	
k hat (MLE)	1.058	k star (bias corrected MLE)	0.999	
Theta hat (MLE)	0.00718	Theta star (bias corrected MLE)	0.0076	
nu hat (MLE)	90.96	nu star (bias corrected)	85.95	
Adjusted Level of Significance (β)	0.0444			
Approximate Chi Square Value (85.95, α)	65.58	Adjusted Chi Square Value (85.95, β)	64.96	
95% Gamma Approximate UCL	0.00996	95% Gamma Adjusted UCL	0.0101	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	3.4217E-4	SD (KM)	3.9744E-4	
Variance (KM)	1.5796E-7	SE of Mean (KM)	8.6287E-5	
k hat (KM)	0.741	k star (KM)	0.705	
nu hat (KM)	63.75	nu star (KM)	60.63	
theta hat (KM)	4.6164E-4	theta star (KM)	4.8535E-4	
80% gamma percentile (KM)	5.6233E-4	90% gamma percentile (KM)	8.5748E-4	
95% gamma percentile (KM)	0.00116	99% gamma percentile (KM)	0.00189	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (60.63, α)	43.72	Adjusted Chi Square Value (60.63, β)	43.23	
95% KM Approximate Gamma UCL	4.7448E-4	95% KM Adjusted Gamma UCL	4.7996E-4	
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.915	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.876	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.203	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.231	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	2.9156E-4	Mean in Log Scale	-8.545
SD in Original Scale	3.3666E-4	SD in Log Scale	0.884
95% t UCL (assumes normality of ROS data)	3.7791E-4	95% Percentile Bootstrap UCL	3.8007E-4
95% BCA Bootstrap UCL	4.1749E-4	95% Bootstrap t UCL	4.3823E-4
95% H-UCL (Log ROS)	3.9007E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-8.549	KM Geo Mean	1.9372E-4
KM SD (logged)	1.09	95% Critical H Value (KM-Log)	2.463
KM Standard Error of Mean (logged)	0.313	95% H-UCL (KM -Log)	5.3089E-4
KM SD (logged)	1.09	95% Critical H Value (KM-Log)	2.463
KM Standard Error of Mean (logged)	0.313		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00104	Mean in Log Scale	-7.496
SD in Original Scale	0.00103	SD in Log Scale	1.229
95% t UCL (Assumes normality)	0.0013	95% H-Stat UCL	0.00194
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	4.8731E-4		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater hexachlorobenzene 118-74-1)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater hexachlorobenzene 118-74-1) was not processed!			
C (groundwater hexachlorobutadiene 87-68-3)			

General Statistics			
Total Number of Observations	42	Number of Distinct Observations	6
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	6
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater hexachlorobutadiene 87-68-3) was not processed!			
C (groundwater hexachlorocyclopentadiene 77-47-4)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater hexachlorocyclopentadiene 77-47-4) was not processed!			
C (groundwater hexachloroethane 67-72-1)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater hexachloroethane 67-72-1) was not processed!			
C (groundwater indeno(1,2,3-cd)pyrene 193-39-5)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	2	Number of Non-Detects	41
Number of Distinct Detects	2	Number of Distinct Non-Detects	16
Minimum Detect	8.6000E-5	Minimum Non-Detect	1.9225E-4

Maximum Detect	1.1000E-4	Maximum Non-Detect	0.0056
Variance Detects	2.880E-10	Percent Non-Detects	95.35%
Mean Detects	9.8000E-5	SD Detects	1.6971E-5
Median Detects	9.8000E-5	CV Detects	N/A
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-9.238	SD of Logged Detects	0.174
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	9.8000E-5	KM Standard Error of Mean	1.2000E-5
90KM SD	1.2000E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1.1818E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1.1774E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	1.3400E-4	95% KM Chebyshev UCL	1.5031E-4
97.5% KM Chebyshev UCL	1.7294E-4	99% KM Chebyshev UCL	2.1740E-4
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	66.36	k star (bias corrected MLE)	N/A
Theta hat (MLE)	1.4768E-6	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	265.4	nu star (bias corrected)	N/A
Mean (detects)	9.8000E-5		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	9.8000E-5	SD (KM)	1.2000E-5
Variance (KM)	1.440E-10	SE of Mean (KM)	1.2000E-5
k hat (KM)	66.69	k star (KM)	62.06
nu hat (KM)	5736	nu star (KM)	5337
theta hat (KM)	1.4694E-6	theta star (KM)	1.5792E-6
80% gamma percentile (KM)	1.0829E-4	90% gamma percentile (KM)	1.1424E-4
95% gamma percentile (KM)	1.1932E-4	99% gamma percentile (KM)	1.2924E-4
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0444
Approximate Chi Square Value (N/A, α)	5168	Adjusted Chi Square Value (N/A, β)	5162
95% KM Approximate Gamma UCL	1.0120E-4	95% KM Adjusted Gamma UCL	1.0131E-4
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	9.9005E-5	Mean in Log Scale	-9.238
SD in Original Scale	1.9142E-5	SD in Log Scale	0.19
95% t UCL (assumes normality of ROS data)	1.0391E-4	95% Percentile Bootstrap UCL	1.0382E-4
95% BCA Bootstrap UCL	1.0428E-4	95% Bootstrap t UCL	1.0434E-4
95% H-UCL (Log ROS)	1.0413E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.238	KM Geo Mean	9.7263E-5
KM SD (logged)	0.123	95% Critical H Value (KM-Log)	1.691
KM Standard Error of Mean (logged)	0.123	95% H-UCL (KM -Log)	1.0120E-4
KM SD (logged)	0.123	95% Critical H Value (KM-Log)	1.691
KM Standard Error of Mean (logged)	0.123		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.3080E-4	Mean in Log Scale	-7.687
SD in Original Scale	0.00106	SD in Log Scale	1.204
95% t UCL (Assumes normality)	0.0012	95% H-Stat UCL	0.00153
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	1.1818E-4		
Warning: Recommended UCL exceeds the maximum observation			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater iron 7439-89-6)			
General Statistics			
Total Number of Observations	28	Number of Distinct Observations	28
		Number of Missing Observations	0
Minimum	0.16	Mean	53.54
Maximum	178.3	Median	46.98
SD	47.61	Std. Error of Mean	8.997
Coefficient of Variation	0.889	Skewness	0.795
Normal GOF Test			
Shapiro Wilk Test Statistic	0.911	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.896	Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.132	Lilliefors GOF Test	

1% Lilliefors Critical Value	0.191	Data appear Normal at 1% Significance Level	
Data appear Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	68.86	95% Adjusted-CLT UCL (Chen-1995)	69.78
		95% Modified-t UCL (Johnson-1978)	69.09
Gamma GOF Test			
A-D Test Statistic	0.961	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.795	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.151	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.173	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	0.648	k star (bias corrected MLE)	0.603
Theta hat (MLE)	82.56	Theta star (bias corrected MLE)	88.82
nu hat (MLE)	36.31	nu star (bias corrected)	33.76
MLE Mean (bias corrected)	53.54	MLE Sd (bias corrected)	68.96
		Approximate Chi Square Value (0.05)	21.47
Adjusted Level of Significance	0.0404	Adjusted Chi Square Value	20.86
Assuming Gamma Distribution			
95% Approximate Gamma UCL	84.18	95% Adjusted Gamma UCL	86.63
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.818	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.936	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.234	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.151	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-1.833	Mean of logged Data	3.038
Maximum of Logged Data	5.184	SD of logged Data	2.017
Assuming Lognormal Distribution			
95% H-UCL	728.2	90% Chebyshev (MVUE) UCL	333.1
95% Chebyshev (MVUE) UCL	424.1	97.5% Chebyshev (MVUE) UCL	550.3
99% Chebyshev (MVUE) UCL	798.3		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	68.34	95% BCA Bootstrap UCL	69.75
95% Standard Bootstrap UCL	68.04	95% Bootstrap-t UCL	70.81

95% Hall's Bootstrap UCL	70.11	95% Percentile Bootstrap UCL	68.65
90% Chebyshev(Mean, Sd) UCL	80.53	95% Chebyshev(Mean, Sd) UCL	92.75
97.5% Chebyshev(Mean, Sd) UCL	109.7	99% Chebyshev(Mean, Sd) UCL	143.1
Suggested UCL to Use			
95% Student's-t UCL	68.86		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater isophorone 78-59-1)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater isophorone 78-59-1) was not processed!			
C (groundwater isopropanol 67-63-0)			
General Statistics			
Total Number of Observations	6	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	6
Number of Distinct Detects	0	Number of Distinct Non-Detects	1
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater isopropanol 67-63-0) was not processed!			
C (groundwater lead 7439-92-1)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	18
Number of Detects	17	Number of Non-Detects	24
Number of Distinct Detects	17	Number of Distinct Non-Detects	2
Minimum Detect	1.6000E-4	Minimum Non-Detect	5.0000E-4
Maximum Detect	0.025	Maximum Non-Detect	0.015
Variance Detects	7.8870E-5	Percent Non-Detects	58.54%

Mean Detects	0.00767	SD Detects	0.00888
Median Detects	0.0016	CV Detects	1.158
Skewness Detects	0.845	Kurtosis Detects	-0.591
Mean of Logged Detects	-6.168	SD of Logged Detects	1.987
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.806	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.851	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.282	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.241	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.00489	KM Standard Error of Mean	0.00139
90KM SD	0.00691	95% KM (BCA) UCL	0.00731
95% KM (t) UCL	0.00724	95% KM (Percentile Bootstrap) UCL	0.00721
95% KM (z) UCL	0.00718	95% KM Bootstrap t UCL	0.00778
90% KM Chebyshev UCL	0.00907	95% KM Chebyshev UCL	0.011
97.5% KM Chebyshev UCL	0.0136	99% KM Chebyshev UCL	0.0188
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	1.086	Anderson-Darling GOF Test	
5% A-D Critical Value	0.8	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.212	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.221	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.491	k star (bias corrected MLE)	0.443
Theta hat (MLE)	0.0156	Theta star (bias corrected MLE)	0.0173
nu hat (MLE)	16.69	nu star (bias corrected)	15.08
Mean (detects)	0.00767		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	1.6000E-4	Mean	0.00907
Maximum	0.025	Median	0.01
SD	0.00575	CV	0.634
k hat (MLE)	1.049	k star (bias corrected MLE)	0.989
Theta hat (MLE)	0.00864	Theta star (bias corrected MLE)	0.00917
nu hat (MLE)	86.04	nu star (bias corrected)	81.08
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (81.08, α)	61.33	Adjusted Chi Square Value (81.08, β)	60.7

95% Gamma Approximate UCL	0.012	95% Gamma Adjusted UCL	0.0121
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.00489	SD (KM)	0.00691
Variance (KM)	4.7704E-5	SE of Mean (KM)	0.00139
k hat (KM)	0.501	k star (KM)	0.48
nu hat (KM)	41.06	nu star (KM)	39.39
theta hat (KM)	0.00976	theta star (KM)	0.0102
80% gamma percentile (KM)	0.00801	90% gamma percentile (KM)	0.0133
95% gamma percentile (KM)	0.019	99% gamma percentile (KM)	0.0331
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (39.39, α)	26.01	Adjusted Chi Square Value (39.39, β)	25.62
95% KM Approximate Gamma UCL	0.0074	95% KM Adjusted Gamma UCL	0.00752
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.847	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.91	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.234	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.19	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.00415	Mean in Log Scale	-6.77
SD in Original Scale	0.00656	SD in Log Scale	1.72
95% t UCL (assumes normality of ROS data)	0.00588	95% Percentile Bootstrap UCL	0.00592
95% BCA Bootstrap UCL	0.00617	95% Bootstrap t UCL	0.00643
95% H-UCL (Log ROS)	0.0122		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-6.754	KM Geo Mean	0.00117
KM SD (logged)	1.811	95% Critical H Value (KM-Log)	3.376
KM Standard Error of Mean (logged)	0.421	95% H-UCL (KM -Log)	0.0158
KM SD (logged)	1.811	95% Critical H Value (KM-Log)	3.376
KM Standard Error of Mean (logged)	0.421		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00722	Mean in Log Scale	-5.588
SD in Original Scale	0.00584	SD in Log Scale	1.534
95% t UCL (Assumes normality)	0.00875	95% H-Stat UCL	0.0252
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			

95% KM Adjusted Gamma UCL	0.00752		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
When a data set follows an approximate distribution passing only one of the GOF tests,			
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater manganese 7439-96-5)			
General Statistics			
Total Number of Observations	28	Number of Distinct Observations	27
		Number of Missing Observations	0
Minimum	0.032	Mean	8.402
Maximum	28.1	Median	5.61
SD	7.941	Std. Error of Mean	1.501
Coefficient of Variation	0.945	Skewness	1.286
Normal GOF Test			
Shapiro Wilk Test Statistic	0.842	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.896	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.211	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.191	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	10.96	95% Adjusted-CLT UCL (Chen-1995)	11.26
		95% Modified-t UCL (Johnson-1978)	11.02
Gamma GOF Test			
A-D Test Statistic	0.21	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.776	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0806	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.171	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	0.956	k star (bias corrected MLE)	0.878
Theta hat (MLE)	8.786	Theta star (bias corrected MLE)	9.574
nu hat (MLE)	53.55	nu star (bias corrected)	49.15

MLE Mean (bias corrected)	8.402	MLE Sd (bias corrected)	8.969
		Approximate Chi Square Value (0.05)	34.05
Adjusted Level of Significance	0.0404	Adjusted Chi Square Value	33.28
Assuming Gamma Distribution			
95% Approximate Gamma UCL	12.13	95% Adjusted Gamma UCL	12.41
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.877	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.936	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.155	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.151	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-3.442	Mean of logged Data	1.522
Maximum of Logged Data	3.336	SD of logged Data	1.442
Assuming Lognormal Distribution			
95% H-UCL	30.14	90% Chebyshev (MVUE) UCL	24.33
95% Chebyshev (MVUE) UCL	29.88	97.5% Chebyshev (MVUE) UCL	37.58
99% Chebyshev (MVUE) UCL	52.71		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	10.87	95% BCA Bootstrap UCL	11.27
95% Standard Bootstrap UCL	10.84	95% Bootstrap-t UCL	11.59
95% Hall's Bootstrap UCL	11.29	95% Percentile Bootstrap UCL	10.94
90% Chebyshev(Mean, Sd) UCL	12.9	95% Chebyshev(Mean, Sd) UCL	14.94
97.5% Chebyshev(Mean, Sd) UCL	17.77	99% Chebyshev(Mean, Sd) UCL	23.33
Suggested UCL to Use			
95% Adjusted Gamma UCL	12.41		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater mercury 7439-97-6)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	7
Number of Detects	5	Number of Non-Detects	36
Number of Distinct Detects	4	Number of Distinct Non-Detects	3
Minimum Detect	5.3000E-5	Minimum Non-Detect	1.0000E-4
Maximum Detect	2.2000E-4	Maximum Non-Detect	2.0000E-4

Variance Detects	5.0977E-9	Percent Non-Detects	87.8%
Mean Detects	9.2800E-5	SD Detects	7.1398E-5
Median Detects	6.0000E-5	CV Detects	N/A
Skewness Detects	2.191	Kurtosis Detects	4.835
Mean of Logged Detects	-9.452	SD of Logged Detects	0.585
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.633	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.42	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	6.4878E-5	KM Standard Error of Mean	5.5394E-6
90KM SD	2.5339E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	7.4205E-5	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	7.3989E-5	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	8.1496E-5	95% KM Chebyshev UCL	8.9024E-5
97.5% KM Chebyshev UCL	9.9471E-5	99% KM Chebyshev UCL	1.1999E-4
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.941	Anderson-Darling GOF Test	
5% A-D Critical Value	0.682	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.403	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.359	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	3.144	k star (bias corrected MLE)	1.391
Theta hat (MLE)	2.9518E-5	Theta star (bias corrected MLE)	6.6720E-5
nu hat (MLE)	31.44	nu star (bias corrected)	13.91
Mean (detects)	9.2800E-5		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	5.3000E-5	Mean	0.00879
Maximum	0.01	Median	0.01
SD	0.00328	CV	0.373
k hat (MLE)	1.221	k star (bias corrected MLE)	1.148
Theta hat (MLE)	0.0072	Theta star (bias corrected MLE)	0.00766
nu hat (MLE)	100.1	nu star (bias corrected)	94.14
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (94.14, α)	72.76	Adjusted Chi Square Value (94.14, β)	72.08

95% Gamma Approximate UCL	0.0114	95% Gamma Adjusted UCL	0.0115
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	6.4878E-5	SD (KM)	2.5339E-5
Variance (KM)	6.421E-10	SE of Mean (KM)	5.5394E-6
k hat (KM)	6.556	k star (KM)	6.092
nu hat (KM)	537.6	nu star (KM)	499.6
theta hat (KM)	9.8964E-6	theta star (KM)	1.0649E-5
80% gamma percentile (KM)	8.5348E-5	90% gamma percentile (KM)	1.0001E-4
95% gamma percentile (KM)	1.1327E-4	99% gamma percentile (KM)	1.4105E-4
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (499.57, α)	448.7	Adjusted Chi Square Value (499.57, β)	447
95% KM Approximate Gamma UCL	7.2227E-5	95% KM Adjusted Gamma UCL	7.2510E-5
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.71	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.806	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.368	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.319	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	7.0891E-5	Mean in Log Scale	-9.641
SD in Original Scale	3.3907E-5	SD in Log Scale	0.408
95% t UCL (assumes normality of ROS data)	7.9808E-5	95% Percentile Bootstrap UCL	8.0355E-5
95% BCA Bootstrap UCL	8.1899E-5	95% Bootstrap t UCL	8.2897E-5
95% H-UCL (Log ROS)	7.9498E-5		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.679	KM Geo Mean	6.2604E-5
KM SD (logged)	0.224	95% Critical H Value (KM-Log)	1.737
KM Standard Error of Mean (logged)	0.0665	95% H-UCL (KM -Log)	6.8258E-5
KM SD (logged)	0.224	95% Critical H Value (KM-Log)	1.737
KM Standard Error of Mean (logged)	0.0665		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	8.8268E-5	Mean in Log Scale	-9.39
SD in Original Scale	3.0427E-5	SD in Log Scale	0.337
95% t UCL (Assumes normality)	9.6270E-5	95% H-Stat UCL	9.7340E-5
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			

95% KM (t) UCL		7.4205E-5	
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater methanol 67-56-1)			
General Statistics			
Total Number of Observations	6	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	6
Number of Distinct Detects	0	Number of Distinct Non-Detects	1
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater methanol 67-56-1) was not processed!			
C (groundwater methyl acetate 79-20-9)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater methyl acetate 79-20-9) was not processed!			
C (groundwater methyl tert-butyl ether 1634-04-4)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	8
Number of Detects	0	Number of Non-Detects	43
Number of Distinct Detects	0	Number of Distinct Non-Detects	8
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater methyl tert-butyl ether 1634-04-4) was not processed!			

C (groundwater methylcyclohexane 108-87-2)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	1	Number of Non-Detects	35
Number of Distinct Detects	1	Number of Distinct Non-Detects	4
Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater methylcyclohexane 108-87-2) was not processed!			
C (groundwater methylene chloride 75-09-2)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater methylene chloride 75-09-2) was not processed!			
C (groundwater molybdenum 7439-98-7)			
General Statistics			
Total Number of Observations	31	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	31
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater molybdenum 7439-98-7) was not processed!			
C (groundwater naphthalene 91-20-3)			
General Statistics			
Total Number of Observations	50	Number of Distinct Observations	36
Number of Detects	15	Number of Non-Detects	35
Number of Distinct Detects	15	Number of Distinct Non-Detects	22
Minimum Detect	1.9000E-4	Minimum Non-Detect	2.5883E-4

Maximum Detect	0.036	Maximum Non-Detect	0.002
Variance Detects	8.6181E-5	Percent Non-Detects	70%
Mean Detects	0.00515	SD Detects	0.00928
Median Detects	0.0014	CV Detects	1.802
Skewness Detects	2.999	Kurtosis Detects	9.739
Mean of Logged Detects	-6.35	SD of Logged Detects	1.514
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.573	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.835	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.307	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.255	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.00175	KM Standard Error of Mean	7.9084E-4
90KM SD	0.0054	95% KM (BCA) UCL	0.00327
95% KM (t) UCL	0.00308	95% KM (Percentile Bootstrap) UCL	0.00314
95% KM (z) UCL	0.00305	95% KM Bootstrap t UCL	0.00589
90% KM Chebyshev UCL	0.00412	95% KM Chebyshev UCL	0.0052
97.5% KM Chebyshev UCL	0.00669	99% KM Chebyshev UCL	0.00962
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.645	Anderson-Darling GOF Test	
5% A-D Critical Value	0.788	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.178	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.233	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.575	k star (bias corrected MLE)	0.504
Theta hat (MLE)	0.00896	Theta star (bias corrected MLE)	0.0102
nu hat (MLE)	17.25	nu star (bias corrected)	15.13
Mean (detects)	0.00515		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	1.9000E-4	Mean	0.00855
Maximum	0.036	Median	0.01
SD	0.00545	CV	0.637
k hat (MLE)	1.51	k star (bias corrected MLE)	1.433
Theta hat (MLE)	0.00566	Theta star (bias corrected MLE)	0.00596
nu hat (MLE)	151	nu star (bias corrected)	143.3
Adjusted Level of Significance (β)	0.0452		

Approximate Chi Square Value (143.28, α)	116.6	Adjusted Chi Square Value (143.28, β)	115.9
95% Gamma Approximate UCL	0.0105	95% Gamma Adjusted UCL	0.0106
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.00175	SD (KM)	0.0054
Variance (KM)	2.9121E-5	SE of Mean (KM)	7.9084E-4
k hat (KM)	0.105	k star (KM)	0.112
nu hat (KM)	10.53	nu star (KM)	11.23
theta hat (KM)	0.0166	theta star (KM)	0.0156
80% gamma percentile (KM)	0.00142	90% gamma percentile (KM)	0.00486
95% gamma percentile (KM)	0.0101	99% gamma percentile (KM)	0.0262
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (11.23, α)	4.725	Adjusted Chi Square Value (11.23, β)	4.599
95% KM Approximate Gamma UCL	0.00416	95% KM Adjusted Gamma UCL	0.00428
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.972	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.901	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.0952	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.202	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.00172	Mean in Log Scale	-7.951
SD in Original Scale	0.00546	SD in Log Scale	1.484
95% t UCL (assumes normality of ROS data)	0.00301	95% Percentile Bootstrap UCL	0.00313
95% BCA Bootstrap UCL	0.00396	95% Bootstrap t UCL	0.00577
95% H-UCL (Log ROS)	0.00197		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.708	KM Geo Mean	4.4916E-4
KM SD (logged)	1.266	95% Critical H Value (KM-Log)	2.647
KM Standard Error of Mean (logged)	0.209	95% H-UCL (KM -Log)	0.00161
KM SD (logged)	1.266	95% Critical H Value (KM-Log)	2.647
KM Standard Error of Mean (logged)	0.209		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00193	Mean in Log Scale	-7.284
SD in Original Scale	0.00541	SD in Log Scale	1.141
95% t UCL (Assumes normality)	0.00321	95% H-Stat UCL	0.00198
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Gamma Distributed at 5% Significance Level			

Suggested UCL to Use

95% KM Approximate Gamma UCL 0.00416

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.

Please verify the data were collected from random locations.

If the data were collected using judgmental or other non-random methods,

then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (groundwater | n-butylbenzene | 104-51-8)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | n-butylbenzene | 104-51-8) was not processed!

C (groundwater | nickel | 7440-02-0)

General Statistics

Total Number of Observations	41	Number of Distinct Observations	41
Number of Detects	40	Number of Non-Detects	1
Number of Distinct Detects	40	Number of Distinct Non-Detects	1
Minimum Detect	0.0024	Minimum Non-Detect	0.01
Maximum Detect	0.299	Maximum Non-Detect	0.01
Variance Detects	0.00449	Percent Non-Detects	2.439%
Mean Detects	0.0515	SD Detects	0.067
Median Detects	0.025	CV Detects	1.301
Skewness Detects	2.165	Kurtosis Detects	4.722
Mean of Logged Detects	-3.747	SD of Logged Detects	1.348

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.717	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.919	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.245	Lilliefors GOF Test
1% Lilliefors Critical Value	0.162	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0504	KM Standard Error of Mean	0.0104
90KM SD	0.0658	95% KM (BCA) UCL	0.0685
95% KM (t) UCL	0.0679	95% KM (Percentile Bootstrap) UCL	0.0682
95% KM (z) UCL	0.0675	95% KM Bootstrap t UCL	0.0739
90% KM Chebyshev UCL	0.0816	95% KM Chebyshev UCL	0.0957
97.5% KM Chebyshev UCL	0.115	99% KM Chebyshev UCL	0.154
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.684	Anderson-Darling GOF Test	
5% A-D Critical Value	0.789	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.118	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.145	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.764	k star (bias corrected MLE)	0.723
Theta hat (MLE)	0.0675	Theta star (bias corrected MLE)	0.0713
nu hat (MLE)	61.1	nu star (bias corrected)	57.85
Mean (detects)	0.0515		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.0024	Mean	0.0505
Maximum	0.299	Median	0.0247
SD	0.0665	CV	1.316
k hat (MLE)	0.763	k star (bias corrected MLE)	0.723
Theta hat (MLE)	0.0662	Theta star (bias corrected MLE)	0.0698
nu hat (MLE)	62.56	nu star (bias corrected)	59.31
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (59.31, α)	42.6	Adjusted Chi Square Value (59.31, β)	42.09
95% Gamma Approximate UCL	0.0703	95% Gamma Adjusted UCL	0.0712
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.0504	SD (KM)	0.0658
Variance (KM)	0.00432	SE of Mean (KM)	0.0104
k hat (KM)	0.587	k star (KM)	0.561
nu hat (KM)	48.17	nu star (KM)	45.98
theta hat (KM)	0.0858	theta star (KM)	0.0899
80% gamma percentile (KM)	0.083	90% gamma percentile (KM)	0.133
95% gamma percentile (KM)	0.186	99% gamma percentile (KM)	0.314
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (45.98, α)	31.42	Adjusted Chi Square Value (45.98, β)	30.98
95% KM Approximate Gamma UCL	0.0737	95% KM Adjusted Gamma UCL	0.0748

Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.955	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.949	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.102	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.128	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.0504	Mean in Log Scale	-3.783
SD in Original Scale	0.0666	SD in Log Scale	1.35
95% t UCL (assumes normality of ROS data)	0.0679	95% Percentile Bootstrap UCL	0.0684
95% BCA Bootstrap UCL	0.0717	95% Bootstrap t UCL	0.0744
95% H-UCL (Log ROS)	0.102		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-3.787	KM Geo Mean	0.0227
KM SD (logged)	1.34	95% Critical H Value (KM-Log)	2.752
KM Standard Error of Mean (logged)	0.212	95% H-UCL (KM -Log)	0.0997
KM SD (logged)	1.34	95% Critical H Value (KM-Log)	2.752
KM Standard Error of Mean (logged)	0.212		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0504	Mean in Log Scale	-3.785
SD in Original Scale	0.0666	SD in Log Scale	1.353
95% t UCL (Assumes normality)	0.0679	95% H-Stat UCL	0.102
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM Adjusted Gamma UCL	0.0748		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater nitrobenzene 98-95-3)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9

Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater nitrobenzene 98-95-3) was not processed!			
C (groundwater n-nitrosodimethylamine 62-75-9)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	6
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	6
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater n-nitrosodimethylamine 62-75-9) was not processed!			
C (groundwater n-nitroso-di-n-propylamine 621-64-7)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater n-nitroso-di-n-propylamine 621-64-7) was not processed!			
C (groundwater n-nitrosodiphenylamine 86-30-6)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	10
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	10
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (groundwater n-nitrosodiphenylamine 86-30-6) was not processed!			
C (groundwater n-propylbenzene 103-65-1)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater n-propylbenzene 103-65-1) was not processed!			
C (groundwater pcbs (total) 1336-36-3)			
General Statistics			
Total Number of Observations	1	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	1
Number of Distinct Detects	0	Number of Distinct Non-Detects	1
Warning: This data set only has 1 observations!			
Data set is too small to compute reliable and meaningful statistics and estimates!			
The data set for variable C (groundwater pcbs (total) 1336-36-3) was not processed!			
It is suggested to collect at least 8 to 10 observations before using these statistical methods!			
If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.			
C (groundwater p-cymene 99-87-6)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	5
Number of Detects	2	Number of Non-Detects	11
Number of Distinct Detects	2	Number of Distinct Non-Detects	3
Minimum Detect	0.0022	Minimum Non-Detect	7.0500E-4
Maximum Detect	0.00525	Maximum Non-Detect	0.002
Variance Detects	4.6513E-6	Percent Non-Detects	84.62%
Mean Detects	0.00373	SD Detects	0.00216
Median Detects	0.00373	CV Detects	0.579
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-5.684	SD of Logged Detects	0.615
Warning: Data set has only 2 Detected Values.			

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.00117	KM Standard Error of Mean	4.8755E-4
90KM SD	0.00124	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.00204	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.00197	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.00263	95% KM Chebyshev UCL	0.00329
97.5% KM Chebyshev UCL	0.00421	99% KM Chebyshev UCL	0.00602

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	5.612	k star (bias corrected MLE)	N/A
Theta hat (MLE)	6.6370E-4	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	22.45	nu star (bias corrected)	N/A
Mean (detects)	0.00373		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.00117	SD (KM)	0.00124
Variance (KM)	1.5451E-6	SE of Mean (KM)	4.8755E-4
k hat (KM)	0.885	k star (KM)	0.732
nu hat (KM)	23.02	nu star (KM)	19.04
theta hat (KM)	0.00132	theta star (KM)	0.0016
80% gamma percentile (KM)	0.00192	90% gamma percentile (KM)	0.0029
95% gamma percentile (KM)	0.00392	99% gamma percentile (KM)	0.00632

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0301
Approximate Chi Square Value (19.04, α)	10.15	Adjusted Chi Square Value (19.04, β)	9.235
95% KM Approximate Gamma UCL	0.00219	95% KM Adjusted Gamma UCL	0.00241

Lognormal GOF Test on Detected Observations Only

Not Enough Data to Perform GOF Test

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	6.8769E-4	Mean in Log Scale	-9.074
SD in Original Scale	0.00149	SD in Log Scale	2.011
95% t UCL (assumes normality of ROS data)	0.00143	95% Percentile Bootstrap UCL	0.00143
95% BCA Bootstrap UCL	0.00182	95% Bootstrap t UCL	0.00588
95% H-UCL (Log ROS)	0.0143		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-7.015	KM Geo Mean	8.9801E-4
KM SD (logged)	0.593	95% Critical H Value (KM-Log)	2.225
KM Standard Error of Mean (logged)	0.232	95% H-UCL (KM -Log)	0.00157
KM SD (logged)	0.593	95% Critical H Value (KM-Log)	2.225
KM Standard Error of Mean (logged)	0.232		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00102	Mean in Log Scale	-7.28
SD in Original Scale	0.00136	SD in Log Scale	0.763
95% t UCL (Assumes normality)	0.0017	95% H-Stat UCL	0.00159
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	0.00204		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater pentachloronitrobenzene 82-68-8)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	6
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	6
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater pentachloronitrobenzene 82-68-8) was not processed!			
C (groundwater pentachlorophenol 87-86-5)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			

The data set for variable C (groundwater pentachlorophenol 87-86-5) was not processed!			
C (groundwater perylene 198-55-0)			
General Statistics			
Total Number of Observations	7	Number of Distinct Observations	7
Number of Detects	0	Number of Non-Detects	7
Number of Distinct Detects	0	Number of Distinct Non-Detects	7
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater perylene 198-55-0) was not processed!			
C (groundwater phenanthrene 85-01-8)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	18
Number of Detects	5	Number of Non-Detects	38
Number of Distinct Detects	5	Number of Distinct Non-Detects	13
Minimum Detect	7.0000E-5	Minimum Non-Detect	1.6175E-4
Maximum Detect	3.1000E-4	Maximum Non-Detect	0.0056
Variance Detects	1.2413E-8	Percent Non-Detects	88.37%
Mean Detects	1.7889E-4	SD Detects	1.1141E-4
Median Detects	1.6644E-4	CV Detects	0.623
Skewness Detects	0.199	Kurtosis Detects	-2.75
Mean of Logged Detects	-8.814	SD of Logged Detects	0.708
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.873	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.229	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	1.5160E-4	KM Standard Error of Mean	4.1275E-5
90KM SD	9.6112E-5	95% KM (BCA) UCL	2.3441E-4
95% KM (t) UCL	2.2102E-4	95% KM (Percentile Bootstrap) UCL	2.2947E-4
95% KM (z) UCL	2.1949E-4	95% KM Bootstrap t UCL	2.4601E-4
90% KM Chebyshev UCL	2.7542E-4	95% KM Chebyshev UCL	3.3151E-4
97.5% KM Chebyshev UCL	4.0936E-4	99% KM Chebyshev UCL	5.6228E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			

Gamma GOF Tests on Detected Observations Only				
A-D Test Statistic	0.438	Anderson-Darling GOF Test		
5% A-D Critical Value	0.683	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic	0.266	Kolmogorov-Smirnov GOF		
5% K-S Critical Value	0.36	Detected data appear Gamma Distributed at 5% Significance Level		
Detected data appear Gamma Distributed at 5% Significance Level				
Note GOF tests may be unreliable for small sample sizes				
Gamma Statistics on Detected Data Only				
k hat (MLE)	2.853	k star (bias corrected MLE)	1.275	
Theta hat (MLE)	6.2702E-5	Theta star (bias corrected MLE)	1.4036E-4	
nu hat (MLE)	28.53	nu star (bias corrected)	12.75	
Mean (detects)	1.7889E-4			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	7.0000E-5	Mean	0.00886	
Maximum	0.01	Median	0.01	
SD	0.00319	CV	0.36	
k hat (MLE)	1.503	k star (bias corrected MLE)	1.414	
Theta hat (MLE)	0.00589	Theta star (bias corrected MLE)	0.00627	
nu hat (MLE)	129.3	nu star (bias corrected)	121.6	
Adjusted Level of Significance (β)	0.0444			
Approximate Chi Square Value (121.58, α)	97.12	Adjusted Chi Square Value (121.58, β)	96.36	
95% Gamma Approximate UCL	0.0111	95% Gamma Adjusted UCL	0.0112	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	1.5160E-4	SD (KM)	9.6112E-5	
Variance (KM)	9.2374E-9	SE of Mean (KM)	4.1275E-5	
k hat (KM)	2.488	k star (KM)	2.33	
nu hat (KM)	214	nu star (KM)	200.4	
theta hat (KM)	6.0934E-5	theta star (KM)	6.5068E-5	
80% gamma percentile (KM)	2.2288E-4	90% gamma percentile (KM)	2.8457E-4	
95% gamma percentile (KM)	3.4290E-4	99% gamma percentile (KM)	4.7113E-4	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (200.36, α)	168.6	Adjusted Chi Square Value (200.36, β)	167.6	
95% KM Approximate Gamma UCL	1.8014E-4	95% KM Adjusted Gamma UCL	1.8123E-4	
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.855	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.806	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.242	Lilliefors GOF Test		

10% Lilliefors Critical Value	0.319	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.4461E-4	Mean in Log Scale	-8.996
SD in Original Scale	8.6808E-5	SD in Log Scale	0.559
95% t UCL (assumes normality of ROS data)	1.6687E-4	95% Percentile Bootstrap UCL	1.6708E-4
95% BCA Bootstrap UCL	1.7004E-4	95% Bootstrap t UCL	1.7174E-4
95% H-UCL (Log ROS)	1.7132E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-8.993	KM Geo Mean	1.2427E-4
KM SD (logged)	0.624	95% Critical H Value (KM-Log)	1.996
KM Standard Error of Mean (logged)	0.272	95% H-UCL (KM -Log)	1.8290E-4
KM SD (logged)	0.624	95% Critical H Value (KM-Log)	1.996
KM Standard Error of Mean (logged)	0.272		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.3818E-4	Mean in Log Scale	-7.658
SD in Original Scale	0.00105	SD in Log Scale	1.192
95% t UCL (Assumes normality)	0.00121	95% H-Stat UCL	0.00155
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	2.2102E-4		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater phenol 108-95-2)			
General Statistics			
Total Number of Observations	42	Number of Distinct Observations	9
Number of Detects	0	Number of Non-Detects	42
Number of Distinct Detects	0	Number of Distinct Non-Detects	9
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater phenol 108-95-2) was not processed!			

C (groundwater propylene glycol 57-55-6)			
General Statistics			
Total Number of Observations	6	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	6
Number of Distinct Detects	0	Number of Distinct Non-Detects	1
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater propylene glycol 57-55-6) was not processed!			
C (groundwater pyrene 129-00-0)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	22
Number of Detects	13	Number of Non-Detects	30
Number of Distinct Detects	12	Number of Distinct Non-Detects	11
Minimum Detect	7.5250E-5	Minimum Non-Detect	5.0000E-4
Maximum Detect	0.001	Maximum Non-Detect	0.0056
Variance Detects	9.2363E-8	Percent Non-Detects	69.77%
Mean Detects	3.4651E-4	SD Detects	3.0391E-4
Median Detects	2.0000E-4	CV Detects	0.877
Skewness Detects	1.351	Kurtosis Detects	0.843
Mean of Logged Detects	-8.297	SD of Logged Detects	0.839
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.811	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.814	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.224	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.271	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Approximate Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	2.6969E-4	KM Standard Error of Mean	5.1233E-5
90KM SD	2.2571E-4	95% KM (BCA) UCL	3.6028E-4
95% KM (t) UCL	3.5586E-4	95% KM (Percentile Bootstrap) UCL	3.5668E-4
95% KM (z) UCL	3.5396E-4	95% KM Bootstrap t UCL	3.7786E-4
90% KM Chebyshev UCL	4.2339E-4	95% KM Chebyshev UCL	4.9301E-4
97.5% KM Chebyshev UCL	5.8964E-4	99% KM Chebyshev UCL	7.7945E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.454	Anderson-Darling GOF Test	

5% A-D Critical Value	0.748	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.186	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.24	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.665	k star (bias corrected MLE)	1.332
Theta hat (MLE)	2.0809E-4	Theta star (bias corrected MLE)	2.6011E-4
nu hat (MLE)	43.29	nu star (bias corrected)	34.64
Mean (detects)	3.4651E-4		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	7.5250E-5	Mean	0.00708
Maximum	0.01	Median	0.01
SD	0.00449	CV	0.634
k hat (MLE)	0.773	k star (bias corrected MLE)	0.735
Theta hat (MLE)	0.00916	Theta star (bias corrected MLE)	0.00964
nu hat (MLE)	66.5	nu star (bias corrected)	63.19
Adjusted Level of Significance (β)	0.0444		
Approximate Chi Square Value (63.19, α)	45.9	Adjusted Chi Square Value (63.19, β)	45.39
95% Gamma Approximate UCL	0.00975	95% Gamma Adjusted UCL	0.00986
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	2.6969E-4	SD (KM)	2.2571E-4
Variance (KM)	5.0947E-8	SE of Mean (KM)	5.1233E-5
k hat (KM)	1.428	k star (KM)	1.344
nu hat (KM)	122.8	nu star (KM)	115.5
theta hat (KM)	1.8891E-4	theta star (KM)	2.0073E-4
80% gamma percentile (KM)	4.2221E-4	90% gamma percentile (KM)	5.7735E-4
95% gamma percentile (KM)	7.2914E-4	99% gamma percentile (KM)	0.00107
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (115.54, α)	91.73	Adjusted Chi Square Value (115.54, β)	90.99
95% KM Approximate Gamma UCL	3.3972E-4	95% KM Adjusted Gamma UCL	3.4247E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.948	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.889	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.142	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.215	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	2.5075E-4	Mean in Log Scale	-8.49
SD in Original Scale	1.9111E-4	SD in Log Scale	0.612
95% t UCL (assumes normality of ROS data)	2.9977E-4	95% Percentile Bootstrap UCL	3.0020E-4
95% BCA Bootstrap UCL	3.1169E-4	95% Bootstrap t UCL	3.2376E-4
95% H-UCL (Log ROS)	2.9893E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-8.485	KM Geo Mean	2.0651E-4
KM SD (logged)	0.701	95% Critical H Value (KM-Log)	2.065
KM Standard Error of Mean (logged)	0.186	95% H-UCL (KM -Log)	3.2995E-4
KM SD (logged)	0.701	95% Critical H Value (KM-Log)	2.065
KM Standard Error of Mean (logged)	0.186		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	9.8325E-4	Mean in Log Scale	-7.549
SD in Original Scale	0.00103	SD in Log Scale	1.154
95% t UCL (Assumes normality)	0.00125	95% H-Stat UCL	0.00161
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	3.5586E-4		
When a data set follows an approximate distribution passing only one of the GOF tests, it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater pyridine 110-86-1)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	7
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	7
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater pyridine 110-86-1) was not processed!			

C (groundwater sec-butylbenzene 135-98-8)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater sec-butylbenzene 135-98-8) was not processed!			
C (groundwater selenium 7782-49-2)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	13
Number of Detects	10	Number of Non-Detects	31
Number of Distinct Detects	10	Number of Distinct Non-Detects	3
Minimum Detect	9.4000E-4	Minimum Non-Detect	0.005
Maximum Detect	0.018	Maximum Non-Detect	0.05
Variance Detects	3.6956E-5	Percent Non-Detects	75.61%
Mean Detects	0.00613	SD Detects	0.00608
Median Detects	0.0037	CV Detects	0.992
Skewness Detects	1.119	Kurtosis Detects	0.0255
Mean of Logged Detects	-5.583	SD of Logged Detects	1.069
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.822	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.781	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.257	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.304	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.00571	KM Standard Error of Mean	0.0018
90KM SD	0.00566	95% KM (BCA) UCL	0.00895
95% KM (t) UCL	0.00874	95% KM (Percentile Bootstrap) UCL	0.00876
95% KM (z) UCL	0.00867	95% KM Bootstrap t UCL	0.0108
90% KM Chebyshev UCL	0.0111	95% KM Chebyshev UCL	0.0135
97.5% KM Chebyshev UCL	0.0169	99% KM Chebyshev UCL	0.0236
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.543	Anderson-Darling GOF Test	
5% A-D Critical Value	0.745	Detected data appear Gamma Distributed at 5% Significance Level	

K-S Test Statistic		0.266	Kolmogorov-Smirnov GOF	
5% K-S Critical Value		0.273	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level				
Gamma Statistics on Detected Data Only				
k hat (MLE)	1.162	k star (bias corrected MLE)	0.88	
Theta hat (MLE)	0.00527	Theta star (bias corrected MLE)	0.00696	
nu hat (MLE)	23.24	nu star (bias corrected)	17.6	
Mean (detects)	0.00613			
Gamma ROS Statistics using Imputed Non-Detects				
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs				
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)				
For such situations, GROS method may yield incorrect values of UCLs and BTVs				
This is especially true when the sample size is small.				
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates				
Minimum	9.4000E-4	Mean	0.00989	
Maximum	0.0234	Median	0.01	
SD	0.00444	CV	0.448	
k hat (MLE)	3.156	k star (bias corrected MLE)	2.942	
Theta hat (MLE)	0.00313	Theta star (bias corrected MLE)	0.00336	
nu hat (MLE)	258.8	nu star (bias corrected)	241.2	
Adjusted Level of Significance (β)	0.0441			
Approximate Chi Square Value (241.21, α)	206.3	Adjusted Chi Square Value (241.21, β)	205.1	
95% Gamma Approximate UCL	0.0116	95% Gamma Adjusted UCL	0.0116	
Estimates of Gamma Parameters using KM Estimates				
Mean (KM)	0.00571	SD (KM)	0.00566	
Variance (KM)	3.2012E-5	SE of Mean (KM)	0.0018	
k hat (KM)	1.018	k star (KM)	0.96	
nu hat (KM)	83.49	nu star (KM)	78.71	
theta hat (KM)	0.00561	theta star (KM)	0.00595	
80% gamma percentile (KM)	0.00922	90% gamma percentile (KM)	0.0133	
95% gamma percentile (KM)	0.0174	99% gamma percentile (KM)	0.0268	
Gamma Kaplan-Meier (KM) Statistics				
Approximate Chi Square Value (78.71, α)	59.27	Adjusted Chi Square Value (78.71, β)	58.65	
95% KM Approximate Gamma UCL	0.00758	95% KM Adjusted Gamma UCL	0.00766	
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended				
Lognormal GOF Test on Detected Observations Only				
Shapiro Wilk Test Statistic	0.905	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value	0.869	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic	0.239	Lilliefors GOF Test		
10% Lilliefors Critical Value	0.241	Detected Data appear Lognormal at 10% Significance Level		
Detected Data appear Lognormal at 10% Significance Level				
Lognormal ROS Statistics Using Imputed Non-Detects				

Mean in Original Scale	0.00577	Mean in Log Scale	-5.665
SD in Original Scale	0.00631	SD in Log Scale	1.04
95% t UCL (assumes normality of ROS data)	0.00742	95% Percentile Bootstrap UCL	0.00749
95% BCA Bootstrap UCL	0.0077	95% Bootstrap t UCL	0.00789
95% H-UCL (Log ROS)	0.00882		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-5.669	KM Geo Mean	0.00345
KM SD (logged)	1.007	95% Critical H Value (KM-Log)	2.359
KM Standard Error of Mean (logged)	0.321	95% H-UCL (KM -Log)	0.00834
KM SD (logged)	1.007	95% Critical H Value (KM-Log)	2.359
KM Standard Error of Mean (logged)	0.321		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0196	Mean in Log Scale	-4.222
SD in Original Scale	0.00911	SD in Log Scale	1.002
95% t UCL (Assumes normality)	0.022	95% H-Stat UCL	0.0352
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.00874		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater silver 7440-22-4)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	9
Number of Detects	5	Number of Non-Detects	36
Number of Distinct Detects	5	Number of Distinct Non-Detects	4
Minimum Detect	2.7000E-5	Minimum Non-Detect	2.0000E-4
Maximum Detect	3.7000E-4	Maximum Non-Detect	0.01
Variance Detects	2.2716E-8	Percent Non-Detects	87.8%
Mean Detects	1.0060E-4	SD Detects	1.5072E-4
Median Detects	3.3000E-5	CV Detects	1.498
Skewness Detects	2.227	Kurtosis Detects	4.968
Mean of Logged Detects	-9.842	SD of Logged Detects	1.098
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.588	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.686	Detected Data Not Normal at 1% Significance Level	

Lilliefors Test Statistic	0.449	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.396	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	6.6925E-5	KM Standard Error of Mean	3.5846E-5
90KM SD	1.0119E-4	95% KM (BCA) UCL	1.4689E-4
95% KM (t) UCL	1.2728E-4	95% KM (Percentile Bootstrap) UCL	1.3462E-4
95% KM (z) UCL	1.2589E-4	95% KM Bootstrap t UCL	0.00101
90% KM Chebyshev UCL	1.7446E-4	95% KM Chebyshev UCL	2.2317E-4
97.5% KM Chebyshev UCL	2.9078E-4	99% KM Chebyshev UCL	4.2359E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	1.033	Anderson-Darling GOF Test	
5% A-D Critical Value	0.694	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.434	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.365	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.915	k star (bias corrected MLE)	0.499
Theta hat (MLE)	1.0993E-4	Theta star (bias corrected MLE)	2.0145E-4
nu hat (MLE)	9.151	nu star (bias corrected)	4.994
Mean (detects)	1.0060E-4		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	2.7000E-5	Mean	0.00879
Maximum	0.01	Median	0.01
SD	0.00328	CV	0.373
k hat (MLE)	1.118	k star (bias corrected MLE)	1.052
Theta hat (MLE)	0.00787	Theta star (bias corrected MLE)	0.00836
nu hat (MLE)	91.65	nu star (bias corrected)	86.28
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (86.28, α)	65.86	Adjusted Chi Square Value (86.28, β)	65.21
95% Gamma Approximate UCL	0.0115	95% Gamma Adjusted UCL	0.0116
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	6.6925E-5	SD (KM)	1.0119E-4
Variance (KM)	1.0239E-8	SE of Mean (KM)	3.5846E-5
k hat (KM)	0.437	k star (KM)	0.422
nu hat (KM)	35.87	nu star (KM)	34.58
theta hat (KM)	1.5299E-4	theta star (KM)	1.5870E-4

80% gamma percentile (KM)	1.0862E-4	90% gamma percentile (KM)	1.8724E-4
95% gamma percentile (KM)	2.7301E-4	99% gamma percentile (KM)	4.8752E-4
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (34.58, α)	22.13	Adjusted Chi Square Value (34.58, β)	21.76
95% KM Approximate Gamma UCL	1.0458E-4	95% KM Adjusted Gamma UCL	1.0634E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.692	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.806	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.377	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.319	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	6.4923E-5	Mean in Log Scale	-10.05
SD in Original Scale	7.2519E-5	SD in Log Scale	0.88
95% t UCL (assumes normality of ROS data)	8.3994E-5	95% Percentile Bootstrap UCL	8.5252E-5
95% BCA Bootstrap UCL	9.0000E-5	95% Bootstrap t UCL	9.4301E-5
95% H-UCL (Log ROS)	8.6912E-5		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-10.08	KM Geo Mean	4.1728E-5
KM SD (logged)	0.746	95% Critical H Value (KM-Log)	2.096
KM Standard Error of Mean (logged)	0.271	95% H-UCL (KM -Log)	7.0544E-5
KM SD (logged)	0.746	95% Critical H Value (KM-Log)	2.096
KM Standard Error of Mean (logged)	0.271		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00364	Mean in Log Scale	-6.395
SD in Original Scale	0.00217	SD in Log Scale	1.869
95% t UCL (Assumes normality)	0.00421	95% H-Stat UCL	0.0266
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	1.2728E-4		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (groundwater | styrene | 100-42-5)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | styrene | 100-42-5) was not processed!

C (groundwater | t-amyl methyl ether | 994-05-8)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | t-amyl methyl ether | 994-05-8) was not processed!

C (groundwater | tert-butyl alcohol | 75-65-0)

General Statistics

Total Number of Observations	20	Number of Distinct Observations	6
Number of Detects	0	Number of Non-Detects	20
Number of Distinct Detects	0	Number of Distinct Non-Detects	6

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | tert-butyl alcohol | 75-65-0) was not processed!

C (groundwater | tert-butylbenzene | 98-06-6)

General Statistics			
Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater tert-butylbenzene 98-06-6) was not processed!			
C (groundwater tetrachloroethene 127-18-4)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	6
Number of Detects	3	Number of Non-Detects	33
Number of Distinct Detects	3	Number of Distinct Non-Detects	3
Minimum Detect	2.5000E-4	Minimum Non-Detect	0.001
Maximum Detect	8.8000E-4	Maximum Non-Detect	0.005
Variance Detects	1.0363E-7	Percent Non-Detects	91.67%
Mean Detects	6.0333E-4	SD Detects	3.2192E-4
Median Detects	6.8000E-4	CV Detects	0.534
Skewness Detects	-1.011	Kurtosis Detects	N/A
Mean of Logged Detects	-7.541	SD of Logged Detects	0.665
Warning: Data set has only 3 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.957	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.261	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	6.0333E-4	KM Standard Error of Mean	1.8586E-4
90KM SD	2.6285E-4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	9.1736E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	9.0905E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.00116	95% KM Chebyshev UCL	0.00141
97.5% KM Chebyshev UCL	0.00176	99% KM Chebyshev UCL	0.00245
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.365	Anderson-Darling GOF Test	

5% A-D Critical Value	0.637	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.326	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.434	Detected data appear Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	4.066	k star (bias corrected MLE)	N/A
Theta hat (MLE)	1.4838E-4	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	24.4	nu star (bias corrected)	N/A
Mean (detects)	6.0333E-4		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	2.5000E-4	Mean	0.00922
Maximum	0.01	Median	0.01
SD	0.00264	CV	0.286
k hat (MLE)	3.222	k star (bias corrected MLE)	2.972
Theta hat (MLE)	0.00286	Theta star (bias corrected MLE)	0.0031
nu hat (MLE)	232	nu star (bias corrected)	214
Adjusted Level of Significance (β)	0.0428		
Approximate Chi Square Value (214.01, α)	181.2	Adjusted Chi Square Value (214.01, β)	179.8
95% Gamma Approximate UCL	0.0109	95% Gamma Adjusted UCL	N/A
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	6.0333E-4	SD (KM)	2.6285E-4
Variance (KM)	6.9089E-8	SE of Mean (KM)	1.8586E-4
k hat (KM)	5.269	k star (KM)	4.848
nu hat (KM)	379.3	nu star (KM)	349.1
theta hat (KM)	1.1451E-4	theta star (KM)	1.2444E-4
80% gamma percentile (KM)	8.1380E-4	90% gamma percentile (KM)	9.7025E-4
95% gamma percentile (KM)	0.00111	99% gamma percentile (KM)	0.00142
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (349.07, α)	306.8	Adjusted Chi Square Value (349.07, β)	305
95% KM Approximate Gamma UCL	6.8651E-4	95% KM Adjusted Gamma UCL	6.9055E-4
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.896	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.789	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.312	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	7.1328E-4	Mean in Log Scale	-7.541
SD in Original Scale	5.9699E-4	SD in Log Scale	0.79
95% t UCL (assumes normality of ROS data)	8.8139E-4	95% Percentile Bootstrap UCL	8.8394E-4
95% BCA Bootstrap UCL	9.1374E-4	95% Bootstrap t UCL	9.3394E-4
95% H-UCL (Log ROS)	9.6756E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.541	KM Geo Mean	5.3086E-4
KM SD (logged)	0.543	95% Critical H Value (KM-Log)	1.942
KM Standard Error of Mean (logged)	0.384	95% H-UCL (KM -Log)	7.3509E-4
KM SD (logged)	0.543	95% Critical H Value (KM-Log)	1.942
KM Standard Error of Mean (logged)	0.384		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	7.3778E-4	Mean in Log Scale	-7.406
SD in Original Scale	6.3845E-4	SD in Log Scale	0.536
95% t UCL (Assumes normality)	9.1756E-4	95% H-Stat UCL	8.3606E-4
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	9.1736E-4		
Warning: Recommended UCL exceeds the maximum observation			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater tetrahydrofuran 109-99-9)			
General Statistics			
Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater tetrahydrofuran 109-99-9) was not processed!			
C (groundwater thallium 7440-28-0)			

General Statistics			
Total Number of Observations	41	Number of Distinct Observations	7
Number of Detects	2	Number of Non-Detects	39
Number of Distinct Detects	2	Number of Distinct Non-Detects	5
Minimum Detect	9.2500E-5	Minimum Non-Detect	2.0000E-4
Maximum Detect	2.7000E-4	Maximum Non-Detect	0.15
Variance Detects	1.5753E-8	Percent Non-Detects	95.12%
Mean Detects	1.8125E-4	SD Detects	1.2551E-4
Median Detects	1.8125E-4	CV Detects	0.692
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-8.753	SD of Logged Detects	0.757
Warning: Data set has only 2 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Not Enough Data to Perform GOF Test			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	1.1025E-4	KM Standard Error of Mean	2.3814E-5
90KM SD	5.3250E-5	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1.5035E-4	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1.4942E-4	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	1.8169E-4	95% KM Chebyshev UCL	2.1405E-4
97.5% KM Chebyshev UCL	2.5897E-4	99% KM Chebyshev UCL	3.4720E-4
Gamma GOF Tests on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Gamma Statistics on Detected Data Only			
k hat (MLE)	3.807	k star (bias corrected MLE)	N/A
Theta hat (MLE)	4.7614E-5	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	15.23	nu star (bias corrected)	N/A
Mean (detects)	1.8125E-4		
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	1.1025E-4	SD (KM)	5.3250E-5
Variance (KM)	2.8356E-9	SE of Mean (KM)	2.3814E-5
k hat (KM)	4.287	k star (KM)	3.989
nu hat (KM)	351.5	nu star (KM)	327.1
theta hat (KM)	2.5719E-5	theta star (KM)	2.7637E-5
80% gamma percentile (KM)	1.5206E-4	90% gamma percentile (KM)	1.8424E-4
95% gamma percentile (KM)	2.1386E-4	99% gamma percentile (KM)	2.7714E-4
Gamma Kaplan-Meier (KM) Statistics			
		Adjusted Level of Significance (β)	0.0441

Approximate Chi Square Value (327.12, α)	286.2	Adjusted Chi Square Value (327.12, β)	284.8
95% KM Approximate Gamma UCL	1.2601E-4	95% KM Adjusted Gamma UCL	1.2662E-4
Lognormal GOF Test on Detected Observations Only			
Not Enough Data to Perform GOF Test			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.1341E-4	Mean in Log Scale	-9.209
SD in Original Scale	5.9900E-5	SD in Log Scale	0.504
95% t UCL (assumes normality of ROS data)	1.2916E-4	95% Percentile Bootstrap UCL	1.2945E-4
95% BCA Bootstrap UCL	1.3084E-4	95% Bootstrap t UCL	1.3178E-4
95% H-UCL (Log ROS)	1.3226E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-9.181	KM Geo Mean	1.0296E-4
KM SD (logged)	0.321	95% Critical H Value (KM-Log)	1.784
KM Standard Error of Mean (logged)	0.144	95% H-UCL (KM -Log)	1.1870E-4
KM SD (logged)	0.321	95% Critical H Value (KM-Log)	1.784
KM Standard Error of Mean (logged)	0.144		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0167	Mean in Log Scale	-5.307
SD in Original Scale	0.0204	SD in Log Scale	2.277
95% t UCL (Assumes normality)	0.0221	95% H-Stat UCL	0.283
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Suggested UCL to Use			
95% KM (t) UCL	1.5035E-4		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater toluene 108-88-3)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	13
Number of Detects	6	Number of Non-Detects	37
Number of Distinct Detects	5	Number of Distinct Non-Detects	8
Minimum Detect	2.0000E-4	Minimum Non-Detect	6.8000E-4
Maximum Detect	8.5000E-4	Maximum Non-Detect	0.005
Variance Detects	6.6417E-8	Percent Non-Detects	86.05%
Mean Detects	4.4167E-4	SD Detects	2.5771E-4

Median Detects	4.0000E-4	CV Detects	0.584
Skewness Detects	0.722	Kurtosis Detects	-0.59
Mean of Logged Detects	-7.873	SD of Logged Detects	0.602
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.903	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.713	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.209	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.373	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	4.0083E-4	KM Standard Error of Mean	8.4606E-5
90KM SD	2.0625E-4	95% KM (BCA) UCL	5.4667E-4
95% KM (t) UCL	5.4314E-4	95% KM (Percentile Bootstrap) UCL	5.5000E-4
95% KM (z) UCL	5.4000E-4	95% KM Bootstrap t UCL	5.7616E-4
90% KM Chebyshev UCL	6.5465E-4	95% KM Chebyshev UCL	7.6962E-4
97.5% KM Chebyshev UCL	9.2919E-4	99% KM Chebyshev UCL	0.00124
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.333	Anderson-Darling GOF Test	
5% A-D Critical Value	0.701	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.204	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.334	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Gamma Statistics on Detected Data Only			
k hat (MLE)	3.543	k star (bias corrected MLE)	1.883
Theta hat (MLE)	1.2464E-4	Theta star (bias corrected MLE)	2.3457E-4
nu hat (MLE)	42.52	nu star (bias corrected)	22.59
Mean (detects)	4.4167E-4		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	2.0000E-4	Mean	0.00867
Maximum	0.01	Median	0.01
SD	0.00335	CV	0.387
k hat (MLE)	1.747	k star (bias corrected MLE)	1.64
Theta hat (MLE)	0.00496	Theta star (bias corrected MLE)	0.00528
nu hat (MLE)	150.2	nu star (bias corrected)	141.1
Adjusted Level of Significance (β)	0.0444		

Approximate Chi Square Value (141.07, α)	114.6	Adjusted Chi Square Value (141.07, β)	113.8
95% Gamma Approximate UCL	0.0107	95% Gamma Adjusted UCL	0.0107
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	4.0083E-4	SD (KM)	2.0625E-4
Variance (KM)	4.2541E-8	SE of Mean (KM)	8.4606E-5
k hat (KM)	3.777	k star (KM)	3.529
nu hat (KM)	324.8	nu star (KM)	303.5
theta hat (KM)	1.0613E-4	theta star (KM)	1.1359E-4
80% gamma percentile (KM)	5.6081E-4	90% gamma percentile (KM)	6.8694E-4
95% gamma percentile (KM)	8.0370E-4	99% gamma percentile (KM)	0.00105
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (303.47, α)	264.1	Adjusted Chi Square Value (303.47, β)	262.8
95% KM Approximate Gamma UCL	4.6056E-4	95% KM Adjusted Gamma UCL	4.6279E-4
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.909	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.826	Detected Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.191	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.298	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	3.8519E-4	Mean in Log Scale	-7.975
SD in Original Scale	1.9410E-4	SD in Log Scale	0.481
95% t UCL (assumes normality of ROS data)	4.3498E-4	95% Percentile Bootstrap UCL	4.3458E-4
95% BCA Bootstrap UCL	4.3952E-4	95% Bootstrap t UCL	4.4267E-4
95% H-UCL (Log ROS)	4.4392E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.953	KM Geo Mean	3.5165E-4
KM SD (logged)	0.511	95% Critical H Value (KM-Log)	1.909
KM Standard Error of Mean (logged)	0.221	95% H-UCL (KM -Log)	4.6586E-4
KM SD (logged)	0.511	95% Critical H Value (KM-Log)	1.909
KM Standard Error of Mean (logged)	0.221		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	6.6711E-4	Mean in Log Scale	-7.517
SD in Original Scale	6.0345E-4	SD in Log Scale	0.554
95% t UCL (Assumes normality)	8.2189E-4	95% H-Stat UCL	7.4826E-4
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			

Detected Data appear Normal Distributed at 1% Significance Level

Suggested UCL to Use

95% KM (t) UCL 5.4314E-4

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

C (groundwater | trans-1,2-dichloroethene | 156-60-5)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | trans-1,2-dichloroethene | 156-60-5) was not processed!

C (groundwater | trans-1,4-dichloro-2-butene | 110-57-6)

General Statistics

Total Number of Observations	13	Number of Distinct Observations	2
Number of Detects	0	Number of Non-Detects	13
Number of Distinct Detects	0	Number of Distinct Non-Detects	2

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | trans-1,4-dichloro-2-butene | 110-57-6) was not processed!

C (groundwater | trichloroethene | 79-01-6)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	4
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	4

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | trichloroethene | 79-01-6) was not processed!

C (groundwater | trichlorofluoromethane | 75-69-4)

General Statistics

Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable C (groundwater | trichlorofluoromethane | 75-69-4) was not processed!

C (groundwater | vanadium | 7440-62-2)

General Statistics

Total Number of Observations	41	Number of Distinct Observations	22
Number of Detects	18	Number of Non-Detects	23
Number of Distinct Detects	18	Number of Distinct Non-Detects	4
Minimum Detect	0.0022	Minimum Non-Detect	0.00445
Maximum Detect	0.064	Maximum Non-Detect	0.01
Variance Detects	1.9459E-4	Percent Non-Detects	56.1%
Mean Detects	0.00993	SD Detects	0.0139
Median Detects	0.00665	CV Detects	1.404
Skewness Detects	3.801	Kurtosis Detects	15.34
Mean of Logged Detects	-5.011	SD of Logged Detects	0.792

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.481	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.858	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.33	Lilliefors GOF Test
1% Lilliefors Critical Value	0.235	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.00659	KM Standard Error of Mean	0.00156
90KM SD	0.00955	95% KM (BCA) UCL	0.00971
95% KM (t) UCL	0.00921	95% KM (Percentile Bootstrap) UCL	0.00947
95% KM (z) UCL	0.00915	95% KM Bootstrap t UCL	0.0131
90% KM Chebyshev UCL	0.0113	95% KM Chebyshev UCL	0.0134
97.5% KM Chebyshev UCL	0.0163	99% KM Chebyshev UCL	0.0221

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.17	Anderson-Darling GOF Test

5% A-D Critical Value	0.758	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.209	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.208	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.395	k star (bias corrected MLE)	1.199
Theta hat (MLE)	0.00712	Theta star (bias corrected MLE)	0.00828
nu hat (MLE)	50.21	nu star (bias corrected)	43.17
Mean (detects)	0.00993		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.0022	Mean	0.0101
Maximum	0.064	Median	0.01
SD	0.00911	CV	0.906
k hat (MLE)	2.99	k star (bias corrected MLE)	2.787
Theta hat (MLE)	0.00336	Theta star (bias corrected MLE)	0.00361
nu hat (MLE)	245.2	nu star (bias corrected)	228.6
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (228.55, α)	194.6	Adjusted Chi Square Value (228.55, β)	193.4
95% Gamma Approximate UCL	0.0118	95% Gamma Adjusted UCL	0.0119
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.00659	SD (KM)	0.00955
Variance (KM)	9.1182E-5	SE of Mean (KM)	0.00156
k hat (KM)	0.476	k star (KM)	0.457
nu hat (KM)	39	nu star (KM)	37.48
theta hat (KM)	0.0138	theta star (KM)	0.0144
80% gamma percentile (KM)	0.0108	90% gamma percentile (KM)	0.0181
95% gamma percentile (KM)	0.0261	99% gamma percentile (KM)	0.0459
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (37.48, α)	24.46	Adjusted Chi Square Value (37.48, β)	24.08
95% KM Approximate Gamma UCL	0.0101	95% KM Adjusted Gamma UCL	0.0103
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.91	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.914	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.13	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.185	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Approximate Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			

Mean in Original Scale	0.00663	Mean in Log Scale	-5.355
SD in Original Scale	0.00968	SD in Log Scale	0.703
95% t UCL (assumes normality of ROS data)	0.00918	95% Percentile Bootstrap UCL	0.0095
95% BCA Bootstrap UCL	0.0111	95% Bootstrap t UCL	0.0137
95% H-UCL (Log ROS)	0.0076		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-5.346	KM Geo Mean	0.00477
KM SD (logged)	0.653	95% Critical H Value (KM-Log)	2.014
KM Standard Error of Mean (logged)	0.123	95% H-UCL (KM -Log)	0.00726
KM SD (logged)	0.653	95% Critical H Value (KM-Log)	2.014
KM Standard Error of Mean (logged)	0.123		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00652	Mean in Log Scale	-5.351
SD in Original Scale	0.00964	SD in Log Scale	0.654
95% t UCL (Assumes normality)	0.00905	95% H-Stat UCL	0.00723
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Lognormal Distributed at 10% Significance Level			
Suggested UCL to Use			
KM H-UCL	0.00726		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater vinyl acetate 108-05-4)			
General Statistics			
Total Number of Observations	1	Number of Distinct Observations	1
Number of Detects	0	Number of Non-Detects	1
Number of Distinct Detects	0	Number of Distinct Non-Detects	1
Warning: This data set only has 1 observations!			
Data set is too small to compute reliable and meaningful statistics and estimates!			
The data set for variable C (groundwater vinyl acetate 108-05-4) was not processed!			
It is suggested to collect at least 8 to 10 observations before using these statistical methods!			
If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.			

C (groundwater vinyl chloride 75-01-4)			
General Statistics			
Total Number of Observations	36	Number of Distinct Observations	5
Number of Detects	0	Number of Non-Detects	36
Number of Distinct Detects	0	Number of Distinct Non-Detects	5
Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!			
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!			
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).			
The data set for variable C (groundwater vinyl chloride 75-01-4) was not processed!			
C (groundwater xylenes (total) 1330-20-7)			
General Statistics			
Total Number of Observations	43	Number of Distinct Observations	12
Number of Detects	3	Number of Non-Detects	40
Number of Distinct Detects	3	Number of Distinct Non-Detects	10
Minimum Detect	5.0000E-4	Minimum Non-Detect	0.00136
Maximum Detect	0.006	Maximum Non-Detect	0.025
Variance Detects	8.0833E-6	Percent Non-Detects	93.02%
Mean Detects	0.00283	SD Detects	0.00284
Median Detects	0.002	CV Detects	1.003
Skewness Detects	1.206	Kurtosis Detects	N/A
Mean of Logged Detects	-6.311	SD of Logged Detects	1.245
Warning: Data set has only 3 Detected Values.			
This is not enough to compute meaningful or reliable statistics and estimates.			
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.936	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.753	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.282	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.429	Detected Data appear Normal at 1% Significance Level	
Detected Data appear Normal at 1% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	7.4542E-4	KM Standard Error of Mean	2.0767E-4
90KM SD	9.3381E-4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.00109	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.00109	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.00137	95% KM Chebyshev UCL	0.00165

97.5% KM Chebyshev UCL		0.00204	99% KM Chebyshev UCL		0.00281
Gamma GOF Tests on Detected Observations Only					
A-D Test Statistic		0.247	Anderson-Darling GOF Test		
5% A-D Critical Value		0.64	Detected data appear Gamma Distributed at 5% Significance Level		
K-S Test Statistic		0.227	Kolmogorov-Smirnov GOF		
5% K-S Critical Value		0.439	Detected data appear Gamma Distributed at 5% Significance Level		
Detected Data Not Gamma Distributed at 5% Significance Level					
Gamma Statistics on Detected Data Only					
k hat (MLE)		1.266	k star (bias corrected MLE)		N/A
Theta hat (MLE)		0.00224	Theta star (bias corrected MLE)		N/A
nu hat (MLE)		7.598	nu star (bias corrected)		N/A
Mean (detects)		0.00283			
Gamma ROS Statistics using Imputed Non-Detects					
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs					
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)					
For such situations, GROS method may yield incorrect values of UCLs and BTVs					
This is especially true when the sample size is small.					
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates					
Minimum		5.0000E-4	Mean		0.0095
Maximum		0.01	Median		0.01
SD		0.00195	CV		0.205
k hat (MLE)		7.55	k star (bias corrected MLE)		7.039
Theta hat (MLE)		0.00126	Theta star (bias corrected MLE)		0.00135
nu hat (MLE)		649.3	nu star (bias corrected)		605.3
Adjusted Level of Significance (β)		0.0444			
Approximate Chi Square Value (605.34, α)		549.3	Adjusted Chi Square Value (605.34, β)		547.4
95% Gamma Approximate UCL		0.0105	95% Gamma Adjusted UCL		N/A
Estimates of Gamma Parameters using KM Estimates					
Mean (KM)		7.4542E-4	SD (KM)		9.3381E-4
Variance (KM)		8.7200E-7	SE of Mean (KM)		2.0767E-4
k hat (KM)		0.637	k star (KM)		0.608
nu hat (KM)		54.8	nu star (KM)		52.31
theta hat (KM)		0.00117	theta star (KM)		0.00123
80% gamma percentile (KM)		0.00123	90% gamma percentile (KM)		0.00193
95% gamma percentile (KM)		0.00267	99% gamma percentile (KM)		0.00445
Gamma Kaplan-Meier (KM) Statistics					
Approximate Chi Square Value (52.31, α)		36.7	Adjusted Chi Square Value (52.31, β)		36.24
95% KM Approximate Gamma UCL		0.00106	95% KM Adjusted Gamma UCL		0.00108
Lognormal GOF Test on Detected Observations Only					
Shapiro Wilk Test Statistic		0.996	Shapiro Wilk GOF Test		
10% Shapiro Wilk Critical Value		0.789	Detected Data appear Lognormal at 10% Significance Level		
Lilliefors Test Statistic		0.197	Lilliefors GOF Test		

10% Lilliefors Critical Value	0.389	Detected Data appear Lognormal at 10% Significance Level	
Detected Data appear Lognormal at 10% Significance Level			
Note GOF tests may be unreliable for small sample sizes			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	7.6966E-4	Mean in Log Scale	-7.531
SD in Original Scale	9.4290E-4	SD in Log Scale	0.801
95% t UCL (assumes normality of ROS data)	0.00101	95% Percentile Bootstrap UCL	0.00104
95% BCA Bootstrap UCL	0.00115	95% Bootstrap t UCL	0.00125
95% H-UCL (Log ROS)	9.6483E-4		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-7.441	KM Geo Mean	5.8687E-4
KM SD (logged)	0.516	95% Critical H Value (KM-Log)	1.912
KM Standard Error of Mean (logged)	0.136	95% H-UCL (KM -Log)	7.8081E-4
KM SD (logged)	0.516	95% Critical H Value (KM-Log)	1.912
KM Standard Error of Mean (logged)	0.136		
Note: KM UCLs may be biased low with this dataset. Other substitution method recommended			
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.00281	Mean in Log Scale	-6.249
SD in Original Scale	0.00328	SD in Log Scale	0.78
95% t UCL (Assumes normality)	0.00365	95% H-Stat UCL	0.00339
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 1% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.00109		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
C (groundwater zinc 7440-66-6)			
General Statistics			
Total Number of Observations	41	Number of Distinct Observations	34
Number of Detects	32	Number of Non-Detects	9
Number of Distinct Detects	32	Number of Distinct Non-Detects	2
Minimum Detect	0.0047	Minimum Non-Detect	0.01

Maximum Detect	0.422	Maximum Non-Detect	0.02
Variance Detects	0.0151	Percent Non-Detects	21.95%
Mean Detects	0.105	SD Detects	0.123
Median Detects	0.051	CV Detects	1.168
Skewness Detects	1.411	Kurtosis Detects	1.21
Mean of Logged Detects	-3.071	SD of Logged Detects	1.419
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.782	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.904	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.207	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.18	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	0.0842	KM Standard Error of Mean	0.0181
90KM SD	0.114	95% KM (BCA) UCL	0.114
95% KM (t) UCL	0.115	95% KM (Percentile Bootstrap) UCL	0.114
95% KM (z) UCL	0.114	95% KM Bootstrap t UCL	0.124
90% KM Chebyshev UCL	0.139	95% KM Chebyshev UCL	0.163
97.5% KM Chebyshev UCL	0.197	99% KM Chebyshev UCL	0.264
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.867	Anderson-Darling GOF Test	
5% A-D Critical Value	0.789	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.154	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.162	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.733	k star (bias corrected MLE)	0.685
Theta hat (MLE)	0.144	Theta star (bias corrected MLE)	0.154
nu hat (MLE)	46.91	nu star (bias corrected)	43.85
Mean (detects)	0.105		
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.0047	Mean	0.0849
Maximum	0.422	Median	0.0254
SD	0.115	CV	1.356
k hat (MLE)	0.67	k star (bias corrected MLE)	0.638
Theta hat (MLE)	0.127	Theta star (bias corrected MLE)	0.133
nu hat (MLE)	54.97	nu star (bias corrected)	52.28
Adjusted Level of Significance (β)	0.0441		

Approximate Chi Square Value (52.28, α)	36.67	Adjusted Chi Square Value (52.28, β)	36.2
95% Gamma Approximate UCL	0.121	95% Gamma Adjusted UCL	0.123
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	0.0842	SD (KM)	0.114
Variance (KM)	0.013	SE of Mean (KM)	0.0181
k hat (KM)	0.545	k star (KM)	0.521
nu hat (KM)	44.68	nu star (KM)	42.74
theta hat (KM)	0.155	theta star (KM)	0.162
80% gamma percentile (KM)	0.139	90% gamma percentile (KM)	0.226
95% gamma percentile (KM)	0.319	99% gamma percentile (KM)	0.546
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (42.74, α)	28.75	Adjusted Chi Square Value (42.74, β)	28.33
95% KM Approximate Gamma UCL	0.125	95% KM Adjusted Gamma UCL	0.127
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.923	Shapiro Wilk GOF Test	
10% Shapiro Wilk Critical Value	0.941	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.142	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.142	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.0847	Mean in Log Scale	-3.418
SD in Original Scale	0.115	SD in Log Scale	1.449
95% t UCL (assumes normality of ROS data)	0.115	95% Percentile Bootstrap UCL	0.116
95% BCA Bootstrap UCL	0.119	95% Bootstrap t UCL	0.123
95% H-UCL (Log ROS)	0.182		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	-3.435	KM Geo Mean	0.0322
KM SD (logged)	1.422	95% Critical H Value (KM-Log)	2.854
KM Standard Error of Mean (logged)	0.228	95% H-UCL (KM -Log)	0.168
KM SD (logged)	1.422	95% Critical H Value (KM-Log)	2.854
KM Standard Error of Mean (logged)	0.228		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0842	Mean in Log Scale	-3.424
SD in Original Scale	0.115	SD in Log Scale	1.424
95% t UCL (Assumes normality)	0.115	95% H-Stat UCL	0.171
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Detected Data appear Approximate Gamma Distributed at 5% Significance Level			
Suggested UCL to Use			

95% KM Adjusted Gamma UCL	0.127	
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner. Please verify the data were collected from random locations. If the data were collected using judgmental or other non-random methods, then contact a statistician to correctly calculate UCLs.		
When a data set follows an approximate distribution passing only one of the GOF tests, it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.		

ATTACHMENT 3

VURAM Results

Attachment 3-1 – Resident

Attachment 3-2 – Construction Worker

Attachment 3-3 - Composite Worker

Attachment 3-4 - Recreator

Attachment 3-5 - Trespasser

**ATTACHMENT 3-1
RESIDENT**

VURAM

Virginia Unified Risk Assessment Model

VERSION: 3.2.1

Residential Quantitative Risk Assessment Report

Program: Voluntary Remediation Program (VRP)

Site Name: Alexandria

By submitting this report to the Virginia DEQ, the user confirms that VURAM's default exposure parameters have not been altered, unless a complete unaltered VURAM analysis is provided and all modifications are detailed explicitly in an accompanying narrative or documentation that shows DEQ's prior concurrence with specific changes.

Chemical Specific Notes Displayed as Applicable

Lead

VURAM does not perform an evaluation for lead exposure. Use other approved models for lead modeling.

All Report Pages are Required for Risk Assessment Submission

Risk Based Performance Criteria

Default Cumulative Risk (All Chemicals)

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Acetophenone

CAS: 98-86-2

Concentration mg/kg :	1.51E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.81E-06	Ingestion: 1.93E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.81E-06	Total: 1.93E-05	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		0.00%	0.00%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Aluminum

CAS: 7429-90-5

Concentration mg/kg :	9.23E+03	Calculated Hazard/Risk		
RfDo (mg/kg-day):	1.00E+00	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	5.00E-03	Ingestion: 1.11E-02	Ingestion: 1.18E-01	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.30E-03	Inhalation: 1.30E-03	Inhalation:
Mutagen:		Total: 1.24E-02	Total: 1.19E-01	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		4.11%	4.74%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Analyte: Anthracene
CAS: 120-12-7

Concentration mg/kg :		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.01E-06	Ingestion: 1.08E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 5.55E-07	Dermal: 3.33E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.57E-06	Total: 1.41E-05	Total: 0.00E+00
VOC: Y				
% Contribution to Media Hazard/Risk		0.00%	0.00%	0.00%

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Analyte: Antimony (metallic)
CAS: 7440-36-0

Concentration mg/kg :		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 4.02E-03	Ingestion: 4.29E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 3.16E-06	Inhalation: 3.16E-06	Inhalation:
Mutagen:		Total: 4.03E-03	Total: 4.29E-02	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		1.34%	1.71%	0.00%

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Analyte: Arsenic, Inorganic
CAS: 7440-38-2

Concentration mg/kg :		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 2.11E-02	Ingestion: 2.25E-01	Ingestion: 1.14E-05
SFO (mg/kg-day)-1:		Dermal: 4.45E-03	Dermal: 2.67E-02	Dermal: 1.60E-06
IUR (µg/m3)-1:		Inhalation: 4.14E-04	Inhalation: 4.14E-04	Inhalation: 9.91E-09
Mutagen:		Total: 2.60E-02	Total: 2.52E-01	Total: 1.30E-05
VOC:				
% Contribution to Media Hazard/Risk		8.62%	10.02%	63.08%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Exceeds Risk!	mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	6.77E-01

Analyte: Barium

CAS: 7440-39-3

Concentration mg/kg :	7.27E+01	Calculated Hazard/Risk		
RfDo (mg/kg-day):	2.00E-01	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	5.00E-04	Ingestion: 4.36E-04	Ingestion: 4.65E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.03E-04	Inhalation: 1.03E-04	Inhalation:
Mutagen:		Total: 5.38E-04	Total: 4.75E-03	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		0.18%	0.19%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Benz[a]anthracene

CAS: 56-55-3

Concentration mg/kg :	4.82E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion: 3.15E-07
SFO (mg/kg-day)-1:	1.00E-01	Dermal:	Dermal:	Dermal: 1.05E-07
IUR (µg/m3)-1:	6.00E-05	Inhalation:	Inhalation:	Inhalation: 6.49E-09
Mutagen:	Y	Total: 0.00E+00	Total: 0.00E+00	Total: 4.26E-07
VOC:	Y			
% Contribution to Media Hazard/Risk		0.00%	0.00%	2.07%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Analyte: Benzene
CAS: 71-43-2

Concentration mg/kg :	5.00E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	4.00E-03	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	3.00E-02	Ingestion:	1.50E-04	Ingestion:	1.60E-03	Ingestion:	3.96E-08
SFO (mg/kg-day)-1:	5.50E-02	Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:	7.80E-06	Inhalation:	4.51E-03	Inhalation:	4.51E-03	Inhalation:	3.92E-07
Mutagen:		Total:	4.66E-03	Total:	6.11E-03	Total:	4.32E-07
VOC:	Y						
% Contribution to Media Hazard/Risk			1.55%	0.24%		2.10%	
mg/kg		Non-Cancer Adult		Non-Cancer Child		Cancer	
Recommended Acceptable Concentration		N/A		N/A		N/A	

Analyte: Benzo(g,h,i)perylene
CAS: 191-24-2

Concentration mg/kg :	2.47E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	9.87E-06	Ingestion:	1.05E-04	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	5.42E-06	Dermal:	3.25E-05	Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:	
Mutagen:		Total:	1.53E-05	Total:	1.38E-04	Total:	0.00E+00
VOC:	Y						
% Contribution to Media Hazard/Risk			0.01%		0.01%		0.00%
		mg/kg	Non-Cancer Adult		Non-Cancer Child		Cancer
Recommended Acceptable Concentration			N/A		N/A		N/A

Analyte: Benzo[a]pyrene
CAS: 50-32-8

Concentration mg/kg :		Calculated Hazard/Risk					
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	1.34E-03	Ingestion:	1.43E-02	Ingestion:	2.19E-06
SFO (mg/kg-day)-1:		Dermal:	7.37E-04	Dermal:	4.42E-03	Dermal:	7.32E-07
IUR (µg/m3)-1:		Inhalation:	1.18E-04	Inhalation:	1.18E-04	Inhalation:	1.46E-10
Mutagen:		Total:	2.20E-03	Total:	1.89E-02	Total:	2.93E-06
VOC:							
% Contribution to Media Hazard/Risk			0.73%			0.75%	14.20%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Exceeds Risk!	mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	1.15E-01

Analyte: Benzo[b]fluoranthene

CAS: 205-99-2

Concentration mg/kg :	6.65E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion: 4.34E-07
SFO (mg/kg-day)-1:	1.00E-01	Dermal:	Dermal:	Dermal: 1.45E-07
IUR (µg/m3)-1:	6.00E-05	Inhalation:	Inhalation:	Inhalation: 2.89E-11
Mutagen:	Y	Total: 0.00E+00	Total: 0.00E+00	Total: 5.79E-07
VOC:				
% Contribution to Media Hazard/Risk		0.00%	0.00%	2.81%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Benzo[k]fluoranthene

CAS: 207-08-9

Concentration mg/kg :	3.61E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion: 2.36E-08
SFO (mg/kg-day)-1:	1.00E-02	Dermal:	Dermal:	Dermal: 7.87E-09
IUR (µg/m3)-1:	6.00E-06	Inhalation:	Inhalation:	Inhalation: 1.57E-12
Mutagen:	Y	Total: 0.00E+00	Total: 0.00E+00	Total: 3.14E-08
VOC:				
% Contribution to Media Hazard/Risk		0.00%	0.00%	0.15%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Default Cumulative Risk (All Chemicals)

1.00E-04

Analyte: Benzoic Acid

CAS: 65-85-0

Concentration mg/kg :	1.20E+00	Calculated Hazard/Risk				
RfDo (mg/kg-day):	4.00E+00	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	3.60E-07	Ingestion:	3.84E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	1.52E-07	Dermal:	9.10E-07	Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	5.11E-07	Total:	4.75E-06	Total: 0.00E+00
VOC:						
% Contribution to Media Hazard/Risk			0.00%	0.00%	0.00%	

	mg/kg <i>Non-Cancer Adult</i>	<i>Non-Cancer Child</i>	<i>Cancer</i>
<i>Recommended Acceptable Concentration</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>

Analyte: Beryllium and compounds

CAS: 7440-41-7

Concentration mg/kg :	9.00E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	2.00E-03	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	2.00E-05	Ingestion:	5.39E-04	Ingestion:	5.75E-03	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:	2.40E-03	Inhalation:	3.17E-05	Inhalation:	3.17E-05	Inhalation:	5.66E-10
Mutagen:		Total:	5.71E-04	Total:	5.79E-03	Total:	5.66E-10
VOC:							
% Contribution to Media Hazard/Risk			0.19%			0.23%	0.00%

	mg/kg <i>Non-Cancer Adult</i>	<i>Non-Cancer Child</i>	<i>Cancer</i>
<i>Recommended Acceptable Concentration</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>

Analyte: Bis(2-ethylhexyl)phthalate

CAS: 117-81-7

Concentration mg/kg :	2.31E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	1.38E-05	Ingestion:	1.48E-04	Ingestion:	4.65E-09
SFO (mg/kg-day)-1:	1.40E-02	Dermal:	5.85E-06	Dermal:	3.50E-05	Dermal:	1.31E-09
IUR (µg/m3)-1:	2.40E-06	Inhalation:		Inhalation:		Inhalation:	1.45E-13
Mutagen:		Total:	1.97E-05	Total:	1.83E-04	Total:	5.96E-09
VOC:							
% Contribution to Media Hazard/Risk			0.01%	0.01%	0.03%		

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Butylbenzene, n-
CAS: 104-51-8

Concentration mg/kg :		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
RfDo (mg/kg-day):	1.40E-01			
RfCi (mg/m3):	5.00E-02	Ingestion: 3.36E-06	Ingestion: 3.58E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 3.36E-06	Total: 3.58E-05	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		0.00%	0.00%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Cadmium (Diet)
CAS: 7440-43-9-Diet

Concentration mg/kg :		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
RfDo (mg/kg-day):	3.33E-01			
RfCi (mg/m3):	1.00E-04	Ingestion: 3.99E-03	Ingestion: 4.26E-02	Ingestion:
SFO (mg/kg-day)-1:	1.00E-05	Dermal: 6.74E-04	Dermal: 4.04E-03	Dermal:
IUR (µg/m3)-1:		Inhalation: 2.35E-05	Inhalation: 2.35E-05	Inhalation: 1.57E-10
Mutagen:	1.80E-03	Total: 4.69E-03	Total: 4.66E-02	Total: 1.57E-10
VOC:				
% Contribution to Media Hazard/Risk		1.56%	1.85%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Cobalt
CAS: 7440-48-4

Concentration mg/kg :		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
RfDo (mg/kg-day):	1.04E+01			
RfCi (mg/m3):	3.00E-04	Ingestion: 4.14E-02	Ingestion: 4.42E-01	Ingestion:
SFO (mg/kg-day)-1:	6.00E-06	Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:	9.00E-03	Inhalation: 1.22E-03	Inhalation: 1.22E-03	Inhalation: 2.44E-08
Mutagen:		Total: 4.27E-02	Total: 4.43E-01	Total: 2.44E-08
VOC:				
% Contribution to Media Hazard/Risk		14.17%	17.62%	0.12%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Copper
CAS: 7440-50-8

Concentration mg/kg :		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
RfDo (mg/kg-day):	1.55E+02			
RfCi (mg/m3):	4.00E-02	Ingestion: 4.64E-03	Ingestion: 4.95E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 4.64E-03	Total: 4.95E-02	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		1.54%	1.97%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Cumulative Risk (All Chemicals)

1.00E-04

CAS: 95-48-7

	mg/kg <i>Non-Cancer Adult</i>	<i>Non-Cancer Child</i>	<i>Cancer</i>
<i>Recommended Acceptable Concentration</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>

CAS: 59-50-7

	mg/kg <i>Non-Cancer Adult</i>	<i>Non-Cancer Child</i>	<i>Cancer</i>
<i>Recommended Acceptable Concentration</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>

CAS: 98-82-8

% Contribution to Media Hazard/Risk	0.02%	0.00%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Cyanide (CN-)
CAS: 57-12-5

Concentration mg/kg : 8.26E-01 RfDo (mg/kg-day): 6.00E-04 RfCi (mg/m3): 8.00E-04 SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen: VOC: Y	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion: 1.65E-03	Ingestion: 1.76E-02	Ingestion:
	Dermal:	Dermal:	Dermal:
	Inhalation: 1.86E-02	Inhalation: 1.86E-02	Inhalation:
	Total: 2.02E-02	Total: 3.62E-02	Total: 0.00E+00
	% Contribution to Media Hazard/Risk		
			6.72%1.44%0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Dibenz[a,h]anthracene
CAS: 53-70-3

Concentration mg/kg : 1.98E-01 RfDo (mg/kg-day): RfCi (mg/m3): SFO (mg/kg-day)-1: 1.00E+00 IUR (µg/m3)-1: 6.00E-04 Mutagen: Y VOC:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion:	Ingestion:	Ingestion: 1.29E-06
	Dermal:	Dermal:	Dermal: 4.31E-07
	Inhalation:	Inhalation:	Inhalation: 8.62E-11
	Total: 0.00E+00	Total: 0.00E+00	Total: 1.72E-06
	% Contribution to Media Hazard/Risk		
			0.00%0.00%8.37%

Exceeds Risk!	mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	1.15E-01

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Analyte: Dimethylphenol, 2,4-
CAS: 105-67-9

Concentration mg/kg : 2.00E-01		Calculated Hazard/Risk		
RfDo (mg/kg-day): 2.00E-02		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.20E-05	Ingestion: 1.28E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 5.06E-06	Dermal: 3.03E-05	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.70E-05	Total: 1.58E-04	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		0.01%	0.01%	0.00%

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Analyte: Ethylbenzene
CAS: 100-41-4

Concentration mg/kg : 3.42E-01		Calculated Hazard/Risk		
RfDo (mg/kg-day): 5.00E-02		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3): 1.00E+00		Ingestion: 8.20E-06	Ingestion: 8.75E-05	Ingestion: 5.41E-09
SFO (mg/kg-day)-1: 1.10E-02		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1: 2.50E-06		Inhalation: 5.78E-05	Inhalation: 5.78E-05	Inhalation: 5.37E-08
Mutagen:		Total: 6.60E-05	Total: 1.45E-04	Total: 5.91E-08
VOC: Y				
% Contribution to Media Hazard/Risk		0.02%	0.01%	0.29%

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Analyte: Fluoranthene
CAS: 206-44-0

Concentration mg/kg : 8.95E-01		Calculated Hazard/Risk		
RfDo (mg/kg-day): 4.00E-02		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 2.68E-05	Ingestion: 2.86E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 1.47E-05	Dermal: 8.83E-05	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 4.15E-05	Total: 3.74E-04	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		0.01%	0.01%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Fluorene
CAS: 86-73-7

Concentration mg/kg :	2.30E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):	4.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 6.89E-06	Ingestion: 7.35E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 3.78E-06	Dermal: 2.27E-05	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.07E-05	Total: 9.62E-05	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		0.00%	0.00%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Indeno[1,2,3-cd]pyrene
CAS: 193-39-5

Concentration mg/kg :	2.82E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion: 1.84E-07
SFO (mg/kg-day)-1:	1.00E-01	Dermal:	Dermal:	Dermal: 6.14E-08
IUR (µg/m3)-1:	6.00E-05	Inhalation:	Inhalation:	Inhalation: 1.23E-11
Mutagen:	Y	Total: 0.00E+00	Total: 0.00E+00	Total: 2.46E-07
VOC:				
% Contribution to Media Hazard/Risk		0.00%	0.00%	1.19%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Analyte: Iron
CAS: 7439-89-6

Concentration mg/kg : 6.57E+04 RfDo (mg/kg-day): 7.00E-01 RfCi (mg/m3): SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen: VOC:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion: 1.12E-01	Ingestion: 1.20E+00	Ingestion:
	Dermal:	Dermal:	Dermal:
	Inhalation:	Inhalation:	Inhalation:
	Total: 1.12E-01	Total: 1.20E+00	Total: 0.00E+00
	% Contribution to Media Hazard/Risk		
			37.38%47.70%0.00%
Exceeds Hazard!			
mg/kg Non-Cancer AdultNon-Cancer ChildCancer			
Recommended Acceptable ConcentrationN/A5.48E+04N/A			

Analyte: isopropyltoluene
CAS: 99-87-6

Concentration mg/kg : 9.93E-02 RfDo (mg/kg-day): 1.00E-01 RfCi (mg/m3): 4.00E-01 SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen: VOC: Y	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion: 1.19E-06	Ingestion: 1.27E-05	Ingestion:
	Dermal:	Dermal:	Dermal:
	Inhalation: 2.48E-05	Inhalation: 2.48E-05	Inhalation:
	Total: 2.60E-05	Total: 3.75E-05	Total: 0.00E+00
	% Contribution to Media Hazard/Risk		
			0.01%0.00%0.00%
mg/kg Non-Cancer AdultNon-Cancer ChildCancer			
Recommended Acceptable ConcentrationN/AN/AN/A			

Analyte: Lead and Compounds
CAS: 7439-92-1

Concentration mg/kg : 2.05E+01 RfDo (mg/kg-day): RfCi (mg/m3): SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen: VOC:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion:	Ingestion:	Ingestion:
	Dermal:	Dermal:	Dermal:
	Inhalation:	Inhalation:	Inhalation:
	Total: 0.00E+00	Total: 0.00E+00	Total: 0.00E+00
	% Contribution to Media Hazard/Risk		
			0.00%0.00%0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Analyte: Manganese (Diet)
CAS: 7439-96-5-Diet

Concentration mg/kg :	5.16E+02	Calculated Hazard/Risk		
RfDo (mg/kg-day):	1.40E-01	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	5.00E-05	Ingestion: 4.42E-03	Ingestion: 4.72E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 7.28E-03	Inhalation: 7.28E-03	Inhalation:
Mutagen:		Total: 1.17E-02	Total: 5.44E-02	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		3.89%	2.16%	0.00%

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Analyte: Mercury (elemental)
CAS: 7439-97-6

Concentration mg/kg :	5.07E-02	Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	3.00E-04	Ingestion:	Ingestion:	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 4.67E-03	Inhalation: 4.67E-03	Inhalation:
Mutagen:		Total: 4.67E-03	Total: 4.67E-03	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		1.55%	0.19%	0.00%

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Analyte: Methyl Ethyl Ketone (2-Butanone)
CAS: 78-93-3

Concentration mg/kg :		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
RfDo (mg/kg-day):	5.73E-01	Ingestion: 1.14E-06	Ingestion: 1.22E-05	Ingestion:
RfCi (mg/m3):	6.00E-01	Dermal:	Dermal:	Dermal:
SFO (mg/kg-day)-1:	5.00E+00	Inhalation: 9.01E-06	Inhalation: 9.01E-06	Inhalation:
IUR (µg/m3)-1:		Total: 1.02E-05	Total: 2.12E-05	Total: 0.00E+00
Mutagen:				
VOC:	Y			
% Contribution to Media Hazard/Risk		0.00%	0.00%	0.00%
mg/kg		Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration		N/A	N/A	N/A

Analyte: Methylcyclohexane
CAS: 108-87-2

Concentration mg/kg :		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
RfDo (mg/kg-day):	7.39E+00	Ingestion:	Ingestion:	Ingestion:
RfCi (mg/m3):		Dermal:	Dermal:	Dermal:
SFO (mg/kg-day)-1:		Inhalation:	Inhalation:	Inhalation:
IUR (µg/m3)-1:		Total: 0.00E+00	Total: 0.00E+00	Total: 0.00E+00
Mutagen:				
VOC:				
% Contribution to Media Hazard/Risk		0.00%	0.00%	0.00%
mg/kg		Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration		N/A	N/A	N/A

Analyte: Methylene Chloride
CAS: 75-09-2

Concentration mg/kg :		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
RfDo (mg/kg-day):	6.90E-04	Ingestion: 1.38E-07	Ingestion: 1.47E-06	Ingestion: 9.01E-12
RfCi (mg/m3):	6.00E-03	Dermal:	Dermal:	Dermal:
SFO (mg/kg-day)-1:	2.00E-03	Inhalation: 5.04E-07	Inhalation: 5.04E-07	Inhalation: 3.11E-12
IUR (µg/m3)-1:	1.00E-08	Total: 6.41E-07	Total: 1.97E-06	Total: 1.21E-11
Mutagen:	Y			
VOC:	Y			
% Contribution to Media Hazard/Risk		0.00%	0.00%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Methylnaphthalene, 1-
CAS: 90-12-0

Concentration mg/kg :	2.18E+00	Calculated Hazard/Risk		
RfDo (mg/kg-day):	7.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 3.73E-05	Ingestion: 3.98E-04	Ingestion: 9.09E-08
SFO (mg/kg-day)-1:	2.90E-02	Dermal: 2.05E-05	Dermal: 1.23E-04	Dermal: 3.32E-08
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 5.78E-05	Total: 5.21E-04	Total: 1.24E-07
VOC:	Y			
% Contribution to Media Hazard/Risk		0.02%	0.02%	0.60%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Methylnaphthalene, 2-
CAS: 91-57-6

Concentration mg/kg :	3.51E+00	Calculated Hazard/Risk		
RfDo (mg/kg-day):	4.00E-03	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.05E-03	Ingestion: 1.12E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 5.78E-04	Dermal: 3.46E-03	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.63E-03	Total: 1.47E-02	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		0.54%	0.58%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Analyte: Naphthalene
CAS: 91-20-3

Concentration mg/kg :	2.05E+00	Calculated Hazard/Risk		
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	3.00E-03	Ingestion: 1.23E-04	Ingestion: 1.31E-03	Ingestion: 3.53E-07
SFO (mg/kg-day)-1:	1.20E-01	Dermal: 6.73E-05	Dermal: 4.03E-04	Dermal: 1.29E-07
IUR (µg/m3)-1:	3.40E-05	Inhalation: 1.41E-02	Inhalation: 1.41E-02	Inhalation: 5.35E-07
Mutagen:		Total: 1.43E-02	Total: 1.58E-02	Total: 1.02E-06
VOC:	Y			
% Contribution to Media Hazard/Risk		4.76%	0.63%	4.94%

Exceeds Risk!	mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	2.01E+00

Analyte: Nickel Soluble Salts
CAS: 7440-02-0

Concentration mg/kg :	1.11E+02	Calculated Hazard/Risk		
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	9.00E-05	Ingestion: 6.65E-03	Ingestion: 7.09E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:	2.60E-04	Inhalation: 8.69E-04	Inhalation: 8.69E-04	Inhalation: 7.55E-09
Mutagen:		Total: 7.52E-03	Total: 7.18E-02	Total: 7.55E-09
VOC:				
% Contribution to Media Hazard/Risk		2.50%	2.85%	0.04%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Phenanthrene
CAS: 85-01-8

Concentration mg/kg :	1.70E+00	Calculated Hazard/Risk		
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 6.78E-05	Ingestion: 7.23E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 3.72E-05	Dermal: 2.23E-04	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.05E-04	Total: 9.46E-04	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		0.03%	0.04%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Pyrene
CAS: 129-00-0

Concentration mg/kg :	8.78E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 3.51E-05	Ingestion: 3.74E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 1.93E-05	Dermal: 1.15E-04	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 5.43E-05	Total: 4.90E-04	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		0.02%	0.02%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Toluene
CAS: 108-88-3

Concentration mg/kg :	2.07E+00	Calculated Hazard/Risk		
RfDo (mg/kg-day):	8.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	5.00E+00	Ingestion: 3.10E-05	Ingestion: 3.31E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 9.26E-05	Inhalation: 9.26E-05	Inhalation:
Mutagen:		Total: 1.24E-04	Total: 4.24E-04	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		0.04%	0.02%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

Analyte: Trimethylbenzene, 1,2,4-
CAS: 95-63-6

Concentration mg/kg :		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.76E-04	Ingestion: 1.88E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 2.96E-03	Inhalation: 2.96E-03	Inhalation:
Mutagen:		Total: 3.14E-03	Total: 4.84E-03	Total: 0.00E+00
VOC: Y				
% Contribution to Media Hazard/Risk		1.04%	0.19%	0.00%

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Analyte: Trimethylbenzene, 1,3,5-
CAS: 108-67-8

Concentration mg/kg :		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 5.24E-05	Ingestion: 5.59E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.06E-03	Inhalation: 1.06E-03	Inhalation:
Mutagen:		Total: 1.11E-03	Total: 1.62E-03	Total: 0.00E+00
VOC: Y				
% Contribution to Media Hazard/Risk		0.37%	0.06%	0.00%

mg/kg	Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A	N/A

Analyte: Vanadium and Compounds
CAS: 7440-62-2

Concentration mg/kg :		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 9.68E-03	Ingestion: 1.03E-01	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 2.85E-04	Inhalation: 2.85E-04	Inhalation:
Mutagen:		Total: 9.96E-03	Total: 1.03E-01	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		3.31%	4.11%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Soil

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Xylenes
CAS: 1330-20-7

Concentration mg/kg :	6.50E+00	Calculated Hazard/Risk		
RfDo (mg/kg-day):	2.00E-01	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	1.00E-01	Ingestion: 3.89E-05	Ingestion: 4.15E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.09E-02	Inhalation: 1.09E-02	Inhalation:
Mutagen:		Total: 1.09E-02	Total: 1.13E-02	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Hazard/Risk		3.62%	0.45%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Zinc and Compounds
CAS: 7440-66-6

Concentration mg/kg :	4.97E+01	Calculated Hazard/Risk		
RfDo (mg/kg-day):	3.00E-01	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.98E-04	Ingestion: 2.12E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.98E-04	Total: 2.12E-03	Total: 0.00E+00
VOC:				
% Contribution to Media Hazard/Risk		0.07%	0.08%	0.00%

mg/kg Non-Cancer Adult	Non-Cancer Child	Cancer
Recommended Acceptable Concentration	N/A	N/A

Total Calculated Hazard Index/Risk for Soil

Non-Cancer Adult		Non-Cancer Child		Cancer	
Ingestion:	2.26E-01	Ingestion:	2.41E+00	Ingestion:	1.63E-05
Dermal:	6.63E-03	Dermal:	3.97E-02	Dermal:	3.25E-06
Inhalation:	6.87E-02	Inhalation:	6.87E-02	Inhalation:	1.03E-06
Total:	3.01E-01	Total:	2.52E+00	Total:	2.06E-05

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

THIS PAGE INTENTIONALLY LEFT BLANK
Summary Report Follows

Report Summary

Hazard/risk values of zero (0.00+00) are reflective of non-calculated values. Hazard/risk for zero value analytes must be evaluated outside of quantitative risk assessment.

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard Adult	Hazard Child	Risk
Acenaphthene	83-32-9	6.37E-06	5.74E-05	0.00E+00
Acenaphthylene	208-96-8	8.66E-06	7.81E-05	0.00E+00
Acetone	67-64-1	2.29E-06	2.44E-05	0.00E+00
Acetophenone	98-86-2	1.81E-06	1.93E-05	0.00E+00
Aluminum	7429-90-5	1.24E-02	1.19E-01	0.00E+00
Anthracene	120-12-7	1.57E-06	1.41E-05	0.00E+00
Antimony (metallic)	7440-36-0	4.03E-03	4.29E-02	0.00E+00
Arsenic, Inorganic	7440-38-2	2.60E-02	2.52E-01	1.30E-05
Barium	7440-39-3	5.38E-04	4.75E-03	0.00E+00
Benz[a]anthracene	56-55-3	0.00E+00	0.00E+00	4.26E-07
Benzene	71-43-2	4.66E-03	6.11E-03	4.32E-07
Benzo(g,h,i)perylene	191-24-2	1.53E-05	1.38E-04	0.00E+00
Benzo[a]pyrene	50-32-8	2.20E-03	1.89E-02	2.93E-06
Benzo[b]fluoranthene	205-99-2	0.00E+00	0.00E+00	5.79E-07
Benzo[k]fluoranthene	207-08-9	0.00E+00	0.00E+00	3.14E-08
Benzoic Acid	65-85-0	5.11E-07	4.75E-06	0.00E+00
Beryllium and compounds	7440-41-7	5.71E-04	5.79E-03	5.66E-10
Bis(2-ethylhexyl)phthalate	117-81-7	1.97E-05	1.83E-04	5.96E-09
Butylbenzene, n-	104-51-8	3.36E-06	3.58E-05	0.00E+00
Cadmium (Diet)	7440-43-9-Diet	4.69E-03	4.66E-02	1.57E-10
Carbazole	86-74-8	0.00E+00	0.00E+00	0.00E+00
Chromium(III), Insoluble Salts	16065-83-1	1.65E-04	1.76E-03	0.00E+00
Chrysene	218-01-9	0.00E+00	0.00E+00	6.02E-09
Cobalt	7440-48-4	4.27E-02	4.43E-01	2.44E-08
Copper	7440-50-8	4.64E-03	4.95E-02	0.00E+00
Cresol, o-	95-48-7	4.43E-06	4.11E-05	0.00E+00
Cresol, p-chloro-m-	59-50-7	2.03E-06	1.88E-05	0.00E+00
Cumene	98-82-8	6.69E-05	8.63E-05	0.00E+00
Cyanide (CN-)	57-12-5	2.02E-02	3.62E-02	0.00E+00
Dibenz[a,h]anthracene	53-70-3	0.00E+00	0.00E+00	1.72E-06
Dimethylphenol, 2,4-	105-67-9	1.70E-05	1.58E-04	0.00E+00
Ethylbenzene	100-41-4	6.60E-05	1.45E-04	5.91E-08

Risk Based Performance Criteria		
Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk (All Chemicals)
1	1.00E-06	1.00E-04

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard Adult	Hazard Child	Risk
Fluoranthene	206-44-0	4.15E-05	3.74E-04	0.00E+00
Fluorene	86-73-7	1.07E-05	9.62E-05	0.00E+00
Indeno[1,2,3-cd]pyrene	193-39-5	0.00E+00	0.00E+00	2.46E-07
Iron	7439-89-6	1.12E-01	1.20E+00	0.00E+00
isopropyltoluene	99-87-6	2.60E-05	3.75E-05	0.00E+00
Lead and Compounds	7439-92-1	0.00E+00	0.00E+00	0.00E+00
Manganese (Diet)	7439-96-5-Diet	1.17E-02	5.44E-02	0.00E+00
Mercury (elemental)	7439-97-6	4.67E-03	4.67E-03	0.00E+00
Methyl Ethyl Ketone (2-Butanone)	78-93-3	1.02E-05	2.12E-05	0.00E+00
Methylcyclohexane	108-87-2	0.00E+00	0.00E+00	0.00E+00
Methylene Chloride	75-09-2	6.41E-07	1.97E-06	1.21E-11
Methylnaphthalene, 1-	90-12-0	5.78E-05	5.21E-04	1.24E-07
Methylnaphthalene, 2-	91-57-6	1.63E-03	1.47E-02	0.00E+00
Naphthalene	91-20-3	1.43E-02	1.58E-02	1.02E-06
Nickel Soluble Salts	7440-02-0	7.52E-03	7.18E-02	7.55E-09
Phenanthrene	85-01-8	1.05E-04	9.46E-04	0.00E+00
Pyrene	129-00-0	5.43E-05	4.90E-04	0.00E+00
Toluene	108-88-3	1.24E-04	4.24E-04	0.00E+00
Trimethylbenzene, 1,2,4-	95-63-6	3.14E-03	4.84E-03	0.00E+00
Trimethylbenzene, 1,3,5-	108-67-8	1.11E-03	1.62E-03	0.00E+00
Vanadium and Compounds	7440-62-2	9.96E-03	1.03E-01	0.00E+00
Xylenes	1330-20-7	1.09E-02	1.13E-02	0.00E+00
Zinc and Compounds	7440-66-6	1.98E-04	2.12E-03	0.00E+00

Total Hazard Index/Risk for All Media

Non-Cancer Adult		Non-Cancer Child		Cancer	
Ingestion:	2.26E-01	Ingestion:	2.41E+00	Ingestion:	1.63E-05
Dermal:	6.63E-03	Dermal:	3.97E-02	Dermal:	3.25E-06
Inhalation:	6.87E-02	Inhalation:	6.87E-02	Inhalation:	1.03E-06
Total:	3.01E-01	Total:	2.52E+00	Total:	2.06E-05
does not exceed hazard index		Exceeds Hazard Index!		does not exceed cumulative risk	

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk for Individual Chemical

Default Cumulative Risk (All Chemicals)

1

1.00E-06

1.00E-04

Residential Exposure Default Values

Symbol	Description	Value	Units
AF0-02	Soil Adherence Factor - age segment 0-2	0.2	(mg/cm2)
AF02-06	Soil Adherence Factor - age segment 2-6	0.2	(mg/cm2)
AF06-16	Soil Adherence Factor - age segment 6-16	0.07	(mg/cm2)
AF16-26	Soil Adherence Factor - age segment 16-26	0.07	(mg/cm2)
AFres-a	Resident Soil Adherence Factor - adult	0.07	(mg/cm2)
AFres-c	Resident Soil Adherence Factor - child	0.2	(mg/cm2)
ATr	Resident Averaging Time	365	(days/yr)
ATres	Resident Averaging Time: 365 x LT	25550	(days)
ATres-a	Resident Averaging Time - adult: 365 x EDres	9490	(days)
ATres-c	Resident Averaging Time - child: 365 x EDres-c	2190	(days)
BW0-02	Body Weight - age segment 0-2	15	(kg)
BW02-06	Body Weight - age segment 2-6	15	(kg)
BW06-16	Body Weight - age segment 6-16	80	(kg)
BW16-26	Body Weight - age segment 16-26	80	(kg)
BWres-a	Resident Body Weight - adult	80	(kg)
BWres-c	Resident Body Weight - child	15	(kg)
DFSMres-adj	Resident Soil Mutagenic Dermal Contact Factor - age adjusted	428260	(mg/kg)
DFSres-adj	Resident Soil Dermal Contact Factor - age adjusted	103390	(mg/kg)
DFWMres-adj	Resident Groundwater Mutagenic Dermal Contact Factor - age adjusted	8191633.33333333	(cm2-event/kg)
DFWres-adj	Resident Groundwater Dermal Contact Factor - age adjusted	2610650	(cm2-event/kg)
ED0-02	Exposure Duration - age segment 0-2	2	(yrs)
ED02-06	Exposure Duration - age segment 2-6	4	(yrs)
ED06-16	Exposure Duration -age segment 6-16	10	(yrs)
ED16-26	Exposure Duration -age segment 16-26	10	(yrs)

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk for Individual Chemical

Default Cumulative Risk (All Chemicals)

1

1.00E-06

1.00E-04

EDres	Resident Total Exposure Duration	26	(yrs)
EDres-a	Resident Exposure Duration - adult	20	(yrs)
EDres-c	Resident Exposure Duration - child	6	(yrs)
EFres	Resident Exposure Frequency	350	(days/yr)
EFres0-02	Resident Exposure Frequency - age segment 0-2	350	(days/yr)
EFres02-06	Resident Exposure Frequency - age segment 2-6	350	(days/yr)
EFres06-16	Resident Exposure Frequency - age segment 6-16	350	(days/yr)
EFres16-26	Resident Exposure Frequency - age segment 16-26	350	(days/yr)
EFres-a	Resident Exposure Frequency - adult	350	(days/yr)
EFres-c	Resident Exposure Frequency - child	350	(days/yr)
ETevent-res(0-02)	Resident Water Exposure Time - age segment 0-2	0.54	(hrs/event)
ETevent-res(02-06)	Resident Water Exposure Time - age segment 2-6	0.54	(hrs/event)
ETevent-res(06-16)	Resident Water Exposure Time - age segment 6-16	0.71	(hrs/event)
ETevent-res(16-26)	Resident Water Exposure Time - age segment 16-26	0.71	(hrs/event)
ETevent-res-a	Resident Groundwater Exposure Time -adult	0.71	(hrs/event)
ETevent-res-adj	Resident Water Exposure Time -age adjusted	0.670769230769231	(hrs/event)
ETevent-res-c	Resident Groundwater Exposure Time - child	0.54	(hrs/event)
ETevent-res-madj	Resident Water Exposure Time - mutagen age adjusted	0.670769230769231	(hrs/event)
ETrai	Resident Air Inhalation Exposure Time	24	(hrs/day)
ETres	Resident Soil Exposure Time	24	(hrs/day)
ETres0-02	Resident Exposure Time - age segment 0-2	24	(hrs/day)
ETres02-06	Resident Exposure Time - age segment 2-6	24	(hrs/day)
ETres06-16	Resident Exposure Time - age segment 6-16	24	(hrs/day)
ETres16-26	Resident Exposure Time - age segment 16-26	24	(hrs/day)
ETres-a	Resident Exposure Time - adult	24	(hrs/day)
ETres-c	Resident Exposure Time - child	24	(hrs/day)

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk for Individual Chemical

Default Cumulative Risk (All Chemicals)

1

1.00E-06

1.00E-04

ETres-gwi	Resident Groundwater Inhalation Exposure Time	24	(hrs/day)
EVres-a	Resident Groundwater Events - adult	1	(events/day)
EVres-c	Resident Groundwater Events - child	1	(events/day)
IFSMres-adj	Resident Mutagenic Soil Ingestion Rate - age adjusted	166833.333333333	(mg/kg)
IFSres-adj	Resident Soil Ingestion Rate - age adjusted	36750	(mg/kg)
IFWMres-adj	Resident Mutagenic Drinking Groundwater Ingestion Rate - age adjusted	1019.9	(L/kg)
IFWres-adj	Resident Drinking Groundwater Ingestion Rate - age adjusted	327.95	(L/kg)
INHMres-ai-adj	Resident Air Inhalation Exposure Duration Mutagen - age adjusted	604800	(hrs)
INHMres-gw-adj	Resident Groundwater Inhalation Exposure Duration Mutagen - age adjusted	25200	(days)
INHMres-s-adj	Resident Soil Inhalation Exposure Duration Mutagen - age adjusted	25200	(days)
IREres-a	Resident Food Eggs Ingestion Rate - Virginia DEQ	150000	(mg/day)
IRFres-a	Resident Food Fish/Shellfish Ingestion Rate - Exposure Defaults Handbook	54000	(mg/day)
IRFVres-a	Resident Food Fruit/Vegetables Ingestion Rate - Exposure Defaults Handbook	122000	(mg/day)
IRMDres-a	Resident Food Meat/Dairy - Virginia DEQ	280000	(mg/day)
IRS0-02	Soil/Sediment Ingestion Rate - age segment 0-2	200	(mg/day)
IRS02-06	Soil/Sediment Ingestion Rate - age segment 2-6	200	(mg/day)
IRS06-16	Soil/Sediment Ingestion Rate - age segment 6-16	100	(mg/day)
IRS16-26	Soil/Sediment Ingestion Rate - age segment 16-26	100	(mg/day)
IRSres-a	Resident Soil Ingestion Rate - adult	100	(mg/day)
IRSres-c	Resident Soil Ingestion Rate - child	200	(mg/day)
IRW0-02	Drinking Water Ingestion Rate - age segment 0-2	0.78	(L/day)
IRW02-06	Drinking Water Ingestion Rate - age segment 2-6	0.78	(L/day)
IRW06-16	Drinking Water Ingestion Rate - age segment 6-16	2.5	(L/day)
IRW16-26	Drinking Water Ingestion Rate - age segment 16-26	2.5	(L/day)
IRWres-a	Resident Drinking Groundwater Ingestion Rate - adult	2.5	(L/day)
IRWres-c	Resident Drinking Groundwater Ingestion Rate - child	0.78	(L/day)

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk for Individual Chemical

Default Cumulative Risk (All Chemicals)

1

1.00E-06

1.00E-04

SAres-a	Resident Soil Surface Area - adult	6032	(cm2/day)
SAres-a	Resident Water Surface Area - adult	19652	(cm2)
SAres-c	Resident Water Surface Area - child	6365	(cm2)
SAres-c	Resident Soil Surface Area - child	2373	(cm2/day)
SAs0-02	Surface Area Soil/Sediment - age segment 0-2	2373	(cm2/day)
SAs02-06	Surface Area Soil/Sediment - age segment 2-6	2373	(cm2/day)
SAs06-16	Surface Area Soil/Sediment - age segment 6-16	6032	(cm2/day)
SAs16-26	Surface Area Soil/Sediment - age segment 16-26	6032	(cm2/day)
SAw0-02	Surface Area Water - age segment 0-2	6365	(cm2)
SAw02-06	Surface Area Water - age segment 2-6	6365	(cm2)
SAw06-16	Surface Area Water - age segment 6- 16	19652	(cm2)
SAw16-26	Surface Area Water - age segment 16- 26	19652	(cm2)

END OF REPORT

**ATTACHMENT 3-2
CONSTRUCTION WORKER**

VURAM

Virginia Unified Risk Assessment Model

VERSION: 3.2.1

Construction Worker Quantitative Risk Assessment Report

Site Name: Alexandria

Program: Voluntary Remediation Program

Contact Depth to Groundwater: Direct Less than 15ft

By submitting this report to the Virginia DEQ, the user confirms that VURAM's default exposure parameters have not been altered, unless a complete unaltered VURAM analysis is provided and all modifications are detailed explicitly in an accompanying narrative or documentation that shows DEQ's prior concurrence with specific changes.

Chemical Specific Notes displayed as applicable

Lead

VURAM does not perform an evaluation for lead exposure. Use other approved models for lead modeling.

All Report Pages are Required for Risk Assessment Submission

Soil

Analyte: Acenaphthene
CAS: 83-32-9

Concentration mg/kg:	2.06E-01
RfDo:	2.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Acenaphthylene
CAS: 208-96-8

Concentration mg/kg:	1.40E-01
RfDo:	3.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Acetone
CAS: 67-64-1

Concentration mg/kg:	1.72E+00
RfDo:	1.00E+00
RfCi:	3.09E+01
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Soil

Analyte: Acetophenone
CAS: 98-86-2

Concentration mg/kg:	1.51E-01
RfDo:	8.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Aluminum
CAS: 7429-90-5

Concentration mg/kg:	9.23E+03
RfDo:	1.00E+00
RfCi:	5.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	5.66%	0.00%

Analyte: Anthracene
CAS: 120-12-7

Concentration mg/kg:	2.53E-01
RfDo:	1.00E+00
RfCi:	1.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Soil

Analyte: Antimony (metallic)
CAS: 7440-36-0

Concentration mg/kg:	1.34E+00
RfDo:	4.00E-04
RfCi:	1.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	2.03%	0.00%

Analyte: Arsenic, Inorganic
CAS: 7440-38-2

Concentration mg/kg:	8.80E+00
RfDo:	3.00E-04
RfCi:	1.50E-05
SFO:	1.50E+00
IUR:	4.30E-03
Mutagen:	
VOC:	

% Contribution to Media Risk	12.38%	90.91%

Analyte: Barium
CAS: 7440-39-3

Concentration mg/kg:	7.27E+01
RfDo:	2.00E-01
RfCi:	5.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.22%	0.00%

Soil

Analyte: Benz[a]anthracene
CAS: 56-55-3

Concentration mg/kg:	4.82E-01
RfDo:	
RfCi:	
SFO:	1.00E-01
IUR:	6.00E-05
Mutagen:	Y
VOC:	Y

% Contribution to Media Risk

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion:	Ingestion: 9.73E-10
Dermal:	Dermal: 4.05E-10
Inhalation:	Inhalation: 3.72E-14
Total: 0.00E+00	Total: 1.38E-09
0.00%	0.43%

Analyte: Benzene
CAS: 71-43-2

Concentration mg/kg:	5.00E-01
RfDo:	1.00E-02
RfCi:	8.00E-02
SFO:	5.50E-02
IUR:	7.80E-06
Mutagen:	
VOC:	Y

% Contribution to Media Risk

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 7.37E-05	Ingestion: 5.55E-10
Dermal:	Dermal:
Inhalation: 5.87E-10	Inhalation: 5.02E-15
Total: 7.37E-05	Total: 5.55E-10
0.03%	0.17%

Analyte: Benzo(g,h,i)perylene
CAS: 191-24-2

Concentration mg/kg:	2.47E-01
RfDo:	3.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.21E-06	Ingestion:
Dermal: 5.06E-07	Dermal:
Inhalation:	Inhalation:
Total: 1.72E-06	Total: 0.00E+00
0.00%	0.00%

Soil

Analyte: Benzo[a]pyrene
CAS: 50-32-8

Concentration mg/kg:	3.36E-01
RfDo:	3.00E-04
RfCi:	2.00E-06
SFO:	1.00E+00
IUR:	6.00E-04
Mutagen:	Y
VOC:	

% Contribution to Media Risk

0.97%

2.99%

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:	1.65E-03	Ingestion:	6.78E-09
Dermal:	6.88E-04	Dermal:	2.83E-09
Inhalation:	1.58E-05	Inhalation:	2.60E-13
Total:	2.35E-03	Total:	9.61E-09

Analyte: Benzo[b]fluoranthene
CAS: 205-99-2

Concentration mg/kg:	6.65E-01
RfDo:	
RfCi:	
SFO:	1.00E-01
IUR:	6.00E-05
Mutagen:	Y
VOC:	

% Contribution to Media Risk

0.00%

0.59%

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	1.34E-09
Dermal:		Dermal:	5.59E-10
Inhalation:		Inhalation:	5.14E-14
Total:	0.00E+00	Total:	1.90E-09

Analyte: Benzo[k]fluoranthene
CAS: 207-08-9

Concentration mg/kg:	3.61E-01
RfDo:	
RfCi:	
SFO:	1.00E-02
IUR:	6.00E-06
Mutagen:	Y
VOC:	

% Contribution to Media Risk

0.00%

0.03%

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	7.29E-11
Dermal:		Dermal:	3.04E-11
Inhalation:		Inhalation:	2.79E-15
Total:	0.00E+00	Total:	1.03E-10

Soil

Analyte: Benzoic Acid
CAS: 65-85-0

Concentration mg/kg:	1.20E+00
RfDo:	4.00E+00
RfCi:	2.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk

0.00%

0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 4.42E-07	Ingestion:
Dermal: 1.42E-07	Dermal:
Inhalation: 5.64E-08	Inhalation:
Total: 6.40E-07	Total: 0.00E+00

Analyte: Beryllium and compounds
CAS: 7440-41-7

Concentration mg/kg:	9.00E-01
RfDo:	5.00E-03
RfCi:	2.00E-05
SFO:	
IUR:	2.40E-03
Mutagen:	
VOC:	

% Contribution to Media Risk

0.11%

0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 2.65E-04	Ingestion:
Dermal:	Dermal:
Inhalation: 4.23E-06	Inhalation: 2.78E-12
Total: 2.69E-04	Total: 2.78E-12

Analyte: Bis(2-ethylhexyl)phthalate
CAS: 117-81-7

Concentration mg/kg:	2.31E-01
RfDo:	2.00E-02
RfCi:	1.17E-01
SFO:	1.40E-02
IUR:	2.40E-06
Mutagen:	
VOC:	

% Contribution to Media Risk

0.01%

0.03%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.70E-05	Ingestion: 6.53E-11
Dermal: 5.46E-06	Dermal: 2.09E-11
Inhalation: 1.86E-10	Inhalation: 7.14E-16
Total: 2.25E-05	Total: 8.62E-11

Soil

Analyte: Butylbenzene, n-
CAS: 104-51-8

Concentration mg/kg:	1.40E-01
RfDo:	1.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Cadmium (Diet)
CAS: 7440-43-9-Diet

Concentration mg/kg:	3.33E-01
RfDo:	5.00E-04
RfCi:	1.00E-05
SFO:	
IUR:	1.80E-03
Mutagen:	
VOC:	

% Contribution to Media Risk	0.46%	0.00%

Analyte: Carbazole
CAS: 86-74-8

Concentration mg/kg:	2.42E-01
RfDo:	
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 2.06E-06	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 2.06E-06	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 9.81E-04	Ingestion:
Dermal: 1.26E-04	Dermal:
Inhalation: 3.13E-06	Inhalation: 7.72E-13
Total: 1.11E-03	Total: 7.72E-13

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion:	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 0.00E+00	Total: 0.00E+00

Soil

Analyte: Chromium(III), Insoluble Salts
CAS: 16065-83-1

Concentration mg/kg:	2.06E+02
RfDo:	1.50E+00
RfCi:	5.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.08%	0.00%

Analyte: Chrysene
CAS: 218-01-9

Concentration mg/kg:	6.91E-01
RfDo:	1.50E+00
RfCi:	5.00E-03
SFO:	1.00E-03
IUR:	6.00E-07
Mutagen:	Y
VOC:	

% Contribution to Media Risk	0.00%	0.01%

Analyte: Cobalt
CAS: 7440-48-4

Concentration mg/kg:	1.04E+01
RfDo:	3.00E-03
RfCi:	2.00E-05
SFO:	
IUR:	9.00E-03
Mutagen:	
VOC:	

% Contribution to Media Risk	2.11%	0.04%

Soil

Analyte: Copper
CAS: 7440-50-8

Concentration mg/kg:	1.55E+02
RfDo:	1.00E-02
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	9.38%	0.00%

Analyte: Cresol, o-
CAS: 95-48-7

Concentration mg/kg:	1.30E-01
RfDo:	2.00E-01
RfCi:	6.00E-01
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Cresol, p-chloro-m-
CAS: 59-50-7

Concentration mg/kg:	1.19E-01
RfDo:	1.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 2.28E-02	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 2.28E-02	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 9.58E-07	Ingestion:
Dermal: 3.07E-07	Dermal:
Inhalation: 2.04E-11	Inhalation:
Total: 1.26E-06	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.75E-06	Ingestion:
Dermal: 5.62E-07	Dermal:
Inhalation:	Inhalation:
Total: 2.32E-06	Total: 0.00E+00

Soil

Analyte: Cumene
CAS: 98-82-8

Concentration mg/kg:	1.68E-01
RfDo:	4.00E-01
RfCi:	9.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Cyanide (CN-)
CAS: 57-12-5

Concentration mg/kg:	8.26E-01
RfDo:	2.00E-02
RfCi:	8.00E-04
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.27%	0.00%

Analyte: Dibenz[a,h]anthracene
CAS: 53-70-3

Concentration mg/kg:	1.98E-01
RfDo:	
RfCi:	
SFO:	1.00E+00
IUR:	6.00E-04
Mutagen:	Y
VOC:	

% Contribution to Media Risk	0.00%	1.76%

Soil

Analyte: Dimethylphenol, 2,4-
CAS: 105-67-9

Concentration mg/kg:	2.00E-01
RfDo:	5.00E-02
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Ethylbenzene
CAS: 100-41-4

Concentration mg/kg:	3.42E-01
RfDo:	5.00E-02
RfCi:	9.00E+00
SFO:	1.10E-02
IUR:	2.50E-06
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.02%

Analyte: Fluoranthene
CAS: 206-44-0

Concentration mg/kg:	8.95E-01
RfDo:	1.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.01%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 5.89E-06	Ingestion:
Dermal: 1.89E-06	Dermal:
Inhalation:	Inhalation:
Total: 7.78E-06	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.01E-05	Ingestion: 7.59E-11
Dermal:	Dermal:
Inhalation: 3.57E-12	Inhalation: 1.10E-15
Total: 1.01E-05	Total: 7.59E-11

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.32E-05	Ingestion:
Dermal: 5.50E-06	Dermal:
Inhalation:	Inhalation:
Total: 1.87E-05	Total: 0.00E+00

Soil

Analyte: Fluorene
CAS: 86-73-7

Concentration mg/kg:	2.30E-01
RfDo:	4.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Indeno[1,2,3-cd]pyrene
CAS: 193-39-5

Concentration mg/kg:	2.82E-01
RfDo:	4.00E-01
RfCi:	
SFO:	1.00E-01
IUR:	6.00E-05
Mutagen:	Y
VOC:	

% Contribution to Media Risk	0.00%	0.25%

Analyte: Iron
CAS: 7439-89-6

Concentration mg/kg:	6.57E+04
RfDo:	7.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	56.81%	0.00%

Soil

Analyte: isopropyltoluene
CAS: 99-87-6

Concentration mg/kg:	9.93E-02
RfDo:	4.00E-01
RfCi:	9.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Lead and Compounds
CAS: 7439-92-1

Concentration mg/kg:	2.05E+01
RfDo:	
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Manganese (Diet)
CAS: 7439-96-5-Diet

Concentration mg/kg:	5.16E+02
RfDo:	1.40E-01
RfCi:	5.00E-05
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	2.63%	0.00%

Soil

Analyte: Mercury (elemental)
CAS: 7439-97-6

Concentration mg/kg:	5.07E-02
RfDo:	
RfCi:	3.00E-04
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.05%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion:	Ingestion:
Dermal:	Dermal:
Inhalation: 1.25E-04	Inhalation:
Total: 1.25E-04	Total: 0.00E+00

Analyte: Methyl Ethyl Ketone (2-Butanone)
CAS: 78-93-3

Concentration mg/kg:	5.73E-01
RfDo:	2.00E+00
RfCi:	1.00E+00
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 4.22E-07	Ingestion:
Dermal:	Dermal:
Inhalation: 5.39E-11	Inhalation:
Total: 4.22E-07	Total: 0.00E+00

Analyte: Methylcyclohexane
CAS: 108-87-2

Concentration mg/kg:	7.39E+00
RfDo:	
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion:	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 0.00E+00	Total: 0.00E+00

Soil

Analyte: Methylene Chloride
CAS: 75-09-2

Concentration mg/kg:	6.90E-04
RfDo:	6.00E-02
RfCi:	1.04E+00
SFO:	2.00E-03
IUR:	1.00E-08
Mutagen:	Y
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Methylnaphthalene, 1-
CAS: 90-12-0

Concentration mg/kg:	2.18E+00
RfDo:	7.00E-02
RfCi:	1.04E+00
SFO:	2.90E-02
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.03%	0.56%

Analyte: Methylnaphthalene, 2-
CAS: 91-57-6

Concentration mg/kg:	3.51E+00
RfDo:	4.00E-03
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.75%	0.00%

Soil

Analyte: Naphthalene
CAS: 91-20-3

Concentration mg/kg:	2.05E+00
RfDo:	6.00E-01
RfCi:	3.00E-03
SFO:	1.20E-01
IUR:	3.40E-05
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	2.19%

Analyte: Nickel Soluble Salts
CAS: 7440-02-0

Concentration mg/kg:	1.11E+02
RfDo:	2.00E-02
RfCi:	2.00E-04
SFO:	
IUR:	2.60E-04
Mutagen:	
VOC:	

% Contribution to Media Risk	3.38%	0.01%

Analyte: Phenanthrene
CAS: 85-01-8

Concentration mg/kg:	1.70E+00
RfDo:	3.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:	5.02E-06	Ingestion:	4.95E-09
Dermal:	2.09E-06	Dermal:	2.07E-09
Inhalation:	6.41E-08	Inhalation:	8.96E-14
Total:	7.18E-06	Total:	7.02E-09

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:	8.17E-03	Ingestion:	
Dermal:		Dermal:	
Inhalation:	5.21E-05	Inhalation:	3.71E-11
Total:	8.22E-03	Total:	3.71E-11

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:	8.33E-06	Ingestion:	
Dermal:	3.47E-06	Dermal:	
Inhalation:		Inhalation:	
Total:	1.18E-05	Total:	0.00E+00

Soil

Analyte: Pyrene
CAS: 129-00-0

Concentration mg/kg:	8.78E-01
RfDo:	3.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Toluene
CAS: 108-88-3

Concentration mg/kg:	2.07E+00
RfDo:	8.00E-01
RfCi:	5.00E+00
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Trimethylbenzene, 1,2,4-
CAS: 95-63-6

Concentration mg/kg:	1.47E+00
RfDo:	4.00E-02
RfCi:	2.00E-01
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.02%	0.00%

Soil

Analyte: Trimethylbenzene, 1,3,5-
CAS: 108-67-8

Concentration mg/kg:	4.37E-01	Calculated Hazard/Risk	
RfDo:	4.00E-02	Non-Cancer Adult	Cancer
RfCi:	2.00E-01	Ingestion: 1.61E-05	Ingestion:
SFO:		Dermal:	Dermal:
IUR:		Inhalation: 2.05E-10	Inhalation:
Mutagen:		Total: 1.61E-05	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.01%	0.00%

Analyte: Vanadium and Compounds
CAS: 7440-62-2

Concentration mg/kg:	4.04E+01	Calculated Hazard/Risk	
RfDo:	1.00E-02	Non-Cancer Adult	Cancer
RfCi:	1.00E-04	Ingestion: 5.95E-03	Ingestion:
SFO:		Dermal:	Dermal:
IUR:		Inhalation: 3.79E-05	Inhalation:
Mutagen:		Total: 5.98E-03	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		2.46%	0.00%

Analyte: Xylenes
CAS: 1330-20-7

Concentration mg/kg:	6.50E+00	Calculated Hazard/Risk	
RfDo:	4.00E-01	Non-Cancer Adult	Cancer
RfCi:	4.00E-01	Ingestion: 2.39E-05	Ingestion:
SFO:		Dermal:	Dermal:
IUR:		Inhalation: 1.53E-09	Inhalation:
Mutagen:		Total: 2.39E-05	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.01%	0.00%

Soil

Analyte: Zinc and Compounds
CAS: 7440-66-6

Concentration mg/kg:	4.97E+01
RfDo:	3.00E-01
RfCi:	7.67E-02
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk

0.10%

0.00%

Calculated Hazard/Risk

Non-Cancer Adult		Cancer	
Ingestion:	2.44E-04	Ingestion:	
Dermal:		Dermal:	
Inhalation:	6.09E-08	Inhalation:	
Total:	2.44E-04	Total:	0.00E+00

Total Calculated Hazard Index/Risk for Soil

Non-Cancer Adult		Cancer	
Ingestion:	2.36E-01	Ingestion:	2.87E-07
Dermal:	5.55E-03	Dermal:	3.40E-08
Inhalation:	2.08E-03	Inhalation:	2.10E-10
Total:	2.43E-01	Total:	3.21E-07

Groundwater

Analyte: Acenaphthene
CAS: 83-32-9

Concentration µg/L :	5.18E-01
RfDo:	2.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Acenaphthylene
CAS: 208-96-8

Concentration µg/L :	1.50E-01
RfDo:	3.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Acetone
CAS: 67-64-1

Concentration µg/L :	6.62E+00
RfDo:	1.00E+00
RfCi:	3.09E+01
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Groundwater

Analyte: Aluminum
CAS: 7429-90-5

Concentration µg/L :	2.53E+03
RfDo:	1.00E+00
RfCi:	5.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.03%	0.00%

Analyte: Anthracene
CAS: 120-12-7

Concentration µg/L :	9.93E-02
RfDo:	1.00E+00
RfCi:	1.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Antimony (metallic)
CAS: 7440-36-0

Concentration µg/L :	5.50E-01
RfDo:	4.00E-04
RfCi:	1.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.02%	0.00%

Groundwater

Analyte: Arsenic, Inorganic
CAS: 7440-38-2

Concentration µg/L :	5.50E+00
RfDo:	3.00E-04
RfCi:	1.50E-05
SFO:	1.50E+00
IUR:	4.30E-03
Mutagen:	
VOC:	

% Contribution to Media Risk	0.22%	0.52%

Analyte: Barium
CAS: 7440-39-3

Concentration µg/L :	1.06E+02
RfDo:	2.00E-01
RfCi:	5.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.01%	0.00%

Analyte: Benz[a]anthracene
CAS: 56-55-3

Concentration µg/L :	7.93E-02
RfDo:	
RfCi:	
SFO:	1.00E-01
IUR:	6.00E-05
Mutagen:	Y
VOC:	Y

% Contribution to Media Risk	0.00%	0.21%

Groundwater

Analyte: Benzene
CAS: 71-43-2

Concentration µg/L :	1.16E+00
RfDo:	1.00E-02
RfCi:	8.00E-02
SFO:	5.50E-02
IUR:	7.80E-06
Mutagen:	
VOC:	Y

% Contribution to Media Risk	1.07%	3.53%

Analyte: Benzo(g,h,i)perylene
CAS: 191-24-2

Concentration µg/L :	1.10E-01
RfDo:	3.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.01%	0.00%

Analyte: Benzo[a]pyrene
CAS: 50-32-8

Concentration µg/L :	6.08E-02
RfDo:	3.00E-04
RfCi:	2.00E-06
SFO:	1.00E+00
IUR:	6.00E-04
Mutagen:	Y
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Groundwater

Analyte: Benzo[b]fluoranthene

CAS: 205-99-2

Concentration µg/L : 2.00E-01	Calculated Hazard/Risk	
RfDo:	Non-Cancer Adult	Cancer
RfCi:	Ingestion:	Ingestion: 2.45E-11
SFO: 1.00E-01	Dermal:	Dermal:
IUR: 6.00E-05	Inhalation:	Inhalation:
Mutagen: Y	Total: 0.00E+00	Total: 2.45E-11
VOC:		
% Contribution to Media Risk	0.00%	0.00%

Analyte: Benzo[k]fluoranthene

CAS: 207-08-9

Concentration µg/L : 7.84E-02	Calculated Hazard/Risk	
RfDo:	Non-Cancer Adult	Cancer
RfCi:	Ingestion:	Ingestion: 9.59E-13
SFO: 1.00E-02	Dermal:	Dermal:
IUR: 6.00E-06	Inhalation:	Inhalation:
Mutagen: Y	Total: 0.00E+00	Total: 9.59E-13
VOC:		
% Contribution to Media Risk	0.00%	0.00%

Analyte: Beryllium and compounds

CAS: 7440-41-7

Concentration µg/L : 1.71E+00	Calculated Hazard/Risk	
RfDo:	Non-Cancer Adult	Cancer
RfCi:	Ingestion: 3.05E-05	Ingestion:
SFO:	Dermal:	Dermal:
IUR: 2.40E-03	Inhalation:	Inhalation:
Mutagen:	Total: 3.05E-05	Total: 0.00E+00
VOC:		
% Contribution to Media Risk	0.00%	0.00%

Groundwater

Analyte: Cadmium (Water)

CAS: 7440-43-9-Water

Concentration µg/L :	2.64E+00	Calculated Hazard/Risk			
RfDo:	5.00E-04	Non-Cancer Adult		Cancer	
RfCi:	1.00E-05	Ingestion:	4.71E-04	Ingestion:	
SFO:		Dermal:		Dermal:	
IUR:	1.80E-03	Inhalation:		Inhalation:	
Mutagen:		Total:	4.71E-04	Total:	0.00E+00
VOC:					
% Contribution to Media Risk			0.06%		0.00%

Analyte: Carbazole

CAS: 86-74-8

Concentration µg/L :	9.00E-01	Calculated Hazard/Risk			
RfDo:		Non-Cancer Adult		Cancer	
RfCi:		Ingestion:		Ingestion:	
SFO:		Dermal:		Dermal:	
IUR:		Inhalation:		Inhalation:	
Mutagen:		Total:	0.00E+00	Total:	0.00E+00
VOC:					
% Contribution to Media Risk			0.00%		0.00%

Analyte: Chlorobenzene

CAS: 108-90-7

Concentration µg/L :	1.00E+00	Calculated Hazard/Risk			
RfDo:	7.00E-02	Non-Cancer Adult		Cancer	
RfCi:	5.00E-01	Ingestion:	1.28E-06	Ingestion:	
SFO:		Dermal:		Dermal:	
IUR:		Inhalation:	9.19E-04	Inhalation:	
Mutagen:		Total:	9.21E-04	Total:	0.00E+00
VOC:	Y				
% Contribution to Media Risk			0.12%		0.00%

Groundwater

Analyte: Chromium(III), Insoluble Salts
CAS: 16065-83-1

Concentration µg/L :	4.33E+00
RfDo:	1.50E+00
RfCi:	5.00E-03
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Chrysene
CAS: 218-01-9

Concentration µg/L :	8.14E-02
RfDo:	1.50E+00
RfCi:	5.00E-03
SFO:	1.00E-03
IUR:	6.00E-07
Mutagen:	Y
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Cobalt
CAS: 7440-48-4

Concentration µg/L :	2.38E+02
RfDo:	3.00E-03
RfCi:	2.00E-05
SFO:	
IUR:	9.00E-03
Mutagen:	
VOC:	

% Contribution to Media Risk	0.94%	0.00%

Groundwater

Analyte: Copper
CAS: 7440-50-8

Concentration µg/L :	1.85E+01
RfDo:	1.00E-02
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.02%	0.00%

Analyte: Cresol, o-
CAS: 95-48-7

Concentration µg/L :	1.36E+00
RfDo:	2.00E-01
RfCi:	6.00E-01
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Cresol, p-
CAS: 106-44-5

Concentration µg/L :	6.00E+00
RfDo:	2.00E-02
RfCi:	6.00E-01
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Groundwater

Analyte: Cresol, p-chloro-m-
CAS: 59-50-7

Concentration µg/L :	8.00E-01
RfDo:	1.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Cumene
CAS: 98-82-8

Concentration µg/L :	1.00E+00
RfDo:	4.00E-01
RfCi:	9.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.66%	0.00%

Analyte: Dibenz[a,h]anthracene
CAS: 53-70-3

Concentration µg/L :	4.54E-02
RfDo:	
RfCi:	
SFO:	1.00E+00
IUR:	6.00E-04
Mutagen:	Y
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 7.14E-07	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 7.14E-07	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 2.23E-07	Ingestion:
Dermal:	Dermal:
Inhalation: 5.01E-03	Inhalation:
Total: 5.01E-03	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion:	Ingestion: 5.55E-11
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 0.00E+00	Total: 5.55E-11

Groundwater

Analyte: Dibromoethane, 1,2-
CAS: 106-93-4

Concentration µg/L :	4.00E-01
RfDo:	9.00E-03
RfCi:	2.00E-03
SFO:	2.00E+00
IUR:	6.00E-04
Mutagen:	
VOC:	Y

% Contribution to Media Risk	8.87%	56.39%

Exceeds Risk!

Analyte: Dibutyl Phthalate
CAS: 84-74-2

Concentration µg/L :	3.00E+00
RfDo:	1.00E+00
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Dichloroethylene, 1,1-
CAS: 75-35-4

Concentration µg/L :	3.70E-01
RfDo:	9.00E-03
RfCi:	2.00E-01
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.12%	0.00%

Groundwater

Analyte: Diisopropyl Ether

CAS: 108-20-3

Concentration µg/L :	1.06E+00
RfDo:	
RfCi:	7.00E-01
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.10%	0.00%

Analyte: Dimethylphenol, 2,4-

CAS: 105-67-9

Concentration µg/L :	9.00E+00
RfDo:	5.00E-02
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Ethylbenzene

CAS: 100-41-4

Concentration µg/L :	8.76E-01
RfDo:	5.00E-02
RfCi:	9.00E+00
SFO:	1.10E-02
IUR:	2.50E-06
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.01%	0.73%

Groundwater

Analyte: Fluoranthene
CAS: 206-44-0

Concentration µg/L :	1.30E-01
RfDo:	1.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Analyte: Fluorene
CAS: 86-73-7

Concentration µg/L :	4.87E-01
RfDo:	4.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Indeno[1,2,3-cd]pyrene
CAS: 193-39-5

Concentration µg/L :	1.10E-01
RfDo:	4.00E-01
RfCi:	
SFO:	1.00E-01
IUR:	6.00E-05
Mutagen:	Y
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.16E-07	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 1.16E-07	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.09E-07	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 1.09E-07	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 2.46E-08	Ingestion: 1.35E-11
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 2.46E-08	Total: 1.35E-11

Groundwater

Analyte: Iron
CAS: 7439-89-6

Concentration µg/L :	6.89E+04
RfDo:	7.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk

1.16%

0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 8.78E-03	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 8.78E-03	Total: 0.00E+00

Analyte: isopropyltoluene
CAS: 99-87-6

Concentration µg/L :	2.04E+00
RfDo:	4.00E-01
RfCi:	9.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk

1.29%

0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 4.55E-07	Ingestion:
Dermal: 4.89E-05	Dermal:
Inhalation: 9.67E-03	Inhalation:
Total: 9.72E-03	Total: 0.00E+00

Analyte: Lead and Compounds
CAS: 7439-92-1

Concentration µg/L :	7.52E+00
RfDo:	
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk

0.00%

0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion:	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 0.00E+00	Total: 0.00E+00

Groundwater

Analyte: Manganese (Diet)

CAS: 7439-96-5-Diet

Concentration µg/L : 1.24E+04		Calculated Hazard/Risk	
RfDo:	1.40E-01	Non-Cancer Adult	Cancer
RfCi:	5.00E-05	Ingestion: 7.91E-03	Ingestion:
SFO:		Dermal:	Dermal:
IUR:		Inhalation:	Inhalation:
Mutagen:		Total: 7.91E-03	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		1.05%	0.00%

Analyte: Mercury (elemental)

CAS: 7439-97-6

Concentration µg/L : 7.42E-02		Calculated Hazard/Risk	
RfDo:		Non-Cancer Adult	Cancer
RfCi:	3.00E-04	Ingestion:	Ingestion:
SFO:		Dermal:	Dermal:
IUR:		Inhalation: 8.62E-02	Inhalation:
Mutagen:		Total: 8.62E-02	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		11.42%	0.00%

Analyte: Methyl Ethyl Ketone (2-Butanone)

CAS: 78-93-3

Concentration µg/L : 2.58E+00		Calculated Hazard/Risk	
RfDo:	2.00E+00	Non-Cancer Adult	Cancer
RfCi:	1.00E+00	Ingestion: 1.15E-07	Ingestion:
SFO:		Dermal:	Dermal:
IUR:		Inhalation: 7.21E-04	Inhalation:
Mutagen:		Total: 7.21E-04	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.10%	0.00%

Groundwater

Analyte: Methylcyclohexane
CAS: 108-87-2

Concentration µg/L :	3.00E-01
RfDo:	
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion:	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 0.00E+00	Total: 0.00E+00

Analyte: Methylnaphthalene, 1-
CAS: 90-12-0

Concentration µg/L :	9.29E-01
RfDo:	7.00E-02
RfCi:	1.04E+00
SFO:	2.90E-02
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.19E-06	Ingestion: 3.30E-11
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 1.19E-06	Total: 3.30E-11

Analyte: Methylnaphthalene, 2-
CAS: 91-57-6

Concentration µg/L :	5.98E-01
RfDo:	4.00E-03
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 1.34E-05	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 1.34E-05	Total: 0.00E+00

Groundwater

Analyte: Naphthalene
CAS: 91-20-3

Concentration µg/L :	4.16E+00
RfDo:	6.00E-01
RfCi:	3.00E-03
SFO:	1.20E-01
IUR:	3.40E-05
Mutagen:	
VOC:	Y

% Contribution to Media Risk

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:	6.19E-07	Ingestion:	6.11E-10
Dermal:		Dermal:	
Inhalation:	5.39E-01	Inhalation:	7.53E-07
Total:	5.39E-01	Total:	7.54E-07
71.37%		38.56%	

Analyte: Nickel Soluble Salts
CAS: 7440-02-0

Concentration µg/L :	7.48E+01
RfDo:	2.00E-02
RfCi:	2.00E-04
SFO:	
IUR:	2.60E-04
Mutagen:	
VOC:	

% Contribution to Media Risk

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:	3.34E-04	Ingestion:	
Dermal:		Dermal:	
Inhalation:		Inhalation:	
Total:	3.34E-04	Total:	0.00E+00
0.04%		0.00%	

Analyte: Phenanthrene
CAS: 85-01-8

Concentration µg/L :	2.21E-01
RfDo:	3.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk

Calculated Hazard/Risk			
Non-Cancer Adult		Cancer	
Ingestion:	6.58E-08	Ingestion:	
Dermal:	9.17E-06	Dermal:	
Inhalation:		Inhalation:	
Total:	9.23E-06	Total:	0.00E+00
0.00%		0.00%	

Groundwater

Analyte: Pyrene
CAS: 129-00-0

Concentration µg/L :	3.56E-01
RfDo:	3.00E-01
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.00%	0.00%

Analyte: Selenium
CAS: 7782-49-2

Concentration µg/L :	8.74E+00
RfDo:	5.00E-03
RfCi:	2.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.02%	0.00%

Analyte: Silver
CAS: 7440-22-4

Concentration µg/L :	1.27E-01
RfDo:	5.00E-03
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.00%	0.00%

Groundwater

Analyte: Tetrachloroethylene
CAS: 127-18-4

Concentration µg/L :	8.80E-01
RfDo:	8.00E-03
RfCi:	4.07E-02
SFO:	2.10E-03
IUR:	2.60E-07
Mutagen:	
VOC:	Y

% Contribution to Media Risk	1.10%	0.06%

Analyte: Toluene
CAS: 108-88-3

Concentration µg/L :	5.43E-01
RfDo:	8.00E-01
RfCi:	5.00E+00
SFO:	
IUR:	
Mutagen:	
VOC:	Y

% Contribution to Media Risk	0.01%	0.00%

Analyte: Vanadium and Compounds
CAS: 7440-62-2

Concentration µg/L :	7.26E+00
RfDo:	1.00E-02
RfCi:	1.00E-04
SFO:	
IUR:	
Mutagen:	
VOC:	

% Contribution to Media Risk	0.01%	0.00%

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 9.82E-06	Ingestion: 2.26E-12
Dermal:	Dermal:
Inhalation: 8.32E-03	Inhalation: 1.21E-09
Total: 8.33E-03	Total: 1.21E-09

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 6.06E-08	Ingestion:
Dermal:	Dermal:
Inhalation: 5.57E-05	Inhalation:
Total: 5.58E-05	Total: 0.00E+00

Calculated Hazard/Risk	
Non-Cancer Adult	Cancer
Ingestion: 6.48E-05	Ingestion:
Dermal:	Dermal:
Inhalation:	Inhalation:
Total: 6.48E-05	Total: 0.00E+00

Groundwater

Analyte: Xylenes

CAS: 1330-20-7

Concentration µg/L :	1.09E+00	Calculated Hazard/Risk	
RfDo:	4.00E-01	Non-Cancer Adult	Cancer
RfCi:	4.00E-01	Ingestion: 2.43E-07	Ingestion:
SFO:		Dermal:	Dermal:
IUR:		Inhalation: 1.30E-03	Inhalation:
Mutagen:		Total: 1.30E-03	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.17%	0.00%

Analyte: Zinc and Compounds

CAS: 7440-66-6

Concentration µg/L :	1.27E+02	Calculated Hazard/Risk	
RfDo:	3.00E-01	Non-Cancer Adult	Cancer
RfCi:	7.67E-02	Ingestion: 3.78E-05	Ingestion:
SFO:		Dermal:	Dermal:
IUR:		Inhalation:	Inhalation:
Mutagen:		Total: 3.78E-05	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.01%	0.00%

Total Calculated Hazard Index/Risk for Groundwater

Non-Cancer Adult		Cancer	
Ingestion:	2.72E-02	Ingestion:	1.20E-08
Dermal:	1.05E-04	Dermal:	0.00E+00
Inhalation:	7.28E-01	Inhalation:	1.94E-06
Total:	7.55E-01	Total:	1.96E-06

Report Summary

Hazard/risk values of zero (0.00+00) are reflective of non-calculated values. Hazard/risk for zero value analytes must be evaluated outside of quantitative risk assessment.

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard	Risk
Acenaphthene	83-32-9	2.15E-06	0.00E+00
Acenaphthylene	208-96-8	9.74E-07	0.00E+00
Acetone	67-64-1	2.53E-06	0.00E+00
Acetophenone	98-86-2	2.78E-07	0.00E+00
Aluminum	7429-90-5	1.38E-02	0.00E+00
Anthracene	120-12-7	5.30E-07	0.00E+00
Antimony (metallic)	7440-36-0	4.95E-03	0.00E+00
Arsenic, Inorganic	7440-38-2	3.01E-02	2.92E-07
Barium	7440-39-3	5.37E-04	0.00E+00
Benz[a]anthracene	56-55-3	0.00E+00	1.38E-09
Benzene	71-43-2	7.37E-05	5.55E-10
Benzo(g,h,i)perylene	191-24-2	1.72E-06	0.00E+00
Benzo[a]pyrene	50-32-8	2.35E-03	9.61E-09
Benzo[b]fluoranthene	205-99-2	0.00E+00	1.90E-09
Benzo[k]fluoranthene	207-08-9	0.00E+00	1.03E-10
Benzoic Acid	65-85-0	6.40E-07	0.00E+00
Beryllium and compounds	7440-41-7	2.69E-04	2.78E-12
Bis(2-ethylhexyl)phthalate	117-81-7	2.25E-05	8.62E-11
Butylbenzene, n-	104-51-8	2.06E-06	0.00E+00
Cadmium (Diet)	7440-43-9-Diet	1.11E-03	7.72E-13
Carbazole	86-74-8	0.00E+00	0.00E+00
Chromium(III), Insoluble Salts	16065-83-1	2.06E-04	0.00E+00
Chrysene	218-01-9	9.75E-07	1.98E-11
Cobalt	7440-48-4	5.14E-03	1.20E-10
Copper	7440-50-8	2.28E-02	0.00E+00
Cresol, o-	95-48-7	1.26E-06	0.00E+00
Cresol, p-chloro-m-	59-50-7	2.32E-06	0.00E+00
Cumene	98-82-8	6.19E-07	0.00E+00
Cyanide (CN-)	57-12-5	6.46E-04	0.00E+00
Dibenz[a,h]anthracene	53-70-3	0.00E+00	5.66E-09
Dimethylphenol, 2,4-	105-67-9	7.78E-06	0.00E+00
Ethylbenzene	100-41-4	1.01E-05	7.59E-11

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard	Risk
Fluoranthene	206-44-0	1.87E-05	0.00E+00
Fluorene	86-73-7	1.20E-06	0.00E+00
Indeno[1,2,3-cd]pyrene	193-39-5	1.47E-06	8.06E-10
Iron	7439-89-6	1.38E-01	0.00E+00
isopropyltoluene	99-87-6	5.42E-06	0.00E+00
Lead and Compounds	7439-92-1	0.00E+00	0.00E+00
Manganese (Diet)	7439-96-5-Diet	6.40E-03	0.00E+00
Mercury (elemental)	7439-97-6	1.25E-04	0.00E+00
Methyl Ethyl Ketone (2-Butanone)	78-93-3	4.22E-07	0.00E+00
Methylcyclohexane	108-87-2	0.00E+00	0.00E+00
Methylene Chloride	75-09-2	1.69E-08	2.78E-14
Methylnaphthalene, 1-	90-12-0	6.50E-05	1.81E-09
Methylnaphthalene, 2-	91-57-6	1.83E-03	0.00E+00
Naphthalene	91-20-3	7.18E-06	7.02E-09
Nickel Soluble Salts	7440-02-0	8.22E-03	3.71E-11
Phenanthrene	85-01-8	1.18E-05	0.00E+00
Pyrene	129-00-0	6.11E-06	0.00E+00
Toluene	108-88-3	3.81E-06	0.00E+00
Trimethylbenzene, 1,2,4-	95-63-6	5.40E-05	0.00E+00
Trimethylbenzene, 1,3,5-	108-67-8	1.61E-05	0.00E+00
Vanadium and Compounds	7440-62-2	5.98E-03	0.00E+00
Xylenes	1330-20-7	2.39E-05	0.00E+00
Zinc and Compounds	7440-66-6	2.44E-04	0.00E+00

Hazard/Risk Summary for Groundwater

Analyte	CAS	Hazard	Risk
Acenaphthene	83-32-9	2.31E-07	0.00E+00
Acenaphthylene	208-96-8	4.16E-06	0.00E+00
Acetone	67-64-1	5.91E-07	0.00E+00
Aluminum	7429-90-5	2.26E-04	0.00E+00
Anthracene	120-12-7	8.87E-09	0.00E+00
Antimony (metallic)	7440-36-0	1.23E-04	0.00E+00
Arsenic, Inorganic	7440-38-2	1.64E-03	1.01E-08
Barium	7440-39-3	4.73E-05	0.00E+00
Benz[a]anthracene	56-55-3	0.00E+00	4.06E-09
Benzene	71-43-2	8.07E-03	6.90E-08
Benzo(g,h,i)perylene	191-24-2	4.26E-05	0.00E+00

Hazard/Risk Summary for Groundwater

Analyte	CAS	Hazard	Risk
Benzo[a]pyrene	50-32-8	1.81E-05	7.43E-11
Benzo[b]fluoranthene	205-99-2	0.00E+00	2.45E-11
Benzo[k]fluoranthene	207-08-9	0.00E+00	9.59E-13
Beryllium and compounds	7440-41-7	3.05E-05	0.00E+00
Cadmium (Water)	7440-43-9-Water	4.71E-04	0.00E+00
Carbazole	86-74-8	0.00E+00	0.00E+00
Chlorobenzene	108-90-7	9.21E-04	0.00E+00
Chromium(III), Insoluble Salts	16065-83-1	2.58E-07	0.00E+00
Chrysene	218-01-9	4.85E-09	9.96E-14
Cobalt	7440-48-4	7.08E-03	0.00E+00
Copper	7440-50-8	1.65E-04	0.00E+00
Cresol, o-	95-48-7	6.07E-07	0.00E+00
Cresol, p-	106-44-5	2.68E-05	0.00E+00
Cresol, p-chloro-m-	59-50-7	7.14E-07	0.00E+00
Cumene	98-82-8	5.01E-03	0.00E+00
Dibenz[a,h]anthracene	53-70-3	0.00E+00	5.55E-11
Dibromoethane, 1,2-	106-93-4	6.70E-02	1.10E-06
Dibutyl Phthalate	84-74-2	2.68E-07	0.00E+00
Dichloroethylene, 1,1-	75-35-4	9.35E-04	0.00E+00
Diisopropyl Ether	108-20-3	7.28E-04	0.00E+00
Dimethylphenol, 2,4-	105-67-9	1.61E-05	0.00E+00
Ethylbenzene	100-41-4	4.81E-05	1.44E-08
Fluoranthene	206-44-0	1.16E-07	0.00E+00
Fluorene	86-73-7	1.09E-07	0.00E+00
Indeno[1,2,3-cd]pyrene	193-39-5	2.46E-08	1.35E-11
Iron	7439-89-6	8.78E-03	0.00E+00
isopropyltoluene	99-87-6	9.72E-03	0.00E+00
Lead and Compounds	7439-92-1	0.00E+00	0.00E+00
Manganese (Diet)	7439-96-5-Diet	7.91E-03	0.00E+00
Mercury (elemental)	7439-97-6	8.62E-02	0.00E+00
Methyl Ethyl Ketone (2-Butanone)	78-93-3	7.21E-04	0.00E+00
Methylcyclohexane	108-87-2	0.00E+00	0.00E+00
Methylnaphthalene, 1-	90-12-0	1.19E-06	3.30E-11
Methylnaphthalene, 2-	91-57-6	1.34E-05	0.00E+00
Naphthalene	91-20-3	5.39E-01	7.54E-07
Nickel Soluble Salts	7440-02-0	3.34E-04	0.00E+00
Phenanthrene	85-01-8	9.23E-06	0.00E+00

Hazard/Risk Summary for Groundwater

Analyte	CAS	Hazard	Risk
Pyrene	129-00-0	1.06E-07	0.00E+00
Selenium	7782-49-2	1.56E-04	0.00E+00
Silver	7440-22-4	2.27E-06	0.00E+00
Tetrachloroethylene	127-18-4	8.33E-03	1.21E-09
Toluene	108-88-3	5.58E-05	0.00E+00
Vanadium and Compounds	7440-62-2	6.48E-05	0.00E+00
Xylenes	1330-20-7	1.30E-03	0.00E+00
Zinc and Compounds	7440-66-6	3.78E-05	0.00E+00

Total Hazard Index/Risk for All Media

Non-Cancer Adult		Cancer	
Ingestion:	2.63E-01	Ingestion:	2.99E-07
Dermal:	5.66E-03	Dermal:	3.40E-08
Inhalation:	7.30E-01	Inhalation:	1.94E-06
Total:	9.99E-01	Total:	2.28E-06
does not exceed hazard index		does not exceed cumulative risk	

Construction Exposure Default Values

Symbol	Description	Value	Units
A	Construction Worker Soil Inhalation Dispersion Constant - Philadelphia	14.0111	(unitless)
AFcw	Construction Worker Soil Adherence Factor	0.3	(mg/cm2)
As	Areal extent of the site or contamination	0.5	(acres)
ATcw	Construction Worker Averaging Time: 365 x LT	25550	(days)
ATcw	Construction Worker Averaging Time	365	(days/yr)
ATcw-a	Construction Worker Averaging Time: EWcw x 7 x EDCw	350	(days)
B	Construction Worker Soil Inhalation Dispersion Constant - Philadelphia	19.6154	(unitless)
BWcw	Construction Worker Body Weight	80	(kg)
C	Construction Worker Soil Inhalation Dispersion Constant - Philadelphia	225.3397	(unitless)
DWcw	Construction Worker Days Worked	5	(days/week)

Site Name: Alexandria

Construction

Program: Voluntary Remediation Program

Risk Based Performance Criteria

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

Contact Depth to Groundwater: Direct Less than 15ft

EDcw	Construction Worker Exposure Duration	1 (yrs)
EFcw	Construction Worker Exposure Frequency	250 (days/yr)
EFcw-a	Construction Worker Air Exposure Frequency	250 (days/yr)
EFcw-s	Construction Worker Soil Exposure Frequency	250 (days/yr)
EFcw-vrp	Construction Worker Soil Exposure Frequency - VRP ONLY - Virginia DEQ	125 (days/yr)
ETcw	Construction Worker Exposure Time	8 (hrs/day)
ETcw-s	Construction Worker Soil Exposure Time	8 (hrs/day)
EWcw	Construction Worker Weeks Worked	50 (weeks/yr)
F(x)	Function Dependent on $0.886 \times (U_t/U_m)$	0.194 (unitless)
Fd	Dispersion Correction Factor	0.185 (unitless)
IRcw	Construction Worker Soil Ingestion Rate	330 (mg/day)
n	Total soil porosity: $1-(p_b/p_s)$	0.433962264150943 (unitless)
PEFsc	Particulate Emission Factor Subchronic - Virginia DEQ calculated	1266503136.97919 (m3/kg)
Q/C	Inverse of the ratio of the 1-h geometric mean concentration to the emission flux along a straight road segment bisecting a square site - Virginia DEQ calculated	87.3689772162309 (g/m2-s per kg/m)
SACw	Construction Worker Surface Area	3527 (cm2/day)
Tc	Total time over which construction occurs: $ED_{cw} * EW_{cw} * 7 \text{ days/wk} * 24 \text{ hrs/day} * 3600 \text{ s/hr}$	30240000 (s)
TR-ACH	Trench Air Changes per Hour - Virginia DEQ	2 (h)-1
TR-ACvad	Trench Advection Coefficient Groundwater greater than 15ft - Virginia DEQ	0.25 (cm3/cm3)
TR-CF1	Trench Conversion Factor-1	0.001 (L/cm3)
TR-CF2	Trench Conversion Factor-2	10000 (cm2/m2)
TR-CF3	Trench Conversion Factor-3	3600 (s/hr)
TR-CF4	Trench Conversion Factor-4	1000000 (cm3/m3)
TR-D-dir	Trench Depth - groundwater less Than 15ft - Virginia DEQ	2.44 (m)
TR-D-ind	Trench Depth - groundwater greater than 15ft - Virginia DEQ	4.57 (m)
TR-Dsg	Trench - Depth to soil gas vapor source - Virginia DEQ	1 (cm)
TR-EFcw	Trench Construction Worker Exposure Frequency - Virginia DEQ	125 (days/yr)

Site Name: Alexandria

Construction

Program: Voluntary Remediation Program

Risk Based Performance Criteria

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

Contact Depth to Groundwater: Direct Less than 15ft

TR-ETcw	Trench Construction Worker Exposure Time - Virginia DEQ	4 (hrs/day)
TR-EVcw	Trench Construction Worker Events - Virginia DEQ	1 (events/day)
TR-F	Trench Fraction of floor through which contaminant can enter - Virginia DEQ	1 (unitless)
TR-HV	Trench Thickness of Vadose Zone - groundwater greater than 15 ft - Virginia DEQ	30 (cm)
TR-IRcw	Trench Construction Worker Groundwater Ingestion Rate - Virginia DEQ	0.02 (L/day)
TR-KGH2O	Trench Gas-phase mass transfer coefficient of water vapor at 25deg C - Virginia DEQ	0.833 (cm/s)
TR-KLO2	Trench Liquid-phase mass transfer coefficient of oxygen at 25deg C - Virginia DEQ	0.002 (cm/s)
TR-L	Trench Length - Virginia DEQ	2.44 (m)
TR-Lgw	Trench Depth to groundwater - Virginia DEQ	488 (cm)
TR-MWH2O	Trench Molecular Weight of Water - Virginia DEQ	18 (unitless)
TR-MWO2	Trench Molecular Weight of Oxygen - Virginia DEQ	32 (unitless)
TR-Porvad	Trench Porosity in Vadose Zone - groundwater greater than 15ft - Virginia DEQ	0.44 (cm3/cm3)
TR-R	Trench Ideal Gas Constant - Virginia DEQ	0.000082 (atm-m3/mol-K)
TR-Temp-F	Trench Temperature Fahrenheit - Virginia DEQ	77 (F)
TR-Temp-K	Trench Temperature - Virginia DEQ	298 (K)
TR-W	Trench Width - Virginia DEQ	0.91 (m)
TR-W/D	Trench Width to Depth Ratio - Virginia DEQ	0.38 (unitless)
Um	Mean Annual Wind Speed	4.69 (m/s)
Ut	Equivalent Threshold Value of Wind Speed at 7m	11.32 (m/s)
V	V Fraction of Vegetative Cover	0.5 (unitless)
Θa	Air filled soil porosity: n-Θw	0.133962264150943 (unitless)
Θw	Water filled soil porosity	0.3 (unitless)
ρb	Dry soil bulk density	1.5 (kg/L)
ρs	Soil particle density	2.65 (kg/L)

END OF REPORT

**ATTACHMENT 3-3
COMPOSITE WORKER**

VURAM

Virginia Unified Risk Assessment Model

VERSION: 3.2.1

Industrial/Commercial Worker Quantitative Risk Assessment Report

Program: Voluntary Remediation Program (VRP)

Site Name: Alexandria

Groundwater Declaration Restricted Use

Restricted use of groundwater is for onsite use ONLY. Potential offsite risks and receptors are evaluated separately. The nature and extent of the groundwater plume is sufficiently characterized. Concentrations along the vertical and horizontal migration of the plume are stable.

No COPCs evaluated in Groundwater

By submitting this report to the Virginia DEQ, the user confirms that VURAM's default exposure parameters have not been altered, unless a complete unaltered VURAM analysis is provided and all modifications are detailed explicitly in an accompanying narrative or documentation that shows DEQ's prior concurrence with specific changes.

Chemical Specific Notes Displayed as Applicable

Lead

VURAM does not perform an evaluation for lead exposure. Use other approved models for lead modeling.

All Report Pages are Required for Risk Assessment Submission

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Acenaphthene

CAS: 83-32-9

Concentration mg/kg:	2.06E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	6.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 2.94E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 1.62E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 4.56E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Acenaphthylene

CAS: 208-96-8

Concentration mg/kg:	1.40E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 4.00E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 2.20E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 6.19E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Acetone

CAS: 67-64-1

Concentration mg/kg:	1.72E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	9.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 1.64E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 1.64E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Acetophenone
CAS: 98-86-2

Concentration mg/kg:	1.51E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 1.29E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 1.29E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Aluminum
CAS: 7429-90-5

Concentration mg/kg:	9.23E+03	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.00E+00	Non-Cancer Adult	Cancer
RfCi (mg/m3):	5.00E-03	Ingestion: 7.90E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 3.10E-04	Inhalation:
Mutagen:		Total: 8.21E-03	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		4.52%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Anthracene
CAS: 120-12-7

Concentration mg/kg:	2.53E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 7.22E-07	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 3.97E-07	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 1.12E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Antimony (metallic)
CAS: 7440-36-0

Concentration mg/kg:	1.34E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	4.00E-04	Non-Cancer Adult	Cancer
RfCi (mg/m3):	3.00E-04	Ingestion: 2.87E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 7.52E-07	Inhalation:
Mutagen:		Total: 2.88E-03	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		1.58%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Arsenic, Inorganic
CAS: 7440-38-2

Concentration mg/kg:	8.80E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-04	Non-Cancer Adult	Cancer
RfCi (mg/m3):	1.50E-05	Ingestion: 1.51E-02	Ingestion: 2.42E-06
SFO (mg/kg-day)-1:	1.50E+00	Dermal: 3.19E-03	Dermal: 5.12E-07
IUR (µg/m3)-1:	4.30E-03	Inhalation: 9.85E-05	Inhalation: 2.27E-09
Mutagen:		Total: 1.84E-02	Total: 2.94E-06
VOC:			
% Contribution to Media Risk		10.09%	80.46%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Exceeds Risk!	mg/kg Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	3.00E+00

Analyte: Barium
CAS: 7440-39-3

Concentration mg/kg:	7.27E+01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	2.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):	5.00E-04	Ingestion: 3.11E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 2.44E-05	Inhalation:
Mutagen:		Total: 3.36E-04	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.18%	0.00%

mg/kg Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A

Analyte: Benz[a]anthracene
CAS: 56-55-3

Concentration mg/kg:	4.82E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):		Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion: 1.47E-08
SFO (mg/kg-day)-1:	1.00E-01	Dermal:	Dermal: 8.11E-09
IUR (µg/m3)-1:	6.00E-05	Inhalation:	Inhalation: 5.36E-10
Mutagen:	Y	Total: 0.00E+00	Total: 2.34E-08
VOC:	Y		
% Contribution to Media Risk		0.00%	0.64%

mg/kg Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Benzene
CAS: 71-43-2

Concentration mg/kg:	5.00E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	4.00E-03	Non-Cancer Adult	Cancer
RfCi (mg/m3):	3.00E-02	Ingestion: 1.07E-04	Ingestion: 8.41E-09
SFO (mg/kg-day)-1:	5.50E-02	Dermal:	Dermal:
IUR (µg/m3)-1:	7.80E-06	Inhalation: 1.07E-03	Inhalation: 8.98E-08
Mutagen:		Total: 1.18E-03	Total: 9.82E-08
VOC:	Y		
% Contribution to Media Risk		0.65%	2.69%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Benzo(g,h,i)perylene
CAS: 191-24-2

Concentration mg/kg:	2.47E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 7.05E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 3.88E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 1.09E-05	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.01%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Benzo[a]pyrene
CAS: 50-32-8

Concentration mg/kg:	3.36E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-04	Non-Cancer Adult	Cancer
RfCi (mg/m3):	2.00E-06	Ingestion: 9.59E-04	Ingestion: 1.03E-07
SFO (mg/kg-day)-1:	1.00E+00	Dermal: 5.28E-04	Dermal: 5.65E-08
IUR (µg/m3)-1:	6.00E-04	Inhalation: 2.82E-05	Inhalation: 1.21E-11
Mutagen:	Y	Total: 1.51E-03	Total: 1.59E-07
VOC:			
% Contribution to Media Risk		0.83%	4.37%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Benzo[b]fluoranthene
CAS: 205-99-2

Concentration mg/kg:	6.65E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):		Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion: 2.03E-08
SFO (mg/kg-day)-1:	1.00E-01	Dermal:	Dermal: 1.12E-08
IUR (µg/m3)-1:	6.00E-05	Inhalation:	Inhalation: 2.39E-12
Mutagen:	Y	Total:	Total: 3.15E-08
VOC:			
% Contribution to Media Risk		0.00%	0.86%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Benzo[k]fluoranthene
CAS: 207-08-9

Concentration mg/kg:	3.61E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):		Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion: 1.10E-09
SFO (mg/kg-day)-1:	1.00E-02	Dermal:	Dermal: 6.07E-10
IUR (µg/m3)-1:	6.00E-06	Inhalation:	Inhalation: 1.30E-13
Mutagen:	Y	Total:	Total: 1.71E-09
VOC:			
% Contribution to Media Risk		0.00%	0.05%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Benzoic Acid
CAS: 65-85-0

Concentration mg/kg:	1.20E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	4.00E+00	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 2.57E-07	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 1.09E-07	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 3.66E-07	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Beryllium and compounds
CAS: 7440-41-7

Concentration mg/kg:	9.00E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	2.00E-03	Non-Cancer Adult	Cancer
RfCi (mg/m3):	2.00E-05	Ingestion: 3.85E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:	2.40E-03	Inhalation: 7.55E-06	Inhalation: 1.30E-10
Mutagen:		Total: 3.93E-04	Total: 1.30E-10
VOC:			
% Contribution to Media Risk		0.22%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Bis(2-ethylhexyl)phthalate
CAS: 117-81-7

Concentration mg/kg:	2.31E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 9.89E-06	Ingestion: 9.89E-10
SFO (mg/kg-day)-1:	1.40E-02	Dermal: 4.19E-06	Dermal: 4.19E-10
IUR (µg/m3)-1:	2.40E-06	Inhalation:	Inhalation: 3.32E-14
Mutagen:		Total: 1.41E-05	Total: 1.41E-09
VOC:			
% Contribution to Media Risk		0.01%	0.04%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Butylbenzene, n-
CAS: 104-51-8

Concentration mg/kg:	1.40E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	5.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 2.40E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 2.40E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Cadmium (Diet)
CAS: 7440-43-9-Diet

Concentration mg/kg:	3.33E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.00E-04	Non-Cancer Adult	Cancer
RfCi (mg/m3):	1.00E-05	Ingestion: 2.85E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 3.02E-07	Dermal:
IUR (µg/m3)-1:	1.80E-03	Inhalation: 5.59E-06	Inhalation: 3.59E-11
Mutagen:		Total: 2.86E-03	Total: 3.59E-11
VOC:			
% Contribution to Media Risk		1.57%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Carbazole
CAS: 86-74-8

Concentration mg/kg: 2.42E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	Non-Cancer Adult	Cancer
RfCi (mg/m3):	Ingestion:	Ingestion:
SFO (mg/kg-day)-1:	Dermal:	Dermal:
IUR (µg/m3)-1:	Inhalation:	Inhalation:
Mutagen:	Total: 0.00E+00	Total: 0.00E+00
VOC:		
% Contribution to Media Risk		0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Chromium(III), Insoluble Salts
CAS: 16065-83-1

Concentration mg/kg: 2.06E+02	Calculated Hazard/Risk	
RfDo (mg/kg-day): 1.50E+00	Non-Cancer Adult	Cancer
RfCi (mg/m3):	Ingestion: 1.18E-04	Ingestion:
SFO (mg/kg-day)-1:	Dermal:	Dermal:
IUR (µg/m3)-1:	Inhalation:	Inhalation:
Mutagen:	Total: 1.18E-04	Total: 0.00E+00
VOC:		
% Contribution to Media Risk		0.06%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Chrysene
CAS: 218-01-9

Concentration mg/kg: 6.91E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	Non-Cancer Adult	Cancer
RfCi (mg/m3):	Ingestion:	Ingestion: 2.11E-10
SFO (mg/kg-day)-1: 1.00E-03	Dermal:	Dermal: 1.16E-10
IUR (µg/m3)-1: 6.00E-07	Inhalation:	Inhalation: 2.49E-14
Mutagen: Y	Total: 0.00E+00	Total: 3.28E-10
VOC:		
% Contribution to Media Risk		0.01%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Cobalt
CAS: 7440-48-4

Concentration mg/kg:	1.04E+01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-04	Non-Cancer Adult	Cancer
RfCi (mg/m3):	6.00E-06	Ingestion: 2.96E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:	9.00E-03	Inhalation: 2.90E-04	Inhalation: 5.60E-09
Mutagen:		Total: 2.99E-02	Total: 5.60E-09
VOC:			
% Contribution to Media Risk		16.44%	0.15%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Copper
CAS: 7440-50-8

Concentration mg/kg:	1.55E+02	Calculated Hazard/Risk	
RfDo (mg/kg-day):	4.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 3.32E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 3.32E-03	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		1.82%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Cresol, o-
CAS: 95-48-7

Concentration mg/kg:	1.30E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	5.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):	6.00E-01	Ingestion: 2.23E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 9.42E-07	Dermal:
IUR (µg/m3)-1:		Inhalation: 3.64E-11	Inhalation:
Mutagen:		Total: 3.17E-06	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Cresol, p-chloro-m-
CAS: 59-50-7

Concentration mg/kg:	1.19E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 1.02E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 4.31E-07	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 1.45E-06	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Cumene
CAS: 98-82-8

Concentration mg/kg:	1.68E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):	4.00E-01	Ingestion: 1.44E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.54E-05	Inhalation:
Mutagen:		Total: 1.69E-05	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.01%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Cyanide (CN-)
CAS: 57-12-5

Concentration mg/kg:	8.26E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	6.00E-04	Non-Cancer Adult	Cancer
RfCi (mg/m3):	8.00E-04	Ingestion: 1.18E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 4.42E-03	Inhalation:
Mutagen:		Total: 5.60E-03	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		3.08%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Dibenzo[a,h]anthracene
CAS: 53-70-3

Concentration mg/kg:	1.98E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):		Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion: 6.05E-08
SFO (mg/kg-day)-1:	1.00E+00	Dermal:	Dermal: 3.33E-08
IUR (µg/m3)-1:	6.00E-04	Inhalation:	Inhalation: 7.12E-12
Mutagen:	Y	Total: 0.00E+00	Total: 9.39E-08
VOC:			
% Contribution to Media Risk		0.00%	2.57%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Dimethylphenol, 2,4-
CAS: 105-67-9

Concentration mg/kg:	2.00E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 8.56E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 3.62E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 1.22E-05	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.01%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Ethylbenzene
CAS: 100-41-4

Concentration mg/kg:	3.42E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	5.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):	1.00E+00	Ingestion: 5.86E-06	Ingestion: 1.15E-09
SFO (mg/kg-day)-1:	1.10E-02	Dermal:	Dermal:
IUR (µg/m3)-1:	2.50E-06	Inhalation: 1.38E-05	Inhalation: 1.23E-08
Mutagen:		Total: 1.96E-05	Total: 1.34E-08
VOC:	Y		
% Contribution to Media Risk		0.01%	0.37%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Fluoranthene
CAS: 206-44-0

Concentration mg/kg:	8.95E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	4.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 1.92E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 1.05E-05	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 2.97E-05	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.02%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Fluorene
CAS: 86-73-7

Concentration mg/kg:	2.30E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	4.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 4.92E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 2.71E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 7.63E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Indeno[1,2,3-cd]pyrene
CAS: 193-39-5

Concentration mg/kg:	2.82E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):		Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion: 8.62E-09
SFO (mg/kg-day)-1:	1.00E-01	Dermal:	Dermal: 4.74E-09
IUR (µg/m3)-1:	6.00E-05	Inhalation:	Inhalation: 1.01E-12
Mutagen:	Y	Total: 0.00E+00	Total: 1.34E-08
VOC:			
% Contribution to Media Risk		0.00%	0.37%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Iron
CAS: 7439-89-6

Concentration mg/kg:	6.57E+04	Calculated Hazard/Risk	
RfDo (mg/kg-day):	7.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 8.04E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 8.04E-02	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		44.20%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: isopropyltoluene
CAS: 99-87-6

Concentration mg/kg:	9.93E-02	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):	4.00E-01	Ingestion: 8.50E-07	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 5.91E-06	Inhalation:
Mutagen:		Total: 6.76E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Lead and Compounds
CAS: 7439-92-1

Concentration mg/kg:	2.05E+01	Calculated Hazard/Risk	
RfDo (mg/kg-day):		Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 0.00E+00	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.00%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

	mg/kg Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Manganese (Diet)
CAS: 7439-96-5-Diet

Concentration mg/kg:	5.16E+02	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.40E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):	5.00E-05	Ingestion: 3.16E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.73E-03	Inhalation:
Mutagen:		Total: 4.89E-03	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		2.69%	0.00%

	mg/kg Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Mercury (elemental)
CAS: 7439-97-6

Concentration mg/kg:	5.07E-02	Calculated Hazard/Risk	
RfDo (mg/kg-day):		Non-Cancer Adult	Cancer
RfCi (mg/m3):	3.00E-04	Ingestion:	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.11E-03	Inhalation:
Mutagen:		Total: 1.11E-03	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.61%	0.00%

	mg/kg Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Methyl Ethyl Ketone (2-Butanone)
CAS: 78-93-3

Concentration mg/kg:	5.73E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	6.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):	5.00E+00	Ingestion: 8.18E-07	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 2.14E-06	Inhalation:
Mutagen:		Total: 2.96E-06	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Methylcyclohexane
CAS: 108-87-2

Concentration mg/kg:	7.39E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):		Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 0.00E+00	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.00%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Methylene Chloride
CAS: 75-09-2

Concentration mg/kg:	6.90E-04	Calculated Hazard/Risk	
RfDo (mg/kg-day):	6.00E-03	Non-Cancer Adult	Cancer
RfCi (mg/m3):	6.00E-01	Ingestion: 9.85E-08	Ingestion: 4.22E-13
SFO (mg/kg-day)-1:	2.00E-03	Dermal:	Dermal:
IUR (µg/m3)-1:	1.00E-08	Inhalation: 1.20E-07	Inhalation: 2.57E-13
Mutagen:	Y	Total: 2.18E-07	Total: 6.79E-13
VOC:	Y		
% Contribution to Media Risk		0.00%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Methylnaphthalene, 1-
CAS: 90-12-0

Concentration mg/kg:	2.18E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	7.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 2.67E-05	Ingestion: 1.93E-08
SFO (mg/kg-day)-1:	2.90E-02	Dermal: 1.47E-05	Dermal: 1.06E-08
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 4.13E-05	Total: 3.00E-08
VOC:	Y		
% Contribution to Media Risk		0.02%	0.82%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Methylnaphthalene, 2-
CAS: 91-57-6

Concentration mg/kg:	3.51E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	4.00E-03	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 7.51E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 4.13E-04	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 1.16E-03	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.64%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Naphthalene

CAS: 91-20-3

Concentration mg/kg:	2.05E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):	3.00E-03	Ingestion: 8.76E-05	Ingestion: 7.51E-08
SFO (mg/kg-day)-1:	1.20E-01	Dermal: 4.82E-05	Dermal: 4.13E-08
IUR (µg/m3)-1:	3.40E-05	Inhalation: 3.36E-03	Inhalation: 1.23E-07
Mutagen:		Total: 3.50E-03	Total: 2.39E-07
VOC:	Y		
% Contribution to Media Risk		1.92%	6.55%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Nickel Soluble Salts

CAS: 7440-02-0

Concentration mg/kg:	1.11E+02	Calculated Hazard/Risk	
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):	9.00E-05	Ingestion: 4.75E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:	2.60E-04	Inhalation: 2.07E-04	Inhalation: 1.73E-09
Mutagen:		Total: 4.95E-03	Total: 1.73E-09
VOC:			
% Contribution to Media Risk		2.72%	0.05%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Phenanthrene

CAS: 85-01-8

Concentration mg/kg:	1.70E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 4.84E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 2.66E-05	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 7.51E-05	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.04%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Pyrene
CAS: 129-00-0

Concentration mg/kg:	8.78E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 2.51E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 1.38E-05	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 3.88E-05	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.02%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Toluene
CAS: 108-88-3

Concentration mg/kg:	2.07E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	8.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):	5.00E+00	Ingestion: 2.22E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 2.20E-05	Inhalation:
Mutagen:		Total: 4.42E-05	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.02%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Trimethylbenzene, 1,2,4-
CAS: 95-63-6

Concentration mg/kg:	1.47E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):	6.00E-02	Ingestion: 1.26E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 7.06E-04	Inhalation:
Mutagen:		Total: 8.31E-04	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.46%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Trimethylbenzene, 1,3,5-
CAS: 108-67-8

Concentration mg/kg:	4.37E-01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	1.00E-02	Non-Cancer Adult	Cancer
RfCi (mg/m3):	6.00E-02	Ingestion: 3.74E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 2.52E-04	Inhalation:
Mutagen:		Total: 2.89E-04	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		0.16%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Vanadium and Compounds
CAS: 7440-62-2

Concentration mg/kg:	4.04E+01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	5.00E-03	Non-Cancer Adult	Cancer
RfCi (mg/m3):	1.00E-04	Ingestion: 6.91E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 6.78E-05	Inhalation:
Mutagen:		Total: 6.98E-03	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		3.84%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Xylenes
CAS: 1330-20-7

Concentration mg/kg:	6.50E+00	Calculated Hazard/Risk	
RfDo (mg/kg-day):	2.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):	1.00E-01	Ingestion: 2.78E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 2.58E-03	Inhalation:
Mutagen:		Total: 2.61E-03	Total: 0.00E+00
VOC:	Y		
% Contribution to Media Risk		1.44%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Analyte: Zinc and Compounds
CAS: 7440-66-6

Concentration mg/kg:	4.97E+01	Calculated Hazard/Risk	
RfDo (mg/kg-day):	3.00E-01	Non-Cancer Adult	Cancer
RfCi (mg/m3):		Ingestion: 1.42E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:
Mutagen:		Total: 1.42E-04	Total: 0.00E+00
VOC:			
% Contribution to Media Risk		0.08%	0.00%

mg/kg	Non-Cancer Adult	Cancer
Recommended Acceptable Concentration	N/A	N/A

Total Calculated Hazard Index/Risk for Soil

Non-Cancer Adult		Cancer	
Ingestion:	1.61E-01	Ingestion:	2.73E-06
Dermal:	4.26E-03	Dermal:	6.79E-07
Inhalation:	1.63E-02	Inhalation:	2.35E-07
Total:	1.82E-01	Total:	3.65E-06

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Report Summary

Hazard/risk values of zero (0.00+00) are reflective of non-calculated values. Hazard/risk for zero value analytes must be evaluated outside of quantitative risk assessment.

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard	Risk
Acenaphthene	83-32-9	4.56E-06	0.00E+00
Acenaphthylene	208-96-8	6.19E-06	0.00E+00
Acetone	67-64-1	1.64E-06	0.00E+00
Acetophenone	98-86-2	1.29E-06	0.00E+00
Aluminum	7429-90-5	8.21E-03	0.00E+00
Anthracene	120-12-7	1.12E-06	0.00E+00
Antimony (metallic)	7440-36-0	2.88E-03	0.00E+00
Arsenic, Inorganic	7440-38-2	1.84E-02	2.94E-06
Barium	7440-39-3	3.36E-04	0.00E+00
Benz[a]anthracene	56-55-3	0.00E+00	2.34E-08
Benzene	71-43-2	1.18E-03	9.82E-08
Benzo(g,h,i)perylene	191-24-2	1.09E-05	0.00E+00
Benzo[a]pyrene	50-32-8	1.51E-03	1.59E-07
Benzo[b]fluoranthene	205-99-2	0.00E+00	3.15E-08
Benzo[k]fluoranthene	207-08-9	0.00E+00	1.71E-09
Benzoic Acid	65-85-0	3.66E-07	0.00E+00
Beryllium and compounds	7440-41-7	3.93E-04	1.30E-10
Bis(2-ethylhexyl)phthalate	117-81-7	1.41E-05	1.41E-09
Butylbenzene, n-	104-51-8	2.40E-06	0.00E+00
Cadmium (Diet)	7440-43-9-Diet	2.86E-03	3.59E-11
Carbazole	86-74-8	0.00E+00	0.00E+00
Chromium(III), Insoluble Salts	16065-83-1	1.18E-04	0.00E+00
Chrysene	218-01-9	0.00E+00	3.28E-10
Cobalt	7440-48-4	2.99E-02	5.60E-09
Copper	7440-50-8	3.32E-03	0.00E+00
Cresol, o-	95-48-7	3.17E-06	0.00E+00
Cresol, p-chloro-m-	59-50-7	1.45E-06	0.00E+00
Cumene	98-82-8	1.69E-05	0.00E+00
Cyanide (CN-)	57-12-5	5.60E-03	0.00E+00
Dibenz[a,h]anthracene	53-70-3	0.00E+00	9.39E-08
Dimethylphenol, 2,4-	105-67-9	1.22E-05	0.00E+00
Ethylbenzene	100-41-4	1.96E-05	1.34E-08

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard	Risk
Fluoranthene	206-44-0	2.97E-05	0.00E+00
Fluorene	86-73-7	7.63E-06	0.00E+00
Indeno[1,2,3-cd]pyrene	193-39-5	0.00E+00	1.34E-08
Iron	7439-89-6	8.04E-02	0.00E+00
isopropyltoluene	99-87-6	6.76E-06	0.00E+00
Lead and Compounds	7439-92-1	0.00E+00	0.00E+00
Manganese (Diet)	7439-96-5-Diet	4.89E-03	0.00E+00
Mercury (elemental)	7439-97-6	1.11E-03	0.00E+00
Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.96E-06	0.00E+00
Methylcyclohexane	108-87-2	0.00E+00	0.00E+00
Methylene Chloride	75-09-2	2.18E-07	6.79E-13
Methylnaphthalene, 1-	90-12-0	4.13E-05	3.00E-08
Methylnaphthalene, 2-	91-57-6	1.16E-03	0.00E+00
Naphthalene	91-20-3	3.50E-03	2.39E-07
Nickel Soluble Salts	7440-02-0	4.95E-03	1.73E-09
Phenanthrene	85-01-8	7.51E-05	0.00E+00
Pyrene	129-00-0	3.88E-05	0.00E+00
Toluene	108-88-3	4.42E-05	0.00E+00
Trimethylbenzene, 1,2,4-	95-63-6	8.31E-04	0.00E+00
Trimethylbenzene, 1,3,5-	108-67-8	2.89E-04	0.00E+00
Vanadium and Compounds	7440-62-2	6.98E-03	0.00E+00
Xylenes	1330-20-7	2.61E-03	0.00E+00
Zinc and Compounds	7440-66-6	1.42E-04	0.00E+00

Total Hazard Index/Risk for All Media

Non-Cancer Adult		Cancer	
Ingestion:	1.61E-01	Ingestion:	2.73E-06
Dermal:	4.26E-03	Dermal:	6.79E-07
Inhalation:	1.63E-02	Inhalation:	2.35E-07
Total:	1.82E-01	Total:	3.65E-06
does not exceed hazard index		does not exceed cumulative risk	

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

1

Default Risk for Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Industrial Exposure Default Values

Symbol	Description	Value	Units
AFw	Composite Worker Soil Adherence Factor	0.12	(mg/cm2)
ATw	Composite Worker Averaging Time	365	(days/yr)
ATw	Composite Worker Averaging Time: 365 x LT	25550	(days)
ATw-a	Composite Worker Averaging Time: 365 x EDw	9125	(days)
BWw	Composite Worker Body Weight	80	(kg)
EDw	Composite Worker Total Exposure Duration	25	(yrs)
EFw	Composite Worker Exposure Frequency	250	(days/yr)
ETw	Composite Worker Exposure Time	8	(hrs/day)
ETw-ai	Composite Worker Air Inhalation Exposure Time	8	(hrs/day)
ETw-si	Composite Worker Soil Inhalation Exposure Time	8	(hrs/day)
IRw	Composite Worker Soil Ingestion Rate	100	(mg/day)
SAw	Composite Worker Soil Surface Area	3527	(cm2/day)

END OF REPORT

Groundwater Declaration Restricted Use

Restricted use of groundwater is for onsite use ONLY. Potential offsite risks and receptors are evaluated separately. The nature and extent of the groundwater plume is sufficiently characterized. Concentrations along the vertical and horizontal migration of the plume are stable.

No COPCs evaluated in Groundwater

**ATTACHMENT 3-4
RECREATOR**

VURAM

Virginia Unified Risk Assessment Model

VERSION: 3.2.1

Recreator Quantitative Risk Assessment Report

Program: Voluntary Remediation Program (VRP)

Site Name: Alexandria

By submitting this report to the Virginia DEQ, the user confirms that VURAM's default exposure parameters have not been altered, unless a complete unaltered VURAM analysis is provided and all modifications are detailed explicitly in an accompanying narrative or documentation that shows DEQ's prior concurrence with specific changes.

Chemical Specific Notes Displayed as Applicable

Lead

VURAM does not perform an evaluation for lead exposure. Use other approved models for lead modeling.

All Report Pages are Required for Risk Assessment Submission

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Acenaphthene
CAS: 83-32-9

Concentration mg/kg :	2.06E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	6.00E-02	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:	2.29E-06	Ingestion:	2.45E-05
SFO (mg/kg-day)-1:		Dermal:	1.26E-06	Dermal:	7.54E-06
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	3.55E-06	Total:	3.20E-05
VOC:	Y			Total:	0.00E+00
% Contribution to Media Risk			0.00%		0.00%

Analyte: Acenaphthylene
CAS: 208-96-8

Concentration mg/kg :	1.40E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:	3.12E-06	Ingestion:	3.32E-05
SFO (mg/kg-day)-1:		Dermal:	1.71E-06	Dermal:	1.03E-05
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	4.83E-06	Total:	4.35E-05
VOC:	Y			Total:	0.00E+00
% Contribution to Media Risk			0.00%		0.00%

Analyte: Acetone
CAS: 67-64-1

Concentration mg/kg :	1.72E+00	Calculated Hazard/Risk			
RfDo (mg/kg-day):	9.00E-01	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:	1.28E-06	Ingestion:	1.36E-05
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	1.28E-06	Total:	1.36E-05
VOC:	Y			Total:	0.00E+00
% Contribution to Media Risk			0.00%		0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Acetophenone
CAS: 98-86-2

Concentration mg/kg :	1.51E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:	1.01E-06	Ingestion:	1.08E-05
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	1.01E-06	Total:	1.08E-05
VOC:	Y				0.00E+00
% Contribution to Media Risk			0.00%		0.00%

Analyte: Aluminum
CAS: 7429-90-5

Concentration mg/kg :	9.23E+03	Calculated Hazard/Risk			
RfDo (mg/kg-day):	1.00E+00	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):	5.00E-03	Ingestion:	6.16E-03	Ingestion:	6.57E-02
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:	6.04E-05	Inhalation:	6.04E-05
Mutagen:		Total:	6.22E-03	Total:	6.58E-02
VOC:					0.00E+00
% Contribution to Media Risk			4.69%		4.81%

Analyte: Anthracene
CAS: 120-12-7

Concentration mg/kg :	2.53E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	3.00E-01	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:	5.63E-07	Ingestion:	6.01E-06
SFO (mg/kg-day)-1:		Dermal:	3.09E-07	Dermal:	1.85E-06
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	8.72E-07	Total:	7.86E-06
VOC:	Y				0.00E+00
% Contribution to Media Risk			0.00%		0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Antimony (metallic)
CAS: 7440-36-0

Concentration mg/kg :	1.34E+00	Calculated Hazard/Risk				
RfDo (mg/kg-day):	4.00E-04	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):	3.00E-04	Ingestion:	2.24E-03	Ingestion:	2.39E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:	1.47E-07	Inhalation:	1.47E-07	Inhalation:
Mutagen:		Total:	2.24E-03	Total:	2.39E-02	Total:
VOC:						0.00E+00
% Contribution to Media Risk			1.69%	1.75%		0.00%

Analyte: Arsenic, Inorganic
CAS: 7440-38-2

Concentration mg/kg :	8.80E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	3.00E-04	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	1.50E-05	Ingestion:	1.18E-02	Ingestion:	1.25E-01	Ingestion:	6.35E-06
SFO (mg/kg-day)-1:	1.50E+00	Dermal:	2.48E-03	Dermal:	1.49E-02	Dermal:	8.93E-07
IUR (µg/m3)-1:	4.30E-03	Inhalation:	1.92E-05	Inhalation:	1.92E-05	Inhalation:	4.60E-10
Mutagen:		Total:	1.43E-02	Total:	1.40E-01	Total:	7.24E-06
VOC:							
% Contribution to Media Risk			10.75%	10.26%		66.06%	

Exceeds Risk!

Analyte: Barium
CAS: 7440-39-3

Concentration mg/kg :	7.27E+01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	2.00E-01	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):	5.00E-04	Ingestion:	2.43E-04	Ingestion:	2.59E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:	4.76E-06	Inhalation:	4.76E-06	Inhalation:
Mutagen:		Total:	2.48E-04	Total:	2.59E-03	Total:
VOC:						0.00E+00
% Contribution to Media Risk			0.19%	0.19%		0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Benz[a]anthracene
CAS: 56-55-3

Concentration mg/kg :	4.82E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion:	1.75E-07
SFO (mg/kg-day)-1:	1.00E-01	Dermal:	Dermal:	Dermal:	5.85E-08
IUR (µg/m3)-1:	6.00E-05	Inhalation:	Inhalation:	Inhalation:	3.01E-10
Mutagen:	Y	Total:	0.00E+00	Total:	2.34E-07
VOC:	Y				
% Contribution to Media Risk		0.00%	0.00%	2.14%	

Analyte: Benzene
CAS: 71-43-2

Concentration mg/kg :	5.00E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	4.00E-03	Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):	3.00E-02	Ingestion:	8.35E-05	Ingestion:	2.20E-08
SFO (mg/kg-day)-1:	5.50E-02	Dermal:		Dermal:	
IUR (µg/m3)-1:	7.80E-06	Inhalation:	2.10E-04	Inhalation:	1.82E-08
Mutagen:		Total:	2.93E-04	Total:	4.03E-08
VOC:	Y				
% Contribution to Media Risk		0.22%	0.08%	0.37%	

Analyte: Benzo(g,h,i)perylene
CAS: 191-24-2

Concentration mg/kg :	2.47E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion:	5.50E-06	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	3.02E-06	Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	8.52E-06	Total:	0.00E+00
VOC:	Y				
% Contribution to Media Risk		0.01%	0.01%	0.00%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Benzo[a]pyrene
CAS: 50-32-8

Concentration mg/kg :	3.36E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	3.00E-04	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):	2.00E-06			Cancer	
SFO (mg/kg-day)-1:	1.00E+00	Ingestion:	7.48E-04	Ingestion:	7.98E-03
IUR (µg/m3)-1:	6.00E-04	Dermal:	4.11E-04	Dermal:	2.46E-03
Mutagen:	Y	Inhalation:	5.50E-06	Inhalation:	5.50E-06
VOC:		Total:	1.16E-03	Total:	1.04E-02
% Contribution to Media Risk		0.88%		0.76%	

Exceeds Risk!

Analyte: Benzo[b]fluoranthene
CAS: 205-99-2

Concentration mg/kg :	6.65E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):				Cancer	
SFO (mg/kg-day)-1:	1.00E-01	Ingestion:		Ingestion:	2.42E-07
IUR (µg/m3)-1:	6.00E-05	Dermal:		Dermal:	8.07E-08
Mutagen:	Y	Inhalation:		Inhalation:	1.34E-12
VOC:		Total:	0.00E+00	Total:	0.00E+00
% Contribution to Media Risk		0.00%		0.00%	

Analyte: Benzo[k]fluoranthene
CAS: 207-08-9

Concentration mg/kg :	3.61E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):				Cancer	
SFO (mg/kg-day)-1:	1.00E-02	Ingestion:		Ingestion:	1.31E-08
IUR (µg/m3)-1:	6.00E-06	Dermal:		Dermal:	4.38E-09
Mutagen:	Y	Inhalation:		Inhalation:	7.29E-14
VOC:		Total:	0.00E+00	Total:	0.00E+00
% Contribution to Media Risk		0.00%		0.00%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Benzoic Acid
CAS: 65-85-0

Concentration mg/kg :	1.20E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	4.00E+00	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	2.00E-07	Ingestion:	2.14E-06	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	8.46E-08	Dermal:	5.07E-07	Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:	
Mutagen:		Total:	2.85E-07	Total:	2.64E-06	Total:	0.00E+00
VOC:							
% Contribution to Media Risk			0.00%	0.00%		0.00%	

Analyte: Beryllium and compounds
CAS: 7440-41-7

Concentration mg/kg :	9.00E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	2.00E-03	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	2.00E-05	Ingestion:	3.01E-04	Ingestion:	3.21E-03	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:	2.40E-03	Inhalation:	1.47E-06	Inhalation:	1.47E-06	Inhalation:	2.63E-11
Mutagen:		Total:	3.02E-04	Total:	3.21E-03	Total:	2.63E-11
VOC:							
% Contribution to Media Risk			0.23%	0.23%		0.00%	

Analyte: Bis(2-ethylhexyl)phthalate
CAS: 117-81-7

Concentration mg/kg :	2.31E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	7.71E-06	Ingestion:	8.23E-05	Ingestion:	2.59E-09
SFO (mg/kg-day)-1:	1.40E-02	Dermal:	3.26E-06	Dermal:	1.95E-05	Dermal:	7.29E-10
IUR (µg/m3)-1:	2.40E-06	Inhalation:		Inhalation:		Inhalation:	6.74E-15
Mutagen:		Total:	1.10E-05	Total:	1.02E-04	Total:	3.32E-09
VOC:							
% Contribution to Media Risk			0.01%	0.01%		0.03%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Butylbenzene, n-
CAS: 104-51-8

Concentration mg/kg :	1.40E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):	5.00E-02	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.87E-06	Ingestion: 1.99E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.87E-06	Total: 1.99E-05	Total: 0.00E+00
VOC:	Y			
% Contribution to Media Risk		0.00%	0.00%	0.00%

Analyte: Cadmium (Diet)
CAS: 7440-43-9-Diet

Concentration mg/kg :	3.33E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):	1.00E-04	Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):	1.00E-05	Ingestion: 2.22E-03	Ingestion: 2.37E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 3.76E-04	Dermal: 2.25E-03	Dermal:
IUR (µg/m3)-1:	1.80E-03	Inhalation: 1.09E-06	Inhalation: 1.09E-06	Inhalation: 7.29E-12
Mutagen:		Total: 2.60E-03	Total: 2.60E-02	Total: 7.29E-12
VOC:				
% Contribution to Media Risk		1.96%	1.90%	0.00%

Analyte: Carbazole
CAS: 86-74-8

Concentration mg/kg :	2.42E-01	Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 0.00E+00	Total: 0.00E+00	Total: 0.00E+00
VOC:				
% Contribution to Media Risk		0.00%	0.00%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Chromium(III), Insoluble Salts
CAS: 16065-83-1

Concentration mg/kg :	2.06E+02	Calculated Hazard/Risk					
RfDo (mg/kg-day):	1.50E+00	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	9.17E-05	Ingestion:	9.78E-04	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:	
Mutagen:		Total:	9.17E-05	Total:	9.78E-04	Total:	0.00E+00
VOC:							
% Contribution to Media Risk			0.07%	0.07%		0.00%	

Analyte: Chrysene
CAS: 218-01-9

Concentration mg/kg :	6.91E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:		Ingestion:		Ingestion: 2.51E-09
SFO (mg/kg-day)-1:	1.00E-03	Dermal:		Dermal:		Dermal: 8.39E-10
IUR (µg/m3)-1:	6.00E-07	Inhalation:		Inhalation:		Inhalation: 1.40E-14
Mutagen:	Y	Total:	0.00E+00	Total:	0.00E+00	Total: 3.35E-09
VOC:						
% Contribution to Media Risk			0.00%	0.00%		0.03%

Analyte: Cobalt
CAS: 7440-48-4

Concentration mg/kg :	1.04E+01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	3.00E-04	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	6.00E-06	Ingestion:	2.31E-02	Ingestion:	2.46E-01	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:	9.00E-03	Inhalation:	5.66E-05	Inhalation:	5.66E-05	Inhalation:	1.13E-09
Mutagen:		Total:	2.31E-02	Total:	2.46E-01	Total:	1.13E-09
VOC:							
% Contribution to Media Risk			17.45%	18.02%		0.01%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Copper
CAS: 7440-50-8

Concentration mg/kg :	1.55E+02	Calculated Hazard/Risk				
RfDo (mg/kg-day):	4.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	2.59E-03	Ingestion:	2.76E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	2.59E-03	Total:	2.76E-02	Total: 0.00E+00
VOC:						
% Contribution to Media Risk			1.95%	2.02%		0.00%

Analyte: Cresol, o-
CAS: 95-48-7

Concentration mg/kg :	1.30E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	5.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):	6.00E-01	Ingestion:	1.74E-06	Ingestion:	1.85E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	7.33E-07	Dermal:	4.39E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	7.09E-12	Inhalation:	7.09E-12	Inhalation:
Mutagen:		Total:	2.47E-06	Total:	2.29E-05	Total: 0.00E+00
VOC:						
% Contribution to Media Risk			0.00%	0.00%		0.00%

Analyte: Cresol, p-chloro-m-
CAS: 59-50-7

Concentration mg/kg :	1.19E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	7.95E-07	Ingestion:	8.48E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	3.36E-07	Dermal:	2.01E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	1.13E-06	Total:	1.05E-05	Total: 0.00E+00
VOC:						
% Contribution to Media Risk			0.00%	0.00%		0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Cumene
CAS: 98-82-8

Concentration mg/kg :	1.68E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):	4.00E-01	Ingestion: 1.12E-06		Ingestion: 1.20E-05	
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation: 3.01E-06		Inhalation:	
Mutagen:		Total: 4.13E-06		Total: 1.50E-05	
VOC:	Y			Total: 0.00E+00	
% Contribution to Media Risk		0.00%		0.00%	

Analyte: Cyanide (CN-)
CAS: 57-12-5

Concentration mg/kg :	8.26E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	6.00E-04	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):	8.00E-04	Ingestion: 9.19E-04		Ingestion: 9.81E-03	
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation: 8.62E-04		Inhalation:	
Mutagen:		Total: 1.78E-03		Total: 1.07E-02	
VOC:	Y			Total: 0.00E+00	
% Contribution to Media Risk		1.34%		0.78%	

Analyte: Dibenz[a,h]anthracene
CAS: 53-70-3

Concentration mg/kg :	1.98E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:		Ingestion: 7.20E-07	
SFO (mg/kg-day)-1:	1.00E+00	Dermal:		Dermal: 2.40E-07	
IUR (µg/m3)-1:	6.00E-04	Inhalation:		Inhalation: 4.00E-12	
Mutagen:	Y	Total: 0.00E+00		Total: 0.00E+00	
VOC:				Total: 9.61E-07	
% Contribution to Media Risk		0.00%		0.00%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Dimethylphenol, 2,4-
CAS: 105-67-9

Concentration mg/kg :	2.00E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:	6.68E-06	Ingestion:	7.12E-05
SFO (mg/kg-day)-1:		Dermal:	2.82E-06	Dermal:	1.69E-05
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	9.50E-06	Total:	8.81E-05
VOC:				Total:	0.00E+00
% Contribution to Media Risk			0.01%		0.00%

Analyte: Ethylbenzene
CAS: 100-41-4

Concentration mg/kg :	3.42E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	5.00E-02	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):	1.00E+00	Ingestion:	4.57E-06	Ingestion:	4.87E-05
SFO (mg/kg-day)-1:	1.10E-02	Dermal:		Dermal:	
IUR (µg/m3)-1:	2.50E-06	Inhalation:	2.69E-06	Inhalation:	2.69E-06
Mutagen:		Total:	7.25E-06	Total:	5.14E-05
VOC:	Y			Total:	5.51E-09
% Contribution to Media Risk			0.01%		0.00%

Analyte: Fluoranthene
CAS: 206-44-0

Concentration mg/kg :	8.95E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	4.00E-02	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:	1.49E-05	Ingestion:	1.59E-04
SFO (mg/kg-day)-1:		Dermal:	8.20E-06	Dermal:	4.92E-05
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	2.31E-05	Total:	2.09E-04
VOC:				Total:	0.00E+00
% Contribution to Media Risk			0.02%		0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Fluorene
CAS: 86-73-7

Concentration mg/kg :	2.30E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	4.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	3.84E-06	Ingestion:	4.10E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	2.11E-06	Dermal:	1.26E-05	Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	5.95E-06	Total:	5.36E-05	Total:
VOC:	Y					0.00E+00
% Contribution to Media Risk			0.00%	0.00%		0.00%

Analyte: Indeno[1,2,3-cd]pyrene
CAS: 193-39-5

Concentration mg/kg :	2.82E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:		Ingestion:		Ingestion:
SFO (mg/kg-day)-1:	1.00E-01	Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:	6.00E-05	Inhalation:		Inhalation:		Inhalation:
Mutagen:	Y	Total:	0.00E+00	Total:	0.00E+00	Total:
VOC:						1.03E-07
% Contribution to Media Risk			0.00%		0.00%	3.42E-08
						5.70E-13
						1.37E-07

Analyte: Iron
CAS: 7439-89-6

Concentration mg/kg :	6.57E+04	Calculated Hazard/Risk				
RfDo (mg/kg-day):	7.00E-01	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	6.27E-02	Ingestion:	6.69E-01	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	6.27E-02	Total:	6.69E-01	Total: 0.00E+00
VOC:						
% Contribution to Media Risk			47.26%	48.92%		0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: isopropyltoluene
CAS: 99-87-6

Concentration mg/kg :	9.93E-02	Calculated Hazard/Risk			
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):	4.00E-01	Ingestion: 6.63E-07		Ingestion: 7.07E-06	
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation: 1.15E-06		Inhalation:	
Mutagen:		Total: 1.81E-06		Total: 8.23E-06	
VOC:	Y			Total: 0.00E+00	
% Contribution to Media Risk		0.00%		0.00%	

Analyte: Lead and Compounds
CAS: 7439-92-1

Concentration mg/kg :	2.05E+01	Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:		Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total: 0.00E+00		Total: 0.00E+00	
VOC:				Total: 0.00E+00	
% Contribution to Media Risk		0.00%		0.00%	

Analyte: Manganese (Diet)
CAS: 7439-96-5-Diet

Concentration mg/kg :	5.16E+02	Calculated Hazard/Risk			
RfDo (mg/kg-day):	1.40E-01	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):	5.00E-05	Ingestion: 2.46E-03		Ingestion: 2.63E-02	
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation: 3.38E-04		Inhalation:	
Mutagen:		Total: 2.80E-03		Total: 2.66E-02	
VOC:				Total: 0.00E+00	
% Contribution to Media Risk		2.11%		1.95%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Mercury (elemental)
CAS: 7439-97-6

Concentration mg/kg :	5.07E-02	Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):	3.00E-04	Ingestion:	Ingestion:	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total:	Total:	Total:	
VOC:	Y	2.17E-04	2.17E-04	0.00E+00	
% Contribution to Media Risk		0.16%	0.02%	0.00%	

Analyte: Methyl Ethyl Ketone (2-Butanone)
CAS: 78-93-3

Concentration mg/kg :	5.73E-01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	6.00E-01	Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):	5.00E+00	Ingestion:	Ingestion:	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total:	Total:	Total:	
VOC:	Y	6.38E-07	6.80E-06	0.00E+00	
% Contribution to Media Risk		0.00%	0.00%	0.00%	

Analyte: Methylcyclohexane
CAS: 108-87-2

Concentration mg/kg :	7.39E+00	Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total:	Total:	Total:	
VOC:		0.00E+00	0.00E+00	0.00E+00	
% Contribution to Media Risk		0.00%	0.00%	0.00%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Methylene Chloride
CAS: 75-09-2

Concentration mg/kg :	6.90E-04	Calculated Hazard/Risk					
RfDo (mg/kg-day):	6.00E-03	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	6.00E-01	Ingestion:	7.68E-08	Ingestion:	8.19E-07	Ingestion:	5.02E-12
SFO (mg/kg-day)-1:	2.00E-03	Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:	1.00E-08	Inhalation:	2.34E-08	Inhalation:	2.34E-08	Inhalation:	1.44E-13
Mutagen:	Y	Total:	1.00E-07	Total:	8.43E-07	Total:	5.16E-12
VOC:	Y						
% Contribution to Media Risk			0.00%	0.00%		0.00%	

Analyte: Methylnaphthalene, 1-
CAS: 90-12-0

Concentration mg/kg :	2.18E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	7.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	2.08E-05	Ingestion:	2.22E-04	Ingestion:	5.06E-08
SFO (mg/kg-day)-1:	2.90E-02	Dermal:	1.14E-05	Dermal:	6.84E-05	Dermal:	1.85E-08
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:	
Mutagen:		Total:	3.22E-05	Total:	2.90E-04	Total:	6.92E-08
VOC:	Y						
% Contribution to Media Risk			0.02%	0.02%		0.63%	

Analyte: Methylnaphthalene, 2-
CAS: 91-57-6

Concentration mg/kg :	3.51E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	4.00E-03	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	5.86E-04	Ingestion:	6.25E-03	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	3.22E-04	Dermal:	1.93E-03	Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:	
Mutagen:		Total:	9.08E-04	Total:	8.18E-03	Total:	0.00E+00
VOC:	Y						
% Contribution to Media Risk			0.68%	0.60%		0.00%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Naphthalene
CAS: 91-20-3

Concentration mg/kg :	2.05E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	3.00E-03	Ingestion:	6.83E-05	Ingestion:	7.29E-04	Ingestion:	1.97E-07
SFO (mg/kg-day)-1:	1.20E-01	Dermal:	3.75E-05	Dermal:	2.25E-04	Dermal:	7.20E-08
IUR (µg/m3)-1:	3.40E-05	Inhalation:	6.56E-04	Inhalation:	6.56E-04	Inhalation:	2.48E-08
Mutagen:		Total:	7.62E-04	Total:	1.61E-03	Total:	2.94E-07
VOC:	Y						
% Contribution to Media Risk			0.57%	0.12%		2.68%	

Analyte: Nickel Soluble Salts
CAS: 7440-02-0

Concentration mg/kg :	1.11E+02	Calculated Hazard/Risk					
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	9.00E-05	Ingestion:	3.70E-03	Ingestion:	3.95E-02	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:	2.60E-04	Inhalation:	4.03E-05	Inhalation:	4.03E-05	Inhalation:	3.51E-10
Mutagen:		Total:	3.74E-03	Total:	3.95E-02	Total:	3.51E-10
VOC:							
% Contribution to Media Risk			2.82%	2.89%		0.00%	

Analyte: Phenanthrene
CAS: 85-01-8

Concentration mg/kg :	1.70E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	3.78E-05	Ingestion:	4.03E-04	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	2.07E-05	Dermal:	1.24E-04	Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:	
Mutagen:		Total:	5.85E-05	Total:	5.27E-04	Total:	0.00E+00
VOC:	Y						
% Contribution to Media Risk			0.04%	0.04%		0.00%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Pyrene
CAS: 129-00-0

Concentration mg/kg :	8.78E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	3.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	1.95E-05	Ingestion:	2.08E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	1.07E-05	Dermal:	6.43E-05	Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	3.03E-05	Total:	2.73E-04	Total:
VOC:	Y					0.00E+00
% Contribution to Media Risk			0.02%	0.02%		0.00%

Analyte: Toluene
CAS: 108-88-3

Concentration mg/kg :	2.07E+00	Calculated Hazard/Risk				
RfDo (mg/kg-day):	8.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):	5.00E+00	Ingestion:	1.73E-05	Ingestion:	1.84E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:	4.30E-06	Inhalation:	4.30E-06	Inhalation:
Mutagen:		Total:	2.16E-05	Total:	1.89E-04	Total:
VOC:	Y					0.00E+00
% Contribution to Media Risk			0.02%	0.01%		0.00%

Analyte: Trimethylbenzene, 1,2,4-
CAS: 95-63-6

Concentration mg/kg :	1.47E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	1.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	6.00E-02	Ingestion:	9.80E-05	Ingestion:	1.04E-03	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:	1.38E-04	Inhalation:	1.38E-04	Inhalation:	
Mutagen:		Total:	2.36E-04	Total:	1.18E-03	Total:	0.00E+00
VOC:	Y						
% Contribution to Media Risk			0.18%	0.09%		0.00%	

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Trimethylbenzene, 1,3,5-
CAS: 108-67-8

Concentration mg/kg :	4.37E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	1.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):	6.00E-02	Ingestion:	2.92E-05	Ingestion:	3.11E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:	4.91E-05	Inhalation:	4.91E-05	Inhalation:
Mutagen:		Total:	7.82E-05	Total:	3.60E-04	Total:
VOC:	Y					0.00E+00
% Contribution to Media Risk			0.06%	0.03%		0.00%

Analyte: Vanadium and Compounds
CAS: 7440-62-2

Concentration mg/kg :	4.04E+01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	5.00E-03	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):	1.00E-04	Ingestion:	5.39E-03	Ingestion:	5.75E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:	1.32E-05	Inhalation:	1.32E-05	Inhalation:
Mutagen:		Total:	5.40E-03	Total:	5.75E-02	Total:
VOC:						0.00E+00
% Contribution to Media Risk			4.07%	4.21%		0.00%

Analyte: Xylenes
CAS: 1330-20-7

Concentration mg/kg :	6.50E+00	Calculated Hazard/Risk				
RfDo (mg/kg-day):	2.00E-01	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):	1.00E-01	Ingestion:	2.17E-05	Ingestion:	2.31E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:	5.04E-04	Inhalation:	5.04E-04	Inhalation:
Mutagen:		Total:	5.26E-04	Total:	7.35E-04	Total:
VOC:	Y					0.00E+00
% Contribution to Media Risk			0.40%		0.05%	0.00%

Risk Based Performance Criteria

Default Hazard Index	Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Zinc and Compounds
CAS: 7440-66-6

Concentration mg/kg :	4.97E+01	Calculated Hazard/Risk			
RfDo (mg/kg-day):	3.00E-01	Non-Cancer Adult		Non-Cancer Child	
RfCi (mg/m3):		Ingestion:	1.11E-04	Ingestion:	1.18E-03
SFO (mg/kg-day)-1:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:	
Mutagen:		Total:	1.11E-04	Total:	1.18E-03
VOC:				Total:	0.00E+00
% Contribution to Media Risk			0.08%		0.09%
					0.00%

Total Calculated Hazard Index/Risk for Soil

Non-Cancer Adult		Non-Cancer Child		Cancer	
Ingestion:	1.26E-01	Ingestion:	1.34E+00	Ingestion:	9.10E-06
Dermal:	3.69E-03	Dermal:	2.21E-02	Dermal:	1.81E-06
Inhalation:	3.19E-03	Inhalation:	3.19E-03	Inhalation:	4.79E-08
Total:	1.33E-01	Total:	1.37E+00	Total:	1.10E-05

Risk Based Performance Criteria

Default Hazard Index

1

Default Risk for Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Report Summary

Hazard/risk values of zero (0.00+00) are reflective of non-calculated values. Hazard/risk for zero value analytes must be evaluated outside of quantitative risk assessment.

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard Adult	Hazard Child	Risk
Acenaphthene	83-32-9	3.55E-06	3.20E-05	0.00E+00
Acenaphthylene	208-96-8	4.83E-06	4.35E-05	0.00E+00
Acetone	67-64-1	1.28E-06	1.36E-05	0.00E+00
Acetophenone	98-86-2	1.01E-06	1.08E-05	0.00E+00
Aluminum	7429-90-5	6.22E-03	6.58E-02	0.00E+00
Anthracene	120-12-7	8.72E-07	7.86E-06	0.00E+00
Antimony (metallic)	7440-36-0	2.24E-03	2.39E-02	0.00E+00
Arsenic, Inorganic	7440-38-2	1.43E-02	1.40E-01	7.24E-06
Barium	7440-39-3	2.48E-04	2.59E-03	0.00E+00
Benz[a]anthracene	56-55-3	0.00E+00	0.00E+00	2.34E-07
Benzene	71-43-2	2.93E-04	1.10E-03	4.03E-08
Benzo(g,h,i)perylene	191-24-2	8.52E-06	7.67E-05	0.00E+00
Benzo[a]pyrene	50-32-8	1.16E-03	1.04E-02	1.63E-06
Benzo[b]fluoranthene	205-99-2	0.00E+00	0.00E+00	3.23E-07
Benzo[k]fluoranthene	207-08-9	0.00E+00	0.00E+00	1.75E-08
Benzoic Acid	65-85-0	2.85E-07	2.64E-06	0.00E+00
Beryllium and compounds	7440-41-7	3.02E-04	3.21E-03	2.63E-11
Bis(2-ethylhexyl)phthalate	117-81-7	1.10E-05	1.02E-04	3.32E-09
Butylbenzene, n-	104-51-8	1.87E-06	1.99E-05	0.00E+00
Cadmium (Diet)	7440-43-9-Diet	2.60E-03	2.60E-02	7.29E-12
Carbazole	86-74-8	0.00E+00	0.00E+00	0.00E+00
Chromium(III), Insoluble Salts	16065-83-1	9.17E-05	9.78E-04	0.00E+00
Chrysene	218-01-9	0.00E+00	0.00E+00	3.35E-09
Cobalt	7440-48-4	2.31E-02	2.46E-01	1.13E-09
Copper	7440-50-8	2.59E-03	2.76E-02	0.00E+00
Cresol, o-	95-48-7	2.47E-06	2.29E-05	0.00E+00
Cresol, p-chloro-m-	59-50-7	1.13E-06	1.05E-05	0.00E+00
Cumene	98-82-8	4.13E-06	1.50E-05	0.00E+00
Cyanide (CN-)	57-12-5	1.78E-03	1.07E-02	0.00E+00
Dibenz[a,h]anthracene	53-70-3	0.00E+00	0.00E+00	9.61E-07
Dimethylphenol, 2,4-	105-67-9	9.50E-06	8.81E-05	0.00E+00
Ethylbenzene	100-41-4	7.25E-06	5.14E-05	5.51E-09

Risk Based Performance Criteria

Default Hazard Index

1

Default Risk for Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard Adult	Hazard Child	Risk
Fluoranthene	206-44-0	2.31E-05	2.09E-04	0.00E+00
Fluorene	86-73-7	5.95E-06	5.36E-05	0.00E+00
Indeno[1,2,3-cd]pyrene	193-39-5	0.00E+00	0.00E+00	1.37E-07
Iron	7439-89-6	6.27E-02	6.69E-01	0.00E+00
isopropyltoluene	99-87-6	1.81E-06	8.23E-06	0.00E+00
Lead and Compounds	7439-92-1	0.00E+00	0.00E+00	0.00E+00
Manganese (Diet)	7439-96-5-Diet	2.80E-03	2.66E-02	0.00E+00
Mercury (elemental)	7439-97-6	2.17E-04	2.17E-04	0.00E+00
Methyl Ethyl Ketone (2-Butanone)	78-93-3	1.06E-06	7.22E-06	0.00E+00
Methylcyclohexane	108-87-2	0.00E+00	0.00E+00	0.00E+00
Methylene Chloride	75-09-2	1.00E-07	8.43E-07	5.16E-12
Methylnaphthalene, 1-	90-12-0	3.22E-05	2.90E-04	6.92E-08
Methylnaphthalene, 2-	91-57-6	9.08E-04	8.18E-03	0.00E+00
Naphthalene	91-20-3	7.62E-04	1.61E-03	2.94E-07
Nickel Soluble Salts	7440-02-0	3.74E-03	3.95E-02	3.51E-10
Phenanthrene	85-01-8	5.85E-05	5.27E-04	0.00E+00
Pyrene	129-00-0	3.03E-05	2.73E-04	0.00E+00
Toluene	108-88-3	2.16E-05	1.89E-04	0.00E+00
Trimethylbenzene, 1,2,4-	95-63-6	2.36E-04	1.18E-03	0.00E+00
Trimethylbenzene, 1,3,5-	108-67-8	7.82E-05	3.60E-04	0.00E+00
Vanadium and Compounds	7440-62-2	5.40E-03	5.75E-02	0.00E+00
Xylenes	1330-20-7	5.26E-04	7.35E-04	0.00E+00
Zinc and Compounds	7440-66-6	1.11E-04	1.18E-03	0.00E+00

Total Hazard Index/Risk for All Media

Non-Cancer Adult		Non-Cancer Child		Cancer	
Ingestion:	1.26E-01	Ingestion:	1.34E+00	Ingestion:	9.10E-06
Dermal:	3.69E-03	Dermal:	2.21E-02	Dermal:	1.81E-06
Inhalation:	3.19E-03	Inhalation:	3.19E-03	Inhalation:	4.79E-08
Total:	1.33E-01	Total:	1.37E+00	Total:	1.10E-05
does not exceed hazard index		Exceeds Hazard Index!		does not exceed cumulative risk	

Site Name: Alexandria

Recreator

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

1

Default Risk for Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Recreator Exposure Default Values

Symbol	Description	Value	Units
AF0-02	Soil Adherence Factor - age segment 0-2	0.2	(mg/cm2)
AF02-06	Soil Adherence Factor - age segment 2-6	0.2	(mg/cm2)
AF06-16	Soil Adherence Factor - age segment 6-16	0.07	(mg/cm2)
AF16-26	Soil Adherence Factor - age segment 16-26	0.07	(mg/cm2)
AFrec-a	Recreator Soil Adherence Factor - adult	0.07	(mg/cm2)
AFrec-c	Recreator Soil Adherence Factor - child	0.2	(mg/cm2)
AFrec-sed-a	Recreator Sediment Adherence Factor - adult - Exposure Factors Handbook	0.2	(mg/cm2)
AFrec-sed-c	Recreator Sediment Adherence Factor - child - Exposure Factors Handbook	0.3	(mg/cm2)
AFsed0-02	Recreator/Trepasser Sediment Adherence Factor - age segment 0-2 - Exposure Factors Handbook	0.3	(mg/cm2)
AFsed02-06	Recreator/Trepasser Sediment Adherence Factor - age segment 2-6 - Exposure Factors Handbook	0.3	(mg/cm2)
AFsed06-16	Recreator/Trepasser Sediment Adherence Factor - age segment 6-16 - Exposure Factors Handbook	0.2	(mg/cm2)
AFsed16-26	Recreator/Trepasser Sediment Adherence Factor - age segment 16-26 - Exposure Factors Handbook	0.2	(mg/cm2)
ATrec	Recreator Averaging Time: 365 x LT	25550	(days)
ATrec	Recreator Averaging Time	365	(days/yr)
ATrec-a	Recreator Averaging Time - adult: 365 x EDrec-a	7300	(days)
ATrec-c	Recreator Averaging Time - child: 365 x EDrec-c	2190	(days)
BW0-02	Body Weight - age segment 0-2	15	(kg)
BW02-06	Body Weight - age segment 2-6	15	(kg)
BW06-16	Body Weight - age segment 6-16	80	(kg)
BW16-26	Body Weight - age segment 16-26	80	(kg)
BWrec-a	Recreator Body Weight - adult	80	(kg)
BWrec-c	Recreator Body Weight - child	15	(kg)
DFSMrec-adj	Recreator Soil Mutagenic Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	238602	(mg/kg)
DFSMrec-sed-adj	Recreator Sediment Mutagenic Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	413774.4	(mg/kg)

Site Name: Alexandria

Recreator

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index		Default Risk for Individual Chemical	Default Cumulative Risk-All Chemicals
1		1.00E-06	1.00E-04
DFSrec-adj	Recreator Soil Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	57603	(mg/kg)
DFSrec-sed-adj	Recreator Sediment Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	114340.2	(mg/kg)
DFWMrec-adj	Recreator Surface Water Mutagenic Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	4563910	(cm2-event/kg)
DFWrec-adj	Recreator Surface Water Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	1454505	(cm2-event/kg)
ED0-02	Exposure Duration - age segment 0-2	2	(yrs)
ED02-06	Exposure Duration - age segment 2-6	4	(yrs)
ED06-16	Exposure Duration -age segment 6-16	10	(yrs)
ED16-26	Exposure Duration -age segment 16-26	10	(yrs)
EDrec	Recreator Exposure Duration	26	(yrs)
EDrec-a	Recreator Exposure Duration - adult	20	(yrs)
EDrec-c	Recreator Exposure Duration - child	6	(yrs)
EFrec	Recreator Exposure Frequency - Virginia DEQ	195	(days/yr)
EFrec0-02	Recreator/Trepasser Exposure Frequency - age segment 0-2 - Virginia DEQ	195	(days/yr)
EFrec02-06	Recreator/Trepasser Exposure Frequency - age segment 2-6 - Virginia DEQ	195	(days/yr)
EFrec06-16	Recreator/Trepasser Exposure Frequency - age segment 6-16 - Virginia DEQ	195	(days/yr)
EFrec16-26	Recreator/Trepasser Exposure Frequency - age segment 16-26 - Virginia DEQ	195	(days/yr)
EFrec-a	Recreator Exposure Frequency - adult - Virginia DEQ	195	(days/yr)
EFrec-c	Recreator Exposure Frequency - child - Virginia DEQ	195	(days/yr)
ETevent-rec/trs(0-02)	Recreator/Trespasser Exposure Time - age segment 0-2 - Virginia DEQ	2	(hrs/event)
ETevent-rec/trs(02-06)	Recreator/Trespasser Exposure Time - age segment 2-6 - Virginia DEQ	2	(hrs/event)
ETevent-rec/trs(06-16)	Recreator/Trespasser Exposure Time - age segment 6-16 - Virginia DEQ	2	(hrs/event)
ETevent-rec/trs(16-26)	Recreator/Trespasser Exposure Time - age segment 16-26 - Virginia DEQ	2	(hrs/event)
ETevent-rec-a	Recreator Surface Water Exposure Time - adult - Virginia DEQ	2	(hrs/event)
ETevent-rec-adj	Recreator Exposure Time - age adjusted - Virginia DEQ calculated using age-segment values	2	(hrs/event)
ETevent-rec-c	Recreator Surface Water Exposure Time - child - Virginia DEQ	2	(hrs/event)
ETevent-rec-madj	Recreator Exposure Time - mutagen age adjusted - Virginia DEQ calculated using age-segment values	2	(hrs/event)

Site Name: Alexandria

Recreator

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk for Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

ETrec	Recreator Soil Exposure Time - Virginia DEQ	2 (hrs/day)
ETrec/trs0-02	Recreator/Trespasser Exposure Time - age segment 0-2 - Virginia DEQ	2 (hrs/day)
ETrec/trs02-06	Recreator/Trespasser Exposure Time - age segment 2-6 - Virginia DEQ	2 (hrs/day)
ETrec/trs06-16	Recreator/Trespasser Exposure Time - age segment 6-16 - Virginia DEQ	2 (hrs/day)
ETrec/trs16-26	Recreator/Trespasser Exposure Time - age segment 16-26 - Virginia DEQ	2 (hrs/day)
ETrec-a	Recreator Exposure Time - adult - Virginia DEQ	2 (hrs/day)
ETrec-c	Recreator Exposure Time - child - Virginia DEQ	2 (hrs/day)
ETrec-sed	Recreator Sediment Exposure Time - Virginia DEQ	2 (hrs/day)
EV0-02	Events - age segment 0-2	1 (events/day)
EV02-06	Events - age segment 2-6	1 (events/day)
EV06-16	Events - age segment 6-16	1 (events/day)
EV16-26	Events - age segment 16-26	1 (events/day)
EVrec-a	Recreator Events - adult - Virginia DEQ	1 (events/day)
EVrec-c	Recreator Events - child - Virginia DEQ	1 (events/day)
IFMrec-sed-adj	Recreator Mutagenic Sediment Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	92950 (mg/kg)
IFrec-sed-adj	Recreator Sediment Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	20475 (mg/kg)
IFSMrec-adj	Recreator Mutagenic Soil Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	92950 (mg/kg)
IFSrec-adj	Recreator Soil Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	20475 (mg/kg)
IFWMrec-adj	Recreator Mutagenic Surface Water Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	122.776875 (L/kg)
IFWrec-adj	Recreator Surface Water Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	29.445 (L/kg)
INHMrec-s-adj	Recreator Soil Inhalation Exposure Duration Mutagen - age adjusted - Virginia DEQ calculated using age-segment values	1170 (days)
INHMrec-sed-adj	Recreator Sediment Inhalation Exposure Duration Mutagen - age adjusted - Virginia DEQ calculated using age-segment values	1170 (days)
IRS0-02	Soil/Sediment Ingestion Rate - age segment 0-2	200 (mg/day)
IRS02-06	Soil/Sediment Ingestion Rate - age segment 2-6	200 (mg/day)
IRS06-16	Soil/Sediment Ingestion Rate - age segment 6-16	100 (mg/day)
IRS16-26	Soil/Sediment Ingestion Rate - age segment 16-26	100 (mg/day)

Site Name: Alexandria

Recreator

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk for Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

IRSrec-a	Recreator Soil Ingestion Rate - adult	100 (mg/day)
IRSrec-c	Recreator Soil Ingestion Rate - child	200 (mg/day)
IRSrec-sed-a	Recreator Sediment Ingestion Rate - adult	100 (mg/day)
IRSrec-sed-c	Recreator Sediment Ingestion Rate - child	200 (mg/day)
IRW0-02	Surface Water Ingestion Rate - age segment 0-2	0.12 (L/hr)
IRW02-06	Surface Water Ingestion Rate - age segment 2-6	0.12 (L/hr)
IRW06-16	Surface Water Ingestion Rate - age segment 6-16	0.124 (L/hr)
IRW16-26	Surface Water Ingestion Rate - age segment 16-26	0.0985 (L/hr)
IRWrec-a	Recreator Surface Water Ingestion Rate - adult	0.11 (L/hr)
IRWrec-c	Recreator Surface Water Ingestion Rate - child	0.12 (L/hr)
SAREC-a	Recreator Surface Water Surface Area - adult	19652 (cm2)
SAREC-a	Recreator Soil Surface Area - adult	6032 (cm2/day)
SAREC-c	Recreator Surface Water Surface Area - child	6365 (cm2)
SAREC-c	Recreator Soil Surface Area - child	2373 (cm2/day)
SAREC-sed-a	Recreator Sediment Surface Area - adult	6032 (cm2/day)
SAREC-sed-c	Recreator Sediment Surface Area - child	2373 (cm2/day)
SAS0-02	Surface Area Soil/Sediment - age segment 0-2	2373 (cm2/day)
SAS02-06	Surface Area Soil/Sediment - age segment 2-6	2373 (cm2/day)
SAS06-16	Surface Area Soil/Sediment - age segment 6-16	6032 (cm2/day)
SAS16-26	Surface Area Soil/Sediment - age segment 16-26	6032 (cm2/day)
SAW0-02	Surface Area Water - age segment 0-2	6365 (cm2)
SAW02-06	Surface Area Water - age segment 2-6	6365 (cm2)
SAW06-16	Surface Area Water - age segment 6- 16	19652 (cm2)
SAW16-26	Surface Area Water - age segment 16- 26	19652 (cm2)

END OF REPORT

**ATTACHMENT 3-5
TRESPASSER**

VURAM

Virginia Unified Risk Assessment Model

VERSION: 3.2.1

Trespasser Quantitative Risk Assessment Report

Program: Voluntary Remediation Program (VRP)

Site Name: Alexandria

By submitting this report to the Virginia DEQ, the user confirms that VURAM's default exposure parameters have not been altered, unless a complete unaltered VURAM analysis is provided and all modifications are detailed explicitly in an accompanying narrative or documentation that shows DEQ's prior concurrence with specific changes.

Chemical Specific Notes Displayed as Applicable

Lead

VURAM does not perform an evaluation for lead exposure. Use other approved models for lead modeling.

All Report Pages are Required for Risk Assessment Submission

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Acenaphthene
CAS: 83-32-9

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 2.82E-07	Ingestion: 3.01E-06	Ingestion:	
SFO (mg/kg-day)-1:		Dermal: 1.55E-07	Dermal: 9.29E-07	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total: 4.37E-07	Total: 3.94E-06	Total:	0.00E+00
% Contribution to Media Risk		0.00%	0.00%	0.00%	

Analyte: Acenaphthylene
CAS: 208-96-8

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 3.84E-07	Ingestion: 4.09E-06	Ingestion:	
SFO (mg/kg-day)-1:		Dermal: 2.11E-07	Dermal: 1.26E-06	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total: 5.94E-07	Total: 5.35E-06	Total:	0.00E+00
% Contribution to Media Risk		0.00%	0.00%	0.00%	

Analyte: Acetone
CAS: 67-64-1

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 1.57E-07	Ingestion: 1.68E-06	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total: 1.57E-07	Total: 1.68E-06	Total:	0.00E+00
% Contribution to Media Risk		0.00%	0.00%	0.00%	

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Acetophenone
CAS: 98-86-2

Concentration mg/kg:	1.51E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	1.24E-07	Ingestion:	1.32E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	1.24E-07	Total:	1.32E-06	Total: 0.00E+00
% Contribution to Media Risk			0.00%	0.00%		0.00%

Analyte: Aluminum
CAS: 7429-90-5

Concentration mg/kg:	9.23E+03	Calculated Hazard/Risk					
RfDo (mg/kg-day):	1.00E+00	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	5.00E-03	Ingestion:	7.58E-04	Ingestion:	8.09E-03	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:	7.43E-06	Inhalation:	7.43E-06	Inhalation:	
Mutagen:		Total:	7.66E-04	Total:	8.10E-03	Total:	0.00E+00
% Contribution to Media Risk			4.69%			4.81%	0.00%

Analyte: Anthracene
CAS: 120-12-7

Concentration mg/kg:	2.53E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	3.00E-01	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	6.93E-08	Ingestion:	7.39E-07	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	3.80E-08	Dermal:	2.28E-07	Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	1.07E-07	Total:	9.67E-07	Total: 0.00E+00
% Contribution to Media Risk			0.00%	0.00%		0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Antimony (metallic)
CAS: 7440-36-0

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 2.76E-04	Ingestion: 2.94E-03	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation: 1.80E-08	Inhalation: 1.80E-08	Inhalation:	
Mutagen:		Total: 2.76E-04	Total: 2.94E-03	Total:	0.00E+00
% Contribution to Media Risk		1.69%	1.75%	0.00%	

Analyte: Arsenic, Inorganic
CAS: 7440-38-2

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 1.45E-03	Ingestion: 1.54E-02	Ingestion:	7.81E-07
SFO (mg/kg-day)-1:		Dermal: 3.05E-04	Dermal: 1.83E-03	Dermal:	1.10E-07
IUR (µg/m3)-1:		Inhalation: 2.36E-06	Inhalation: 2.36E-06	Inhalation:	5.66E-11
Mutagen:		Total: 1.75E-03	Total: 1.73E-02	Total:	8.91E-07
% Contribution to Media Risk		10.75%	10.26%	66.06%	

Analyte: Barium
CAS: 7440-39-3

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 2.99E-05	Ingestion: 3.19E-04	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation: 5.86E-07	Inhalation: 5.86E-07	Inhalation:	
Mutagen:		Total: 3.05E-05	Total: 3.19E-04	Total:	0.00E+00
% Contribution to Media Risk		0.19%	0.19%	0.00%	

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Benz[a]anthracene
CAS: 56-55-3

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion:	2.16E-08
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	7.20E-09
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	3.71E-11
Mutagen:		Total:	Total:	Total:	2.88E-08
4.82E-01		0.00E+00	0.00E+00		
Y					
		% Contribution to Media Risk	0.00%	0.00%	2.14%

Analyte: Benzene
CAS: 71-43-2

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion:	2.71E-09
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	2.24E-09
Mutagen:		Total:	Total:	Total:	4.95E-09
5.00E-01		1.03E-05	1.10E-04		
4.00E-03					
3.00E-02					
5.50E-02					
7.80E-06					
		% Contribution to Media Risk	0.22%	0.08%	0.37%

Analyte: Benzo(g,h,i)perylene
CAS: 191-24-2

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total:	Total:	Total:	0.00E+00
2.47E-01		6.77E-07	7.22E-06		
3.00E-02		3.71E-07	2.23E-06		
		% Contribution to Media Risk	0.01%	0.01%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Benzo[a]pyrene
CAS: 50-32-8

Concentration mg/kg:	3.36E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	3.00E-04	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	2.00E-06	Ingestion:	9.21E-05	Ingestion:	9.82E-04	Ingestion:	1.50E-07
SFO (mg/kg-day)-1:	1.00E+00	Dermal:	5.05E-05	Dermal:	3.03E-04	Dermal:	5.02E-08
IUR (µg/m3)-1:	6.00E-04	Inhalation:	6.77E-07	Inhalation:	6.77E-07	Inhalation:	8.35E-13
Mutagen:	Y	Total:	1.43E-04	Total:	1.29E-03	Total:	2.01E-07
% Contribution to Media Risk			0.88%	0.76%		14.88%	

Analyte: Benzo[b]fluoranthene
CAS: 205-99-2

Concentration mg/kg:	6.65E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:		Ingestion:		Ingestion:	2.98E-08
SFO (mg/kg-day)-1:	1.00E-01	Dermal:		Dermal:		Dermal:	9.94E-09
IUR (µg/m3)-1:	6.00E-05	Inhalation:		Inhalation:		Inhalation:	1.65E-13
Mutagen:	Y	Total:	0.00E+00	Total:	0.00E+00	Total:	3.97E-08
% Contribution to Media Risk			0.00%	0.00%		2.94%	

Analyte: Benzo[k]fluoranthene
CAS: 207-08-9

Concentration mg/kg:	3.61E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:		Ingestion:		Ingestion: 1.62E-09
SFO (mg/kg-day)-1:	1.00E-02	Dermal:		Dermal:		Dermal: 5.39E-10
IUR (µg/m3)-1:	6.00E-06	Inhalation:		Inhalation:		Inhalation: 8.98E-15
Mutagen:	Y	Total:	0.00E+00	Total:	0.00E+00	Total: 2.16E-09
% Contribution to Media Risk			0.00%	0.00%		0.16%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Benzoic Acid
CAS: 65-85-0

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 2.47E-08	Ingestion: 2.63E-07	Ingestion:	
SFO (mg/kg-day)-1:		Dermal: 1.04E-08	Dermal: 6.24E-08	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total: 3.51E-08	Total: 3.25E-07	Total:	0.00E+00
% Contribution to Media Risk		0.00%	0.00%	0.00%	

Analyte: Beryllium and compounds
CAS: 7440-41-7

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 3.70E-05	Ingestion: 3.95E-04	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation: 1.81E-07	Inhalation: 1.81E-07	Inhalation: 3.23E-12	
Mutagen:		Total: 3.72E-05	Total: 3.95E-04	Total:	3.23E-12
% Contribution to Media Risk		0.23%	0.23%	0.00%	

Analyte: Bis(2-ethylhexyl)phthalate
CAS: 117-81-7

Concentration mg/kg:		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer	
RfCi (mg/m3):		Ingestion: 9.49E-07	Ingestion: 1.01E-05	Ingestion: 3.19E-10	
SFO (mg/kg-day)-1:		Dermal: 4.01E-07	Dermal: 2.40E-06	Dermal: 8.97E-11	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation: 8.30E-16	
Mutagen:		Total: 1.35E-06	Total: 1.25E-05	Total:	4.09E-10
% Contribution to Media Risk		0.01%	0.01%	0.03%	

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Butylbenzene, n-
CAS: 104-51-8

Concentration mg/kg: 1.40E-01 RfDo (mg/kg-day): 5.00E-02 RfCi (mg/m3): SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion: 2.30E-07	Ingestion: 2.45E-06	Ingestion:
	Dermal:	Dermal:	Dermal:
	Inhalation:	Inhalation:	Inhalation:
	Total: 2.30E-07	Total: 2.45E-06	Total: 0.00E+00
% Contribution to Media Risk		0.00%	0.00%

Analyte: Cadmium (Diet)
CAS: 7440-43-9-Diet

Concentration mg/kg: 3.33E-01 RfDo (mg/kg-day): 1.00E-04 RfCi (mg/m3): 1.00E-05 SFO (mg/kg-day)-1: IUR (µg/m3)-1: 1.80E-03 Mutagen:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion: 2.74E-04	Ingestion: 2.92E-03	Ingestion:
	Dermal: 4.62E-05	Dermal: 2.77E-04	Dermal:
	Inhalation: 1.34E-07	Inhalation: 1.34E-07	Inhalation: 8.97E-13
	Total: 3.20E-04	Total: 3.20E-03	Total: 8.97E-13
% Contribution to Media Risk		1.96%	0.00%

Analyte: Carbazole
CAS: 86-74-8

Concentration mg/kg: 2.42E-01 RfDo (mg/kg-day): RfCi (mg/m3): SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion:	Ingestion:	Ingestion:
	Dermal:	Dermal:	Dermal:
	Inhalation:	Inhalation:	Inhalation:
	Total: 0.00E+00	Total: 0.00E+00	Total: 0.00E+00
% Contribution to Media Risk		0.00%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Chromium(III), Insoluble Salts
CAS: 16065-83-1

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.13E-05	Ingestion: 1.20E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.13E-05	Total: 1.20E-04	Total: 0.00E+00
% Contribution to Media Risk		0.07%	0.07%	0.00%

Analyte: Chrysene
CAS: 218-01-9

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion: 3.09E-10
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal: 1.03E-10
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation: 1.72E-15
Mutagen:		Total: 0.00E+00	Total: 0.00E+00	Total: 4.13E-10
% Contribution to Media Risk		0.00%	0.00%	0.03%

Analyte: Cobalt
CAS: 7440-48-4

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 2.84E-03	Ingestion: 3.03E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 6.96E-06	Inhalation: 6.96E-06	Inhalation: 1.40E-10
Mutagen:		Total: 2.85E-03	Total: 3.03E-02	Total: 1.40E-10
% Contribution to Media Risk		17.45%	18.02%	0.01%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Copper
CAS: 7440-50-8

Concentration mg/kg: 1.55E+02 RfDo (mg/kg-day): 4.00E-02 RfCi (mg/m3): SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion: 3.18E-04	Ingestion: 3.40E-03	Ingestion:
	Dermal:	Dermal:	Dermal:
	Inhalation:	Inhalation:	Inhalation:
	Total: 3.18E-04	Total: 3.40E-03	Total: 0.00E+00
% Contribution to Media Risk		1.95%	2.02%
			0.00%

Analyte: Cresol, o-
CAS: 95-48-7

Concentration mg/kg: 1.30E-01 RfDo (mg/kg-day): 5.00E-02 RfCi (mg/m3): 6.00E-01 SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion: 2.14E-07	Ingestion: 2.28E-06	Ingestion:
	Dermal: 9.02E-08	Dermal: 5.41E-07	Dermal:
	Inhalation: 8.73E-13	Inhalation: 8.73E-13	Inhalation:
	Total: 3.04E-07	Total: 2.82E-06	Total: 0.00E+00
% Contribution to Media Risk		0.00%	0.00%
			0.00%

Analyte: Cresol, p-chloro-m-
CAS: 59-50-7

Concentration mg/kg: 1.19E-01 RfDo (mg/kg-day): 1.00E-01 RfCi (mg/m3): SFO (mg/kg-day)-1: IUR (µg/m3)-1: Mutagen:	Calculated Hazard/Risk		
	Non-Cancer Adult	Non-Cancer Child	Cancer
	Ingestion: 9.78E-08	Ingestion: 1.04E-06	Ingestion:
	Dermal: 4.13E-08	Dermal: 2.48E-07	Dermal:
	Inhalation:	Inhalation:	Inhalation:
	Total: 1.39E-07	Total: 1.29E-06	Total: 0.00E+00
% Contribution to Media Risk		0.00%	0.00%
			0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Cumene
CAS: 98-82-8

Concentration mg/kg:	1.68E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):	1.00E-01	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):	4.00E-01	Ingestion:	1.38E-07	Ingestion:	1.47E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:
IUR (µg/m3)-1:		Inhalation:	3.71E-07	Inhalation:	3.71E-07	Inhalation:
Mutagen:		Total:	5.09E-07	Total:	1.84E-06	Total: 0.00E+00
% Contribution to Media Risk			0.00%	0.00%		0.00%

Analyte: Cyanide (CN-)
CAS: 57-12-5

Concentration mg/kg:	8.26E-01	Calculated Hazard/Risk					
RfDo (mg/kg-day):	6.00E-04	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	8.00E-04	Ingestion:	1.13E-04	Ingestion:	1.21E-03	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:	1.06E-04	Inhalation:	1.06E-04	Inhalation:	
Mutagen:		Total:	2.19E-04	Total:	1.31E-03	Total:	0.00E+00
% Contribution to Media Risk			1.34%	0.78%		0.00%	

Analyte: Dibenz[a,h]anthracene
CAS: 53-70-3

Concentration mg/kg:	1.98E-01	Calculated Hazard/Risk				
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:		Ingestion:		Ingestion: 8.87E-08
SFO (mg/kg-day)-1:	1.00E+00	Dermal:		Dermal:		Dermal: 2.96E-08
IUR (µg/m3)-1:	6.00E-04	Inhalation:		Inhalation:		Inhalation: 4.92E-13
Mutagen:	Y	Total:	0.00E+00	Total:	0.00E+00	Total: 1.18E-07
% Contribution to Media Risk			0.00%	0.00%		8.77%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Dimethylphenol, 2,4-
CAS: 105-67-9

		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
Concentration mg/kg:	2.00E-01	Ingestion: 8.22E-07	Ingestion: 8.77E-06	Ingestion:
RfDo (mg/kg-day):	2.00E-02	Dermal: 3.47E-07	Dermal: 2.08E-06	Dermal:
RfCi (mg/m3):		Inhalation:	Inhalation:	Inhalation:
SFO (mg/kg-day)-1:				
IUR (µg/m3)-1:				
Mutagen:		Total: 1.17E-06	Total: 1.08E-05	Total: 0.00E+00
% Contribution to Media Risk		0.01%	0.01%	0.00%

Analyte: Ethylbenzene
CAS: 100-41-4

		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
Concentration mg/kg:	3.42E-01	Ingestion: 5.62E-07	Ingestion: 6.00E-06	Ingestion: 3.71E-10
RfDo (mg/kg-day):	5.00E-02	Dermal:	Dermal:	Dermal:
RfCi (mg/m3):	1.00E+00	Inhalation: 3.31E-07	Inhalation: 3.31E-07	Inhalation: 3.07E-10
SFO (mg/kg-day)-1:	1.10E-02			
IUR (µg/m3)-1:	2.50E-06			
Mutagen:		Total: 8.93E-07	Total: 6.33E-06	Total: 6.78E-10
% Contribution to Media Risk		0.01%	0.00%	0.05%

Analyte: Fluoranthene
CAS: 206-44-0

		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
Concentration mg/kg:	8.95E-01	Ingestion: 1.84E-06	Ingestion: 1.96E-05	Ingestion:
RfDo (mg/kg-day):	4.00E-02	Dermal: 1.01E-06	Dermal: 6.05E-06	Dermal:
RfCi (mg/m3):		Inhalation:	Inhalation:	Inhalation:
SFO (mg/kg-day)-1:				
IUR (µg/m3)-1:				
Mutagen:		Total: 2.85E-06	Total: 2.57E-05	Total: 0.00E+00
% Contribution to Media Risk		0.02%	0.02%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Fluorene
CAS: 86-73-7

		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
Concentration mg/kg:	2.30E-01			
RfDo (mg/kg-day):	4.00E-02			
RfCi (mg/m3):		Ingestion: 4.73E-07	Ingestion: 5.04E-06	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 2.59E-07	Dermal: 1.56E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 7.32E-07	Total: 6.60E-06	Total: 0.00E+00
% Contribution to Media Risk		0.00%	0.00%	0.00%

Analyte: Indeno[1,2,3-cd]pyrene
CAS: 193-39-5

		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
Concentration mg/kg:	2.82E-01			
RfDo (mg/kg-day):				
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion: 1.26E-08
SFO (mg/kg-day)-1:	1.00E-01	Dermal:	Dermal:	Dermal: 4.21E-09
IUR (µg/m3)-1:	6.00E-05	Inhalation:	Inhalation:	Inhalation: 7.01E-14
Mutagen:	Y	Total: 0.00E+00	Total: 0.00E+00	Total: 1.68E-08
% Contribution to Media Risk		0.00%	0.00%	1.25%

Analyte: Iron
CAS: 7439-89-6

		Calculated Hazard/Risk		
		Non-Cancer Adult	Non-Cancer Child	Cancer
Concentration mg/kg:	6.57E+04			
RfDo (mg/kg-day):	7.00E-01			
RfCi (mg/m3):		Ingestion: 7.71E-03	Ingestion: 8.23E-02	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 7.71E-03	Total: 8.23E-02	Total: 0.00E+00
% Contribution to Media Risk		47.26%	48.92%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: isopropyltoluene
CAS: 99-87-6

Concentration mg/kg:		Calculated Hazard/Risk					
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	8.16E-08	Ingestion:	8.71E-07	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:	1.42E-07	Inhalation:	1.42E-07	Inhalation:	
Mutagen:		Total:	2.23E-07	Total:	1.01E-06	Total:	0.00E+00
% Contribution to Media Risk			0.00%		0.00%		0.00%

Analyte: Lead and Compounds
CAS: 7439-92-1

Concentration mg/kg:		Calculated Hazard/Risk					
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:		Ingestion:		Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:	
Mutagen:		Total:	0.00E+00	Total:	0.00E+00	Total:	0.00E+00
% Contribution to Media Risk			0.00%		0.00%		0.00%

Analyte: Manganese (Diet)
CAS: 7439-96-5-Diet

Concentration mg/kg:		Calculated Hazard/Risk					
RfDo (mg/kg-day):		Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	3.03E-04	Ingestion:	3.23E-03	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:		Inhalation:	4.16E-05	Inhalation:	4.16E-05	Inhalation:	
Mutagen:		Total:	3.45E-04	Total:	3.27E-03	Total:	0.00E+00
% Contribution to Media Risk			2.11%		1.95%		0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Mercury (elemental)
CAS: 7439-97-6

Concentration mg/kg: 5.07E-02		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child		Cancer
RfCi (mg/m3): 3.00E-04		Ingestion:	Ingestion:	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation: 2.67E-05	Inhalation: 2.67E-05	Inhalation:	
Mutagen:		Total: 2.67E-05	Total: 2.67E-05	Total:	0.00E+00
% Contribution to Media Risk		0.16%	0.02%	0.00%	

Analyte: Methyl Ethyl Ketone (2-Butanone)
CAS: 78-93-3

Concentration mg/kg: 5.73E-01		Calculated Hazard/Risk			
RfDo (mg/kg-day): 6.00E-01		Non-Cancer Adult	Non-Cancer Child		Cancer
RfCi (mg/m3): 5.00E+00		Ingestion: 7.85E-08	Ingestion: 8.37E-07	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation: 5.15E-08	Inhalation: 5.15E-08	Inhalation:	
Mutagen:		Total: 1.30E-07	Total: 8.89E-07	Total:	0.00E+00
% Contribution to Media Risk		0.00%	0.00%	0.00%	

Analyte: Methylcyclohexane
CAS: 108-87-2

Concentration mg/kg: 7.39E+00		Calculated Hazard/Risk			
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	Ingestion:	Ingestion:	
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:	
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:	
Mutagen:		Total: 0.00E+00	Total: 0.00E+00	Total:	0.00E+00
% Contribution to Media Risk		0.00%	0.00%	0.00%	

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Methylene Chloride
CAS: 75-09-2

Concentration mg/kg:	6.90E-04	Calculated Hazard/Risk					
RfDo (mg/kg-day):	6.00E-03	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	6.00E-01	Ingestion:	9.45E-09	Ingestion:	1.01E-07	Ingestion:	6.18E-13
SFO (mg/kg-day)-1:	2.00E-03	Dermal:		Dermal:		Dermal:	
IUR (µg/m3)-1:	1.00E-08	Inhalation:	2.88E-09	Inhalation:	2.88E-09	Inhalation:	1.78E-14
Mutagen:	Y	Total:	1.23E-08	Total:	1.04E-07	Total:	6.36E-13
% Contribution to Media Risk			0.00%	0.00%		0.00%	

Analyte: Methylnaphthalene, 1-
CAS: 90-12-0

Concentration mg/kg:	2.18E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	7.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):		Ingestion:	2.56E-06	Ingestion:	2.73E-05	Ingestion:	6.23E-09
SFO (mg/kg-day)-1:	2.90E-02	Dermal:	1.40E-06	Dermal:	8.42E-06	Dermal:	2.28E-09
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:	
Mutagen:		Total:	3.96E-06	Total:	3.57E-05	Total:	8.51E-09
		% Contribution to Media Risk		0.02%		0.63%	

Analyte: Methylnaphthalene, 2-
CAS: 91-57-6

Concentration mg/kg:	3.51E+00	Calculated Hazard/Risk				
RfDo (mg/kg-day):	4.00E-03	Non-Cancer Adult		Non-Cancer Child		Cancer
RfCi (mg/m3):		Ingestion:	7.21E-05	Ingestion:	7.70E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	3.96E-05	Dermal:	2.37E-04	Dermal:
IUR (µg/m3)-1:		Inhalation:		Inhalation:		Inhalation:
Mutagen:		Total:	1.12E-04	Total:	1.01E-03	Total: 0.00E+00
% Contribution to Media Risk			0.68%	0.60%		0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Naphthalene
CAS: 91-20-3

Concentration mg/kg:	2.05E+00	Calculated Hazard/Risk					
RfDo (mg/kg-day):	2.00E-02	Non-Cancer Adult		Non-Cancer Child		Cancer	
RfCi (mg/m3):	3.00E-03	Ingestion:	8.41E-06	Ingestion:	8.97E-05	Ingestion:	2.42E-08
SFO (mg/kg-day)-1:	1.20E-01	Dermal:	4.62E-06	Dermal:	2.77E-05	Dermal:	8.86E-09
IUR (µg/m3)-1:	3.40E-05	Inhalation:	8.07E-05	Inhalation:	8.07E-05	Inhalation:	3.06E-09
Mutagen:		Total:	9.37E-05	Total:	1.98E-04	Total:	3.61E-08
% Contribution to Media Risk		0.57%		0.12%		2.68%	

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Pyrene
CAS: 129-00-0

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 2.41E-06	Ingestion: 2.57E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal: 1.32E-06	Dermal: 7.92E-06	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 3.73E-06	Total: 3.36E-05	Total: 0.00E+00
% Contribution to Media Risk		0.02%	0.02%	0.00%

Analyte: Toluene
CAS: 108-88-3

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 2.13E-06	Ingestion: 2.27E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 5.29E-07	Inhalation: 5.29E-07	Inhalation:
Mutagen:		Total: 2.66E-06	Total: 2.32E-05	Total: 0.00E+00
% Contribution to Media Risk		0.02%	0.01%	0.00%

Analyte: Trimethylbenzene, 1,2,4-
CAS: 95-63-6

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.21E-05	Ingestion: 1.29E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.69E-05	Inhalation: 1.69E-05	Inhalation:
Mutagen:		Total: 2.90E-05	Total: 1.46E-04	Total: 0.00E+00
% Contribution to Media Risk		0.18%	0.09%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Trimethylbenzene, 1,3,5-
CAS: 108-67-8

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 3.59E-06	Ingestion: 3.83E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 6.04E-06	Inhalation: 6.04E-06	Inhalation:
Mutagen:		Total: 9.63E-06	Total: 4.43E-05	Total: 0.00E+00
% Contribution to Media Risk		0.06%	0.03%	0.00%

Analyte: Vanadium and Compounds
CAS: 7440-62-2

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 6.63E-04	Ingestion: 7.08E-03	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 1.63E-06	Inhalation: 1.63E-06	Inhalation:
Mutagen:		Total: 6.65E-04	Total: 7.08E-03	Total: 0.00E+00
% Contribution to Media Risk		4.07%	4.21%	0.00%

Analyte: Xylenes
CAS: 1330-20-7

Concentration mg/kg:		Calculated Hazard/Risk		
RfDo (mg/kg-day):		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 2.67E-06	Ingestion: 2.85E-05	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation: 6.20E-05	Inhalation: 6.20E-05	Inhalation:
Mutagen:		Total: 6.47E-05	Total: 9.05E-05	Total: 0.00E+00
% Contribution to Media Risk		0.40%	0.05%	0.00%

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Soil

Analyte: Zinc and Compounds
CAS: 7440-66-6

Concentration mg/kg: 4.97E+01		Calculated Hazard/Risk		
RfDo (mg/kg-day): 3.00E-01		Non-Cancer Adult	Non-Cancer Child	Cancer
RfCi (mg/m3):		Ingestion: 1.36E-05	Ingestion: 1.45E-04	Ingestion:
SFO (mg/kg-day)-1:		Dermal:	Dermal:	Dermal:
IUR (µg/m3)-1:		Inhalation:	Inhalation:	Inhalation:
Mutagen:		Total: 1.36E-05	Total: 1.45E-04	Total: 0.00E+00
% Contribution to Media Risk		0.08%	0.09%	0.00%

Total Calculated Hazard/Risk for Soil

Non-Cancer Adult		Non-Cancer Child		Cancer	
Ingestion:	1.55E-02	Ingestion:	1.65E-01	Ingestion:	1.12E-06
Dermal:	4.55E-04	Dermal:	2.72E-03	Dermal:	2.23E-07
Inhalation:	3.92E-04	Inhalation:	3.92E-04	Inhalation:	5.89E-09
Total:	1.63E-02	Total:	1.68E-01	Total:	1.35E-06

Report Summary

Hazard/risk values of zero (0.00+00) are reflective of non-calculated values. Hazard/risk for zero value analytes must be evaluated outside of quantitative risk assessment.

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard Adult	Hazard Child	Risk
Acenaphthene	83-32-9	4.37E-07	3.94E-06	0.00E+00
Acenaphthylene	208-96-8	5.94E-07	5.35E-06	0.00E+00
Acetone	67-64-1	1.57E-07	1.68E-06	0.00E+00
Acetophenone	98-86-2	1.24E-07	1.32E-06	0.00E+00
Aluminum	7429-90-5	7.66E-04	8.10E-03	0.00E+00
Anthracene	120-12-7	1.07E-07	9.67E-07	0.00E+00
Antimony (metallic)	7440-36-0	2.76E-04	2.94E-03	0.00E+00
Arsenic, Inorganic	7440-38-2	1.75E-03	1.73E-02	8.91E-07
Barium	7440-39-3	3.05E-05	3.19E-04	0.00E+00
Benz[a]anthracene	56-55-3	0.00E+00	0.00E+00	2.88E-08
Benzene	71-43-2	3.61E-05	1.35E-04	4.95E-09
Benzo(g,h,i)perylene	191-24-2	1.05E-06	9.45E-06	0.00E+00
Benzo[a]pyrene	50-32-8	1.43E-04	1.29E-03	2.01E-07
Benzo[b]fluoranthene	205-99-2	0.00E+00	0.00E+00	3.97E-08
Benzo[k]fluoranthene	207-08-9	0.00E+00	0.00E+00	2.16E-09
Benzoic Acid	65-85-0	3.51E-08	3.25E-07	0.00E+00
Beryllium and compounds	7440-41-7	3.72E-05	3.95E-04	3.23E-12
Bis(2-ethylhexyl)phthalate	117-81-7	1.35E-06	1.25E-05	4.09E-10
Butylbenzene, n-	104-51-8	2.30E-07	2.45E-06	0.00E+00
Cadmium (Diet)	7440-43-9-Diet	3.20E-04	3.20E-03	8.97E-13
Carbazole	86-74-8	0.00E+00	0.00E+00	0.00E+00
Chromium(III), Insoluble Salts	16065-83-1	1.13E-05	1.20E-04	0.00E+00
Chrysene	218-01-9	0.00E+00	0.00E+00	4.13E-10
Cobalt	7440-48-4	2.85E-03	3.03E-02	1.40E-10
Copper	7440-50-8	3.18E-04	3.40E-03	0.00E+00
Cresol, o-	95-48-7	3.04E-07	2.82E-06	0.00E+00
Cresol, p-chloro-m-	59-50-7	1.39E-07	1.29E-06	0.00E+00
Cumene	98-82-8	5.09E-07	1.84E-06	0.00E+00
Cyanide (CN-)	57-12-5	2.19E-04	1.31E-03	0.00E+00
Dibenz[a,h]anthracene	53-70-3	0.00E+00	0.00E+00	1.18E-07
Dimethylphenol, 2,4-	105-67-9	1.17E-06	1.08E-05	0.00E+00
Ethylbenzene	100-41-4	8.93E-07	6.33E-06	6.78E-10

Risk Based Performance Criteria		
Default Hazard Index	Default Risk Individual Chemical	Default Cumulative Risk-All Chemicals
1	1.00E-06	1.00E-04

Hazard/Risk Summary for Soil

Analyte	CAS	Hazard Adult	Hazard Child	Risk
Fluoranthene	206-44-0	2.85E-06	2.57E-05	0.00E+00
Fluorene	86-73-7	7.32E-07	6.60E-06	0.00E+00
Indeno[1,2,3-cd]pyrene	193-39-5	0.00E+00	0.00E+00	1.68E-08
Iron	7439-89-6	7.71E-03	8.23E-02	0.00E+00
isopropyltoluene	99-87-6	2.23E-07	1.01E-06	0.00E+00
Lead and Compounds	7439-92-1	0.00E+00	0.00E+00	0.00E+00
Manganese (Diet)	7439-96-5-Diet	3.45E-04	3.27E-03	0.00E+00
Mercury (elemental)	7439-97-6	2.67E-05	2.67E-05	0.00E+00
Methyl Ethyl Ketone (2-Butanone)	78-93-3	1.30E-07	8.89E-07	0.00E+00
Methylcyclohexane	108-87-2	0.00E+00	0.00E+00	0.00E+00
Methylene Chloride	75-09-2	1.23E-08	1.04E-07	6.36E-13
Methylnaphthalene, 1-	90-12-0	3.96E-06	3.57E-05	8.51E-09
Methylnaphthalene, 2-	91-57-6	1.12E-04	1.01E-03	0.00E+00
Naphthalene	91-20-3	9.37E-05	1.98E-04	3.61E-08
Nickel Soluble Salts	7440-02-0	4.61E-04	4.87E-03	4.31E-11
Phenanthrene	85-01-8	7.20E-06	6.49E-05	0.00E+00
Pyrene	129-00-0	3.73E-06	3.36E-05	0.00E+00
Toluene	108-88-3	2.66E-06	2.32E-05	0.00E+00
Trimethylbenzene, 1,2,4-	95-63-6	2.90E-05	1.46E-04	0.00E+00
Trimethylbenzene, 1,3,5-	108-67-8	9.63E-06	4.43E-05	0.00E+00
Vanadium and Compounds	7440-62-2	6.65E-04	7.08E-03	0.00E+00
Xylenes	1330-20-7	6.47E-05	9.05E-05	0.00E+00
Zinc and Compounds	7440-66-6	1.36E-05	1.45E-04	0.00E+00

Total Hazard/Risk for All Media

Non-Cancer Adult		Non-Cancer Child		Cancer	
Ingestion:	1.55E-02	Ingestion:	1.65E-01	Ingestion:	1.12E-06
Dermal:	4.55E-04	Dermal:	2.72E-03	Dermal:	2.23E-07
Inhalation:	3.92E-04	Inhalation:	3.92E-04	Inhalation:	5.89E-09
Total:	1.63E-02	Total:	1.68E-01	Total:	1.35E-06
<i>does not exceed hazard index</i>		<i>does not exceed hazard index</i>		<i>does not exceed cumulative risk</i>	

Site Name: Alexandria

Trespasser

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

Trespasser Exposure Default Values

Symbol	Description	Value	Units
AF0-02	Soil Adherence Factor - age segment 0-2	0.2	(mg/cm2)
AF02-06	Soil Adherence Factor - age segment 2-6	0.2	(mg/cm2)
AF06-16	Soil Adherence Factor - age segment 6-16	0.07	(mg/cm2)
AF16-26	Soil Adherence Factor - age segment 16-26	0.07	(mg/cm2)
AFsed0-02	Recreator/Trespasser Sediment Adherence Factor - age segment 0-2 - Exposure Factors Handbook	0.3	(mg/cm2)
AFsed02-06	Recreator/Trespasser Sediment Adherence Factor - age segment 2-6 - Exposure Factors Handbook	0.3	(mg/cm2)
AFsed06-16	Recreator/Trespasser Sediment Adherence Factor - age segment 6-16 - Exposure Factors Handbook	0.2	(mg/cm2)
AFsed16-26	Recreator/Trespasser Sediment Adherence Factor - age segment 16-26 - Exposure Factors Handbook	0.2	(mg/cm2)
AFtrs-a	Trespasser Soil Adherence Factor- adult	0.07	(mg/cm2)
AFtrs-c	Trespasser Soil Adherence Factor - child	0.2	(mg/cm2)
AFtrs-sed-a	Trespasser Sediment Adherence Factor - adult - Exposure Factors Handbook	0.2	(mg/cm2)
AFtrs-sed-c	Trespasser Sediment Adherence Factor - child - Exposure Factors Handbook	0.3	(mg/cm2)
ATtrs	Trespasser Averaging Time	365	(days/yr)
ATtrs	Trespasser Averaging Time: 365 x LT	25550	(days)
ATtrs-a	Trespasser Averaging Time - adult: 365 x EDtrs-a	7300	(days)
ATtrs-c	Trespasser Averaging Time - child: 365 x EDtrs-c	2190	(days)
BW0-02	Body Weight - age segment 0-2	15	(kg)
BW02-06	Body Weight - age segment 2-6	15	(kg)
BW06-16	Body Weight - age segment 6-16	80	(kg)
BW16-26	Body Weight - age segment 16-26	80	(kg)
BWtrs-a	Trespasser Body Weight - adult	80	(kg)
BWtrs-c	Trespasser Body Weight - child	15	(kg)
DFSMtrs-adj	Trespasser Soil Mutagenic Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	29366.4	(mg/kg)
DFSMtrs-sed-adj	Trespasser Sediment Mutagenic Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	50926.08	(mg/kg)
DFStrs-adj	Trespasser Soil Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	7089.6	(mg/kg)

Site Name: Alexandria

Trespasser

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

DFStrs-sed-adj	Trespasser Sediment Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	14072.64(mg/kg)
DFWMtrs-adj	Trespasser Surface Water Mutagenic Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	561712(cm2-event/kg)
DFWtrs-adj	Trespasser Surface Water Dermal Contact Factor - age adjusted - Virginia DEQ calculated using age-segment values	179016(cm2-event/kg)
ED0-02	Exposure Duration - age segment 0-2	2(yrs)
ED02-06	Exposure Duration - age segment 2-6	4(yrs)
ED06-16	Exposure Duration -age segment 6-16	10(yrs)
ED16-26	Exposure Duration -age segment 16-26	10(yrs)
EDtrs	Trespasser Soil/Sediment Exposure Duration	26(yrs)
EDtrs-a	Trespasser Soil/Sediment Exposure Duration - adult	20(yrs)
EDtrs-c	Trespasser Soil/Sediment Exposure Duration - child	6(yrs)
EFtrs	Trespasser Exposure Frequency - Virginia DEQ	24(days/yr)
EFtrs0-02	Trespasser Exposure Frequency - age segment 0-2 - Virginia DEQ	24(days/yr)
EFtrs02-06	Trespasser Exposure Frequency - age segment 2-6 - Virginia DEQ	24(days/yr)
EFtrs06-16	Trespasser Exposure Frequency - age segment 6-16 - Virginia DEQ	24(days/yr)
EFtrs16-26	Trespasser Exposure Frequency - age segment 16-26 - Virginia DEQ	24(days/yr)
EFtrs-a	Trespasser Exposure Frequency - adult - Virginia DEQ	24(days/yr)
EFtrs-c	Trespasser Exposure Frequency - child - Virginia DEQ	24(days/yr)
ETevent-rec/trs(0-02)	Recreator/Trespasser Exposure Time - age segment 0-2 - Virginia DEQ	2(hrs/event)
ETevent-rec/trs(02-06)	Recreator/Trespasser Exposure Time - age segment 2-6 - Virginia DEQ	2(hrs/event)
ETevent-rec/trs(06-16)	Recreator/Trespasser Exposure Time - age segment 6-16 - Virginia DEQ	2(hrs/event)
ETevent-rec/trs(16-26)	Recreator/Trespasser Exposure Time - age segment 16-26 - Virginia DEQ	2(hrs/event)
ETevent-trs-a	Trespasser Surface Water Exposure Time - adult - Virginia DEQ	2(hrs/event)
ETevent-trs-adj	Trespasser Exposure Time - age adjusted - Virginia DEQ calculated using age-segment values	2(hrs/event)
ETevent-trs-c	Trespasser Surface Water Exposure Time - child - Virginia DEQ	2(hrs/event)
ETevent-trs-madj	Trespasser Exposure Time - mutagen age adjusted - Virginia DEQ calculated using age-segment values	2(hrs/event)
ETrec/trs0-02	Recreator/Trespasser Exposure Time - age segment 0-2 - Virginia DEQ	2(hrs/day)

Site Name: Alexandria

Trespasser

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

ETrec/trs02-06	Recreator/Trespasser Exposure Time - age segment 2-6 - Virginia DEQ	2 (hrs/day)
ETrec/trs06-16	Recreator/Trespasser Exposure Time - age segment 6-16 - Virginia DEQ	2 (hrs/day)
ETrec/trs16-26	Recreator/Trespasser Exposure Time - age segment 16-26 - Virginia DEQ	2 (hrs/day)
ETtrs	Trespasser Soil Exposure Time - Virginia DEQ	2 (hrs/day)
ETtrs-a	Trespasser Exposure Time - adult - Virginia DEQ	2 (hrs/day)
ETtrs-c	Trespasser Exposure Time - child - Virginia DEQ	2 (hrs/day)
ETtrs-sed	Trespasser Sediment Exposure Time - Virginia DEQ	2 (hrs)
EV0-02	Events - age segment 0-2	1 (events/day)
EV02-06	Events - age segment 2-6	1 (events/day)
EV06-16	Events - age segment 6-16	1 (events/day)
EV16-26	Events - age segment 16-26	1 (events/day)
EVtrs-a	Trespasser Events - adult - Virginia DEQ	1 (events/day)
EVtrs-c	Trespasser Surface Water Events - child - Virginia DEQ	1 (events/day)
IFMtrs-sed-adj	Trespasser Mutagenic Sediment Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	11440 (mg/kg)
IFSMtrs-adj	Trespasser Mutagenic Soil Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	11440 (mg/kg)
IFStrs-adj	Trespasser Soil Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	2520 (mg/kg)
IFStrs-sed-adj	Trespasser Sediment Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	2520 (mg/kg)
IFWMtrs-adj	Trespasser Mutagenic Surface Water Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	15.111 (L/kg)
IFWtrs-adj	Trespasser Surface Water Ingestion Rate - age adjusted - Virginia DEQ calculated using age-segment values	3.624 (L/kg)
INHMtrs-sed-adj	Trespasser Sediment Inhalation Exposure Duration Mutagen - age adjusted - Virginia DEQ calculated using age-segment values	144 (days)
INHMtrs-soil-adj	Trespasser Soil Inhalation Exposure Duration Mutagen - age adjusted - Virginia DEQ calculated using age-segment values	144 (days)
IRS0-02	Soil/Sediment Ingestion Rate - age segment 0-2	200 (mg/day)
IRS02-06	Soil/Sediment Ingestion Rate - age segment 2-6	200 (mg/day)
IRS06-16	Soil/Sediment Ingestion Rate - age segment 6-16	100 (mg/day)
IRS16-26	Soil/Sediment Ingestion Rate - age segment 16-26	100 (mg/day)
IRStrs-a	Trespasser Soil Ingestion Rate - adult	100 (mg/day)

Site Name: Alexandria

Trespasser

Program: Voluntary Remediation Program (VRP)

Risk Based Performance Criteria

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

IRStrs-c	Trespasser Soil Ingestion Rate - child	200 (mg/day)
IRtrs-sed-a	Trespasser Sediment Ingestion Rate - adult	100 (mg/day)
IRtrs-sed-c	Trespasser Sediment Ingestion Rate - child	200 (mg/day)
IRW0-02	Surface Water Ingestion Rate - age segment 0-2	0.12 (L/hr)
IRW02-06	Surface Water Ingestion Rate - age segment 2-6	0.12 (L/hr)
IRW06-16	Surface Water Ingestion Rate - age segment 6-16	0.124 (L/hr)
IRW16-26	Surface Water Ingestion Rate - age segment 16-26	0.0985 (L/hr)
IRWtrs-a	Trespasser Surface Water Ingestion Rate - adult	0.11 (L/hr)
IRWtrs-c	Trespasser Surface Water Ingestion Rate - child	0.12 (L/hr)
SAs0-02	Surface Area Soil/Sediment - age segment 0-2	2373 (cm2/day)
SAs02-06	Surface Area Soil/Sediment - age segment 2-6	2373 (cm2/day)
SAs06-16	Surface Area Soil/Sediment - age segment 6-16	6032 (cm2/day)
SAs16-26	Surface Area Soil/Sediment - age segment 16-26	6032 (cm2/day)
SATrs-a	Trespasser Soil Surface Area - adult	6032 (cm2/day)
SATrs-a	Trespasser Surface Water Surface Area Surface - adult	19652 (cm2)
SATrs-c	Trespasser Surface Water Surface Area - child	6365 (cm2)
SATrs-c	Trespasser Soil Surface Area - child	2373 (cm2/day)
SATrs-sed-a	Trespasser Sediment Surface Area - adult	6032 (cm2/day)
SATrs-sed-c	Trespasser Sediment Surface Area - child	2373 (cm2/day)
SAw0-02	Surface Area Water - age segment 0-2	6365 (cm2)
SAw02-06	Surface Area Water - age segment 2-6	6365 (cm2)
SAw06-16	Surface Area Water - age segment 6- 16	19652 (cm2)
SAw16-26	Surface Area Water - age segment 16- 26	19652 (cm2)

END OF REPORT