Earth Systems
Environmental Engineering

June 3, 2020

Re: Replacement Analytical Data Tables & Figures
Supplemental Remedial Investigation Workplan (RIW)
AOC 12: Smith Creek and Detention Basin
Hess Corporation Former Port Reading Complex (HC-PR)
750 Cliff Road
Port Reading, Middlesex County, New Jersey
Program Interest No. 006148
NJDEP ISRA Case No. E20130449
EPA ID No. NJD045445483

As discussed during the May 15, 2020 conference call between the New Jersey Department of Enviornental Protection (NJDEP), Hess Corporation (Hess), and Earth Systems, the following figures and tables have been revised to provide additional clarification for data analysis purposes. These figures and tables replace the original tables and figures included in the RIW submitted on February 28, 2020. The following is a summary of the new tables and figures included with this memo.

| New Table/Figure Title | Replaces Table/Figure |
|---|---|
| Table 5a(R) – Detention Basin Sediment Screening | Table 5a & Appendix E: Table 1 |
| Table 5b(R) – Smith Creek & Smith Creek Pond Sediment Analytical Results | Table 5b, Table 5c, Appendix E: Table 3, & Appendix E: Table 5 |
| Table 5c – Detention Basin Deep Sediment Analytical Results | Not Applicable |
| Table 5d – Smith Creek & Smith Creek Pond Deep Sediment Analytical Results | Not Applicable |
| Table 6a(R) – Detention Basin Surface Water Analytical Results | Table 6a & Appendix E: Table 2 |
| Table 6b(R) – Smith Creek & Smith Creek Pond Surface Water Analytical Results | Table 6b, Appendix E: Table 4, & Appendix E: Table 6 |
| Figure 9.1a(R) – Detention Basin Sediment Results - VOCs | Figure 9.1a |
| Figure 9.1b(R) – Smith Creek & Smith Creek Pond Sediment Results - VOCs | Figure 9.1b |
| Figure 9.1c – Detention Basin Deep Sediment Results | Not Applicable |
| Figure 9.1d – Smith Creek & Smith Creek Pond Deep Sediment Results | Not Applicable |

| | |
|---|---|
| Figure 9.2a(R) – Detention Basin Sediment Results – SVOCs/EPH | Figure 9.2a |
| Figure 9.2b(R) – Smith Creek & Smith Creek Pond Sediment Results – SVOCs/EPH | Figure 9.2b |
| Figure 9.3a(R) – Detention Basin Sediment Results - Metals | Figure 9.3a |
| Figure 9.3b(R) – Smith Creek & Smith Creek Pond Sediment Results - Metals | Figure 9.3b |
| Figure 10(R) – Surface Water Analytical Exceedances – VOCs, SVOCs, Metals | Figure 10 |

The following is a brief summary of Contaminants of Potential Ecological Concern (COPEC) that have been highlighted on the attached tables and figures. As explained in the RIW, compounds have been retained as potential COPECs if they were detected at a concentration that exceeded an ecological criteria or if they were detected at any concentration in the sample and there is no ecological criteria to compare to the analytical results.

**Table 5a(R) – Detention Basin Sediment Analytical Results**

The following is a list of the compounds considered COPECs based on the detention basin sediment analytical results.

| Compound | COPEC Reason | Compound Group |
|---|---|---|
| Acetone | No Criteria | VOCs |
| 2-Butanone (MEK) | No Criteria | VOCs |
| Cyclohexane | No Criteria | VOCs |
| cis-1,2-Dichloroethene | No Criteria | VOCs |
| Methyl Acetate | No Criteria | VOCs |
| Methylcyclohexane | No Criteria | VOCs |
| Methyl Tert Butyl Ether | No Criteria | VOCs |
| m,p-Xylene | No Criteria | VOCs |
| o-Xylene | No Criteria | VOCs |
| Total TIC, Volatile | No Criteria | VOCs |
| Benzene | Results > Criteria | VOCs |
| Carbon disulfide | Results > Criteria | VOCs |
| Isopropylbenzene | Results > Criteria | VOCs |
| Xylene (total) | Results > Criteria | VOCs |
| Total TIC, Semi-Volatile | No Criteria | SVOCs |
| Total EPH | No Criteria | SVOCs |
| 3&4-Methylphenol | Results > Criteria | SVOCs |
| Phenol | Results > Criteria | SVOCs |
| Acenaphthene | Results > Criteria | SVOCs |
| Acenaphthylene | Results > Criteria | SVOCs |
| Anthracene | Results > Criteria | SVOCs |
| Benzo(a)anthracene | Results > Criteria | SVOCs |
| Benzo(a)pyrene | Results > Criteria | SVOCs |
| Benzo(g,h,i)perylene | Results > Criteria | SVOCs |
| Chrysene | Results > Criteria | SVOCs |
| Dibenzo(a,h)anthracene | Results > Criteria | SVOCs |
| Dibenzofuran | Results > Criteria | SVOCs |
| bis(2-Ethylhexyl)phthalate | Results > Criteria | SVOCs |
| Fluoranthene | Results > Criteria | SVOCs |
| Fluorene | Results > Criteria | SVOCs |
| Indeno(1,2,3-cd)pyrene | Results > Criteria | SVOCs |
| 2-Methylnaphthalene | Results > Criteria | SVOCs |
| Naphthalene | Results > Criteria | SVOCs |
| Phenanthrene | Results > Criteria | SVOCs |
| Pyrene | Results > Criteria | SVOCs |
| Total PAHs | Results > Criteria | SVOCs |
| Barium | No Criteria | Metals |
| Beryllium | No Criteria | Metals |
| Vanadium | No Criteria | Metals |
| Aluminum | Results > Criteria | Metals |
| Arsenic | Results > Criteria | Metals |
| Cadmium | Results > Criteria | Metals |
| Chromium | Results > Criteria | Metals |
| Copper | Results > Criteria | Metals |
| Iron | Results > Criteria | Metals |
| Lead | Results > Criteria | Metals |
| Mercury | Results > Criteria | Metals |
| Nickel | Results > Criteria | Metals |
| Selenium | Results > Criteria | Metals |
| Silver | Results > Criteria | Metals |
| Zinc | Results > Criteria | Metals |
| Chloride | No Criteria | General Chemistry |
| Ammonia | No Criteria | General Chemistry |
| Nitrogen, Nitrite | No Criteria | General Chemistry |

## Table 5b(R) – Smith Creek & Smith Creek Pond Sediment Analytical Results

The following is a list of the compounds considered COPECs based on Smith Creek and Smith Creek Pond sediment analytical results.

| Compound | COPEC Reason | Compound Group |
|---|---|---|
| Acetone | No Criteria | VOCs |
| 2-Butanone (MEK) | No Criteria | VOCs |
| Carbon disulfide | No Criteria | VOCs |
| m,p-Xylene | No Criteria | VOCs |
| o-Xylene | No Criteria | VOCs |
| Total TIC, Volatile | No Criteria | VOCs |
| Benzaldehyde | No Criteria | SVOCs |
| Carbazole | No Criteria | SVOCs |
| Total TIC, Semi-Volatile | No Criteria | SVOCs |
| Total EPH | No Criteria | SVOCs |
| Acenaphthylene | Results > Criteria | SVOCs |
| Anthracene | Results > Criteria | SVOCs |
| Benzo(a)anthracene | Results > Criteria | SVOCs |
| Benzo(g,h,i)perylene | Results > Criteria | SVOCs |
| Dibenzo(a,h)anthracene | Results > Criteria | SVOCs |
| bis(2-Ethylhexyl)phthalate | Results > Criteria | SVOCs |
| Fluoranthene | Results > Criteria | SVOCs |
| Fluorene | Results > Criteria | SVOCs |
| Indeno(1,2,3-cd)pyrene | Results > Criteria | SVOCs |
| 2-Methylnaphthalene | Results > Criteria | SVOCs |
| Naphthalene | Results > Criteria | SVOCs |
| Phenanthrene | Results > Criteria | SVOCs |
| Pyrene | Results > Criteria | SVOCs |
| Total PAHs | Results > Criteria | SVOCs |
| Antimony | No Criteria | Metals |
| Barium | No Criteria | Metals |
| Beryllium | No Criteria | Metals |
| Vanadium | No Criteria | Metals |
| Aluminum | Results > Criteria | Metals |
| Arsenic | Results > Criteria | Metals |
| Cadmium | Results > Criteria | Metals |
| Chromium | Results > Criteria | Metals |
| Copper | Results > Criteria | Metals |
| Iron | Results > Criteria | Metals |
| Lead | Results > Criteria | Metals |
| Mercury | Results > Criteria | Metals |
| Nickel | Results > Criteria | Metals |
| Silver | Results > Criteria | Metals |
| Zinc | Results > Criteria | Metals |
| Chloride | No Criteria | General Chemistry |
| Ammonia | No Criteria | General Chemistry |

**Table 6a(R) – Detention Basin Surface Water Analytical Results**

The following is a list of the compounds considered COPECs based on the detention basin surface water analytical results.

| Compound | COPEC Reason | Compound Group |
|---|---|---|
| Total TIC, Semi-Volatile | No Criteria | SVOCs |
| Aluminum | No Criteria | Metals |
| Copper | Resutls > Criteria | Metals |
| Iron | Resutls > Criteria | Metals |
| Lead | Resutls > Criteria | Metals |
| Chloride | Resutls > Criteria | General Chemistry |
| Nitrogen, Nitrate | No Criteria | General Chemistry |
| Nitrogen, Nitrate + Nitrite | No Criteria | General Chemistry |

**Table 6b(R) – Smith Creek & Smith Creek Pond Surface Water Analytical Results**

The following is a list of the compounds considered COPECs based on Smith Creek and Smith Creek Pond surface water analytical results.

| Compound | COPEC Reason | Compound Group |
|---|---|---|
| m,p-Xylene | No Criteria | VOCs |
| Methylcyclohexane | No Criteria | VOCs |
| Total TIC, Semi-Volatile | No Criteria | SVOCs |
| Chrysene | No Criteria | SVOCs |
| Anthracene | Results > Criteria | SVOCs |
| Benzo(a)anthracene | Results > Criteria | SVOCs |
| Pyrene | Results > Criteria | SVOCs |
| bis(2-Ethylhexyl)phthalate | Results > Criteria | SVOCs |
| Aluminum | No Criteria | Metals |
| Manganese | No Criteria | Metals |
| Potassium | No Criteria | Metals |
| Silver | Results > Criteria | Metals |
| Copper | Results > Criteria | Metals |
| Chloride | Results > Criteria | General Chemistry |
| Nitrogen, Ammonia | No Criteria | General Chemistry |
| Nitrogen, Nitrate | No Criteria | General Chemistry |
| Nitrogen, Nitrate + Nitrite | No Criteria | General Chemistry |
| Nitrogen, Nitrite | No Criteria | General Chemistry |

**Tables 5c & 5d – Detention Basin, Smith Creek, & Smith Creek Pond Deep Sediment Results**

Sediment samples were collected from three (3) depth intervals within the detention basin, Smith Creek, and Smith Creek Pond. Surficial sediment data was the only data utilized as part of the ecological evaluation and the deeper sediment analytical results were not included in the Supplemental RIW. For informational purposes, the deeper analytical data has been included with this memo. The analytical data will be fully discussed in the final Remedial Investigation Report for AOC 12.

The deeper sediment samples were collected as part of an evaluation of potential impacts from historic releases. The deeper samples were compared to NJDEP Soil Remediation Standards since they were not collected for ecological purposes. The deeper sediment

results are summarized on the attached **Tables 5c** and **5d**, as well as **Figure 9.1c** and **9.1d**.

The following table summarizes the analytical results for the deeper sediment samples collected from the detention basin.

| Sample ID | Sample Depth | Sample Date | Benzene | Naphthalene | Arsenic | Lead | Vanadium |
|---|---|---|---|---|---|---|---|
| **NJDEP NRSRS (ppm)** | | | 5 | 17 | 19 | 800 | 1100 |
| **NJDEP RSRS (ppm)** | | | 2 | 6 | 19 | 400 | 78 |
| **SB-1M** | **2.5-3.0** | **11/9/2018** | 0.0042 | 0.135 | 161 | 301 | 201 |
| **SB-1B** | **5.5-6.0** | **11/9/2018** | ND (0.00087) | 0.0204 J | 17.5 | 58.9 | 58.4 |
| **SB-2M** | **2.5-3.0** | **11/9/2018** | ND (0.035) | 1.06 | 19 | 57.2 | 54.7 |
| **SB-2B** | **5.0-5.4** | **11/9/2018** | 0.0017 | 0.147 | 12000 | 437 | 51.8 |
| **SB-3M** | **3.5-4.0** | **11/9/2018** | ND (0.0010) | ND (0.020) | 12000 | 18.9 | 47.8 |
| **SB-3B** | **7.0-7.5** | **11/9/2018** | ND (0.00094) | ND (0.017) | 14.4 | 17.2 | 45.9 |
| **SB-4M** | **1.5-2.0** | **11/9/2018** | 11.8 | ND (0.20) | 53.7 | 321 | 405 |
| **SB-4B** | **3.5-4.0** | **11/9/2018** | 0.279 | 0.129 | 116 | 179 | 82.4 |
| **SB-5M** | **3.5-4.0** | **11/9/2018** | ND (0.0028) | ND (0.045) | 12.5 | 12.7 | 58.1 |
| **SB-5B** | **7.0-7.5** | **11/9/2018** | ND (0.0011) | ND (0.019) | 27.6 | 16.7 | 50.8 |
| **SB-6M** | **3.5-4.0** | **11/9/2018** | ND (0.00078) | 0.0388 J | 26.2 | 111 | 61 |
| **SB-6B** | **6.5-7.0** | **11/9/2018** | ND (0.00087) | ND (0.018) | 19.6 | 19.4 | 52.5 |
| **SB-7M** | **2.5-3.0** | **11/9/2018** | 0.0872 | ND (0.028) | 15.8 | 26.9 | 66.6 |
| **SB-7B** | **5.5-6.0** | **11/9/2018** | 0.0436 | ND (0.019) | 12.4 | 16 | 47.7 |
| **SB-8M** | **3.5-4.0** | **11/9/2018** | 0.0015 J | ND (0.023) | 14.2 | 20.2 | 51.4 |
| **SB-8B** | **6.0-6.5** | **11/9/2018** | ND (0.0011) | ND (0.020) | 18.1 | 16 | 50.3 |
| **SB-9M** | **3.5-4.0** | **11/12/2018** | 0.0269 | ND (0.029) | 20.7 | 14.6 | 52.5 |
| **SB-9B** | **6.5-7.0** | **11/12/2018** | ND (0.0010) | ND (0.019) | 22.5 | 14.4 | 47.4 |
| **SB-10M** | **3.5-4.0** | **11/12/2018** | ND (0.032) | 0.0744 | 63.8 | 142 | 63.3 |
| **SB-10B** | **6.5-7.0** | **11/12/2018** | 0.0026 | 0.0217 J | 83.4 | 44.9 | 120 |
| **SB-11M** | **3.5-4.0** | **11/12/2018** | 12.6 | 42.4 | 70.1 | 212 | 242 |
| **SB-11B** | **6.5-7.0** | **11/12/2018** | 0.0093 | 0.0459 J | 32.7 | 77.8 | 55.8 |
| **SB-12M** | **3.5-4.0** | **11/12/2018** | ND (0.0034) | ND (0.057) | 33.4 | 62.9 | 84.5 |
| **SB-12B** | **6.5-7.0** | **11/12/2018** | ND (0.0030) | ND (0.048) | <11 | 25.1 | 50.7 |

ND – Non-Detect, J – Estimated Concentration

The following table summarizes the analytical results from the deeper sediment samples collected from Smith Creek and Smith Creek Pond.

| Sample ID | Sample Depth | Sample Date | Arsenic | Lead | Vanadium |
|---|---|---|---|---|---|
| NJDEP NRSRS (ppm) | | | 19 | 800 | 1100 |
| NJDEP RSRS (ppm) | | | 19 | 400 | 78 |
| SS-13B | 3.0-3.5 | 2/26/2019 | 10.7 | 16.3 | 47.1 |
| SS-13C | 6.0-6.5 | 2/26/2019 | 16.7 | 16.1 | 51.8 |
| SS-14B | 3.5-4.0 | 2/27/2019 | 28.4 | 39 | 65.1 |
| SS-14C | 7.0-7.5 | 2/27/2019 | 21.7 | 31.6 | 61.3 |
| SS-15B | 4.0-4.5 | 2/26/2019 | 9.5 | 16.8 | 48.7 |
| SS-15C | 7.5-8.0 | 2/26/2019 | 12.4 | 16.7 | 49.9 |
| SS-16B | 2.5-3.0 | 2/28/2019 | 13.4 | 23.8 | 50.9 |
| SS-16C | 5.5-6.0 | 2/28/2019 | 16.2 | 20.7 | 58.4 |
| SS-17B | 2.5-3.0 | 2/28/2019 | 57.7 | 242 | 151 |
| SS-17C | 5.5-6.0 | 2/28/2019 | 39.2 | 74.7 | 96.1 |
| SS-18B | 2.5-3.0 | 2/28/2019 | 141 | 366 | 102 |
| SS-18C | 5.0-5.5 | 2/28/2019 | 101 | 207 | 183 |
| SS-19B | 3.0-3.5 | 3/1/2019 | 9 | 24.2 | 55.6 |
| SS-19C | 6.5-7.0 | 3/1/2019 | 9.3 | 17.2 | 51.9 |
| SS-20B | 6.0-6.5 | 3/1/2019 | 45.6 | 82.6 | 136 |
| SS-20C | 3.0-3.5 | 3/1/2019 | 101 | 95.4 | 488 |
| SS-21B | 2.5-3.0 | 3/1/2019 | 19.6 | 20.1 | 72 |
| SS-21C | 5.5-6.0 | 3/1/2019 | 22.8 | 17.4 | 51.9 |
| SS-22B | 3.0-3.5 | 3/5/2019 | 10.9 | 16.4 | 49.9 |
| SS-22C | 6.5-7.0 | 3/5/2019 | 11.6 | 15.7 | 47.2 |
| SS-23B | 2.0-2.5 | 3/5/2019 | 88.8 | 180 | 89.9 |
| SS-23C | 4.5-5.0 | 3/5/2019 | 96.2 | 32.2 | 122 |
| SS-24B | 3.0-3.5 | 3/5/2019 | 76.4 | 181 | 95.9 |
| SS-24C | 6.0-6.5 | 3/5/2019 | 100 | 41.2 | 119 |
| SS-25B | 2.0-2.5 | 2/21/2019 | 8.3 | 18.2 | 62.3 |
| SS-25C | 3.5-4.0 | 2/21/2019 | 18.2 | 31 | 75.6 |
| SS-26B | 2.0-2.5 | 2/22/2019 | 34.7 | 23.5 | 143 |
| SS-26C | 3.5-4.0 | 2/22/2019 | 36.2 | 22 | 144 |
| SS-27B | 2.5-3.0 | 2/21/2019 | 86.5 | 226 | 105 |
| SS-28C | 4.5-5.0 | 2/21/2019 | 12.3 | 18.7 | 64.9 |
| SS-29B | 2.0-2.5 | 2/22/2019 | 64.4 | 297 | 428 |
| SS-29C | 3.5-4.0 | 2/22/2019 | 123 | 179 | 221 |
| SS-30B | 2.0-2.5 | 2/21/2019 | 17.9 | 36.1 | 66.3 |
| SS-30C | 3.5-4.0 | 2/21/2019 | 11.1 | 26.7 | 65.5 |
| SS-31B | 2.5-3.0 | 2/22/2019 | 28.8 | 61.4 | 59 |
| SS-31C | 5.0-5.5 | 2/22/2019 | 30.8 | 72.1 | 71.2 |
| SS-32B | 2.5-3.0 | 2/22/2019 | 22.1 | 67.1 | 51.5 |
| SS-32C | 4.5-5.0 | 2/22/2019 | 12.9 | 89.5 | 49.2 |
| SS-33B | 1.0-1.5 | 2/21/2019 | 11.7 | 66.5 | 61.6 |
| SS-33C | 1.5-2.0 | 2/21/2019 | 11.1 | 22.4 | 57.5 |
| SS-34B | 2.5-3.0 | 2/22/2019 | 139 | 370 | 113 |
| SS-34C | 4.5-5.0 | 2/22/2019 | 175 | 527 | 58.1 |
| SS-35B | 2.0-2.5 | 2/22/2019 | 92.7 | 40.7 | 517 |
| SS-35C | 3.5-4.0 | 2/22/2019 | 96.6 | 40.4 | 177 |

# TABLES

Table 5a(R)
Detention Basin Sediment Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, NJ

| Client Sample ID: | NJDEP Ecological Sediment - FreshWater Screening Criterion (ER-L or LEL) | | SB-1T | SB-2T | SB-3T | SB-4T | SB-5T | SB-6T | SB-7T | SB-8T | SB-9T | SB-10T | SB-11T | SB-12T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC77657-1 | JC77657-4 | JC77657-7 | JC77657-12 | JC77657-15 | JC77657-18 | JC77657-21 | JC77657-24 | JC77814-3 | JC77814-6 | JC77814-9 | JC77814-12 |
| Date Sampled: | | | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 |
| Matrix: | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | |
| Acetone | NC | mg/kg | ND (1.7) | 0.112 | 0.233 | 1.31 | 0.249 | 0.205 | 0.189 | 0.465 | 0.297 | 0.236 | ND (0.78) | 0.137 |
| Benzene | 0.142 | mg/kg | ND (0.13) | ND (0.00097) | 0.0064 | 0.0076 | 0.0202 | 0.0059 | 0.0284 | 0.0165 | 0.0255 | 0.0035 | 0.614 | 0.0093 |
| Bromochloromethane | NC | mg/kg | ND (0.14) | ND (0.0011) | ND (0.0023) | ND (0.0034) | ND (0.0058) | ND (0.0016) | ND (0.0018) | ND (0.0038) | ND (0.0033) | ND (0.0020) | ND (0.067) | ND (0.0021) |
| Bromodichloromethane | NC | mg/kg | ND (0.15) | ND (0.0011) | ND (0.0023) | ND (0.0035) | ND (0.0060) | ND (0.0016) | ND (0.0019) | ND (0.0039) | ND (0.0034) | ND (0.0021) | ND (0.069) | ND (0.0022) |
| Bromoform | 0.492 | mg/kg | ND (0.13) | ND (0.0010) | ND (0.0021) | ND (0.0031) | ND (0.0054) | ND (0.0015) | ND (0.0017) | ND (0.0035) | ND (0.0031) | ND (0.0019) | ND (0.063) | ND (0.0020) |
| Bromomethane | 0.00137 | mg/kg | ND (0.33) | ND (0.0026) | ND (0.0053) | ND (0.0078) | ND (0.013) | ND (0.0037) | ND (0.0042) | ND (0.0088) | ND (0.0076) | ND (0.0046) [e] | ND (0.15) | ND (0.0049) |
| 2-Butanone (MEK) | NC | mg/kg | ND (1.2) | 0.0212 J | 0.0493 J | 0.114 | ND (0.050) | 0.0422 | 0.0360 J | 0.102 | 0.0636 J | 0.0493 | ND (0.58) | 0.0267 J |
| Carbon disulfide | 0.000851 | mg/kg | ND (0.31) | 0.0024 J | 0.0095 J | 0.0227 | 0.0404 | 0.0042 J | ND (0.0040) | 0.0156 J | 0.0144 J | 0.0052 J | ND (0.14) | 0.0114 |
| Carbon tetrachloride | 1.45 | mg/kg | ND (0.18) | ND (0.0014) | ND (0.0029) | ND (0.0043) | ND (0.0074) | ND (0.0020) | ND (0.0023) | ND (0.0048) | ND (0.0042) | ND (0.0026) | ND (0.086) | ND (0.0027) |
| Chlorobenzene | 0.291 | mg/kg | ND (0.12) | ND (0.00091) | ND (0.0019) | ND (0.0028) | ND (0.0048) | ND (0.0013) | ND (0.0015) | ND (0.0031) | ND (0.0027) | 0.0030 J | 0.0611 J | ND (0.0017) |
| Chloroethane | NC | mg/kg | ND (0.23) | ND (0.0018) | ND (0.0036) | ND (0.0054) | ND (0.0093) | ND (0.0025) | ND (0.0029) | ND (0.0060) | ND (0.0053) | ND (0.0032) [a] | ND (0.11) | ND (0.0033) |
| Chloroform | 0.121 | mg/kg | ND (0.12) | ND (0.00096) | ND (0.0020) | ND (0.0029) | ND (0.0050) | ND (0.0014) | ND (0.0016) | ND (0.0033) | ND (0.0028) | ND (0.0017) | ND (0.058) | ND (0.0018) |
| Chloromethane | NC | mg/kg | ND (0.65) | ND (0.0051) | ND (0.010) | ND (0.015) | ND (0.026) | ND (0.0072) | ND (0.0084) | ND (0.017) | ND (0.015) | ND (0.0091) | ND (0.30) | ND (0.0096) |
| Cyclohexane | NC | mg/kg | 0.513 J | 0.0013 J | ND (0.0021) | 0.0556 | 0.0062 J | 0.0535 | 0.0030 J | ND (0.0036) | 0.0546 | ND (0.0019) | 0.210 J | ND (0.0020) |
| 1,2-Dibromo-3-chloropropane | NC | mg/kg | ND (0.28) | ND (0.0022) | ND (0.0044) | ND (0.0065) | ND (0.011) | ND (0.0031) | ND (0.0036) | ND (0.0074) | ND (0.0064) | ND (0.0039) | ND (0.13) | ND (0.0041) |
| Dibromochloromethane | NC | mg/kg | ND (0.11) | ND (0.00087) | ND (0.0018) | ND (0.0026) | ND (0.0046) | ND (0.0012) | ND (0.0014) | ND (0.0030) | ND (0.0026) | ND (0.0016) | ND (0.053) | ND (0.0016) |
| 1,2-Dibromoethane | NC | mg/kg | ND (0.11) | ND (0.00084) | ND (0.0017) | ND (0.0025) | ND (0.0044) | ND (0.0012) | ND (0.0014) | ND (0.0029) | ND (0.0025) | ND (0.0015) | ND (0.051) | ND (0.0016) |
| 1,2-Dichlorobenzene | 0.294 | mg/kg | ND (0.10) | ND (0.00079) | ND (0.0016) | ND (0.0024) | ND (0.0041) | ND (0.0011) | ND (0.0013) | ND (0.0027) | ND (0.0023) | ND (0.0014) | 0.224 | ND (0.0015) |
| 1,3-Dichlorobenzene | 1.315 | mg/kg | ND (0.12) | ND (0.00093) | ND (0.0019) | ND (0.0028) | ND (0.0048) | ND (0.0013) | ND (0.0015) | ND (0.0032) | ND (0.0027) | ND (0.0017) | 0.0919 J | ND (0.0017) |
| 1,4-Dichlorobenzene | 0.318 | mg/kg | ND (0.11) | 0.0010 J | ND (0.0018) | ND (0.0027) | ND (0.0046) | ND (0.0013) | ND (0.0015) | ND (0.0030) | ND (0.0026) | ND (0.0016) | 0.185 | ND (0.0017) |
| Dichlorodifluoromethane | NC | mg/kg | ND (0.21) [a] | ND (0.0016) | ND (0.0034) | ND (0.0050) | ND (0.0086) | ND (0.0023) | ND (0.0027) | ND (0.0056) | ND (0.0049) | ND (0.0030) | ND (0.099) | ND (0.0031) |
| 1,1-Dichloroethane | NC | mg/kg | ND (0.13) | ND (0.00099) | ND (0.0020) | ND (0.0030) | ND (0.0052) | ND (0.0014) | ND (0.0016) | ND (0.0034) | ND (0.0029) | ND (0.0018) | ND (0.060) | ND (0.0019) |
| 1,2-Dichloroethane | 0.26 | mg/kg | ND (0.16) | ND (0.0012) | ND (0.0025) | ND (0.0037) | ND (0.0063) | ND (0.0017) | ND (0.0020) | ND (0.0041) | ND (0.0036) | ND (0.0022) | ND (0.073) | ND (0.0023) |
| 1,1-Dichloroethene | 0.0194 | mg/kg | ND (0.22) | ND (0.0017) | ND (0.0035) | ND (0.0051) | ND (0.0089) | ND (0.0024) | ND (0.0028) | ND (0.0058) | ND (0.0050) | ND (0.0031) | ND (0.10) | ND (0.0032) |
| cis-1,2-Dichloroethene | NC | mg/kg | ND (0.32) | ND (0.0025) | ND (0.0051) | ND (0.0075) | ND (0.013) | ND (0.0035) | 0.005 | ND (0.0084) | ND (0.0073) | ND (0.0045) | ND (0.15) | ND (0.0047) |
| trans-1,2-Dichloroethene | 0.654 | mg/kg | ND (0.22) | ND (0.0017) | ND (0.0035) | ND (0.0052) | ND (0.0090) | ND (0.0025) | ND (0.0028) | ND (0.0059) | ND (0.0051) | ND (0.0031) | ND (0.10) | ND (0.0033) |
| 1,2-Dichloropropane | 0.333 | mg/kg | ND (0.14) | ND (0.0011) | ND (0.0021) | ND (0.0032) | ND (0.0055) | ND (0.0015) | ND (0.0017) | ND (0.0036) | ND (0.0031) | ND (0.0019) | ND (0.063) | ND (0.0020) |
| cis-1,3-Dichloropropene | NC | mg/kg | ND (0.12) | ND (0.00091) | ND (0.0019) | ND (0.0027) | ND (0.0047) | ND (0.0013) | ND (0.0015) | ND (0.0031) | ND (0.0027) | ND (0.0016) | ND (0.055) | ND (0.0017) |
| trans-1,3-Dichloropropene | NC | mg/kg | ND (0.11) | ND (0.00084) | ND (0.0017) | ND (0.0026) | ND (0.0044) | ND (0.0012) | ND (0.0014) | ND (0.0029) | ND (0.0025) | ND (0.0015) | ND (0.051) | ND (0.0016) |
| Ethylbenzene | 0.175 | mg/kg | ND (0.18) | ND (0.0014) | 0.0074 | ND (0.0043) | 0.0326 | 0.0031 J | 0.0063 | 0.0112 | 0.0272 | 0.0057 | 0.0934 J | ND (0.0027) |
| Freon 113 | NC | mg/kg | ND (0.25) | ND (0.0020) | ND (0.0040) | ND (0.0059) | ND (0.010) | ND (0.0028) | ND (0.0033) | ND (0.0067) | ND (0.0058) | ND (0.0035) | ND (0.12) | ND (0.0037) |
| 2-Hexanone | NC | mg/kg | ND (0.42) | ND (0.0033) | ND (0.0067) | ND (0.0099) | ND (0.017) | ND (0.0047) | ND (0.0054) | ND (0.011) | ND (0.0097) | ND (0.0059) | ND (0.20) | ND (0.0062) |
| Isopropylbenzene | 0.086 | mg/kg | 0.774 | ND (0.0018) | ND (0.0037) | 0.0268 | 0.0240 J | 0.087 | ND (0.0030) | ND (0.0061) | 0.0268 | ND (0.0032) | 0.438 | ND (0.0034) |
| Methyl Acetate | NC | mg/kg | 0.534 J | ND (0.0036) | ND (0.0073) | ND (0.011) | ND (0.019) | ND (0.0051) | ND (0.0059) | ND (0.012) | ND (0.011) | ND (0.0065) | ND (0.22) | ND (0.0068) |
| Methylcyclohexane | NC | mg/kg | 1.79 | ND (0.0018) | ND (0.0037) | 0.0244 | 0.0223 J | 0.0527 | ND (0.0030) | ND (0.0062) | 0.069 | 0.0034 J | 0.859 | ND (0.0034) |
| Methyl Tert Butyl Ether | NC | mg/kg | ND (0.12) | 0.0015 J | ND (0.0019) | 1.31 | ND (0.0047) | 0.0291 | 0.0027 J | ND (0.0031) | ND (0.0027) | ND (0.0016) | ND (0.055) | ND (0.0017) |
| 4-Methyl-2-pentanone(MIBK) | NC | mg/kg | ND (0.52) | ND (0.0040) | ND (0.0082) | ND (0.012) | ND (0.021) | ND (0.0058) | ND (0.0067) | ND (0.014) | ND (0.012) | ND (0.0073) | ND (0.24) | ND (0.0076) |
| Methylene chloride | 0.159 | mg/kg | ND (0.83) | ND (0.0065) | ND (0.013) | ND (0.020) | ND (0.034) | ND (0.0092) | ND (0.011) | ND (0.022) | ND (0.019) | ND (0.012) | ND (0.39) | ND (0.012) |
| Styrene | 0.254 | mg/kg | ND (0.19) | ND (0.0015) | ND (0.0030) | ND (0.0045) | ND (0.0078) | ND (0.0021) | ND (0.0025) | ND (0.0051) | ND (0.0044) | ND (0.0027) | ND (0.089) | ND (0.0028) |
| 1,1,2,2-Tetrachloroethane | 0.85 | mg/kg | ND (0.13) | ND (0.0010) | ND (0.0021) | ND (0.0030) | ND (0.0053) | ND (0.0014) | ND (0.0017) | ND (0.0034) | ND (0.0030) | ND (0.0018) | ND (0.061) | ND (0.0019) |
| Tetrachloroethene | 0.45 | mg/kg | ND (0.15) | ND (0.0012) | ND (0.0024) | ND (0.0036) | ND (0.0062) | ND (0.0017) | ND (0.0020) | ND (0.0041) | ND (0.0035) | ND (0.0022) | ND (0.072) | ND (0.0023) |
| Toluene | 1.22 | mg/kg | ND (0.12) | ND (0.00097) | 0.0377 | 0.0042 J | 0.0098 J | 0.0102 | 0.0296 | 0.0204 | 0.0305 | 0.0146 | 0.201 | 0.0221 |
| 1,2,3-Trichlorobenzene | NC | mg/kg | ND (0.33) | ND (0.0026) | ND (0.0053) | ND (0.0078) | ND (0.013) | ND (0.0037) | ND (0.0043) | ND (0.0088) | ND (0.0076) | ND (0.0047) | ND (0.16) | ND (0.0049) |
| 1,2,4-Trichlorobenzene | 5.062 | mg/kg | ND (0.33) | ND (0.0026) | ND (0.0053) | ND (0.0078) | ND (0.013) | ND (0.0037) | ND (0.0043) | ND (0.0088) | ND (0.0076) | ND (0.0047) | 0.209 J | ND (0.0049) |
| 1,1,1-Trichloroethane | 0.213 | mg/kg | ND (0.14) | ND (0.0011) | ND (0.0022) | ND (0.0033) | ND (0.0057) | ND (0.0016) | ND (0.0018) | ND (0.0038) | ND (0.0033) | ND (0.0020) | ND (0.066) | ND (0.0021) |
| 1,1,2-Trichloroethane | 0.518 | mg/kg | ND (0.11) | ND (0.00088) | ND (0.0018) | ND (0.0027) | ND (0.0046) | ND (0.0013) | ND (0.0015) | ND (0.0030) | ND (0.0026) | ND (0.0016) | ND (0.053) | ND (0.0017) |
| Trichloroethene | 1.6 | mg/kg | ND (0.25) | ND (0.0020) | ND (0.0040) | ND (0.0059) | ND (0.010) | ND (0.0028) | ND (0.0033) | ND (0.0067) | ND (0.0058) | ND (0.0035) | ND (0.12) | ND (0.0037) |
| Trichlorofluoromethane | NC | mg/kg | ND (0.23) | ND (0.0018) | ND (0.0036) | ND (0.0053) | ND (0.0092) | ND (0.0025) | ND (0.0029) | ND (0.0060) | ND (0.0052) | ND (0.0032) | ND (0.11) | ND (0.0033) |
| Vinyl chloride | 0.202 | mg/kg | ND (0.16) [a] | ND (0.0012) | ND (0.0025) | ND (0.0037) | ND (0.0063) | ND (0.0017) | 0.0028 J | ND (0.0041) | ND (0.0036) [f] | ND (0.0022) | ND (0.073) | ND (0.0023) [f] |
| m,p-Xylene | NC | mg/kg | 0.537 | 0.0133 | 0.0163 | 0.0174 | 0.0388 | 0.0105 | 0.0163 | 0.0208 | 0.0341 | 0.0234 | 0.509 | ND (0.0036) |
| o-Xylene | NC | mg/kg | ND (0.19) | 0.0059 | 0.0093 | 0.0223 | 0.0639 | 0.016 | 0.008 | 0.0125 | 0.0253 | 0.0162 | 0.564 | ND (0.0028) |
| Xylene (total) | 0.433 | mg/kg | 0.537 | 0.0192 | 0.0256 | 0.0397 | 0.103 | 0.0265 | 0.0243 | 0.0333 | 0.0594 | 0.0396 | 1.07 | ND (0.0028) |
| **MS Volatile TIC** | | | | | | | | | | | | | | |
| Total TIC, Volatile | NC | mg/kg | 89.6 J | 0 | 0 | 9.006 J | 0.373 J | 3.39 J | 0.407 J | 0 | 9.51 J | 5.74 J | 92.4 J | 0 |
| Total Alkanes | NC | mg/kg | 0 | 0 | 0 | 0.722 J | 0 | 4.5 J | 0.186 J | 0 | 2.37 J | 3.06 J | 0 | 0 |

Table 5a(R)
Detention Basin Sediment Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, NJ

| Client Sample ID: | NJDEP Ecological Sediment - FreshWater Screening Criterion (ER-L or LEL) | | SB-1T | SB-2T | SB-3T | SB-4T | SB-5T | SB-6T | SB-7T | SB-8T | SB-9T | SB-10T | SB-11T | SB-12T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC77657-1 | JC77657-4 | JC77657-7 | JC77657-12 | JC77657-15 | JC77657-18 | JC77657-21 | JC77657-24 | JC77814-3 | JC77814-6 | JC77814-9 | JC77814-12 |
| Date Sampled: | | | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 |
| Matrix: | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | |
| 2-Chlorophenol | 0.0319 | mg/kg | ND (0.47) | ND (0.070) | ND (0.060) | ND (0.15) | ND (0.15) | ND (0.20) | ND (0.11) | ND (0.19) | ND (0.14) | ND (0.51) | ND (0.059) | ND (0.057) |
| 4-Chloro-3-methyl phenol | NC | mg/kg | ND (0.58) | ND (0.087) | ND (0.074) | ND (0.18) | ND (0.19) | ND (0.25) | ND (0.14) | ND (0.24) | ND (0.18) | ND (0.63) | ND (0.074) | ND (0.071) |
| 2,4-Dichlorophenol | 0.817 | mg/kg | ND (0.81) | ND (0.12) | ND (0.10) | ND (0.26) | ND (0.26) | ND (0.35) | ND (0.19) | ND (0.33) | ND (0.25) | ND (0.88) | ND (0.10) | ND (0.099) |
| 2,4-Dimethylphenol | 0.304 | mg/kg | ND (1.7) | ND (0.25) | ND (0.21) | ND (0.54) | ND (0.54) | ND (0.74) | ND (0.40) | ND (0.69) | ND (0.52) | ND (1.8) | ND (0.21) | ND (0.21) |
| 2,4-Dinitrophenol | 0.00621 | mg/kg | ND (3.6) | ND (0.53) | ND (0.45) | ND (1.1) | ND (1.1) | ND (1.6) | ND (0.84) | ND (1.5) | ND (1.1) [a] | ND (3.9) [a] | ND (0.45) [a] | ND (0.44) [a] |
| 4,6-Dinitro-o-cresol | NC | mg/kg | ND (1.0) | ND (0.15) | ND (0.13) | ND (0.32) | ND (0.32) | ND (0.44) | ND (0.24) | ND (0.41) | ND (0.31) | ND (1.1) | ND (0.13) | ND (0.12) |
| 2-Methylphenol | NC | mg/kg | ND (0.61) | ND (0.091) | ND (0.077) | ND (0.19) | ND (0.19) | ND (0.26) | ND (0.14) | ND (0.25) | ND (0.19) | ND (0.66) | ND (0.077) | ND (0.074) |
| 3&4-Methylphenol | 0.67 | mg/kg | ND (0.78) | ND (0.12) | ND (0.099) | ND (0.25) | ND (0.25) | 0.897 | ND (0.18) | ND (0.32) | ND (0.24) | ND (0.85) | ND (0.099) | ND (0.095) |
| 2-Nitrophenol | NC | mg/kg | ND (0.63) | ND (0.094) | ND (0.080) | ND (0.20) | ND (0.20) | ND (0.27) | ND (0.15) | ND (0.26) | ND (0.19) | ND (0.68) | ND (0.079) | ND (0.077) |
| 4-Nitrophenol | 0.0133 | mg/kg | ND (2.5) | ND (0.38) | ND (0.32) | ND (0.80) | ND (0.81) | ND (1.1) | ND (0.60) | ND (1.0) | ND (0.78) | ND (2.8) [f] | ND (0.32) | ND (0.31) |
| Pentachlorophenol | 23 | mg/kg | ND (0.89) | ND (0.13) | ND (0.11) | ND (0.28) | ND (0.28) | ND (0.39) | ND (0.21) | ND (0.36) | ND (0.27) [f] | ND (0.97) | ND (0.11) [f] | ND (0.11) [f] |
| Phenol | 0.0491 | mg/kg | ND (0.50) | ND (0.074) | ND (0.063) | ND (0.16) | ND (0.16) | 0.638 J | ND (0.12) | ND (0.20) | ND (0.15) [f] | ND (0.54) | ND (0.063) [f] | ND (0.060) [f] |
| 2,3,4,6-Tetrachlorophenol | NC | mg/kg | ND (0.63) | ND (0.094) | ND (0.080) | ND (0.20) [a] | ND (0.20) [a] | ND (0.27) [a] | ND (0.15) | ND (0.26) | ND (0.19) | ND (0.68) | ND (0.080) | ND (0.077) |
| 2,4,5-Trichlorophenol | NC | mg/kg | ND (0.71) | ND (0.11) | ND (0.090) | ND (0.23) | ND (0.23) | ND (0.31) | ND (0.17) | ND (0.29) | ND (0.22) | ND (0.77) | ND (0.090) | ND (0.087) |
| 2,4,6-Trichlorophenol | 0.208 | mg/kg | ND (0.57) | ND (0.084) | ND (0.072) | ND (0.18) | ND (0.18) | ND (0.25) | ND (0.13) | ND (0.23) | ND (0.17) | ND (0.62) | ND (0.072) | ND (0.069) |
| Acenaphthene | 0.00671 | mg/kg | 11.4 | ND (0.049) | ND (0.042) | 0.382 | ND (0.10) | 1.09 | ND (0.077) | ND (0.13) | ND (0.10) | ND (0.36) | 0.0634 J | ND (0.040) |
| Acenaphthylene | 0.00587 | mg/kg | ND (0.48) | ND (0.072) | ND (0.061) | ND (0.15) | ND (0.15) | ND (0.21) | ND (0.11) | ND (0.20) | ND (0.15) | ND (0.53) | 0.0684 J | ND (0.059) |
| Acetophenone | NC | mg/kg | ND (0.20) | ND (0.030) | ND (0.026) | ND (0.065) | ND (0.065) | ND (0.089) | ND (0.048) | ND (0.083) | ND (0.063) | ND (0.22) | ND (0.026) | ND (0.025) |
| Anthracene | 0.0572 | mg/kg | ND (0.58) | 0.100 J | ND (0.074) | 0.588 | ND (0.19) | ND (0.25) | ND (0.14) | ND (0.24) | ND (0.18) | ND (0.63) | 0.164 | ND (0.071) |
| Atrazine | NC | mg/kg | ND (0.41) [a] | ND (0.061) [a] | ND (0.052) [a] | ND (0.13) | ND (0.13) | ND (0.18) | ND (0.096) | ND (0.17) | ND (0.13) | ND (0.44) [a] | ND (0.051) | ND (0.050) |
| Benzo(a)anthracene | 0.108 | mg/kg | 1.27 | 0.0553 J | ND (0.034) | 0.389 | ND (0.086) | 0.632 | ND (0.063) | ND (0.11) | ND (0.083) | 1.2 | 0.0553 J | ND (0.033) |
| Benzo(a)pyrene | 0.15 | mg/kg | 0.588 J | 0.0874 J | ND (0.055) | 0.501 | ND (0.14) | 0.390 J | 0.513 | ND (0.18) | ND (0.13) | 0.768 J | ND (0.055) | ND (0.053) |
| Benzo(b)fluoranthene | 10.4 | mg/kg | 0.955 | 0.14 | ND (0.053) | 0.962 | ND (0.13) | 0.557 | 0.752 | 0.302 J | 0.137 J | 1.03 | ND (0.053) | ND (0.051) |
| Benzo(g,h,i)perylene | 0.17 | mg/kg | 0.520 J | 0.143 | ND (0.060) | 0.529 | ND (0.15) | 0.387 J | 0.435 | 0.215 J | ND (0.15) | 0.529 J | 0.21 | ND (0.058) |
| Benzo(k)fluoranthene | 0.24 | mg/kg | ND (0.44) | ND (0.066) | ND (0.056) | 0.200 J | ND (0.14) | ND (0.19) | 0.121 J | ND (0.18) | ND (0.14) | ND (0.48) [f] | ND (0.056) | ND (0.054) |
| 4-Bromophenyl phenyl ether | NC | mg/kg | ND (0.37) | ND (0.055) | ND (0.047) | ND (0.12) | ND (0.12) | ND (0.16) | ND (0.086) | ND (0.15) | ND (0.11) | ND (0.40) | ND (0.046) | ND (0.045) |
| Butyl benzyl phthalate | 1.97 | mg/kg | ND (0.23) | ND (0.035) | ND (0.029) | ND (0.073) | ND (0.074) | ND (0.10) | ND (0.055) | ND (0.094) | ND (0.071) | ND (0.25) | ND (0.029) | ND (0.028) |
| 1,1'-Biphenyl | 1.22 | mg/kg | 1.12 J | ND (0.019) | ND (0.017) | 0.0901 J | 0.0433 J | ND (0.057) | ND (0.031) | ND (0.053) | ND (0.040) | ND (0.14) | ND (0.016) | ND (0.016) |
| Benzaldehyde | NC | mg/kg | ND (0.24) | ND (0.035) | ND (0.030) | ND (0.075) | ND (0.075) | ND (0.10) | ND (0.056) | ND (0.096) | ND (0.072) | ND (0.26) | ND (0.030) | ND (0.029) |
| 2-Chloronaphthalene | 0.417 | mg/kg | ND (0.23) | ND (0.034) | ND (0.029) | ND (0.072) | ND (0.072) | ND (0.099) | ND (0.053) | ND (0.092) | ND (0.070) | ND (0.25) | ND (0.029) | ND (0.028) |
| 4-Chloroaniline | NC | mg/kg | ND (0.34) | ND (0.051) | ND (0.043) | ND (0.11) | ND (0.11) | ND (0.15) | ND (0.081) | ND (0.14) | ND (0.11) | ND (0.37) | ND (0.043) | ND (0.042) |
| Carbazole | NC | mg/kg | ND (0.14) | ND (0.021) | ND (0.018) | ND (0.044) | ND (0.044) | ND (0.060) | ND (0.032) | ND (0.056) | ND (0.042) | ND (0.15) | ND (0.017) | ND (0.017) |
| Caprolactam | NC | mg/kg | ND (0.37) [f] | ND (0.056) [f] | ND (0.048) [f] | ND (0.12) [f] | ND (0.12) [f] | ND (0.16) [f] | ND (0.088) | ND (0.15) | ND (0.12) | ND (0.41) | ND (0.047) | ND (0.046) |
| Chrysene | 0.34 | mg/kg | 2.64 | 0.419 | 0.0846 J | 1.6 | ND (0.095) | 2.03 | ND (0.070) | ND (0.12) | ND (0.092) | 8.01 | 0.106 J | ND (0.036) |
| bis(2-Chloroethoxy)methane | NC | mg/kg | ND (0.20) | ND (0.030) | ND (0.026) | ND (0.064) | ND (0.065) | ND (0.089) | ND (0.048) | ND (0.083) | ND (0.063) | ND (0.22) | ND (0.026) | ND (0.025) |
| bis(2-Chloroethyl)ether | 3.52 | mg/kg | ND (0.41) | ND (0.061) | ND (0.052) | ND (0.13) | ND (0.13) | ND (0.18) | ND (0.096) | ND (0.17) | ND (0.13) | ND (0.45) | ND (0.052) | ND (0.050) |
| 2,2'-Oxybis(1-chloropropane) | NC | mg/kg | ND (0.34) [f] | ND (0.051) [f] | ND (0.043) [f] | ND (0.11) [f] | ND (0.11) [f] | ND (0.15) [f] | ND (0.080) | ND (0.14) | ND (0.10) | ND (0.37) | ND (0.043) | ND (0.042) |
| 4-Chlorophenyl phenyl ether | NC | mg/kg | ND (0.31) | ND (0.046) | ND (0.039) | ND (0.097) | ND (0.098) | ND (0.13) | ND (0.073) | ND (0.13) | ND (0.095) | ND (0.34) | ND (0.039) | ND (0.038) |
| 2,4-Dinitrotoluene | 0.0144 | mg/kg | ND (0.29) [a] | ND (0.044) [a] | ND (0.037) [a] | ND (0.093) | ND (0.094) | ND (0.13) | ND (0.069) | ND (0.12) | ND (0.091) | ND (0.32) | ND (0.037) | ND (0.036) |
| 2,6-Dinitrotoluene | NC | mg/kg | ND (0.48) | ND (0.071) | ND (0.061) | ND (0.15) | ND (0.15) | ND (0.21) | ND (0.11) | ND (0.19) | ND (0.15) | ND (0.52) | ND (0.060) | ND (0.058) |
| 3,3'-Dichlorobenzidine | 0.127 | mg/kg | ND (0.79) | ND (0.12) | ND (0.10) | ND (0.25) | ND (0.25) | ND (0.35) | ND (0.19) | ND (0.32) | ND (0.24) | ND (0.86) | ND (0.10) | ND (0.097) |
| 1,4-Dioxane | NC | mg/kg | ND (0.63) | ND (0.094) | ND (0.080) | ND (0.20) [f] | ND (0.20) [f] | ND (0.27) [f] | ND (0.15) | ND (0.26) | ND (0.19) | ND (0.68) | ND (0.079) | ND (0.077) |
| Dibenzo(a,h)anthracene | 0.033 | mg/kg | ND (0.42) | ND (0.063) | ND (0.053) | 0.193 J | ND (0.13) | 0.189 J | 0.206 J | ND (0.17) | ND (0.13) | ND (0.46) [f] | ND (0.053) | ND (0.051) |
| Dibenzofuran | 0.415 | mg/kg | 10.2 | ND (0.058) | ND (0.049) | 0.276 J | ND (0.12) | ND (0.17) | ND (0.091) | ND (0.16) | ND (0.12) | ND (0.42) | ND (0.049) | ND (0.047) |
| Di-n-butyl phthalate | 1.114 | mg/kg | ND (0.15) | ND (0.023) | ND (0.020) | ND (0.049) | ND (0.049) | ND (0.067) | ND (0.036) | ND (0.063) | ND (0.048) | ND (0.17) | ND (0.020) | ND (0.019) |
| Di-n-octyl phthalate | NC | mg/kg | ND (0.24) | ND (0.035) | ND (0.030) | ND (0.075) | ND (0.075) | ND (0.10) | ND (0.056) | ND (0.096) | ND (0.073) | ND (0.26) | ND (0.030) | ND (0.029) |
| Diethyl phthalate | 0.295 | mg/kg | ND (0.20) | ND (0.030) | ND (0.026) | ND (0.064) | ND (0.064) | ND (0.088) | ND (0.048) | ND (0.082) | ND (0.062) | ND (0.22) | ND (0.026) | ND (0.025) |
| Dimethyl phthalate | NC | mg/kg | ND (0.17) | ND (0.025) | ND (0.021) | ND (0.054) | ND (0.054) | ND (0.074) | ND (0.040) | ND (0.069) | ND (0.052) | ND (0.18) | ND (0.021) | ND (0.021) |
| bis(2-Ethylhexyl)phthalate | 0.182 | mg/kg | 5.81 [f] | 0.188 J [f] | ND (0.028) [f] | 1.29 | ND (0.071) | 1.34 | 0.77 | ND (0.090) | ND (0.068) [a] | 3.54 | ND (0.028) [a] | ND (0.027) [a] |
| Fluoranthene | 0.423 | mg/kg | 2.39 | 0.0818 J | ND (0.054) | 0.522 | ND (0.14) | 0.745 | ND (0.10) | ND (0.17) | ND (0.13) [f] | ND (0.46) | ND (0.054) [f] | ND (0.052) [f] |
| Fluorene | 0.077 | mg/kg | 15.2 | ND (0.065) | ND (0.055) | 0.57 | ND (0.14) | 2.81 | ND (0.10) | ND (0.18) | ND (0.13) | ND (0.47) | 0.0923 J | ND (0.053) |
| Hexachlorobenzene | 0.02 | mg/kg | ND (0.24) | ND (0.036) | ND (0.031) | ND (0.076) | ND (0.077) | ND (0.10) | ND (0.057) | ND (0.098) | ND (0.074) | ND (0.26) | ND (0.030) | ND (0.029) |
| Hexachlorobutadiene | 0.0265 | mg/kg | ND (0.38) | ND (0.057) | ND (0.049) | ND (0.12) | ND (0.12) | ND (0.17) | ND (0.090) | ND (0.16) | ND (0.12) [f] | ND (0.42) [f] | ND (0.048) [f] | ND (0.047) [f] |
| Hexachlorocyclopentadiene | 0.901 | mg/kg | ND (0.38) | ND (0.056) | ND (0.048) | ND (0.12) [a] | ND (0.12) [a] | ND (0.16) [a] | ND (0.089) | ND (0.15) | ND (0.12) | ND (0.41) | ND (0.048) | ND (0.046) |
| Hexachloroethane | 0.584 | mg/kg | ND (0.47) | ND (0.070) | ND (0.060) | ND (0.15) | ND (0.15) | ND (0.20) | ND (0.11) | ND (0.19) | ND (0.14) [f] | ND (0.51) [f] | ND (0.060) [f] | ND (0.057) [f] |
| Indeno(1,2,3-cd)pyrene | 0.2 | mg/kg | ND (0.45) [a] | 0.116 J [g] | ND (0.057) [a] | 0.487 | ND (0.14) | 0.310 J | 0.232 | ND (0.18) | ND (0.14) | ND (0.49) | 0.0962 J | ND (0.054) |
| Isophorone | 0.432 | mg/kg | ND (0.20) | ND (0.030) | ND (0.026) | ND (0.064) | ND (0.065) | ND (0.089) | ND (0.048) | ND (0.083) | ND (0.063) | ND (0.22) | ND (0.026) | ND (0.025) |
| 2-Methylnaphthalene | 0.0202 | mg/kg | 59.2 | 0.0845 J | ND (0.027) | 0.543 | 0.0709 J | 0.725 | 0.214 J | 0.0949 J | ND (0.066) | ND (0.23) | 0.208 | ND (0.026) |
| 2-Nitroaniline | NC | mg/kg | ND (0.22) | ND (0.033) | ND (0.028) | ND (0.071) | ND (0.071) | ND (0.098) | ND (0.053) | ND (0.091) | ND (0.069) | ND (0.24) | ND (0.028) | ND (0.027) |
| 3-Nitroaniline | NC | mg/kg | ND (0.24) | ND (0.035) | ND (0.030) | ND (0.075) | ND (0.076) | ND (0.10) | ND (0.056) | ND (0.097) | ND (0.073) | ND (0.26) | ND (0.030) | ND (0.029) |
| 4-Nitroaniline | NC | mg/kg | ND (0.25) | ND (0.037) | ND (0.031) | ND (0.078) | ND (0.078) | ND (0.11) | ND (0.058) | ND (0.10) | ND (0.076) | ND (0.27) | ND (0.031) | ND (0.030) |
| Naphthalene | 0.176 | mg/kg | 6.41 | 0.0444 J | ND (0.034) | 0.109 J | 0.0957 J | 0.316 J | 0.0894 J | ND (0.11) | ND (0.082) | ND (0.29) | 0.0806 J | ND (0.033) |
| Nitrobenzene | 0.145 | mg/kg | ND (0.37) | ND (0.055) | ND (0.047) | ND (0.12) | ND (0.12) | ND (0.16) | ND (0.086) | ND (0.15) | ND (0.11) | ND (0.40) [f] | ND (0.046) | ND (0.045) |
| N-Nitroso-di-n-propylamine | NC | mg/kg | ND (0.27) | ND (0.041) | ND (0.035) | ND (0.087) | ND (0.088) | ND (0.12) | ND (0.065) | ND (0.11) | ND (0.084) | ND (0.30) | ND (0.035) | ND (0.033) |
| N-Nitrosodiphenylamine | NC | mg/kg | ND (0.35) | ND (0.052) | ND (0.044) | ND (0.11) | ND (0.11) | ND (0.15) | ND (0.082) | ND (0.14) | ND (0.11) | ND (0.38) | ND (0.044) | ND (0.042) |
| Phenanthrene | 0.204 | mg/kg | 34.4 | 0.0762 J | ND (0.041) | 0.501 | ND (0.10) | 0.683 | ND (0.075) | ND (0.13) | ND (0.098) | ND (0.35) | 0.182 | ND (0.039) |
| Pyrene | 0.195 | mg/kg | 4.46 | 0.18 | ND (0.039) | 1.77 | ND (0.097) | 2.7 | 3.13 | 0.451 | 0.171 J | 4.7 | 0.0623 J | ND (0.037) |
| 1,2,4,5-Tetrachlorobenzene | 1.252 | mg/kg | 0.782 J | ND (0.036) | ND (0.031) | ND (0.076) | ND (0.077) | ND (0.11) | ND (0.057) | ND (0.098) | ND (0.074) | ND (0.26) | ND (0.031) | ND (0.029) |
| Total PAHs | 4 | mg/kg | 82.6 | 1.4 | 0.08 | 9.3 | 0.1 | 12.8 | 5.5 | 1 | 0.31 | 16.2 | 1.2 | 0 |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | NC | mg/kg | 782 J | 28.2 J | 27.14 J | 141.9 J | 345.8 J | 185.2 J | 330.6 J | 127.9 J | 107.1 J | 1087 J | 20.48 J | 1.1 J |
| Total Alkanes | NC | mg/kg | 176 J | 3.44 J | 0.5 J | 53.5 J | 4.1 J | 119.9 J | 30.2 J | 0 | 0 | - | 3.98 J | 0 |

Table 5a(R)
Detention Basin Sediment Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, NJ

| Client Sample ID: | NJDEP Ecological Sediment - FreshWater Screening Criterion (ER-L or LEL) | | SB-1T | SB-2T | SB-3T | SB-4T | SB-5T | SB-6T | SB-7T | SB-8T | SB-9T | SB-10T | SB-11T | SB-12T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC77657-1 | JC77657-4 | JC77657-7 | JC77657-12 | JC77657-15 | JC77657-18 | JC77657-21 | JC77657-24 | JC77814-3 | JC77814-6 | JC77814-9 | JC77814-12 |
| Date Sampled: | | | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 |
| Matrix: | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **GC/LC Semi-volatiles (NJDEP EPH)** | | | | | | | | | | | | | | |
| C10-C12 Aromatics | NC | mg/kg | ND (7.7) | ND (5.6) | ND (9.4) | ND (11) | ND (22) | 32.4 | ND (46) | ND (15) | ND (12) | ND (8.2) | ND (4.7) | ND (8.8) |
| C12-C16 Aromatics | NC | mg/kg | ND (7.7) | ND (5.6) | ND (9.4) | 62.8 | ND (22) | 304 | 337 | ND (15) | 326 | 130 | ND (4.7) | ND (8.8) |
| C16-C21 Aromatics | NC | mg/kg | 56.8 | 296 | 988 | 1200 | ND (22) | 2280 | 5830 | 995 | 2910 | 1110 | 188 | ND (8.8) |
| C21-C36 Aromatics | NC | mg/kg | 60.5 | 624 | 2050 | 1920 | 195 | 2360 | 5730 | 1970 | 3840 | 777 | 462 | 131 |
| Total Aromatics | NC | mg/kg | 117 | 920 | 3040 | 3180 | 195 | 4980 | 11900 | 2970 | 7070 | 2020 | 650 | 131 |
| C9-C12 Aliphatics | NC | mg/kg | ND (7.7) | ND (5.6) | ND (9.4) | 74.5 | ND (22) | 240 | 142 | ND (15) | 127 | 83.2 | ND (4.7) | ND (8.8) |
| C12-C16 Aliphatics | NC | mg/kg | 71.7 | 105 | 513 | 707 | ND (22) | 1340 | 2390 | 332 | 2250 | 703 | 97.9 | ND (8.8) |
| C16-C21 Aliphatics | NC | mg/kg | 96.8 | 452 | 1460 | 2290 | ND (22) | 3920 | 7410 | 1310 | 4790 | 1540 | 285 | 31.1 |
| C21-C40 Aliphatics | NC | mg/kg | 154 | 831 | 2600 | 3670 | ND (22) | 6650 | 11800 | 2590 | 8560 | 1700 | 360 | 116 |
| Total Aliphatics | NC | mg/kg | 322 | 1390 | 4580 | 6740 | ND (22) | 12200 | 21700 | 4240 | 15700 | 4020 | 743 | 147 |
| Total EPH | NC | mg/kg | 440 | 2310 | 7620 | 9920 | 195 | 17100 | 33600 | 7200 | 22800 | 6040 | 1390 | 278 |
| **Metals Analysis** | | | | | | | | | | | | | | |
| Aluminum | 25500 | mg/kg | 15100 | 9660 | 18500 | 25000 | 27400 | 25900 | 23500 | 29800 | 18500 | 10000 | 18300 | 19400 |
| Antimony | NC | mg/kg | <12 [h] | <4.4 | <7.3 | <9.5 | <18 | <5.0 | <6.8 | <12 | <9.4 | <6.2 | <7.3 [h] | <6.7 |
| Arsenic | 6 | mg/kg | 38.0 [h] | 37.8 | 58.1 | 49.7 | 68.6 | 54.3 | 42.8 | 21.6 | 23.5 | 26.7 | 44.2 [h] | 11.5 |
| Barium | NC | mg/kg | 301 | 135 | 98.4 | 192 | <180 | 180 | 210 | <120 | 131 | 201 | 350 | <67 |
| Beryllium | NC | mg/kg | 0.88 | 0.77 | 0.84 | 1.7 | <1.8 | 2.7 | 1.3 | 1.7 | 0.94 | 0.84 | 1.9 | 1.5 |
| Cadmium | 0.6 | mg/kg | 8.1 | <1.1 | <1.8 | 6.4 | <4.5 | 26.1 | <1.7 | <2.9 | <2.3 | 3.9 | 2.4 [h] | <1.7 |
| Calcium | NC | mg/kg | 4960 | 1660 | 2330 | 41700 | 4730 | 10100 | 4850 | 3600 | 2600 | 2870 | 4640 | 1870 |
| Chromium | 26 | mg/kg | 3180 [h] | 241 | 112 | 538 | 75.5 | 495 | 828 | 273 | 96.4 | 1310 | 2550 [h] | 115 |
| Cobalt | 50 | mg/kg | 44.1 | <11 | <18 | <24 | <45 | 40.4 | 17.3 | <29 | <23 | <16 | 20.2 | <17 |
| Copper | 16 | mg/kg | 820 | 97.2 | 269 | 276 | 365 | 427 | 283 | 125 | 361 | 276 | 358 [h] | 33.3 |
| Iron | 20000 | mg/kg | 31700 | 23000 | 15100 | 52100 | 23900 | 66800 | 40900 | 25400 | 13300 | 22000 | 38200 [h] | 31600 |
| Lead | 31 | mg/kg | 776 | 101 | 184 | 238 | 211 | 273 [h] | 367 | 163 | 284 | 265 | 208 [h] | 67.5 |
| Magnesium | NC | mg/kg | 4340 | 1890 | 4670 | 8640 | 6640 | 10800 | 6630 | 7670 | 4470 | 2520 | 3290 | 6680 |
| Manganese | 630 | mg/kg | 257 | 86.3 | 126 | 354 | 159 | 400 [h] | 186 | 240 | 127 | 110 | 194 [h] | 255 |
| Mercury | 0.174 | mg/kg | 0.52 | 1.3 | 0.28 | 0.63 | 0.33 | 0.52 | 1.9 | 2.4 | 0.95 | 1.1 | 1.6 | 0.22 |
| Nickel | 16 | mg/kg | 98.6 | 33.1 | 28.5 | 116 | 69.9 | 144 | 166 | 74.5 | 30.8 | 41 | 95 | 26.8 |
| Potassium | NC | mg/kg | <3000 | <2200 | 4260 | <4800 | <9100 | 3710 | <3400 | <5900 | <4700 | <3100 | <1800 | 4060 |
| Selenium | 2 | mg/kg | <6.1 | <4.4 | 8.2 | <9.5 | <18 | <9.9 [h] | <6.8 | <12 | <9.4 | <6.2 | <7.3 [h] | <6.7 |
| Silver | 0.5 | mg/kg | 3.3 | <1.1 | <1.8 | <2.4 | <4.5 | <2.5 [h] | 2.6 | <2.9 | <2.3 | 2.3 | <1.8 [h] | 3.2 |
| Sodium | NC | mg/kg | 4610 | <2200 | 4950 | <4800 | <9100 | 4430 | <3400 | 8030 | <4700 | <3100 | <1800 | 6580 |
| Thallium | NC | mg/kg | <3.0 | <2.2 | <3.7 | <4.8 | <9.1 | <5.0 [h] | <3.4 | <5.9 | <4.7 | <3.1 | <3.6 [h] | <3.4 |
| Vanadium | NC | mg/kg | 164 | 53.8 | 74.1 | 140 | 91.3 | 122 | 177 | 94.9 | 79.3 | 113 | 344 [h] | 68 |
| Zinc | 120 | mg/kg | 3480 [h] | 186 | 151 | 924 | 1520 | 2920 [h] | 382 | 323 | 208 | 758 | 1110 [h] | 73.1 |
| **General Chemistry** | | | | | | | | | | | | | | |
| 3 Inch Sieve | NC | % | 100 | 100 | 100 | 100 | 100 | - | - | - | 100 | 100 | 100 | 100 |
| 1.5 Inch Sieve | NC | % | 100 | 100 | 100 | 100 | 100 | - | - | - | 100 | 100 | 100 | 100 |
| 0.75 Inch Sieve | NC | % | 100 | 100 | 100 | 100 | 100 | - | - | - | 100 | 100 | 100 | 100 |
| 0.375 Inch Sieve | NC | % | 100 | 100 | 100 | 100 | 100 | - | - | - | 100 | 100 | 100 | 100 |
| No.4 Sieve (4.75 mm) | NC | % | 100 | 100 | 100 | 100 | 100 | - | - | - | 100 | 98.6 | 100 | 100 |
| No.8 Sieve (2.36 mm) | NC | % | 100 | 98.3 | 100 | 100 | 93.1 | - | - | - | 100 | 97.3 | 100 | 100 |
| No.10 Sieve (2.00 mm) | NC | % | 100 | 97.5 | 100 | 100 | 89.9 | - | - | - | 100 | 96.8 | 100 | 100 |
| No.16 Sieve (1.18 mm) | NC | % | 96.4 | 97.1 | 99.9 | 100 | 88.2 | - | - | - | 99.9 | 92.2 | 96.6 | 99.9 |
| No.30 Sieve (0.60 mm) | NC | % | 85.7 | 93.5 | 99 | 98.5 | 84.3 | - | - | - | 99.4 | 82.9 | 91.5 | 99.5 |
| No.50 Sieve (0.30 mm) | NC | % | 77.2 | 70.4 | 97.6 | 96.1 | 79.7 | - | - | - | 98.5 | 71.3 | 87.5 | 99.3 |
| No.100 Sieve (0.15 mm) | NC | % | 70.8 | 50.8 | 96.1 | 92.2 | 77.2 | - | - | - | 97.2 | 63.4 | 84.3 | 99 |
| No.200 Sieve (0.075 mm) | NC | % | 65.6 | 47.3 | 95.1 | 87.5 | 75.7 | - | - | - | 96.6 | 62.2 | 82.2 | 98.9 |
| 0.030 mm (Hydrometer) | NC | % | 58 | 36 | 70 | 56 | 46 | - | - | - | 54 | 30 | 52 | 70 |
| 0.005 mm (Hydrometer) | NC | % | 22 | 10 | 30 | 20 | 24 | - | - | - | 30 | 13.3 | 11 | 30 |
| 0.0015 mm (Hydrometer) | NC | % | 12 | 9 | 20 | 10 | 14 | - | - | - | 10 | 10 | 6 | 16.6 |
| % Gravel | NC | % | 0 | 0 | 0 | 0 | 0 | - | - | - | 0 | 1.4 | 0 | 0 |
| % Sand | NC | % | 34.4 | 52.8 | 4.9 | 12.5 | 24.3 | - | - | - | 3.4 | 36.4 | 17.8 | 1.1 |
| % Silt, Clay, Colloids | NC | % | 65.6 | 47.3 | 95.1 | 87.5 | 75.7 | - | - | - | 96.6 | 62.2 | 82.2 | 98.9 |
| Chloride | NC | mg/kg | 1830 | 404 | 5540 | 1080 | 11600 | 3900 | 563 | 8170 | 2300 | 202 | 453 | 6030 |
| Nitrogen, Ammonia | NC | mg/kg | 185 | 66.5 | 180 | 229 | 289 | 192 | 148 | 183 | 162 | 78.6 | 124 | 154 |
| Nitrogen, Nitrate | NC | mg/kg | <61 [c] | <44 [c] | <82 [c] | <92 [c] | <190 [c] | <53 [c] | <69 [c] | <120 [c] | <95 [c] | <62 [c] | <36 [c] | <70 [c] |
| Nitrogen, Nitrate + Nitrite | NC | mg/kg | <60 | <44 | <75 | <91 | <190 | <52 | <68 | <120 | <94 | <61 | <36 | <69 |
| Nitrogen, Nitrite | NC | mg/kg | 0.81 | 0.61 | <6.9 | <0.91 | <1.8 | <0.51 | 0.67 | <1.2 | <0.91 | <0.62 | <0.37 | <0.70 |
| Solids, Percent | NC | % | 34.2 | 46.1 | 26.3 | 22.1 | 10.9 | 38.7 | 29.3 | 16.7 | 21.8 | 31.6 | 54 | 28.5 |
| Total Organic Carbon | NC | mg/kg | 95100 | 57400 | 127000 | 124000 [i] | 234000 | 107000 | 226000 [j] | 253000 [j] | 95000 [j] | 208000 [j] | 89300 [j] | 83300 [j] |
| pH | NC | su | 8.05 | 6.92 | 6.63 | 7.57 | 6.9 | 7.31 | 6.88 | 6.9 | 7.04 | 7.36 | 7.12 | 6.93 |

**Footnotes:**
a Associated CCV outside of control limits high, sample was ND.
b This compound in BS is outside in house QC limits bias high.
c Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
d Sample received out of holding time for pH analysis.
e This compound in BS is outside in house QC limits bias high.
f Associated CCV outside of control limits low.
g Associated CCV outside of control limits high.
h Elevated detection limit due to dilution required for high interfering
i Multiple injections indicate possible sample non-homogeneity.
j Analysis done out of holding time.

| | |
|---|---|
| NC: | No Criteria |
| BLUE: | Compound Detected, No Criteria |
| GREEN: | Compound Detected, Non-Toxic |
| ORANGE: | Exceedance, Result > Criteria |

Table 5b(R)
Smith Creek & Pond Sediment Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJDEP Ecological Sediment - Saline Water Screening Criterion (ER-L or LEL) | | SS-13A | SS-14A | SS-15A | SS-16A | SS-17A | SS-18A | SS-19A | SS-20A | SS-21A | SS-22A | SS-23A | SS-24A | SS-25A | SS-26A | SS-27A | SS-28A | SS-29A | SS-30A | SS-31A | SS-32A | SS-33A | SS-34A | SS-35A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC83457-13 | JC83501-12 | JC83457-10 | JC83595-18 | JC83595-12 | JC83595-15 | JC83683-2 | JC83683-5 | JC83683-8 | JC83841-18 | JC83841-15 | JC83841-12 | JC83223-1 | JC83313-1 | JC83223-7 | JC83223-4 | JC83313-4 | JC83223-12 | JC83313-10 | JC83313-7 | JC83223-15 | JC83313-13 | JC83313-16 |
| Date Sampled: | | | 2/26/2019 | 2/27/2019 | 2/26/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 2/21/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 |
| Matrix: | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | NC | mg/kg | 0.14 | 0.247 | 0.0572 | 0.0978 | 0.0867 | 0.124 | 0.0323 | 0.0293 | 0.0597 | 0.0773 | 0.0617 | 0.0475 | 0.0741 | 0.0195 J | 0.0338 | 0.0537 | 0.075 | 0.0396 | 0.0431 | 0.0204 | 0.0404 | 0.0317 | 0.0641 |
| Benzene | 0.34 | mg/kg | ND (0.0011) | ND (0.0022) | ND (0.0015) | ND (0.0012) | ND (0.0013) | ND (0.0011) | ND (0.00087) | ND (0.00075) | ND (0.00087) | ND (0.00094) | ND (0.00043) | ND (0.00091) | ND (0.0018) | ND (0.00087) | ND (0.00066) | ND (0.0012) | ND (0.0012) | ND (0.00081) | ND (0.00078) | ND (0.00059) | ND (0.00086) | ND (0.00054) | ND (0.00093) |
| Bromochloromethane | NC | mg/kg | ND (0.0013) | ND (0.0025) | ND (0.0017) | ND (0.0014) | ND (0.0015) | ND (0.0013) | ND (0.00099) | ND (0.00086) | ND (0.00099) | ND (0.0011) | ND (0.00049) | ND (0.0010) | ND (0.0021) | ND (0.00099) | ND (0.00075) | ND (0.0013) | ND (0.0014) | ND (0.00092) | ND (0.00089) | ND (0.00067) | ND (0.00098) | ND (0.00061) | ND (0.0011) |
| Bromodichloromethane | NC | mg/kg | ND (0.0013) | ND (0.0026) | ND (0.0018) | ND (0.0014) | ND (0.0015) | ND (0.0013) | ND (0.0010) | ND (0.00089) | ND (0.0010) | ND (0.0011) | ND (0.00051) | ND (0.0011) | ND (0.0021) | ND (0.0010) | ND (0.00077) | ND (0.0014) | ND (0.0014) | ND (0.00095) | ND (0.00092) | ND (0.00069) | ND (0.0010) | ND (0.00063) | ND (0.0011) |
| Bromoform | NC | mg/kg | ND (0.0012) | ND (0.0023) | ND (0.0016) | ND (0.0013) | ND (0.0014) | ND (0.0012) | ND (0.00093) | ND (0.00081) | ND (0.00093) | ND (0.0010) | ND (0.00046) | ND (0.00097) | ND (0.0019) | ND (0.00093) | ND (0.00070) | ND (0.0012) | ND (0.0013) | ND (0.00087) | ND (0.00083) | ND (0.00063) | ND (0.00092) | ND (0.00058) | ND (0.00099) |
| Bromomethane | NC | mg/kg | ND (0.0030) [b] | ND (0.0058) | ND (0.0040) | ND (0.0032) | ND (0.0034) | ND (0.0030) | ND (0.0023) [b] | ND (0.0020) [b] | ND (0.0023) [b] | ND (0.0025) | ND (0.0011) | ND (0.0024) | ND (0.0048) | ND (0.0023) | ND (0.0017) | ND (0.0030) | ND (0.0032) | ND (0.0021) | ND (0.0021) [a] | ND (0.0015) [a] | ND (0.0023) | ND (0.0014) [a] | ND (0.0024) [a] |
| 2-Butanone (MEK) | NC | mg/kg | 0.0206 J | ND (0.022) [a] | ND (0.015) | ND (0.012) | ND (0.013) | ND (0.011) | ND (0.0086) | ND (0.0075) | ND (0.0086) | ND (0.0093) | ND (0.0043) | ND (0.0090) | ND (0.018) | ND (0.0086) | ND (0.0065) | ND (0.011) | ND (0.012) | ND (0.0080) | ND (0.0077) | ND (0.0058) | ND (0.0085) | ND (0.0053) | ND (0.0092) |
| Carbon disulfide | NC | mg/kg | 0.0036 J | 0.0115 J | 0.0096 | 0.0072 | 0.0075 | 0.0064 | 0.0068 | 0.0075 | 0.0095 | 0.0039 J | ND (0.0011) | 0.0063 | 0.0177 | 0.0031 J | 0.0028 J | 0.0157 | 0.0066 | 0.0165 | 0.0162 | 0.0018 J | 0.012 | 0.0036 | 0.0091 |
| Carbon tetrachloride | NC | mg/kg | ND (0.0017) | ND (0.0032) | ND (0.0022) | ND (0.0018) | ND (0.0019) | ND (0.0016) | ND (0.0013) | ND (0.0011) | ND (0.0013) | ND (0.0014) | ND (0.00063) | ND (0.0013) | ND (0.0026) | ND (0.0013) | ND (0.00096) | ND (0.0017) | ND (0.0017) | ND (0.0012) | ND (0.0011) | ND (0.00086) | ND (0.0013) | ND (0.00079) | ND (0.0013) |
| Chlorobenzene | 0.291 | mg/kg | ND (0.0011) | ND (0.0021) | ND (0.0014) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.00082) | ND (0.00071) | ND (0.00081) | ND (0.00088) | ND (0.00040) | ND (0.00085) | ND (0.0017) | ND (0.00082) | ND (0.00062) | ND (0.0011) | ND (0.0011) | ND (0.00076) | ND (0.00073) | ND (0.00055) | ND (0.00081) | ND (0.00051) | ND (0.00087) |
| Chloroethane | NC | mg/kg | ND (0.0021) | ND (0.0040) | ND (0.0027) | ND (0.0022) | ND (0.0024) | ND (0.0021) | ND (0.0016) | ND (0.0014) | ND (0.0016) | ND (0.0017) | ND (0.00078) | ND (0.0017) | ND (0.0033) | ND (0.0016) | ND (0.0012) | ND (0.0021) | ND (0.0022) | ND (0.0015) | ND (0.0014) [a] | ND (0.0011) [a] | ND (0.0016) | ND (0.00098) [a] | ND (0.0017) [a] |
| Chloroform | NC | mg/kg | ND (0.0011) | ND (0.0022) | ND (0.0015) | ND (0.0012) | ND (0.0013) | ND (0.0011) | ND (0.00086) | ND (0.00074) | ND (0.00085) | ND (0.00093) | ND (0.00042) | ND (0.00089) | ND (0.0018) | ND (0.00086) | ND (0.00065) | ND (0.0011) | ND (0.0012) | ND (0.00080) | ND (0.00077) | ND (0.00058) | ND (0.00085) | ND (0.00053) | ND (0.00091) |
| Chloromethane | NC | mg/kg | ND (0.0060) | ND (0.011) | ND (0.0078) | ND (0.0063) | ND (0.0067) | ND (0.0059) | ND (0.0045) | ND (0.0039) | ND (0.0045) | ND (0.0049) | ND (0.0022) | ND (0.0047) | ND (0.0094) | ND (0.0045) | ND (0.0034) | ND (0.0060) | ND (0.0062) | ND (0.0042) | ND (0.0041) [a] | ND (0.0030) [a] | ND (0.0045) | ND (0.0028) [a] | ND (0.0048) [a] |
| Cyclohexane | NC | mg/kg | ND (0.0012) | ND (0.0024) | ND (0.0016) | ND (0.0013) | ND (0.0014) | ND (0.0012) | ND (0.00093) | ND (0.00081) | ND (0.00093) | ND (0.0010) | ND (0.00046) | ND (0.00098) | ND (0.0019) | ND (0.00093) | ND (0.00071) | ND (0.0012) | ND (0.0013) | ND (0.00087) | ND (0.00084) | ND (0.00063) | ND (0.00092) | ND (0.00058) | ND (0.0010) |
| 1,2-Dibromo-3-chloropropane | NC | mg/kg | ND (0.0025) | ND (0.0049) | ND (0.0033) | ND (0.0027) | ND (0.0029) | ND (0.0025) | ND (0.0019) | ND (0.0017) | ND (0.0019) | ND (0.0021) | ND (0.00095) | ND (0.0020) | ND (0.0040) | ND (0.0019) | ND (0.0015) | ND (0.0026) | ND (0.0027) | ND (0.0018) | ND (0.0017) | ND (0.0013) | ND (0.0019) | ND (0.0012) | ND (0.0021) |
| Dibromochloromethane | NC | mg/kg | ND (0.0010) | ND (0.0020) | ND (0.0013) | ND (0.0011) | ND (0.0012) | ND (0.0010) | ND (0.00078) | ND (0.00068) | ND (0.00078) | ND (0.00084) | ND (0.00039) | ND (0.00081) | ND (0.0016) | ND (0.00078) | ND (0.00059) | ND (0.0010) | ND (0.0011) | ND (0.00073) | ND (0.00070) | ND (0.00053) | ND (0.00077) | ND (0.00048) | ND (0.00083) |
| 1,2-Dibromoethane | NC | mg/kg | ND (0.00099) | ND (0.0019) | ND (0.0013) | ND (0.0010) | ND (0.0011) | ND (0.00097) | ND (0.00075) | ND (0.00065) | ND (0.00075) | ND (0.00081) | ND (0.00037) | ND (0.00078) | ND (0.0016) | ND (0.00075) | ND (0.00057) | ND (0.00099) | ND (0.0010) | ND (0.00070) | ND (0.00067) | ND (0.00051) | ND (0.00074) | ND (0.00046) | ND (0.00080) |
| 1,2-Dichlorobenzene | 0.294 | mg/kg | ND (0.00093) | ND (0.0018) | ND (0.0012) | ND (0.00098) | ND (0.0010) | ND (0.00091) | ND (0.00070) | ND (0.00061) | ND (0.00070) | ND (0.00076) | ND (0.00035) | ND (0.00073) | ND (0.0015) | ND (0.00070) | ND (0.00053) | ND (0.00093) | ND (0.00097) | ND (0.00066) | ND (0.00063) | ND (0.00047) | ND (0.00069) | ND (0.00044) | ND (0.00075) |
| 1,3-Dichlorobenzene | 1.315 | mg/kg | ND (0.0011) | ND (0.0021) | ND (0.0014) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.00083) | ND (0.00072) | ND (0.00082) | ND (0.00090) | ND (0.00041) | ND (0.00086) | ND (0.0017) | ND (0.00083) | ND (0.00063) | ND (0.0011) | ND (0.0011) | ND (0.00077) | ND (0.00074) | ND (0.00056) | ND (0.00082) | ND (0.00051) | ND (0.00088) |
| 1,4-Dichlorobenzene | 0.318 | mg/kg | 0.0012 J | ND (0.0020) | ND (0.0014) | ND (0.0011) | ND (0.0012) | ND (0.0010) | ND (0.00079) | ND (0.00069) | ND (0.00079) | ND (0.00086) | ND (0.00039) | ND (0.00083) | ND (0.0016) | ND (0.00079) | ND (0.00060) | ND (0.0011) | ND (0.0011) | ND (0.00074) | ND (0.00071) | ND (0.00054) | ND (0.00078) | ND (0.00049) | ND (0.00084) |
| Dichlorodifluoromethane | NC | mg/kg | ND (0.0019) | ND (0.0037) | ND (0.0025) | ND (0.0020) | ND (0.0022) | ND (0.0019) | ND (0.0015) | ND (0.0013) | ND (0.0015) | ND (0.0016) [a] | ND (0.00072) [a] | ND (0.0015) [a] | ND (0.0030) | ND (0.0015) | ND (0.0011) | ND (0.0019) | ND (0.0020) | ND (0.0014) | ND (0.0013) | ND (0.00099) | ND (0.0014) | ND (0.00091) | ND (0.0016) |
| 1,1-Dichloroethane | NC | mg/kg | ND (0.0012) | ND (0.0022) | ND (0.0015) | ND (0.0012) | ND (0.0013) | ND (0.0012) | ND (0.00089) | ND (0.00077) | ND (0.00088) | ND (0.00096) | ND (0.00044) | ND (0.00092) | ND (0.0018) | ND (0.00089) | ND (0.00067) | ND (0.0012) | ND (0.0012) | ND (0.00083) | ND (0.00080) | ND (0.00060) | ND (0.00088) | ND (0.00055) | ND (0.00094) |
| 1,2-Dichloroethane | NC | mg/kg | ND (0.0014) | ND (0.0027) | ND (0.0019) | ND (0.0015) | ND (0.0016) | ND (0.0014) | ND (0.0011) | ND (0.00094) | ND (0.0011) | ND (0.0012) | ND (0.00054) | ND (0.0011) | ND (0.0022) | ND (0.0011) | ND (0.00082) | ND (0.0014) | ND (0.0015) | ND (0.0010) | ND (0.00097) | ND (0.00073) | ND (0.0011) | ND (0.00067) | ND (0.0012) |
| 1,1-Dichloroethene | NC | mg/kg | ND (0.0020) | ND (0.0038) | ND (0.0026) | ND (0.0021) | ND (0.0023) | ND (0.0020) | ND (0.0015) | ND (0.0013) | ND (0.0015) | ND (0.0016) | ND (0.00075) | ND (0.0016) | ND (0.0031) | ND (0.0015) | ND (0.0011) | ND (0.0020) | ND (0.0021) | ND (0.0014) | ND (0.0014) | ND (0.0010) | ND (0.0015) | ND (0.00094) | ND (0.0016) |
| cis-1,2-Dichloroethene | NC | mg/kg | ND (0.0029) | ND (0.0056) | ND (0.0038) | ND (0.0031) | ND (0.0033) | ND (0.0029) | ND (0.0022) | ND (0.0019) | ND (0.0022) | ND (0.0024) | ND (0.0011) | ND (0.0023) | ND (0.0046) | ND (0.0022) | ND (0.0017) | ND (0.0029) | ND (0.0030) | ND (0.0021) | ND (0.0020) | ND (0.0015) | ND (0.0022) | ND (0.0014) | ND (0.0023) |
| trans-1,2-Dichloroethene | NC | mg/kg | ND (0.0020) | ND (0.0039) | ND (0.0026) | ND (0.0021) | ND (0.0023) | ND (0.0020) | ND (0.0015) | ND (0.0013) | ND (0.0015) | ND (0.0017) | ND (0.00076) | ND (0.0016) | ND (0.0032) | ND (0.0015) | ND (0.0012) | ND (0.0020) | ND (0.0021) | ND (0.0014) | ND (0.0014) | ND (0.0010) | ND (0.0015) | ND (0.00095) | ND (0.0016) |
| 1,2-Dichloropropane | NC | mg/kg | ND (0.0012) | ND (0.0024) | ND (0.0016) | ND (0.0013) | ND (0.0014) | ND (0.0012) | ND (0.00094) | ND (0.00081) | ND (0.00094) | ND (0.0010) | ND (0.00046) | ND (0.00098) | ND (0.0019) | ND (0.00094) | ND (0.00071) | ND (0.0012) | ND (0.0013) | ND (0.00087) | ND (0.00084) | ND (0.00063) | ND (0.00093) | ND (0.00058) | ND (0.0010) |
| cis-1,3-Dichloropropene | NC | mg/kg | ND (0.0011) | ND (0.0020) | ND (0.0014) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.00081) | ND (0.00070) | ND (0.00081) | ND (0.00088) | ND (0.00040) | ND (0.00085) | ND (0.0017) | ND (0.00081) | ND (0.00062) | ND (0.0011) | ND (0.0011) | ND (0.00076) | ND (0.00073) | ND (0.00055) | ND (0.00080) | ND (0.00050) | ND (0.00086) |
| trans-1,3-Dichloropropene | NC | mg/kg | ND (0.0010) | ND (0.0019) | ND (0.0013) | ND (0.0010) | ND (0.0011) | ND (0.00098) | ND (0.00075) | ND (0.00065) | ND (0.00075) | ND (0.00082) | ND (0.00037) | ND (0.00079) | ND (0.0016) | ND (0.00075) | ND (0.00057) | ND (0.0010) | ND (0.0010) | ND (0.00070) | ND (0.00068) | ND (0.00051) | ND (0.00074) | ND (0.00047) | ND (0.00080) |
| Ethylbenzene | 1.4 | mg/kg | 0.0018 J | ND (0.0032) | ND (0.0022) | ND (0.0018) | ND (0.0019) | ND (0.0017) | ND (0.0013) | ND (0.0011) | ND (0.0013) | ND (0.0014) | ND (0.00063) | ND (0.0013) | ND (0.0026) | ND (0.0013) | ND (0.00097) | ND (0.0017) | ND (0.0018) | ND (0.0012) | ND (0.0011) | ND (0.00086) | ND (0.0013) | ND (0.00079) | ND (0.0014) |
| Freon 113 | NC | mg/kg | ND (0.0023) | ND (0.0044) | ND (0.0030) | ND (0.0024) | ND (0.0026) | ND (0.0023) | ND (0.0018) | ND (0.0015) | ND (0.0018) | ND (0.0019) [a] | ND (0.00087) [a] | ND (0.0018) [a] | ND (0.0036) | ND (0.0018) | ND (0.0013) | ND (0.0023) | ND (0.0024) | ND (0.0016) | ND (0.0016) | ND (0.0012) | ND (0.0017) | ND (0.0011) | ND (0.0019) |
| 2-Hexanone | NC | mg/kg | ND (0.0039) | ND (0.0074) | ND (0.0050) | ND (0.0041) | ND (0.0044) | ND (0.0038) | ND (0.0029) | ND (0.0025) | ND (0.0029) | ND (0.0032) | ND (0.0014) | ND (0.0031) | ND (0.0061) | ND (0.0029) | ND (0.0022) | ND (0.0039) | ND (0.0040) | ND (0.0027) | ND (0.0026) | ND (0.0020) | ND (0.0029) | ND (0.0018) | ND (0.0031) |
| Isopropylbenzene | 0.984 | mg/kg | ND (0.0021) | ND (0.0040) | ND (0.0028) | ND (0.0022) | ND (0.0024) | ND (0.0021) | ND (0.0016) | ND (0.0014) | ND (0.0016) | ND (0.0017) | ND (0.00079) | ND (0.0017) | ND (0.0033) | ND (0.0016) | ND (0.0012) | ND (0.0021) | ND (0.0022) | ND (0.0015) | ND (0.0014) | ND (0.0011) | ND (0.0016) | ND (0.0010) | ND (0.0017) |
| Methyl Acetate | NC | mg/kg | ND (0.0042) | ND (0.0081) | ND (0.0055) | ND (0.0045) | ND (0.0048) | ND (0.0042) | ND (0.0032) | ND (0.0028) | ND (0.0032) | ND (0.0035) | ND (0.0016) | ND (0.0033) | ND (0.0066) | ND (0.0032) | ND (0.0024) | ND (0.0043) | ND (0.0044) | ND (0.0030) | ND (0.0029) | ND (0.0022) | ND (0.0032) | ND (0.0020) | ND (0.0034) |
| Methylcyclohexane | NC | mg/kg | ND (0.0022) | ND (0.0041) | ND (0.0028) | ND (0.0023) | ND (0.0024) | ND (0.0021) | ND (0.0016) | ND (0.0014) | ND (0.0016) | ND (0.0018) | ND (0.00081) | ND (0.0017) | ND (0.0034) | ND (0.0016) | ND (0.0012) | ND (0.0022) | ND (0.0022) | ND (0.0015) | ND (0.0015) | ND (0.0011) | ND (0.0016) | ND (0.0010) | ND (0.0017) |
| Methyl Tert Butyl Ether | 2.911 | mg/kg | ND (0.0011) | ND (0.0020) | ND (0.0014) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.00081) | ND (0.00070) | ND (0.00081) | ND (0.00088) | ND (0.00040) | ND (0.00085) | ND (0.0017) | ND (0.00081) | ND (0.00062) | ND (0.0011) | ND (0.0011) | ND (0.00076) | ND (0.00073) | ND (0.00055) | ND (0.00080) | ND (0.00050) | ND (0.00086) |
| 4-Methyl-2-pentanone(MIBK) | NC | mg/kg | ND (0.0048) | ND (0.0091) | ND (0.0062) | ND (0.0050) | ND (0.0054) | ND (0.0047) | ND (0.0036) | ND (0.0031) | ND (0.0036) | ND (0.0039) | ND (0.0018) | ND (0.0037) | ND (0.0074) | ND (0.0036) | ND (0.0027) | ND (0.0048) | ND (0.0049) | ND (0.0034) | ND (0.0032) | ND (0.0024) | ND (0.0035) | ND (0.0022) | ND (0.0038) |
| Methylene chloride | NC | mg/kg | ND (0.0076) | ND (0.015) | ND (0.0099) | ND (0.0080) | ND (0.0086) | ND (0.0075) | ND (0.0058) | ND (0.0050) | ND (0.0057) | ND (0.0062) | ND (0.0029) | ND (0.0060) | ND (0.012) | ND (0.0058) | ND (0.0044) | ND (0.0076) | ND (0.0079) | ND (0.0054) | ND (0.0052) | ND (0.0039) | ND (0.0057) | ND (0.0036) | ND (0.0061) |
| Styrene | NC | mg/kg | ND (0.0018) | ND (0.0033) | ND (0.0023) | ND (0.0018) | ND (0.0020) | ND (0.0017) | ND (0.0013) | ND (0.0011) | ND (0.0013) | ND (0.0014) | ND (0.00066) | ND (0.0014) | ND (0.0027) | ND (0.0013) | ND (0.0010) | ND (0.0018) | ND (0.0018) | ND (0.0012) | ND (0.0012) | ND (0.00089) | ND (0.0013) | ND (0.00082) | ND (0.0014) |
| 1,1,2,2-Tetrachloroethane | NC | mg/kg | ND (0.0012) | ND (0.0023) | ND (0.0015) | ND (0.0012) | ND (0.0013) | ND (0.0012) | ND (0.00090) | ND (0.00078) | ND (0.00090) | ND (0.00097) | ND (0.00044) | ND (0.00094) | ND (0.0019) | ND (0.00090) | ND (0.00068) | ND (0.0012) | ND (0.0012) | ND (0.00084) | ND (0.00081) | ND (0.00061) | ND (0.00089) | ND (0.00056) | ND (0.00096) |
| Tetrachloroethene | 0.45 | mg/kg | ND (0.0014) | ND (0.0027) | ND (0.0018) | ND (0.0015) | ND (0.0016) | ND (0.0014) | ND (0.0011) | ND (0.00092) | ND (0.0011) | ND (0.0012) | ND (0.00053) | ND (0.0011) | ND (0.0022) | ND (0.0011) | ND (0.00081) | ND (0.0014) | ND (0.0015) | ND (0.00099) | ND (0.00095) | ND (0.00072) | ND (0.0011) | ND (0.00066) | ND (0.0011) |
| Toluene | 2.5 | mg/kg | ND (0.0011) | ND (0.0022) | ND (0.0015) | ND (0.0012) | ND (0.0013) | ND (0.0011) | ND (0.00087) | ND (0.00075) | ND (0.00086) | ND (0.00094) | 0.00096 J | ND (0.00090) | ND (0.0018) | ND (0.00087) | ND (0.00066) | ND (0.0012) | ND (0.0012) | ND (0.00081) | ND (0.00078) | ND (0.00058) | ND (0.00086) | ND (0.00054) | ND (0.00092) |
| 1,2,3-Trichlorobenzene | NC | mg/kg | ND (0.0030) | ND (0.0058) | ND (0.0040) | ND (0.0032) | ND (0.0034) | ND (0.0030) | ND (0.0023) | ND (0.0020) | ND (0.0023) | ND (0.0025) | ND (0.0011) | ND (0.0024) | ND (0.0048) | ND (0.0023) | ND (0.0017) | ND (0.0031) | ND (0.0032) | ND (0.0021) | ND (0.0021) | ND (0.0016) | ND (0.0023) | ND (0.0014) | ND (0.0025) |
| 1,2,4-Trichlorobenzene | 0.0048 | mg/kg | ND (0.0030) | ND (0.0058) | ND (0.0040) | ND (0.0032) | ND (0.0034) | ND (0.0030) | ND (0.0023) | ND (0.0020) | ND (0.0023) | ND (0.0025) | ND (0.0011) | ND (0.0024) | ND (0.0048) | ND (0.0023) | ND (0.0017) | ND (0.0031) | ND (0.0032) | ND (0.0021) | ND (0.0021) | ND (0.0016) | ND (0.0023) | ND (0.0014) | ND (0.0025) |
| 1,1,1-Trichloroethane | NC | mg/kg | ND (0.0013) | ND (0.0025) | ND (0.0017) | ND (0.0014) | ND (0.0015) | ND (0.0013) | ND (0.00098) | ND (0.00085) | ND (0.00098) | ND (0.0011) | ND (0.00049) | ND (0.0010) | ND (0.0020) | ND (0.00098) | ND (0.00074) | ND (0.0013) | ND (0.0014) | ND (0.00092) | ND (0.00088) | ND (0.00066) | ND (0.00097) | ND (0.00061) | ND (0.0010) |
| 1,1,2-Trichloroethane | NC | mg/kg | ND (0.0010) | ND (0.0020) | ND (0.0014) | ND (0.0011) | ND (0.0012) | ND (0.0010) | ND (0.00079) | ND (0.00068) | ND (0.00079) | ND (0.00085) | ND (0.00039) | ND (0.00082) | ND (0.0016) | ND (0.00079) | ND (0.00060) | ND (0.0010) | ND (0.0011) | ND (0.00074) | ND (0.00071) | ND (0.00053) | ND (0.00078) | ND (0.00049) | ND (0.00084) |
| Trichloroethene | NC | mg/kg | ND (0.0023) | ND (0.0044) | ND (0.0030) | ND (0.0024) | ND (0.0026) | ND (0.0023) | ND (0.0018) | ND (0.0015) | ND (0.0018) | ND (0.0019) | ND (0.00087) | ND (0.0018) | ND (0.0036) | ND (0.0018) | ND (0.0013) | ND (0.0023) | ND (0.0024) | ND (0.0016) | ND (0.0016) | ND (0.0012) | ND (0.0017) | ND (0.0011) | ND (0.0019) |
| Trichlorofluoromethane | NC | mg/kg | ND (0.0021) | ND (0.0040) | ND (0.0027) | ND (0.0022) | ND (0.0023) | ND (0.0020) | ND (0.0016) | ND (0.0014) | ND (0.0016) | ND (0.0017) | ND (0.00078) | ND (0.0016) | ND (0.0032) | ND (0.0016) | ND (0.0012) | ND (0.0021) | ND (0.0022) | ND (0.0015) | ND (0.0014) | ND (0.0011) | ND (0.0015) | ND (0.00097) | ND (0.0017) |
| Vinyl chloride | NC | mg/kg | ND (0.0014) | ND (0.0027) | ND (0.0019) | ND (0.0015) | ND (0.0016) | ND (0.0014) | ND (0.0011) | ND (0.00094) | ND (0.0011) | ND (0.0012) | ND (0.00053) | ND (0.0011) | ND (0.0022) [a] | ND (0.0011) | ND (0.00082) [a] | ND (0.0014) [a] | ND (0.0015) | ND (0.0010) [a] | ND (0.00097) | ND (0.00073) | ND (0.0011) [a] | ND (0.00067) | ND (0.0012) |
| m,p-Xylene | NC | mg/kg | 0.0043 | ND (0.0043) | ND (0.0030) | ND (0.0024) | ND (0.0026) | ND (0.0022) | ND (0.0017) | ND (0.0015) | ND (0.0017) | ND (0.0019) | ND (0.00085) | ND (0.0018) | ND (0.0036) | ND (0.0017) | ND (0.0013) | ND (0.0023) | ND (0.0024) | ND (0.0016) | ND (0.0015) | ND (0.0012) | ND (0.0017) | ND (0.0011) | ND (0.0018) |
| o-Xylene | NC | mg/kg | 0.0018 J | ND (0.0034) | ND (0.0023) | ND (0.0019) | ND (0.0020) | ND (0.0017) | ND (0.0013) | ND (0.0012) | ND (0.0013) | ND (0.0015) | ND (0.00066) | ND (0.0014) | ND (0.0028) | ND (0.0013) | ND (0.0010) | ND (0.0018) | ND (0.0018) | ND (0.0013) | ND (0.0012) | ND (0.00091) | ND (0.0013) | ND (0.00083) | ND (0.0014) |
| Xylene (total) | 0.12 | mg/kg | 0.0061 | ND (0.0034) | ND (0.0023) | ND (0.0019) | ND (0.0020) | ND (0.0017) | ND (0.0013) | ND (0.0012) | ND (0.0013) | ND (0.0015) | ND (0.00066) | ND (0.0014) | ND (0.0028) | ND (0.0013) | ND (0.0010) | ND (0.0018) | ND (0.0018) | ND (0.0013) | ND (0.0012) | ND (0.00091) | ND (0.0013) | ND (0.00083) | ND (0.0014) |
| **MS Volatile TIC** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Volatile | NC | mg/kg | 0.575 J | 0 | 0 | 0 | 0.562 J | 0 | 0.025 J | 0 | 0.017 J | 0 | 0 | 0 | 0 | 0.456 J | 0 | 0 | 0 | 0 | 0.061 J | 2.437 J | 0.139 J | 0.998 J | 0.151 J |

Table 5b(R)
Smith Creek & Pond Sediment Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJDEP Ecological Sediment - Saline Water Screening Criterion (ER-L or LEL) | | SS-13A | SS-14A | SS-15A | SS-16A | SS-17A | SS-18A | SS-19A | SS-20A | SS-21A | SS-22A | SS-23A | SS-24A | SS-25A | SS-26A | SS-27A | SS-28A | SS-29A | SS-30A | SS-31A | SS-32A | SS-33A | SS-34A | SS-35A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC83457-13 | JC83501-12 | JC83457-10 | JC83595-18 | JC83595-12 | JC83595-15 | JC83683-2 | JC83683-5 | JC83683-8 | JC83841-18 | JC83841-15 | JC83841-12 | JC83223-1 | JC83313-1 | JC83223-7 | JC83223-4 | JC83313-4 | JC83223-12 | JC83313-10 | JC83313-7 | JC83223-15 | JC83313-13 | JC83313-16 |
| Date Sampled: | | | 2/26/2019 | 2/27/2019 | 2/26/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 2/21/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 |
| Matrix: | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 0.008 | mg/kg | ND (0.037) | ND (0.053) | ND (0.045) | ND (0.033) | ND (0.041) | ND (0.035) | ND (0.031) | ND (0.029) | ND (0.025) | ND (0.030) | ND (0.022) | ND (0.032) | ND (0.041) | ND (0.035) | ND (0.031) | ND (0.035) | ND (0.039) | ND (0.029) | ND (0.032) | ND (0.028) | ND (0.031) | ND (0.026) | ND (0.032) |
| 4-Chloro-3-methyl phenol | NC | mg/kg | ND (0.045) | ND (0.066) | ND (0.056) | ND (0.041) [a] | ND (0.051) [a] | ND (0.043) [a] | ND (0.038) | ND (0.036) | ND (0.031) | ND (0.038) [a] | ND (0.027) [a] | ND (0.040) [a] | ND (0.050) | ND (0.044) | ND (0.039) | ND (0.043) | ND (0.049) | ND (0.036) | ND (0.039) | ND (0.035) | ND (0.038) | ND (0.032) | ND (0.039) |
| 2,4-Dichlorophenol | 0.005 | mg/kg | ND (0.063) | ND (0.092) | ND (0.078) | ND (0.058) | ND (0.072) | ND (0.060) | ND (0.053) | ND (0.050) | ND (0.043) | ND (0.052) | ND (0.037) | ND (0.055) | ND (0.070) | ND (0.061) | ND (0.054) | ND (0.060) | ND (0.068) | ND (0.051) | ND (0.055) | ND (0.049) | ND (0.053) | ND (0.044) | ND (0.054) |
| 2,4-Dimethylphenol | 0.304 | mg/kg | ND (0.13) | ND (0.19) | ND (0.16) | ND (0.12) | ND (0.15) | ND (0.12) | ND (0.11) | ND (0.11) | ND (0.090) | ND (0.11) | ND (0.078) | ND (0.12) | ND (0.15) | ND (0.13) | ND (0.11) | ND (0.12) | ND (0.14) | ND (0.11) | ND (0.11) | ND (0.10) | ND (0.11) | ND (0.092) | ND (0.11) |
| 2,4-Dinitrophenol | 0.00621 | mg/kg | ND (0.28) | ND (0.41) | ND (0.34) | ND (0.25) | ND (0.32) | ND (0.26) | ND (0.23) | ND (0.22) | ND (0.19) | ND (0.23) | ND (0.16) | ND (0.24) | ND (0.31) | ND (0.27) | ND (0.24) | ND (0.26) | ND (0.30) | ND (0.22) | ND (0.24) | ND (0.22) | ND (0.23) | ND (0.19) | ND (0.24) |
| 4,6-Dinitro-o-cresol | NC | mg/kg | ND (0.079) | ND (0.12) | ND (0.098) | ND (0.072) | ND (0.090) | ND (0.075) | ND (0.067) | ND (0.063) | ND (0.054) | ND (0.065) | ND (0.047) | ND (0.070) | ND (0.088) | ND (0.076) | ND (0.067) | ND (0.075) | ND (0.085) | ND (0.063) | ND (0.069) | ND (0.062) | ND (0.066) | ND (0.055) | ND (0.068) |
| 2-Methylphenol | NC | mg/kg | ND (0.047) | ND (0.069) | ND (0.059) | ND (0.043) | ND (0.054) | ND (0.045) | ND (0.040) | ND (0.038) | ND (0.032) | ND (0.039) | ND (0.028) | ND (0.042) | ND (0.053) | ND (0.045) | ND (0.040) | ND (0.045) | ND (0.051) | ND (0.038) | ND (0.041) | ND (0.037) | ND (0.040) | ND (0.033) | ND (0.041) |
| 3&4-Methylphenol | NC | mg/kg | 0.103 J | ND (0.089) | ND (0.075) | ND (0.056) | ND (0.069) | ND (0.058) | ND (0.051) | ND (0.049) | ND (0.042) | ND (0.050) | ND (0.036) | ND (0.053) [b] | ND (0.068) | ND (0.058) | ND (0.052) | ND (0.058) | ND (0.066) | ND (0.049) | ND (0.053) | ND (0.047) | ND (0.051) | ND (0.043) | ND (0.053) |
| 2-Nitrophenol | NC | mg/kg | ND (0.049) | ND (0.071) [a] | ND (0.061) | ND (0.045) | ND (0.056) | ND (0.046) | ND (0.041) | ND (0.039) | ND (0.033) | ND (0.040) | ND (0.029) | ND (0.043) [a] | ND (0.054) | ND (0.047) | ND (0.042) [a] | ND (0.046) | ND (0.053) | ND (0.039) [a] | ND (0.042) | ND (0.038) | ND (0.041) [a] | ND (0.034) | ND (0.042) |
| 4-Nitrophenol | 0.0133 | mg/kg | ND (0.20) [b] | ND (0.29) [a] | ND (0.24) [b] | ND (0.18) [a] | ND (0.22) [a] | ND (0.19) [a] | ND (0.17) | ND (0.16) | ND (0.14) | ND (0.16) | ND (0.12) | ND (0.17) | ND (0.22) | ND (0.19) [c] | ND (0.17) | ND (0.19) | ND (0.21) | ND (0.16) | ND (0.17) | ND (0.15) | ND (0.17) | ND (0.14) [c] | ND (0.17) [c] |
| Pentachlorophenol | 0.017 | mg/kg | ND (0.069) | ND (0.10) | ND (0.086) | ND (0.064) | ND (0.079) | ND (0.066) | ND (0.058) | ND (0.056) | ND (0.047) | ND (0.057) | ND (0.041) | ND (0.061) | ND (0.077) | ND (0.067) | ND (0.059) | ND (0.066) | ND (0.075) | ND (0.056) | ND (0.060) | ND (0.054) | ND (0.058) | ND (0.049) | ND (0.060) |
| Phenol | 0.13 | mg/kg | ND (0.039) | ND (0.056) | ND (0.048) | ND (0.035) | ND (0.044) | ND (0.037) | ND (0.033) | ND (0.031) | ND (0.026) | ND (0.032) | ND (0.023) | ND (0.034) | ND (0.043) | ND (0.037) | ND (0.033) | ND (0.037) | ND (0.042) | ND (0.031) | ND (0.034) | ND (0.030) | ND (0.032) | ND (0.027) | ND (0.033) |
| 2,3,4,6-Tetrachlorophenol | NC | mg/kg | ND (0.049) [a] | ND (0.071) | ND (0.061) [a] | ND (0.045) | ND (0.056) | ND (0.046) | ND (0.041) | ND (0.039) | ND (0.033) | ND (0.041) | ND (0.029) | ND (0.043) | ND (0.054) | ND (0.047) | ND (0.042) [a] | ND (0.046) | ND (0.053) | ND (0.039) [a] | ND (0.043) | ND (0.038) | ND (0.041) [a] | ND (0.034) | ND (0.042) |
| 2,4,5-Trichlorophenol | NC | mg/kg | ND (0.055) | ND (0.081) | ND (0.069) | ND (0.051) | ND (0.063) | ND (0.052) | ND (0.047) | ND (0.044) | ND (0.038) | ND (0.046) | ND (0.033) | ND (0.049) | ND (0.062) | ND (0.053) | ND (0.047) [a] | ND (0.052) | ND (0.060) | ND (0.044) [a] | ND (0.048) | ND (0.043) | ND (0.046) [a] | ND (0.039) | ND (0.048) |
| 2,4,6-Trichlorophenol | 0.006 | mg/kg | ND (0.044) | ND (0.064) | ND (0.055) | ND (0.040) | ND (0.050) | ND (0.042) | ND (0.037) | ND (0.035) | ND (0.030) | ND (0.036) | ND (0.026) | ND (0.039) | ND (0.049) | ND (0.042) | ND (0.038) | ND (0.042) | ND (0.048) | ND (0.035) | ND (0.038) | ND (0.034) | ND (0.037) | ND (0.031) | ND (0.038) |
| Acenaphthene | 0.016 | mg/kg | 0.134 | ND (0.037) | ND (0.032) | ND (0.023) | ND (0.029) | ND (0.024) | ND (0.021) | ND (0.020) | ND (0.017) | ND (0.021) | ND (0.015) | ND (0.022) | ND (0.028) | ND (0.024) | ND (0.022) | ND (0.024) | ND (0.028) | ND (0.020) | ND (0.022) | ND (0.020) | ND (0.021) | ND (0.018) | ND (0.022) |
| Acenaphthylene | 0.044 | mg/kg | 0.102 | ND (0.055) | ND (0.047) | ND (0.034) | ND (0.043) | ND (0.036) | ND (0.032) | ND (0.030) | ND (0.026) | ND (0.031) | ND (0.022) | ND (0.033) | ND (0.042) | ND (0.036) | ND (0.032) | ND (0.036) | ND (0.041) | ND (0.030) | ND (0.033) | ND (0.029) | ND (0.031) | ND (0.026) | ND (0.032) |
| Acetophenone | NC | mg/kg | ND (0.016) | ND (0.023) | ND (0.020) | ND (0.015) | ND (0.018) | ND (0.015) | ND (0.013) | ND (0.013) | ND (0.011) | ND (0.013) | ND (0.0094) | ND (0.014) [b] | ND (0.018) | ND (0.015) | ND (0.014) | ND (0.015) | ND (0.017) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.013) | ND (0.011) | ND (0.014) |
| Anthracene | 0.085 | mg/kg | 0.351 | ND (0.066) | ND (0.056) | ND (0.041) | ND (0.051) | ND (0.043) | ND (0.038) | ND (0.036) | ND (0.031) | ND (0.038) | ND (0.027) | ND (0.040) | ND (0.050) | ND (0.044) | 0.0421 J | ND (0.043) | ND (0.049) | ND (0.036) | ND (0.039) | ND (0.035) | ND (0.038) | ND (0.032) | ND (0.039) |
| Atrazine | NC | mg/kg | ND (0.032) | ND (0.046) [a] | ND (0.039) | ND (0.029) | ND (0.036) | ND (0.030) | ND (0.027) | ND (0.025) [a] | ND (0.022) [a] | ND (0.026) | ND (0.019) | ND (0.028) | ND (0.035) | ND (0.030) | ND (0.027) | ND (0.030) | ND (0.034) | ND (0.025) | ND (0.027) | ND (0.025) | ND (0.027) | ND (0.022) | ND (0.027) |
| Benzo(a)anthracene | 0.261 | mg/kg | 0.329 | 0.0703 J | 0.0858 J | ND (0.019) | 0.149 | 0.0453 J | 0.0206 J | 0.0749 | 0.0269 J | ND (0.017) | ND (0.012) | 0.0436 J | 0.0521 J | ND (0.020) | 0.0952 | 0.0310 J | 0.0551 J | 0.0481 J | 0.0215 J | 0.0455 J | 0.127 | 0.0226 J | 0.0550 J |
| Benzo(a)pyrene | 0.43 | mg/kg | 0.316 | 0.0591 J [d] | 0.213 | ND (0.031) | 0.166 | 0.0491 J | ND (0.028) | 0.0735 | 0.0239 J | ND (0.028) | ND (0.020) | 0.0401 J | 0.0525 J | ND (0.032) | 0.102 [d] | ND (0.032) | 0.0574 J | 0.0555 J [d] | ND (0.029) | 0.0541 J | 0.174 [d] | 0.0241 J | 0.0739 |
| Benzo(b)fluoranthene | 1.8 | mg/kg | 0.301 | 0.0778 J [d] | 0.102 | ND (0.030) | 0.216 | 0.0613 J | ND (0.028) | 0.108 | 0.0275 J | ND (0.027) | ND (0.019) | 0.0501 J [d] | 0.0598 J | ND (0.031) [d] | 0.14 | ND (0.031) | 0.0684 J | 0.0584 J | ND (0.028) | 0.07 | 0.163 | 0.0285 J [d] | 0.116 [d] |
| Benzo(g,h,i)perylene | 0.17 | mg/kg | 0.194 | ND (0.054) | 0.0743 J | ND (0.034) | 0.131 | 0.0486 J | ND (0.031) | 0.0669 | ND (0.025) | ND (0.031) | ND (0.022) | 0.0326 J | ND (0.041) | ND (0.035) | 0.0843 | ND (0.035) | 0.0469 J | 0.0447 J | ND (0.032) | 0.0399 J | 0.109 | ND (0.026) | 0.0608 J |
| Benzo(k)fluoranthene | 0.24 | mg/kg | 0.0876 | ND (0.050) | ND (0.043) | ND (0.032) | 0.1 | ND (0.033) | ND (0.029) | 0.0436 J | ND (0.024) | ND (0.029) | ND (0.020) | ND (0.030) | ND (0.038) | ND (0.033) | 0.0396 J | ND (0.033) | 0.0393 J | ND (0.028) | ND (0.030) | 0.0308 J | 0.0604 J | ND (0.024) | 0.0343 J |
| 4-Bromophenyl phenyl ether | NC | mg/kg | ND (0.029) | ND (0.042) | ND (0.035) | ND (0.026) | ND (0.032) | ND (0.027) | ND (0.024) | ND (0.023) | ND (0.020) | ND (0.024) | ND (0.017) | ND (0.025) | ND (0.032) | ND (0.027) | ND (0.024) | ND (0.027) | ND (0.031) [b] | ND (0.023) | ND (0.025) [b] | ND (0.022) [b] | ND (0.024) | ND (0.020) | ND (0.025) |
| Butyl benzyl phthalate | 0.063 | mg/kg | ND (0.018) | ND (0.026) [a] | ND (0.022) | ND (0.017) | ND (0.020) | ND (0.017) | ND (0.015) [a] | ND (0.014) | ND (0.012) | ND (0.015) | ND (0.011) | ND (0.016) [a] | ND (0.020) | ND (0.017) [c] | ND (0.015) [a] | ND (0.017) | ND (0.019) [e] | ND (0.014) [a] | ND (0.016) [e] | ND (0.014) [e] | ND (0.015) [a] | ND (0.013) [c] | ND (0.016) [c] |
| 1,1'-Biphenyl | NC | mg/kg | 0.0344 J | ND (0.015) | 0.0187 J | ND (0.0093) | ND (0.012) | ND (0.0096) | ND (0.0085) | ND (0.0081) | ND (0.0069) | ND (0.0084) | ND (0.0060) | ND (0.0089) | ND (0.011) | ND (0.0097) | ND (0.0086) | ND (0.0096) | ND (0.011) | ND (0.0081) | ND (0.0088) | ND (0.0079) | 0.0093 J | ND (0.0071) | ND (0.0088) |
| Benzaldehyde | NC | mg/kg | ND (0.018) | 10.5 [d] | ND (0.023) | ND (0.017) [a] | ND (0.021) [a] | ND (0.017) [a] | ND (0.015) | ND (0.015) | ND (0.013) | ND (0.015) [a] | ND (0.011) [a] | ND (0.016) | ND (0.020) | ND (0.018) | ND (0.016) | ND (0.017) | ND (0.020) | ND (0.015) | ND (0.016) | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.016) |
| 2-Chloronaphthalene | 0.417 | mg/kg | ND (0.018) | ND (0.026) | ND (0.022) | ND (0.016) | ND (0.020) | ND (0.017) | ND (0.015) | ND (0.014) | ND (0.012) | ND (0.015) | ND (0.010) | ND (0.015) | ND (0.020) | ND (0.017) | ND (0.015) | ND (0.017) | ND (0.019) | ND (0.014) | ND (0.015) | ND (0.014) | ND (0.015) | ND (0.012) | ND (0.015) |
| 4-Chloroaniline | NC | mg/kg | ND (0.027) | ND (0.039) | ND (0.033) | ND (0.024) | ND (0.030) | ND (0.025) | ND (0.022) | ND (0.021) | ND (0.018) | ND (0.022) | ND (0.016) | ND (0.023) | ND (0.030) | ND (0.026) | ND (0.023) | ND (0.025) | ND (0.029) | ND (0.021) | ND (0.023) | ND (0.021) | ND (0.022) | ND (0.019) | ND (0.023) |
| Carbazole | NC | mg/kg | 0.0543 J | ND (0.016) | ND (0.013) | ND (0.0098) | 0.0162 J | ND (0.010) | ND (0.0090) | ND (0.0086) | ND (0.0073) | ND (0.0089) | ND (0.0063) | ND (0.0094) | ND (0.012) | ND (0.010) | 0.0125 J | ND (0.010) | ND (0.012) | ND (0.0086) | ND (0.0093) | ND (0.0084) | ND (0.0090) | ND (0.0075) | ND (0.0093) |
| Caprolactam | NC | mg/kg | ND (0.029) | ND (0.043) | ND (0.036) | ND (0.027) | ND (0.033) | ND (0.028) | ND (0.025) | ND (0.023) | ND (0.020) | ND (0.024) | ND (0.017) | ND (0.026) [a] | ND (0.032) | ND (0.028) | ND (0.025) | ND (0.028) | ND (0.032) [a] | ND (0.023) | ND (0.025) [a] | ND (0.023) [a] | ND (0.024) | ND (0.020) | ND (0.025) |
| Chrysene | 0.384 | mg/kg | 0.375 | 0.0726 J | 0.0898 J | ND (0.021) | 0.171 | 0.0468 J | ND (0.020) | 0.096 | 0.0220 J | ND (0.019) | ND (0.014) | 0.0524 J | 0.0445 J | ND (0.022) | 0.1 | 0.0268 J | 0.0607 J | 0.0534 J | ND (0.020) | 0.0557 J | 0.124 | 0.0242 J | 0.0714 |
| bis(2-Chloroethoxy)methane | NC | mg/kg | ND (0.016) | ND (0.023) | ND (0.020) | ND (0.014) | ND (0.018) | ND (0.015) | ND (0.013) | ND (0.013) | ND (0.011) | ND (0.013) | ND (0.0094) | ND (0.014) | ND (0.018) | ND (0.015) | ND (0.013) | ND (0.015) | ND (0.017) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.013) | ND (0.011) | ND (0.014) |
| bis(2-Chloroethyl)ether | 3.52 | mg/kg | ND (0.032) | ND (0.047) | ND (0.040) | ND (0.029) | ND (0.036) | ND (0.030) | ND (0.027) | ND (0.025) | ND (0.022) | ND (0.026) | ND (0.019) | ND (0.028) | ND (0.035) | ND (0.031) | ND (0.027) | ND (0.030) | ND (0.034) | ND (0.026) | ND (0.028) | ND (0.025) | ND (0.027) | ND (0.022) | ND (0.028) |
| 2,2'-Oxybis(1-chloropropane) | NC | mg/kg | ND (0.027) | ND (0.039) [b] | ND (0.033) | ND (0.024) | ND (0.030) | ND (0.025) | ND (0.022) | ND (0.021) | ND (0.018) | ND (0.022) | ND (0.016) | ND (0.023) | ND (0.029) | ND (0.025) | ND (0.023) | ND (0.025) | ND (0.029) | ND (0.021) | ND (0.023) | ND (0.021) | ND (0.022) | ND (0.019) | ND (0.023) |
| 4-Chlorophenyl phenyl ether | NC | mg/kg | ND (0.024) | ND (0.035) | ND (0.030) | ND (0.022) | ND (0.027) | ND (0.023) | ND (0.020) | ND (0.019) | ND (0.016) | ND (0.020) | ND (0.014) | ND (0.021) | ND (0.027) | ND (0.023) | ND (0.020) | ND (0.023) | ND (0.026) | ND (0.019) | ND (0.021) | ND (0.019) | ND (0.020) | ND (0.017) | ND (0.021) |
| 2,4-Dinitrotoluene | 0.0144 | mg/kg | ND (0.023) [a] | ND (0.033) | ND (0.028) [a] | ND (0.021) | ND (0.026) | ND (0.022) | ND (0.019) | ND (0.018) | ND (0.016) | ND (0.019) [a] | ND (0.014) [a] | ND (0.020) | ND (0.025) | ND (0.022) | ND (0.020) | ND (0.022) | ND (0.025) | ND (0.018) | ND (0.020) | ND (0.018) | ND (0.019) | ND (0.016) | ND (0.020) |
| 2,6-Dinitrotoluene | NC | mg/kg | ND (0.037) | ND (0.054) | ND (0.046) | ND (0.034) | ND (0.042) | ND (0.035) | ND (0.031) | ND (0.030) | ND (0.025) | ND (0.031) | ND (0.022) | ND (0.033) | ND (0.041) | ND (0.036) | ND (0.032) | ND (0.035) | ND (0.040) | ND (0.030) | ND (0.032) | ND (0.029) | ND (0.031) | ND (0.026) | ND (0.032) |
| 3,3'-Dichlorobenzidine | 0.127 | mg/kg | ND (0.062) | ND (0.090) | ND (0.076) | ND (0.056) | ND (0.070) | ND (0.058) | ND (0.052) | ND (0.049) | ND (0.042) | ND (0.051) | ND (0.036) | ND (0.054) | ND (0.069) | ND (0.059) | ND (0.053) | ND (0.058) | ND (0.067) | ND (0.049) | ND (0.054) | ND (0.048) | ND (0.052) | ND (0.043) | ND (0.053) |
| 1,4-Dioxane | NC | mg/kg | ND (0.049) | ND (0.071) | ND (0.061) | ND (0.045) | ND (0.056) | ND (0.046) | ND (0.041) | ND (0.039) | ND (0.033) | ND (0.040) | ND (0.029) | ND (0.043) | ND (0.054) | ND (0.047) [c] | ND (0.042) | ND (0.046) | ND (0.053) | ND (0.039) | ND (0.042) | ND (0.038) | ND (0.041) | ND (0.034) [c] | ND (0.042) [c] |
| Dibenzo(a,h)anthracene | 0.063 | mg/kg | 0.0466 J | 0.178 | ND (0.041) | ND (0.030) | ND (0.037) | ND (0.031) | ND (0.028) | ND (0.026) | ND (0.022) | ND (0.027) | ND (0.019) | 0.108 | ND (0.036) | ND (0.031) | ND (0.028) [a] | ND (0.031) | ND (0.035) | ND (0.026) [a] | ND (0.028) | ND (0.025) | ND (0.027) [a] | 0.0848 | 0.112 |
| Dibenzofuran[1] | 7.3 | mg/kg | 0.0625 J | ND (0.044) | ND (0.037) | ND (0.028) | ND (0.034) | ND (0.028) | ND (0.025) | ND (0.024) | ND (0.021) | ND (0.025) | ND (0.018) | ND (0.026) | ND (0.033) | ND (0.029) | ND (0.026) | ND (0.028) | ND (0.032) | ND (0.024) | ND (0.026) | ND (0.023) | ND (0.025) | ND (0.021) | ND (0.026) |
| Di-n-butyl phthalate | 0.058 | mg/kg | ND (0.012) | ND (0.018) [a] | ND (0.015) | ND (0.011) | ND (0.014) | ND (0.011) | ND (0.010) [a] | ND (0.0096) | ND (0.0082) | ND (0.010) | ND (0.0071) | ND (0.011) [a] | ND (0.013) | ND (0.012) | ND (0.010) | ND (0.011) | ND (0.013) | ND (0.0097) | ND (0.010) | ND (0.0094) | ND (0.010) | ND (0.0084) | ND (0.010) |
| Di-n-octyl phthalate | NC | mg/kg | ND (0.018) | ND (0.027) | ND (0.023) | ND (0.017) | ND (0.021) | ND (0.017) | ND (0.016) | ND (0.015) | ND (0.013) | ND (0.015) | ND (0.011) | ND (0.016) | ND (0.020) [a] | ND (0.018) | ND (0.016) [a] | ND (0.017) [a] | ND (0.020) [a] | ND (0.015) [a] | ND (0.016) [a] | ND (0.014) [a] | ND (0.015) [a] | ND (0.013) | ND (0.016) |
| Diethyl phthalate | 0.006 | mg/kg | ND (0.016) | ND (0.023) | ND (0.020) | ND (0.014) | ND (0.018) | ND (0.015) | ND (0.013) | ND (0.013) | ND (0.011) | ND (0.013) | ND (0.0093) | ND (0.014) | ND (0.018) | ND (0.015) | ND (0.013) | ND (0.015) | ND (0.017) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.013) | ND (0.011) | ND (0.014) |
| Dimethyl phthalate | NC | mg/kg | ND (0.013) | ND (0.019) | ND (0.016) | ND (0.012) | ND (0.015) | ND (0.012) | ND (0.011) | ND (0.011) | ND (0.0090) | ND (0.011) | ND (0.0078) | ND (0.012) | ND (0.015) | ND (0.013) | ND (0.011) | ND (0.012) | ND (0.014) | ND (0.011) | ND (0.011) | ND (0.010) | ND (0.011) | ND (0.0092) | ND (0.011) |
| bis(2-Ethylhexyl)phthalate | 0.182 | mg/kg | 0.788 | ND (0.025) [a] | ND (0.021) | ND (0.016) | 0.489 | 0.119 J | ND (0.015) [a] | 0.426 | 0.0870 J | ND (0.014) [a] | ND (0.010) [a] | 0.147 [d] | ND (0.019) | 0.325 [d] | ND (0.015) [a] | ND (0.016) | ND (0.019) [e] | ND (0.014) [a] | ND (0.015) [e] | ND (0.014) [e] | 0.504 [d] | 0.161 [d] |
| Fluoranthene | 0.6 | mg/kg | 0.815 | 0.137 | 0.134 | ND (0.030) | 0.214 | 0.0594 J | ND (0.028) | 0.122 | 0.0274 J | ND (0.027) | ND (0.019) | 0.0776 | 0.0762 J | 0.0625 J | 0.159 | 0.0374 J | 0.0788 J | 0.0601 | 0.0365 J | 0.0957 | 0.134 | 0.0451 J | 0.135 |
| Fluorene | 0.019 | mg/kg | 0.116 | ND (0.050) | ND (0.042) | ND (0.031) | ND (0.039) | ND (0.032) | ND (0.029) | ND (0.027) | ND (0.023) | ND (0.028) | ND (0.020) | ND (0.030) | ND (0.038) | ND (0.033) | ND (0.029) | ND (0.032) | ND (0.037) | ND (0.027) | ND (0.029) | ND (0.026) | ND (0.028) | ND (0.024) | ND (0.029) |
| Hexachlorobenzene | 0.02 | mg/kg | ND (0.019) | ND (0.027) | ND (0.023) | ND (0.017) [b] | ND (0.021) [b] | ND (0.018) [b] | ND (0.016) | ND (0.015) | ND (0.013) | ND (0.015) | ND (0.011) | ND (0.016) | ND (0.021) | ND (0.018) | ND (0.016) | ND (0.018) | ND (0.020) [b] | ND (0.015) | ND (0.016) [b] | ND (0.015) [b] | ND (0.016) | ND (0.013) | ND (0.016) |
| Hexachlorobutadiene | 0.0013 | mg/kg | ND (0.030) | ND (0.043) | ND (0.037) | ND (0.027) | ND (0.034) | ND (0.028) | ND (0.025) | ND (0.024) | ND (0.020) | ND (0.025) | ND (0.018) | ND (0.026) [a] | ND (0.033) | ND (0.029) | ND (0.025) | ND (0.028) | ND (0.032) | ND (0.024) | ND (0.026) | ND (0.023) | ND (0.025) | ND (0.021) | ND (0.026) |
| Hexachlorocyclopentadiene | 0.901 | mg/kg | ND (0.029) | ND (0.043) | ND (0.036) | ND (0.027) | ND (0.033) | ND (0.028) | ND (0.025) | ND (0.024) | ND (0.020) | ND (0.024) | ND (0.017) | ND (0.026) | ND (0.033) | ND (0.028) | ND (0.025) | ND (0.028) | ND (0.032) | ND (0.024) | ND (0.026) | ND (0.023) | ND (0.025) | ND (0.021) | ND (0.025) |
| Hexachloroethane | 0.584 | mg/kg | ND (0.037) | ND (0.053) | ND (0.045) | ND (0.033) | ND (0.042) | ND (0.035) | ND (0.031) | ND (0.029) | ND (0.025) | ND (0.030) | ND (0.022) | ND (0.032) | ND (0.041) | ND (0.035) | ND (0.031) | ND (0.035) | ND (0.039) | ND (0.029) | ND (0.032) | ND (0.029) | ND (0.031) | ND (0.026) | ND (0.032) |
| Indeno(1,2,3-cd)pyrene | 0.2 | mg/kg | 0.212 | 0.248 | 0.192 | ND (0.032) | 0.135 | 0.0449 J | ND (0.029) | 0.116 | ND (0.024) | ND (0.029) | ND (0.020) | 0.15 | ND (0.039) | ND (0.033) | 0.0645 [d] | ND (0.033) | 0.11 | 0.0330 J [d] | ND (0.030) | 0.0868 | 0.0811 [d] | 0.117 | 0.179 |
| Isophorone | 0.432 | mg/kg | ND (0.016) | ND (0.023) | ND (0.020) | ND (0.014) | ND (0.018) | ND (0.015) | ND (0.013) | ND (0.013) | ND (0.011) | ND (0.013) | ND (0.0094) | ND (0.014) | ND (0.018) | ND (0.015) | ND (0.013) | ND (0.015) | ND (0.017) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.013) | ND (0.011) | ND (0.014) |
| 2-Methylnaphthalene | 0.07 | mg/kg | 0.143 | ND (0.024) | 0.0263 J | ND (0.015) | ND (0.019) | ND (0.016) | ND (0.014) | ND (0.013) | ND (0.011) | ND (0.014) | ND (0.0099) | ND (0.015) | ND (0.019) | ND (0.016) | ND (0.014) | ND (0.016) | ND (0.018) | ND (0.013) | ND (0.015) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.014) |
| 2-Nitroaniline | NC | mg/kg | ND (0.017) | ND (0.025) [a] | ND (0.022) | ND (0.016) | ND (0.020) | ND (0.017) | ND (0.015) | ND (0.014) | ND (0.012) | ND (0.014) | ND (0.010) | ND (0.015) | ND (0.019) [a] | ND (0.017) [c] | ND (0.015) [a] | ND (0.017) [a] | ND (0.019) | ND (0.014) [a] | ND (0.015) | ND (0.014) | ND (0.015) [a] | ND (0.012) [c] | ND (0.015) [c] |
| 3-Nitroaniline | NC | mg/kg | ND (0.018) | ND (0.027) | ND (0.023) | ND (0.017) [a] | ND (0.021) [a] | ND (0.017) [a] | ND (0.016) | ND (0.015) | ND (0.013) | ND (0.015) | ND (0.011) | ND (0.016) | ND (0.021) | ND (0.018) | ND (0.016) | ND (0.017) | ND (0.020) | ND (0.015) | ND (0.016) | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.016) |
| 4-Nitroaniline | NC | mg/kg | ND (0.019) | ND (0.028) | ND (0.024) | ND (0.018) | ND (0.022) | ND (0.018) | ND (0.016) [b] | ND (0.015) | ND (0.013) | ND (0.016) | ND (0.011) | ND (0.017) | ND (0.021) | ND (0.018) | ND (0.016) | ND (0.018) | ND (0.021) | ND (0.015) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.013) | ND (0.017) |
| Naphthalene | 0.16 | mg/kg | 0.237 | ND (0.030) | 0.0778 J | ND (0.019) | ND (0.024) | ND (0.020) | ND (0.018) | ND (0.017) | ND (0.014) | ND (0.017) | ND (0.012) | ND (0.018) | ND (0.023) | ND (0.020) | ND (0.018) | ND (0.020) | ND (0.023) | ND (0.017) | ND (0.018) | ND (0.016) | 0.0172 J | ND (0.015) | ND (0.018) |
| Nitrobenzene | 0.145 | mg/kg | ND (0.029) | ND (0.042) | ND (0.035) | ND (0.026) | ND (0.032) | ND (0.027) | ND (0.024) | ND (0.023) | ND (0.020) | ND (0.024) | ND (0.017) | ND (0.025) | ND (0.032) | ND (0.027) | ND (0.024) | ND (0.027) | ND (0.031) | ND (0.023) | ND (0.025) | ND (0.022) | ND (0.024) | ND (0.020) | ND (0.025) |
| N-Nitroso-di-n-propylamine | NC | mg/kg | ND (0.021) | ND (0.031) | ND (0.026) | ND (0.020) | ND (0.024) | ND (0.020) | ND (0.018) | ND (0.017) | ND (0.015) | ND (0.018) | ND (0.013) | ND (0.019) | ND (0.024) | ND (0.021) | ND (0.018) | ND (0.020) | ND (0.023) | ND (0.017) | ND (0.019) | ND (0.017) | ND (0.018) | ND (0.015) | ND (0.018) |
| N-Nitrosodiphenylamine | NC | mg/kg | ND (0.027) | ND (0.039) | ND (0.034) | ND (0.025) | ND (0.031) | ND (0.026) | ND (0.023) | ND (0.022) | ND (0.019) | ND (0.022) | ND (0.016) | ND (0.024) | ND (0.030) | ND (0.026) | ND (0.023) | ND (0.026) | ND (0.029) | ND (0.022) | ND (0.024) | ND (0.021) | ND (0.023) | ND (0.019) | ND (0.023) |
| Phenanthrene | 0.24 | mg/kg | 0.302 | 0.0649 J | 0.0786 J | ND (0.023) [b] | 0.0852 [b] | 0.0359 J [b] | ND (0.021) | 0.0325 J | ND (0.017) | ND (0.021) | ND (0.015) | ND (0.022) | ND (0.028) | ND (0.024) | 0.0964 | ND (0.024) | ND (0.027) | 0.0219 J | ND (0.022) | 0.0385 J | 0.0481 J | ND (0.017) | 0.0351 J |
| Pyrene | 0.665 | mg/kg | 0.917 | 0.136 | 0.131 | 0.0286 J | 0.352 | 0.0984 | 0.0270 J | 0.155 | 0.0330 J | ND (0.020) | 0.0312 J | 0.126 | 0.0703 J | 0.094 | 0.176 | 0.0396 J | 0.119 | 0.0709 | 0.0609 J | 0.113 | 0.178 | 0.0529 | 0.136 |
| 1,2,4,5-Tetrachlorobenzene | 1.252 | mg/kg | ND (0.019) | ND (0.027) | ND (0.023) | ND (0.017) | ND (0.021) | ND (0.018) | ND (0.016) | ND (0.015) | ND (0.013) | ND (0.016) | ND (0.011) | ND (0.017) | ND (0.021) | ND (0.018) | ND (0.016) | ND (0.018) | ND (0.020) [b] | ND (0.015) | ND (0.016) [b] | ND (0.015) [b] | ND (0.016) | ND (0.013) | ND (0.016) |
| Total PAHs | 4 | mg/kg | 4.9 | 1 | 1.2 | 0.03 | 1.7 | 0.49 | 0.05 | 0.89 | 0.16 | 0 | 0.03 | 0.68 | 0.36 | 0.16 | 1.1 | 0.13 | 0.64 | 0.45 | 0.12 | 0.63 | 1.2 | 0.42 | 1.1 |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | NC | mg/kg | 32.96 J | 16.5 J | 32.42 J | 0 | 2.19 J | 0.95 J | 0 | 0.71 J | 0 | 0 | 1.9 J | 0 | 0 | 16.79 J | 1.05 J | 0.85 | 0.88 J | 0.35 J | 0.26 J | 0.61 J | 0.35 J | 1.84 J | 1.98 J |

Table 5b(R)
Smith Creek & Pond Sediment Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJDEP Ecological Sediment - Saline Water Screening Criterion (ER-L or LEL) | | SS-13A | SS-14A | SS-15A | SS-16A | SS-17A | SS-18A | SS-19A | SS-20A | SS-21A | SS-22A | SS-23A | SS-24A | SS-25A | SS-26A | SS-27A | SS-28A | SS-29A | SS-30A | SS-31A | SS-32A | SS-33A | SS-34A | SS-35A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC83457-13 | JC83501-12 | JC83457-10 | JC83595-18 | JC83595-12 | JC83595-15 | JC83683-2 | JC83683-5 | JC83683-8 | JC83841-18 | JC83841-15 | JC83841-12 | JC83223-1 | JC83313-1 | JC83223-7 | JC83223-4 | JC83313-4 | JC83223-12 | JC83313-10 | JC83313-7 | JC83223-15 | JC83313-13 | JC83313-16 |
| Date Sampled: | | | 2/26/2019 | 2/27/2019 | 2/26/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 2/21/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 |
| Matrix: | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **GC/LC Semi-volatiles (NJDEP EPH)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| C10-C12 Aromatics | NC | mg/kg | ND (6.2) | ND (8.4) | ND (6.7) | ND (5.3) | ND (6.8) | ND (5.6) | ND (5.3) | ND (5.0) | ND (3.9) | ND (4.9) | ND (3.5) | ND (5.5) | ND (6.3) | ND (5.8) | ND (5.1) | ND (5.3) | ND (6.3) | ND (5.1) | ND (4.9) | ND (4.6) | ND (4.9) | ND (4.2) | ND (4.9) |
| C12-C16 Aromatics | NC | mg/kg | ND (6.2) | ND (8.4) | ND (6.7) | ND (5.3) | ND (6.8) | ND (5.6) | ND (5.3) | ND (5.0) | ND (3.9) | ND (4.9) | ND (3.5) | ND (5.5) | ND (6.3) | ND (5.8) | ND (5.1) | ND (5.3) | ND (6.3) | ND (5.1) | ND (4.9) | ND (4.6) | ND (4.9) | ND (4.2) | ND (4.9) |
| C16-C21 Aromatics | NC | mg/kg | 44.2 | ND (8.4) | ND (6.7) | 34.6 | ND (6.8) | ND (5.6) | ND (5.3) | ND (5.0) | ND (3.9) | ND (4.9) | ND (3.5) | 51 | ND (6.3) | 43.8 | ND (5.1) | ND (5.3) | ND (6.3) | ND (5.1) | ND (4.9) | ND (4.6) | ND (4.9) | ND (4.2) | ND (4.9) |
| C21-C36 Aromatics | NC | mg/kg | 56.6 | ND (8.4) | ND (6.7) | 98 | ND (6.8) | ND (5.6) | ND (5.3) | ND (5.0) | ND (3.9) | ND (4.9) | ND (3.5) | 65.1 | ND (6.3) | 85.8 | ND (5.1) | ND (5.3) | ND (6.3) | ND (5.1) | ND (4.9) | ND (4.6) | ND (4.9) | ND (4.2) | ND (4.9) |
| Total Aromatics | NC | mg/kg | 101 | ND (8.4) | ND (6.7) | 133 | ND (6.8) | ND (5.6) | ND (5.3) | ND (5.0) | ND (3.9) | ND (4.9) | ND (3.5) | 116 | ND (6.3) | 130 | ND (5.1) | ND (5.3) | ND (6.3) | ND (5.1) | ND (4.9) | ND (4.6) | ND (4.9) | ND (4.2) | ND (4.9) |
| C9-C12 Aliphatics | NC | mg/kg | 13.7 | ND (8.4) | ND (6.7) | ND (5.3) | ND (6.8) | ND (5.6) | ND (5.3) | ND (5.0) | ND (3.9) | ND (4.9) | ND (3.5) | 22 | ND (6.3) | ND (5.8) | ND (5.1) | ND (5.3) | ND (6.3) | ND (5.1) | ND (4.9) | ND (4.6) | ND (4.9) | ND (4.2) | ND (4.9) |
| C12-C16 Aliphatics | NC | mg/kg | 55.5 | ND (8.4) | ND (6.7) | 32.4 | ND (6.8) | 14.7 | ND (5.3) | ND (5.0) | ND (3.9) | ND (4.9) | ND (3.5) | 81.3 | ND (6.3) | 38.8 | ND (5.1) | ND (5.3) | ND (6.3) | ND (5.1) | 16.7 | 15.2 | ND (4.9) | 15.6 | ND (4.9) |
| C16-C21 Aliphatics | NC | mg/kg | 76.9 | 37.7 | ND (6.7) | 64.4 | 21.9 | 28.6 | ND (5.3) | ND (5.0) | 9.62 | ND (4.9) | ND (3.5) | 106 | ND (6.3) | 74.3 | ND (5.1) | ND (5.3) | 28.2 | ND (5.1) | 25.6 | 24.3 | ND (4.9) | 28.5 | 26.3 |
| C21-C40 Aliphatics | NC | mg/kg | 150 | 78.7 | ND (6.7) | 135 | 45.5 | 64.2 | ND (5.3) | 35.7 | 17.7 | ND (4.9) | ND (3.5) | 152 | ND (6.3) | 118 | ND (5.1) | ND (5.3) | 65.3 | ND (5.1) | 25.2 | 33.6 | ND (4.9) | 49.5 | 81.4 |
| Total Aliphatics | NC | mg/kg | 296 | 116 | ND (6.7) | 232 | 67.4 | 108 | ND (5.3) | 35.7 | 27.4 | ND (4.9) | ND (3.5) | 361 | ND (6.3) | 231 | ND (5.1) | ND (5.3) | 93.4 | ND (5.1) | 67.5 | 73.2 | ND (4.9) | 93.6 | 108 |
| Total EPH | NC | mg/kg | 396 | 116 | ND (13) | 365 | 67.4 | 108 | ND (11) | 35.7 | 27.4 | ND (9.7) | ND (7.0) | 477 | ND (13) | 361 | ND (10) | ND (11) | 93.4 | ND (10) | 67.5 | 73.2 | ND (9.8) | 93.6 | 108 |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 25500 | mg/kg | 26900 | 24300 | 30200 | 19200 | 20200 | 19900 | 27200 | 10700 | 28500 | 30700 | 19900 | 19500 | 30700 | 21300 | 26800 | 21300 | 21700 | 24000 | 21500 | 9600 | 30700 | 15200 | 17600 |
| Antimony | NC | mg/kg | <4.8 | <6.7 | <5.3 | <4.2 | <5.3 | <4.1 | <4.1 | <3.6 | <3.1 | <3.8 | <2.7 | <4.0 | <4.8 | 7.1 | 4.1 | <4.2 | <4.6 | <3.7 | <4.0 | <3.4 | <4.0 | <3.6 | <3.9 |
| Arsenic | 8.2 | mg/kg | 120 | 35.8 | 64.2 | 49.9 [f] | 44.8 | 64.3 [f] | 74.2 [f] | 20.3 | 54.2 [f] | 26.6 | 71.7 | 34 | 112 | 47.9 [f] | 80.8 | 63.1 | 52.0 [f] | 22.5 | 63.1 [f] | 21.5 | 68.5 | 30.9 | 43 |
| Barium | NC | mg/kg | 340 | 180 | 90.9 | 103 | 152 | 236 | 64.7 | 67.1 | 319 | 64.5 | 279 | 121 | 135 | 244 | 368 | 66.9 | 179 | 94.3 | 264 | 51.9 | 121 | 123 | 121 |
| Beryllium | NC | mg/kg | 2 | 1.6 | 1.8 | 1.4 | 1.5 | 1.5 | 1.3 | 0.82 | 2.4 | 1.5 | 2 | 1.4 | 1.9 | 2.2 | 2.1 | 0.75 | 1.7 | 0.91 | 1.3 | 0.68 | 1.6 | 1 | 1.2 |
| Cadmium | 1.2 | mg/kg | 4.9 | 2.2 | <1.3 | <1.0 | <1.3 | <1.0 | <1.0 | 1.9 | 0.94 | <0.95 | 2 | 2.3 | 1.7 | 1.1 | <2.8 [g] | <1.0 | 5.1 | <0.93 | <0.99 | 0.99 | <0.99 | 2.6 | 3.7 |
| Calcium | NC | mg/kg | 4480 | 4660 | 2490 | 2160 | 3780 | 4440 | 1870 | 4570 | 10200 | 2020 | 3360 | 3410 | 2490 | 37600 | 4400 | 1520 | 3500 | 1520 | 2520 | 1360 | 2130 | 2260 | 3330 |
| Chromium | 81 | mg/kg | 194 | 113 | 71.6 | 69.5 | 87.8 | 102 | 49.3 | 44.1 | 243 | 49.5 | 91.1 [f] | 73.3 [f] | 97.7 | 96.0 [f] | 226 | 57.9 | 116 [f] | 47.3 | 60.9 | 40.1 | 87.3 | 58.2 | 72 |
| Cobalt | 50 | mg/kg | 15.7 | <17 | <13 | 12.3 | <13 | 11.1 | 13.7 | <9.0 | 13.2 | 15.2 | 12.3 | 11.2 | 16 | 12.3 | 16.3 | <10 | 13.6 | 10.9 | <9.9 | <8.5 | 13.3 | <8.9 | 11.3 |
| Copper | 34 | mg/kg | 487 | 340 | 116 | 244 [f] | 275 | 286 [f] | 37.6 [f] | 143 | 85.9 [f] | 33.9 | 216 [f] | 232 [f] | 390 | 199 [f] | 197 [g] | 162 | 401 [f] | 61.2 | 101 [f] | 139 | 194 | 206 | 292 |
| Iron | 20000 | mg/kg | 59000 | 52500 | 38500 | 49000 | 50900 | 55600 | 55300 | 31500 | 56800 | 37800 | 38800 | 45900 | 38600 | 55400 | 75200 | 25400 | 58600 | 29300 | 46000 | 20000 | 35800 | 29600 | 37200 |
| Lead | 47 | mg/kg | 279 | 211 | 351 | 128 [f] | 199 | 177 [f] | 97.9 [f] | 112 | 61.8 [f] | 68.1 | 135 [f] | 201 | 306 | 324 [f] | 369 [g] | 195 | 264 [f] | 101 | 98.7 [f] | 111 | 249 | 133 | 185 |
| Magnesium | NC | mg/kg | 8840 | 10700 | 9710 | 6420 | 7430 | 6010 | 8230 | 4420 | 3900 | 9440 | 4530 | 4870 | 8430 | 4170 | 4550 | 6380 | 6540 | 6270 | 3210 | 2320 | 8650 | 3460 | 5670 |
| Manganese | 630 | mg/kg | 419 | 354 | 396 | 313 [f] | 251 | 259 [f] | 492 [f] | 201 | 211 [f] | 437 | 275 [f] | 192 [f] | 313 | 263 [f] | 173 [g] | 243 | 233 [f] | 243 | 151 [f] | 79.3 | 350 | 173 | 241 |
| Mercury | 0.15 | mg/kg | 4.9 | 2.2 | 2.3 | 5.7 | 1.9 | 2 | 0.78 | 0.59 | 0.98 | 0.13 | 0.21 | 4.4 | 0.44 | 1.1 | 2.8 | 0.52 | 1.9 | 0.52 | 1.1 | 0.85 | 4 | 2 | 1.2 |
| Nickel | 21 | mg/kg | 56.3 | 51.7 | 40.1 | 42.9 | 48.1 | 45.1 | 41.1 | 30.3 | 61.4 | 41.6 | 36.4 | 45.6 | 80.8 | 62 | 189 | 27.2 | 68 | 28.6 | 33.5 | 21.8 | 48.3 | 37.3 | 47.2 |
| Potassium | NC | mg/kg | 5040 | 5060 | 5420 | 3640 | 3640 | 3200 | 4640 | <1800 | 2980 | 5570 | 2980 | 2680 | 5540 | 2700 | 3340 | 4600 | 3410 | 4560 | 2030 | <1700 | 5420 | <1800 | 2580 |
| Selenium | NC | mg/kg | <9.6 | <6.7 | <5.3 | <8.4 [f] | <5.3 | <8.3 [f] | <8.2 [f] | <3.6 | <9.3 [f] | <3.8 | <5.4 [f] | <7.9 [f] | 6 | <8.5 [f] | <11 [g] | 7.3 | <9.2 [f] | <3.7 | <7.9 [f] | <3.4 | <4.0 | <3.6 | <3.9 |
| Silver | 1 | mg/kg | 4.4 | 2.7 | <1.3 | <2.1 [f] | 2.3 | <2.1 [f] | <2.0 [f] | <0.90 | <2.3 [f] | <0.95 | 1.7 [f] | <2.0 [f] | 2.1 | <2.1 [f] | <2.8 [g] | 1.6 | <2.3 [f] | <0.93 | <2.0 [f] | 1.5 | 1.1 | 1.9 | 2.7 |
| Sodium | NC | mg/kg | 8820 | 16700 | 11600 | 6670 | 10900 | 8220 | 7770 | 4360 | 3710 | 8480 | 5840 | 7030 | 7620 | 7060 | 4300 | 5060 | 9430 | 4980 | 3430 | 3370 | 7000 | 2640 | 3950 |
| Thallium | NC | mg/kg | <4.8 | <3.4 | <2.6 | <4.2 [f] | <2.7 | <4.1 [f] | <4.1 [f] | <1.8 | <4.6 [f] | <1.9 | <2.7 [f] | <4.0 [f] | <2.4 | <4.2 [f] | <5.7 [g] | <2.1 | <4.6 [f] | <1.9 | <4.0 [f] | <1.7 | <2.0 | <1.8 | <3.9 [f] |
| Vanadium | NC | mg/kg | 100 | 90 | 61.4 | 72.9 | 101 | 77 | 52.9 | 63.1 | 293 | 63.2 | 77.4 | 103 | 134 | 257 | 1420 | 71.8 | 178 | 61 | 121 | 50 | 69.1 | 78.5 | 88.7 |
| Zinc | 150 | mg/kg | 435 | 432 | 176 | 300 | 440 | 305 | 157 | 285 | 105 | 120 | 222 | 375 | 356 | 233 | 232 | 90.6 | 592 | 93.5 | 115 | 209 | 238 | 335 | 513 |
| **General Chemistry** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 Inch Sieve | NC | % | 100 | 100 | 100 | 100 | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1.5 Inch Sieve | NC | % | 100 | 100 | 97.4 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 0.75 Inch Sieve | NC | % | 100 | 100 | 97.4 | 100 | 100 | 100 | 100 | 84 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | 100 | 100 | 96.9 | 100 | 100 | 100 | 100 |
| 0.375 Inch Sieve | NC | % | 100 | 100 | 97.4 | 100 | 100 | 100 | 100 | 80 | 98.7 | 100 | 96.6 | 100 | 100 | 100 | 99 | | 98.8 | 100 | 92.1 | 100 | 100 | 100 | 100 |
| No.4 Sieve (4.75 mm) | NC | % | 100 | 100 | 97.4 | 100 | 100 | 97.7 | 100 | 75.4 | 97.5 | 100 | 93.3 | 100 | 100 | 100 | 95.5 | | 98.6 | 99.9 | 85.9 | 99.9 | 100 | 100 | 100 |
| No.8 Sieve (2.36 mm) | NC | % | 100 | 100 | 97.4 | 100 | 100 | 91.4 | 100 | 69.7 | 90.2 | 100 | 90.7 | 99.9 | 100 | 100 | 91.7 | | 98.5 | 99.7 | 79.9 | 98.7 | 100 | 99.5 | 99.6 |
| No.10 Sieve (2.00 mm) | NC | % | 100 | 100 | 97.4 | 100 | 99.8 | 90 | 100 | 68.6 | 88.2 | 100 | 90 | 98.9 | 100 | 98.6 | 90.9 | | 98.4 | 99.6 | 78.6 | 98.3 | 100 | 99.3 | 99.4 |
| No.16 Sieve (1.18 mm) | NC | % | 99.5 | 99.2 | 96.7 | 98.3 | 99.6 | 80.7 | 99.9 | 61.3 | 80.4 | 100 | 84.6 | 97.2 | 99.2 | 97.9 | 79.8 | | 86.2 | 96.1 | 70.9 | 86.9 | 96.4 | 84.2 | 78.2 |
| No.30 Sieve (0.60 mm) | NC | % | 94.2 | 98.2 | 84.6 | 95.3 | 96.4 | 74.3 | 99.2 | 51.9 | 74.8 | 98.3 | 69.1 | 90.6 | 96.5 | 96.2 | 72.2 | | 74.1 | 86.2 | 56.5 | 60.9 | 94.8 | 67.8 | 67.8 |
| No.50 Sieve (0.30 mm) | NC | % | 82.1 | 90 | 71.7 | 90.9 | 88 | 66.7 | 98.6 | 34.5 | 69.7 | 95.3 | 49 | 76.8 | 93.3 | 93.9 | 64.3 | | 65.6 | 65.8 | 39.3 | 38 | 93.8 | 49.2 | 59.7 |
| No.100 Sieve (0.15 mm) | NC | % | 65 | 72.8 | 57.2 | 86.8 | 76.5 | 56.7 | 98.1 | 24.3 | 64.4 | 90.9 | 36.5 | 55.6 | 89.2 | 89.8 | 58.8 | | 59.8 | 54.6 | 29.8 | 28 | 93.1 | 38.6 | 54.6 |
| No.200 Sieve (0.075 mm) | NC | % | 50.1 | 63.1 | 48.7 | 84.6 | 62.6 | 49.8 | 97.7 | 21.9 | 59 | 86.8 | 32 | 46.6 | 85.9 | 84.3 | 55.7 | | 56.6 | 50.7 | 27.6 | 27 | 92.7 | 36.3 | 52.5 |
| 0.030 mm (Hydrometer) | NC | % | 20 | 34 | 29 | 80 | 52.6 | 22 | 78 | 12 | 61 | 84.6 | 30 | 33 | 83 | 60 | 48 | | 43 | 40 | 21 | 14 | 68 | 20 | 32 |
| 0.005 mm (Hydrometer) | NC | % | 7 | 15 | 9 | 42 | 29 | 6 | 41 | 6 | 32 | 28 | 14 | 14 | 46 | 17 | 27 | | 14 | 22 | 6 | 7 | 35 | 5 | 13 |
| 0.0015 mm (Hydrometer) | NC | % | 0 | 5 | 1 | 27 | 7.7 | 0.94 | 19 | 4 | 25 | 80 | 11 | 8 | 20 | 8 | 19 | | 4 | 12 | 4 | 5 | 15 | 0 | 6 |
| % Gravel | NC | % | 0 | 0 | 2.6 | 0 | 1 | 2.3 | 0 | 24.6 | 2.5 | 42 | 6.7 | 0 | 0 | 0 | 4.5 | | 1.4 | 0.13 | 14.1 | 0.12 | 0 | 0 | 0 |
| % Sand | NC | % | 49.9 | 36.9 | 48.8 | 15.4 | 0 | 48 | 2.3 | 53.6 | 38.5 | 27 | 61.3 | 53.4 | 14.1 | 15.7 | 39.8 | | 42 | 49.2 | 58.3 | 72.8 | 7.4 | 63.7 | 47.5 |
| % Silt, Clay, Colloids | NC | % | 50.1 | 63.1 | 48.7 | 84.6 | 47.4 | 49.8 | 97.7 | 21.9 | 59 | 15.4 | 32 | 46.6 | 85.9 | 84.3 | 55.7 | | 56.6 | 50.7 | 27.6 | 27 | 92.7 | 36.3 | 52.5 |
| Chloride | NC | mg/kg | 2640 [h] | 22000 [h] | 5460 [h] | 4990 [h] | 14900 [h] | 11100 [h] | 8270 [h] | 4270 [h] | 4930 [h] | 8360 [h] | 2380 [h] | 11000 [h] | 7420 | 8710 [g] | 1410 | | 11500 [g] | 1790 | 5250 [g] | 5180 [g] | 1380 | 749 [h] | 1820 [h] |
| Nitrogen, Ammonia | NC | mg/kg | 183 | 120 | 150 | 123 | 87.9 | 47.2 | 121 | 24.4 | 15.8 | 98.1 | 34 | 24.7 | 20.4 | <9.3 | <8.9 | | <10 | 22.8 | 10.4 | <7.5 | 134 | 35.3 | 37.7 |
| Nitrogen, Nitrate | NC | mg/l | - | 209 [i] | - | - | - | - | - | - | - | - | - | - | - | - | - | | - | - | - | - | - | - | - |
| Nitrogen, Nitrate | NC | mg/kg | <39 [i] | 209 [i] | 44.9 [i] | <42 [i] | <50 [i] | 92.5 [i] | <38 [i] | 74.6 [i] | <31 [i] | <38 [i] | 45.6 [i] | 231 [i] | 74.4 [i] | <42 [i] | 39.2 j | | 129 [i] | <38 [i] | <41 [i] | <35 [i] | 58.3 [i] | 36.4 [i] | <39 [i] |
| Nitrogen, Nitrate + Nitrite | NC | mg/kg | <39 | 209 | 45 | <42 | <50 | 92.8 | <38 | 74.8 | <31 | <38 | 45.6 | 232 | 74.4 | <42 | 39.2 | | 130 | <38 | <41 | <35 | 58.3 | 36.9 | <39 |
| Nitrogen, Nitrite | NC | mg/kg | <0.39 | <0.66 | <0.36 | <0.39 | <0.48 | <0.42 | <0.38 | <0.37 | <0.31 | 0.45 | <0.26 | 1.5 | <0.47 | 0.47 | <0.37 | | 0.79 | <0.38 | 1.1 | 0.43 | <0.37 | 0.55 | 0.73 |
| Solids, Percent | NC | % | 48.7 | 29.7 | 52.9 | 48.8 | 39.3 | 46.4 | 50.5 | 53.2 | 64 | 51.4 | 74.3 | 48.4 | 40.3 | 46.2 | 52 | | 41.5 | 51.7 | 50.4 | 57.4 | 51.1 | 59.3 | 49.7 |
| Total Organic Carbon | NC | mg/kg | 20300 | 46100 | 25200 | 49900 | 49400 | 91100 | 21700 | 23000 | 88400 | 23200 | 15400 | 48700 | 52100 | 85500 | 41200 | | 58500 | 27900 | 22300 | 18100 | 28800 | 28000 | 37000 |
| pH | NC | su | 7.97 | 7.77 | 7.08 | 7.17 | 7.83 | 7.8 | 7.72 | 8.15 | 7.91 | 8.06 | 7.57 | 7.57 | 7.62 | 7.33 | 7.73 | | 7.39 | 7.42 | 6.83 | 6.86 | 7.79 | 8.05 | 7.89 |

**Footnotes:**

a Associated CCV outside of control limits high, sample was ND.
b Associated CCV outside of control limits low.
c Associated CCV outside of control limits high,sample was ND.
d Associated CCV outside of control limits high.
e Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
f Elevated detection limit due to dilution required for high interfering element.
g Sample analyzed beyond hold time. Associated blank is > RL, however, sample result is > 10X blank concentration. Analysis performed at SGS Orlando, FL.
h Analysis performed at SGS Orlando, FL.
i Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
j Multiple injections indicate possible sample non-homogeneity.
k Analysis done out of holding time.
1Screening criterion is USEPA Region 3 Biological Technical Assistance Group marine sediment screening benchmark (USEPA 2015).

| | |
|---|---|
| NC: | No Criteria |
| BLUE: | Compound Detected, No Criteria |
| GREEN: | Compound Detected, Non-Toxic |
| ORANGE: | Exceedance, Result > Criteria |

**Table** 5c
**Detention Basin Deep** Sediment Screening
**Former Hess Port Reading Terminal Site**
**Port Reading New Jersey**

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SB-1M | SB-1B | SB-2M | SB-2B | SB-3M | SB-3B | SB-4M | SB-4B | SB-5M | SB-5B | SB-6M | SB-6B | SB-7M | SB-7B | SB-8M | SB-8B | SB-9M | SB-9B | SB-10M | SB-10B | SB-11M | SB-11B | SB-12M | SB-12B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth (ft.) | | | | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.0-5.4 | 3.5-4.0 | 7.0-7.5 | 1.5-2.0 | 3.5-4.0 | 3.5-4.0 | 7.0-7.5 | 3.5-4.0 | 6.5-7.0 | 2.5-3.0 | 5.5-6.0 | 3.5-4.0 | 6.0-6.5 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 |
| Date Sampled: | | | | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | NA | 70000 | mg/kg | 0.0461 | 0.0289 | ND (0.47) | 0.0854 | 0.035 | 0.0302 | ND (1.2) | 0.54 | 0.0459 J | 0.0299 J | 0.0257 | 0.0377 | 0.081 | 0.0522 | 0.0606 | 0.0223 J | 0.0385 J | 0.0299 | ND (0.43) | 0.0586 | ND (1.1) | 0.0334 | 0.0482 J | 0.0589 J |
| Benzene | 5 | 2 | mg/kg | 0.0042 | ND (0.00087) | ND (0.035) | 0.0017 | ND (0.0010) | ND (0.00094) | 11.8 | 0.279 | ND (0.0028) | ND (0.0011) | ND (0.00078) | ND (0.00087) | 0.0872 | 0.0436 | 0.0015 J | ND (0.0011) | 0.0269 | ND (0.0010) | ND (0.032) | 0.0026 | 12.6 | 0.0093 | ND (0.0034) | ND (0.0030) |
| Bromochloromethane | - | - | mg/kg | ND (0.0011) | ND (0.0010) | ND (0.040) | ND (0.0010) | ND (0.0012) | ND (0.0011) | ND (0.10) | ND (0.0011) | ND (0.0032) | ND (0.0013) | ND (0.00089) | ND (0.0010) | ND (0.0021) | ND (0.0015) | ND (0.0017) | ND (0.0012) | ND (0.0019) | ND (0.0012) | ND (0.037) | ND (0.00082) | ND (0.096) | ND (0.0010) | ND (0.0039) | ND (0.0034) |
| Bromodichloromethane | 3 | 1 | mg/kg | ND (0.0011) | ND (0.0010) | ND (0.041) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.10) | ND (0.0012) | ND (0.0033) | ND (0.0013) | ND (0.00092) | ND (0.0010) | ND (0.0021) | ND (0.0015) | ND (0.0017) | ND (0.0012) | ND (0.0020) | ND (0.0012) | ND (0.038) | ND (0.00085) | ND (0.098) | ND (0.0011) | ND (0.0040) | ND (0.0036) |
| Bromoform | 280 | 81 | mg/kg | ND (0.0010) | ND (0.00093) | ND (0.038) | ND (0.00096) | ND (0.0011) | ND (0.0010) | ND (0.093) | ND (0.0011) | ND (0.0030) | ND (0.0012) | ND (0.00084) | ND (0.00094) | ND (0.0020) | ND (0.0014) | ND (0.0016) | ND (0.0011) | ND (0.0018) | ND (0.0011) | ND (0.034) | ND (0.00077) | ND (0.090) | ND (0.00098) | ND (0.0036) | ND (0.0032) |
| Bromomethane | 59 | 25 | mg/kg | ND (0.0026) | ND (0.0023) | ND (0.093) | ND (0.0024) | ND (0.0027) | ND (0.0025) | ND (0.23) | ND (0.0026) | ND (0.0074) | ND (0.0030) | ND (0.0021) | ND (0.0023) | ND (0.0048) | ND (0.0034) | ND (0.0039) | ND (0.0028) | ND (0.0045) [a] | ND (0.0027) [a] | ND (0.085) | ND (0.0019) [a] | ND (0.22) | ND (0.0024) [a] | ND (0.0089) | ND (0.0080) [a] |
| 2-Butanone (MEK) | 44000 | 3100 | mg/kg | ND (0.0096) | ND (0.0087) | ND (0.35) | 0.0171 J | ND (0.010) | ND (0.0093) | ND (0.87) | 0.0246 J | ND (0.028) | ND (0.011) | ND (0.0078) | ND (0.0087) | ND (0.018) | ND (0.013) | ND (0.015) | ND (0.010) | ND (0.017) | 0.0102 J | ND (0.32) | 0.0130 J | ND (0.83) | ND (0.0091) | ND (0.034) | ND (0.030) |
| Carbon disulfide | 110000 | 7800 | mg/kg | ND (0.0024) | ND (0.0022) | ND (0.087) | 0.0023 J | 0.0035 J | 0.0056 | ND (0.22) | 0.0040 J | 0.0515 | 0.0142 | 0.0051 | 0.0086 | 0.0125 | 0.0112 | 0.0211 | 0.0093 | ND (0.0042) | 0.0139 | ND (0.079) | ND (0.0018) | ND (0.21) | 0.0045 J | 0.026 | 0.0308 |
| Carbon tetrachloride | 4 | 2 | mg/kg | ND (0.0014) | ND (0.0013) | ND (0.051) | ND (0.0013) | ND (0.0015) | ND (0.0014) | ND (0.13) | ND (0.0014) | ND (0.0041) | ND (0.0017) | ND (0.0011) | ND (0.0013) | ND (0.0027) | ND (0.0019) | ND (0.0021) | ND (0.0015) | ND (0.0025) | ND (0.0015) | ND (0.047) | ND (0.0011) | ND (0.12) | ND (0.0013) | ND (0.0049) | ND (0.0044) |
| Chlorobenzene | 7400 | 510 | mg/kg | 0.0142 | ND (0.00082) | ND (0.033) | 0.0127 | ND (0.00095) | ND (0.00088) | 0.0885 J | 0.0102 | ND (0.0026) | ND (0.0011) | ND (0.00074) | ND (0.00082) | ND (0.0017) | ND (0.0012) | ND (0.0014) | ND (0.00099) | ND (0.0016) | ND (0.00095) | ND (0.030) | 0.00098 J | 0.823 | ND (0.00086) | ND (0.0032) | ND (0.0028) |
| Chloroethane | 1100 | 220 | mg/kg | ND (0.0018) | ND (0.0016) | ND (0.064) | ND (0.0016) | ND (0.0019) | ND (0.0017) | ND (0.16) | ND (0.0018) | ND (0.0051) | ND (0.0021) | ND (0.0014) | ND (0.0016) | ND (0.0033) | ND (0.0023) | ND (0.0027) | ND (0.0019) | ND (0.0031) [a] | ND (0.0018) [a] | ND (0.058) | ND (0.0013) [a] | ND (0.15) | ND (0.0017) [a] | ND (0.0062) | ND (0.0055) [a] |
| Chloroform | 2 | 0.6 | mg/kg | ND (0.00095) | ND (0.00086) | ND (0.035) | ND (0.00089) | ND (0.0010) | ND (0.00093) | ND (0.086) | ND (0.00098) | ND (0.0027) | ND (0.0011) | ND (0.00077) | ND (0.00086) | ND (0.0018) | ND (0.0013) | ND (0.0014) | ND (0.0010) | ND (0.0017) | ND (0.0010) | ND (0.032) | ND (0.00071) | ND (0.083) | ND (0.00090) | ND (0.0033) | ND (0.0030) |
| Chloromethane | 12 | 4 | mg/kg | ND (0.0050) | ND (0.0045) | ND (0.18) | ND (0.0047) | ND (0.0053) | ND (0.0049) | ND (0.45) | ND (0.0051) | ND (0.014) | ND (0.0059) | ND (0.0041) | ND (0.0045) | ND (0.0095) | ND (0.0066) | ND (0.0076) | ND (0.0055) | ND (0.0088) | ND (0.0053) | ND (0.17) | ND (0.0037) | ND (0.44) | ND (0.0048) | ND (0.018) | ND (0.016) |
| Cyclohexane | | | mg/kg | 0.0022 J | ND (0.00094) | 0.557 | 0.0076 | 0.0013 J | ND (0.0010) | 5.25 | 0.0326 | ND (0.0030) | ND (0.0012) | ND (0.00084) | 0.0042 J | 0.0576 | 0.0164 | ND (0.0016) | ND (0.0011) | 0.0107 | ND (0.0011) | 0.166 J | 0.005 | 22.8 | 0.0243 | ND (0.0036) | ND (0.0033) |
| 1,2-Dibromo-3-chloropropane | 0.2 | 0.08 | mg/kg | ND (0.0021) | ND (0.0019) | ND (0.078) | ND (0.0020) | ND (0.0023) | ND (0.0021) | ND (0.19) | ND (0.0022) | ND (0.0062) | ND (0.0025) | ND (0.0017) | ND (0.0019) | ND (0.0040) | ND (0.0028) | ND (0.0032) | ND (0.0023) | ND (0.0038) | ND (0.0022) | ND (0.071) | ND (0.0016) | ND (0.19) | ND (0.0020) | ND (0.0075) | ND (0.0067) |
| Dibromochloromethane | 8 | 3 | mg/kg | ND (0.00087) | ND (0.00078) | ND (0.032) | ND (0.00081) | ND (0.00091) | ND (0.00084) | ND (0.078) | ND (0.00089) | ND (0.0025) | ND (0.0010) | ND (0.00070) | ND (0.00078) | ND (0.0016) | ND (0.0011) | ND (0.0013) | ND (0.00095) | ND (0.0015) | ND (0.00091) | ND (0.029) | ND (0.00065) | ND (0.075) | ND (0.00082) | ND (0.0030) | ND (0.0027) |
| 1,2-Dibromoethane | 0.04 | 0.008 | mg/kg | ND (0.00083) | ND (0.00075) | ND (0.030) | ND (0.00077) | ND (0.00088) | ND (0.00081) | ND (0.075) | ND (0.00085) | ND (0.0024) | ND (0.00098) | ND (0.00067) | ND (0.00075) | ND (0.0016) | ND (0.0011) | ND (0.0013) | ND (0.00091) | ND (0.0015) | ND (0.00087) | ND (0.028) | ND (0.00062) | ND (0.072) | ND (0.00079) | ND (0.0029) | ND (0.0026) |
| 1,2-Dichlorobenzene | 59000 | 5300 | mg/kg | 0.0017 J | ND (0.00071) | ND (0.028) | 0.0029 | ND (0.00082) | ND (0.00076) | 0.305 | 0.0083 | ND (0.0023) | ND (0.00092) | ND (0.00063) | ND (0.00071) | ND (0.0015) | ND (0.0010) | ND (0.0012) | ND (0.00086) | ND (0.0014) | ND (0.00082) | 0.0315 J | ND (0.00058) | 2.62 | 0.00086 J | ND (0.0027) | ND (0.0024) |
| 1,3-Dichlorobenzene | 59000 | 5300 | mg/kg | 0.0078 | ND (0.00083) | ND (0.034) | 0.0063 | ND (0.00097) | ND (0.00090) | ND (0.083) | 0.0063 | ND (0.0027) | ND (0.0011) | ND (0.00075) | ND (0.00083) | ND (0.0017) | ND (0.0012) | ND (0.0014) | ND (0.0010) | ND (0.0016) | ND (0.00096) | ND (0.031) | ND (0.00069) | 0.309 | ND (0.00087) | ND (0.0032) | ND (0.0029) |
| 1,4-Dichlorobenzene | 13 | 5 | mg/kg | 0.0186 | ND (0.00080) | ND (0.032) | 0.0237 | ND (0.00093) | ND (0.00086) | ND (0.080) | 0.0228 | ND (0.0025) | ND (0.0010) | ND (0.00071) | ND (0.00080) | ND (0.0017) | ND (0.0012) | ND (0.0013) | ND (0.00097) | ND (0.0016) | ND (0.00092) | 0.0589 J | ND (0.00066) | 0.641 | ND (0.00084) | ND (0.0031) | ND (0.0028) |
| Dichlorodifluoromethane | 230000 | 490 | mg/kg | ND (0.0016) | ND (0.0015) | ND (0.059) [a] | ND (0.0015) | ND (0.0017) | ND (0.0016) | ND (0.15) [a] | ND (0.0017) | ND (0.0047) | ND (0.0019) | ND (0.0013) | ND (0.0015) | ND (0.0031) | ND (0.0021) | ND (0.0025) | ND (0.0018) | ND (0.0029) | ND (0.0017) | ND (0.054) | ND (0.0012) | ND (0.14) | ND (0.0015) | ND (0.0057) | ND (0.0051) |
| 1,1-Dichloroethane | 24 | 8 | mg/kg | ND (0.00099) | ND (0.00089) | ND (0.036) | ND (0.00092) | ND (0.0010) | ND (0.00096) | ND (0.089) | ND (0.0010) | ND (0.0028) | ND (0.0012) | ND (0.00080) | ND (0.00089) | ND (0.0019) | ND (0.0013) | ND (0.0015) | ND (0.0011) | ND (0.0017) | ND (0.0010) | ND (0.033) | ND (0.00074) | ND (0.086) | ND (0.00094) | ND (0.0035) | ND (0.0031) |
| 1,2-Dichloroethane | 3 | 0.9 | mg/kg | ND (0.0012) | ND (0.0011) | ND (0.044) | ND (0.0011) | ND (0.0013) | ND (0.0012) | ND (0.11) | ND (0.0012) | ND (0.0035) | ND (0.0014) | ND (0.00098) | ND (0.0011) | ND (0.0023) | ND (0.0016) | ND (0.0018) | ND (0.0013) | ND (0.0021) | ND (0.0013) | ND (0.040) | ND (0.00090) | ND (0.10) | ND (0.0011) | ND (0.0042) | ND (0.0038) |
| 1,1-Dichloroethene | 150 | 11 | mg/kg | ND (0.0017) | ND (0.0015) | ND (0.061) | ND (0.0016) | ND (0.0018) | ND (0.0016) | ND (0.15) | ND (0.0017) | ND (0.0048) | ND (0.0020) | ND (0.0014) | ND (0.0015) | ND (0.0032) | ND (0.0022) | ND (0.0025) | ND (0.0018) | ND (0.0030) | ND (0.0018) | ND (0.056) | ND (0.0013) | ND (0.15) | ND (0.0016) | ND (0.0059) | ND (0.0053) |
| cis-1,2-Dichloroethene | 560 | 230 | mg/kg | ND (0.0025) | ND (0.0022) | ND (0.089) | ND (0.0023) | ND (0.0026) | ND (0.0024) | ND (0.22) | 0.0063 | ND (0.0071) | ND (0.0029) | ND (0.0020) | ND (0.0022) | ND (0.0046) | ND (0.0032) | ND (0.0037) | ND (0.0027) | ND (0.0043) | ND (0.0026) | ND (0.081) | ND (0.0018) | ND (0.21) | ND (0.0023) | ND (0.0086) | ND (0.0077) |
| trans-1,2-Dichloroethene | 720 | 300 | mg/kg | ND (0.0017) | ND (0.0015) | ND (0.062) | ND (0.0016) | ND (0.0018) | ND (0.0017) | ND (0.15) | ND (0.0017) | ND (0.0049) | ND (0.0020) | ND (0.0014) | ND (0.0015) | ND (0.0032) | ND (0.0023) | ND (0.0026) | ND (0.0019) | ND (0.0030) | ND (0.0018) | ND (0.057) | ND (0.0013) | ND (0.15) | ND (0.0016) | ND (0.0060) | ND (0.0053) |
| 1,2-Dichloropropane | 5 | 2 | mg/kg | ND (0.0010) | ND (0.00094) | ND (0.038) | ND (0.00097) | ND (0.0011) | ND (0.0010) | ND (0.094) | ND (0.0011) | ND (0.0030) | ND (0.0012) | ND (0.00085) | ND (0.00094) | ND (0.0020) | ND (0.0014) | ND (0.0016) | ND (0.0011) | ND (0.0018) | ND (0.0011) | ND (0.035) | ND (0.00078) | ND (0.090) | ND (0.00099) | ND (0.0036) | ND (0.0033) |
| cis-1,3-Dichloropropene | 7 | 2 | mg/kg | ND (0.00090) | ND (0.00082) | ND (0.033) | ND (0.00084) | ND (0.00095) | ND (0.00088) | ND (0.082) | ND (0.00092) | ND (0.0026) | ND (0.0011) | ND (0.00073) | ND (0.00082) | ND (0.0017) | ND (0.0012) | ND (0.0014) | ND (0.00099) | ND (0.0016) | ND (0.00094) | ND (0.030) | ND (0.00067) | ND (0.078) | ND (0.00086) | ND (0.0032) | ND (0.0028) |
| trans-1,3-Dichloropropene | 7 | 2 | mg/kg | ND (0.00084) | ND (0.00076) | ND (0.031) | ND (0.00078) | ND (0.00088) | ND (0.00082) | ND (0.076) | ND (0.00086) | ND (0.0024) | ND (0.00099) | ND (0.00068) | ND (0.00076) | ND (0.0016) | ND (0.0011) | ND (0.0013) | ND (0.00092) | ND (0.0015) | ND (0.00088) | ND (0.028) | ND (0.00062) | ND (0.073) | ND (0.00079) | ND (0.0029) | ND (0.0026) |
| Ethylbenzene | 110000 | 7800 | mg/kg | ND (0.0014) | ND (0.0013) | ND (0.052) | ND (0.0013) | ND (0.0015) | ND (0.0014) | 0.333 | 0.0016 J | ND (0.0041) | ND (0.0017) | ND (0.0011) | ND (0.0013) | 0.0092 | 0.0021 J | ND (0.0021) | ND (0.0015) | ND (0.0025) | ND (0.0015) | ND (0.047) | 0.0037 | 35.1 | 0.0207 | ND (0.0049) | ND (0.0044) |
| Freon 113 | - | - | mg/kg | ND (0.0020) | ND (0.0018) | ND (0.071) | ND (0.0018) | ND (0.0021) | ND (0.0019) | ND (0.18) | ND (0.0020) | ND (0.0056) | ND (0.0023) | ND (0.0016) | ND (0.0018) | ND (0.0037) | ND (0.0026) | ND (0.0030) | ND (0.0021) | ND (0.0034) | ND (0.0020) | ND (0.065) | ND (0.0015) | ND (0.17) | ND (0.0019) | ND (0.0068) | ND (0.0061) |
| 2-Hexanone | - | - | mg/kg | ND (0.0033) | ND (0.0029) | ND (0.12) | ND (0.0030) | ND (0.0034) | ND (0.0032) | ND (0.29) | ND (0.0033) | ND (0.0094) | ND (0.0038) | ND (0.0026) | ND (0.0029) | ND (0.0062) | ND (0.0043) | ND (0.0049) | ND (0.0036) | ND (0.0057) | ND (0.0034) | ND (0.11) | ND (0.0024) | ND (0.28) | ND (0.0031) | ND (0.011) | ND (0.010) |
| Isopropylbenzene | - | - | mg/kg | 0.0026 J | ND (0.0016) | 0.791 | 0.0045 J | ND (0.0019) | ND (0.0017) | 3.29 | 0.0086 | ND (0.0052) | ND (0.0021) | ND (0.0014) | ND (0.0016) | 0.0339 | ND (0.0024) | ND (0.0027) | ND (0.0020) | ND (0.0031) | ND (0.0019) | 0.0820 J | ND (0.0013) | 9.96 | 0.0051 | ND (0.0062) | ND (0.0056) |
| Methyl Acetate | NA | 78000 | mg/kg | ND (0.0036) | ND (0.0032) | ND (0.13) | ND (0.0033) | ND (0.0037) | ND (0.0035) | ND (0.32) | ND (0.0036) | ND (0.010) | ND (0.0042) | ND (0.0029) | ND (0.0032) | ND (0.0067) | ND (0.0047) | ND (0.0054) | ND (0.0039) | ND (0.0063) | ND (0.0037) | ND (0.12) | ND (0.0027) | ND (0.31) | ND (0.0034) | ND (0.012) | ND (0.011) |
| Methylcyclohexane | | | mg/kg | 0.0097 | 0.0017 J | 3.15 | 0.0131 | ND (0.0019) | ND (0.0018) | 21.1 | 0.0416 | ND (0.0052) | ND (0.0021) | ND (0.0015) | 0.0123 | 0.0337 | ND (0.0024) | ND (0.0027) | ND (0.0020) | ND (0.0032) | ND (0.0019) | 0.896 | 0.0121 | 83 | 0.0575 | ND (0.0063) | ND (0.0057) |
| Methyl Tert Butyl Ether | 320 | 110 | mg/kg | 0.0237 | 0.0019 J | ND (0.033) | 0.0016 J | 0.0014 J | ND (0.00088) | 2.21 | 0.298 | ND (0.0026) | ND (0.0011) | 0.0054 | 0.00094 J | 0.0204 | 0.0158 | 0.0023 J | ND (0.00099) | 0.0016 J | ND (0.00094) | ND (0.030) | ND (0.00067) | ND (0.078) | ND (0.00086) | ND (0.0032) | ND (0.0028) |
| 4-Methyl-2-pentanone(MIBK) | - | - | mg/kg | ND (0.0040) | ND (0.0036) | ND (0.15) | ND (0.0037) | ND (0.0042) | ND (0.0039) | ND (0.36) | ND (0.0041) | ND (0.012) | ND (0.0047) | ND (0.0032) | ND (0.0036) | ND (0.0076) | ND (0.0053) | ND (0.0061) | ND (0.0044) | ND (0.0070) | ND (0.0042) | ND (0.13) | ND (0.0030) | ND (0.35) | ND (0.0038) | ND (0.014) | ND (0.013) |
| Methylene chloride | 230 | 46 | mg/kg | ND (0.0064) | ND (0.0058) | ND (0.23) | ND (0.0060) | ND (0.0067) | ND (0.0062) | ND (0.58) | ND (0.0066) | ND (0.018) | ND (0.0076) | ND (0.0052) | ND (0.0058) | ND (0.012) | ND (0.0085) | ND (0.0097) | ND (0.0070) | ND (0.011) | ND (0.0067) | ND (0.21) | ND (0.0048) | ND (0.56) | ND (0.0061) | ND (0.022) | ND (0.020) |
| Styrene | 260 | 90 | mg/kg | ND (0.0015) | ND (0.0013) | ND (0.054) | ND (0.0014) | ND (0.0015) | ND (0.0014) | ND (0.13) | ND (0.0015) | ND (0.0042) | ND (0.0017) | ND (0.0012) | ND (0.0013) | ND (0.0028) | ND (0.0019) | ND (0.0022) | ND (0.0016) | ND (0.0026) | ND (0.0015) | ND (0.049) | ND (0.0011) | ND (0.13) | ND (0.0014) | ND (0.0052) | ND (0.0046) |
| 1,1,2,2-Tetrachloroethane | 3 | 1 | mg/kg | ND (0.0010) | ND (0.00090) | ND (0.036) | ND (0.00093) | ND (0.0011) | ND (0.00097) | ND (0.090) | ND (0.0010) | ND (0.0029) | ND (0.0012) | ND (0.00081) | ND (0.00091) | ND (0.0019) | ND (0.0013) | ND (0.0015) | ND (0.0011) | ND (0.0018) | ND (0.0010) | ND (0.033) | ND (0.00075) | ND (0.087) | ND (0.00095) | ND (0.0035) | ND (0.0031) |
| Tetrachloroethene | 1500 | 43 | mg/kg | ND (0.0012) | ND (0.0011) | ND (0.043) | ND (0.0011) | ND (0.0012) | ND (0.0012) | ND (0.11) | ND (0.0012) | ND (0.0034) | ND (0.0014) | ND (0.00096) | ND (0.0011) | ND (0.0022) | ND (0.0016) | ND (0.0018) | ND (0.0013) | ND (0.0021) | ND (0.0012) | ND (0.039) | ND (0.00088) | ND (0.10) | ND (0.0011) | ND (0.0041) | ND (0.0037) |
| Toluene | 91000 | 6300 | mg/kg | ND (0.00096) | ND (0.00087) | ND (0.035) | 0.00093 J | ND (0.0010) | ND (0.00094) | 0.341 | 0.0041 | ND (0.0028) | ND (0.0011) | ND (0.00078) | ND (0.00087) | 0.0031 J | ND (0.0013) | ND (0.0015) | ND (0.0011) | 0.0024 J | 0.0018 J | ND (0.032) | 0.00091 J | 9.7 | 0.0038 | ND (0.0034) | ND (0.0030) |
| 1,2,3-Trichlorobenzene | - | - | mg/kg | ND (0.0026) | ND (0.0023) | ND (0.093) | ND (0.0024) | ND (0.0027) | ND (0.0025) | ND (0.23) | ND (0.0026) | ND (0.0074) | ND (0.0030) | ND (0.0021) | ND (0.0023) | ND (0.0048) | ND (0.0034) | ND (0.0039) | ND (0.0028) | ND (0.0045) | ND (0.0027) | ND (0.085) | ND (0.0019) | ND (0.22) | ND (0.0024) | ND (0.0090) | ND (0.0080) |
| 1,2,4-Trichlorobenzene | 820 | 73 | mg/kg | ND (0.0026) | ND (0.0023) | ND (0.093) | ND (0.0024) | ND (0.0027) | ND (0.0025) | 0.268 J | ND (0.0026) | ND (0.0074) | ND (0.0030) | ND (0.0021) | ND (0.0023) | ND (0.0048) | ND (0.0034) | ND (0.0039) | ND (0.0028) | ND (0.0045) | ND (0.0027) | ND (0.085) | ND (0.0019) | 0.390 J | ND (0.0024) | ND (0.0090) | ND (0.0080) |
| 1,1,1-Trichloroethane | NA | 160000 | mg/kg | ND (0.0011) | ND (0.00099) | ND (0.040) | ND (0.0010) | ND (0.0011) | ND (0.0011) | ND (0.099) | ND (0.0011) | ND (0.0031) | ND (0.0013) | ND (0.00088) | ND (0.00099) | ND (0.0021) | ND (0.0014) | ND (0.0017) | ND (0.0012) | ND (0.0019) | ND (0.0011) | ND (0.036) | ND (0.00081) | ND (0.095) | ND (0.0010) | ND (0.0038) | ND (0.0034) |
| 1,1,2-Trichloroethane | 6 | 2 | mg/kg | ND (0.00088) | ND (0.00079) | ND (0.032) | ND (0.00081) | ND (0.00092) | ND (0.00085) | ND (0.079) | ND (0.00090) | ND (0.0025) | ND (0.0010) | ND (0.00071) | ND (0.00079) | ND (0.0017) | ND (0.0012) | ND (0.0013) | ND (0.00096) | ND (0.0015) | ND (0.00092) | ND (0.029) | ND (0.00065) | ND (0.076) | ND (0.00083) | ND (0.0031) | ND (0.0027) |
| Trichloroethene | 10 | 3 | mg/kg | ND (0.0020) | ND (0.0018) | ND (0.071) | ND (0.0018) | ND (0.0021) | ND (0.0019) | ND (0.18) | ND (0.0020) | ND (0.0056) | ND (0.0023) | ND (0.0016) | ND (0.0018) | ND (0.0037) | ND (0.0026) | ND (0.0030) | ND (0.0021) | ND (0.0034) | ND (0.0020) | ND (0.065) | ND (0.0015) | ND (0.17) | ND (0.0019) | ND (0.0068) | ND (0.0061) |
| Trichlorofluoromethane | 340000 | 23000 | mg/kg | ND (0.0017) | ND (0.0016) | ND (0.064) | ND (0.0016) | ND (0.0018) | ND (0.0017) | ND (0.16) | ND (0.0018) | ND (0.0050) | ND (0.0021) | ND (0.0014) | ND (0.0016) | ND (0.0033) | ND (0.0023) | ND (0.0026) | ND (0.0019) | ND (0.0031) | ND (0.0018) | ND (0.058) | ND (0.0013) | ND (0.15) | ND (0.0017) | ND (0.0061) | ND (0.0055) |
| Vinyl chloride | 2 | 0.7 | mg/kg | ND (0.0012) | ND (0.0011) | ND (0.044) [a] | ND (0.0011) | ND (0.0013) | ND (0.0012) | ND (0.11) [a] | ND (0.0012) | ND (0.0035) | ND (0.0014) | ND (0.00097) | ND (0.0011) | ND (0.0023) | ND (0.0016) | ND (0.0018) | ND (0.0013) | ND (0.0021) | ND (0.0013) | ND (0.040) | ND (0.00090) | ND (0.10) | ND (0.0011) | ND (0.0042) [f] | ND (0.0038) |
| m,p-Xylene | 170000 | 12000 | mg/kg | 0.0127 | ND (0.0017) | ND (0.070) | 0.0031 | ND (0.0020) | ND (0.0019) | 1.64 | 0.0117 | ND (0.0055) | ND (0.0023) | ND (0.0015) | ND (0.0017) | 0.0058 | ND (0.0025) | ND (0.0029) | ND (0.0021) | ND (0.0034) | ND (0.0020) | 0.122 | 0.0112 | 144 | 0.077 | ND (0.0067) | ND (0.0060) |
| o-Xylene | 170000 | 12000 | mg/kg | 0.0074 | ND (0.0014) | 0.0682 J | 0.0020 J | ND (0.0016) | ND (0.0015) | 0.422 | 0.0069 | ND (0.0043) | ND (0.0018) | ND (0.0012) | ND (0.0014) | ND (0.0028) | ND (0.0020) | ND (0.0023) | ND (0.0016) | ND (0.0026) | ND (0.0016) | ND (0.050) | 0.0092 | 38.6 | 0.0197 | ND (0.0052) | ND (0.0047) |
| Xylene (total) | 170000 | 12000 | mg/kg | 0.0201 | ND (0.0014) | 0.0682 J | 0.0051 | ND (0.0016) | ND (0.0015) | 2.06 | 0.0186 | ND (0.0043) | ND (0.0018) | ND (0.0012) | ND (0.0014) | 0.0058 | ND (0.0020) | ND (0.0023) | ND (0.0016) | ND (0.0026) | ND (0.0016) | 0.122 | 0.0204 | 183 | 0.0967 | ND (0.0052) | ND (0.0047) |
| **MS Volatile TIC** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Volatile | - | - | mg/kg | 0.196 J | 0 | 119.3 J | 0.292 J | 0 | 0 | 209 J | 6.481 J | 0 | 0 | 0 | 0 | 0.071 J | 0 | 0 | 0 | 0.023 J | 0 | 23.5 J | 0.114 J | 46 J | 0.464 J | 0 | 0 |
| Total Alkanes | - | - | mg/kg | 0.048 J | 0 | 6 J | 0.03 J | 0 | 0 | 52 J | 0.55 J | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.2 J | 0.133 J | 343 J | 0.093 J | 0 | 0 |

**Table** 5c
**Detention Basin Deep** Sediment Screening
**Former Hess Port Reading Terminal Site**
**Port Reading New Jersey**

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SB-1M | SB-1B | SB-2M | SB-2B | SB-3M | SB-3B | SB-4M | SB-4B | SB-5M | SB-5B | SB-6M | SB-6B | SB-7M | SB-7B | SB-8M | SB-8B | SB-9M | SB-9B | SB-10M | SB-10B | SB-11M | SB-11B | SB-12M | SB-12B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth (ft.) | | | | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.0-5.4 | 3.5-4.0 | 7.0-7.5 | 1.5-2.0 | 3.5-4.0 | 3.5-4.0 | 7.0-7.5 | 3.5-4.0 | 6.5-7.0 | 2.5-3.0 | 5.5-6.0 | 3.5-4.0 | 6.0-6.5 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 |
| Date Sampled: | | | | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 2200 | 310 | mg/kg | ND (0.038) | ND (0.032) | ND (0.12) | ND (0.031) | ND (0.034) | ND (0.031) | ND (0.34) | ND (0.029) | ND (0.078) | ND (0.033) | ND (0.029) | ND (0.031) | ND (0.048) | ND (0.033) | ND (0.040) | ND (0.035) | ND (0.050) | ND (0.034) | ND (0.021) | ND (0.024) | ND (0.19) | ND (0.033) | ND (0.099) | ND (0.084) |
| 4-Chloro-3-methyl phenol | - | - | mg/kg | ND (0.047) | ND (0.039) | ND (0.15) | ND (0.039) | ND (0.042) | ND (0.038) | ND (0.43) | ND (0.036) | ND (0.097) | ND (0.041) | ND (0.036) | ND (0.039) | ND (0.060) | ND (0.041) | ND (0.049) | ND (0.043) | ND (0.063) | ND (0.042) | ND (0.026) | ND (0.029) | ND (0.23) | ND (0.041) | ND (0.12) | ND (0.10) |
| 2,4-Dichlorophenol | 2100 | 180 | mg/kg | ND (0.065) | ND (0.054) | ND (0.20) | ND (0.054) | ND (0.059) | ND (0.053) | ND (0.60) | ND (0.050) | ND (0.14) | ND (0.057) | ND (0.051) | ND (0.054) | ND (0.084) | ND (0.057) | ND (0.069) | ND (0.060) | ND (0.087) | ND (0.058) | ND (0.037) | ND (0.041) | ND (0.32) | ND (0.057) | ND (0.17) | ND (0.14) |
| 2,4-Dimethylphenol | 14000 | 1200 | mg/kg | ND (0.14) | ND (0.11) | ND (0.43) | ND (0.11) | ND (0.12) | ND (0.11) | ND (1.2) | ND (0.10) | ND (0.28) | ND (0.12) | ND (0.11) | ND (0.11) | ND (0.17) | ND (0.12) | ND (0.14) | ND (0.12) | ND (0.18) | ND (0.12) | ND (0.077) | ND (0.085) | ND (0.67) | ND (0.12) | ND (0.36) | ND (0.30) |
| 2,4-Dinitrophenol | 1400 | 120 | mg/kg | ND (0.29) | ND (0.24) | ND (0.90) | ND (0.24) | ND (0.26) | ND (0.23) | ND (2.6) | ND (0.22) | ND (0.60) | ND (0.25) | ND (0.22) | ND (0.24) | ND (0.37) | ND (0.25) | ND (0.30) | ND (0.26) | ND (0.38) [a] | ND (0.26) [a] | ND (0.16) [a] | ND (0.18) [a] | ND (1.4) [a] | ND (0.25) [a] | ND (0.75) [a] | ND (0.64) [a] |
| 4,6-Dinitro-o-cresol | 68 | 6 | mg/kg | ND (0.082) | ND (0.068) | ND (0.26) | ND (0.068) | ND (0.074) | ND (0.066) | ND (0.75) | ND (0.062) | ND (0.17) | ND (0.071) | ND (0.064) | ND (0.068) | ND (0.11) | ND (0.071) | ND (0.086) | ND (0.075) | ND (0.11) | ND (0.073) | ND (0.046) | ND (0.051) | ND (0.40) | ND (0.072) | ND (0.21) | ND (0.18) |
| 2-Methylphenol | 3400 | 310 | mg/kg | ND (0.049) | ND (0.041) | ND (0.15) | ND (0.041) | ND (0.044) | ND (0.040) | ND (0.45) | ND (0.037) | ND (0.10) | ND (0.042) | ND (0.038) | ND (0.041) | ND (0.063) | ND (0.043) | ND (0.051) | ND (0.045) | ND (0.065) | ND (0.043) | ND (0.028) | ND (0.030) | ND (0.24) | ND (0.043) | ND (0.13) | ND (0.11) |
| 3&4-Methylphenol | - | - | mg/kg | ND (0.063) | ND (0.052) | ND (0.20) | 0.0879 J | ND (0.057) | ND (0.051) | ND (0.57) | ND (0.048) | ND (0.13) | ND (0.055) | ND (0.049) | ND (0.052) | ND (0.081) | ND (0.055) | ND (0.066) | ND (0.058) | ND (0.084) | ND (0.056) | ND (0.035) | ND (0.039) | ND (0.31) | ND (0.055) | ND (0.16) | ND (0.14) |
| 2-Nitrophenol | - | - | mg/kg | ND (0.051) | ND (0.042) | ND (0.16) | ND (0.042) | ND (0.046) | ND (0.041) | ND (0.46) | ND (0.039) | ND (0.11) | ND (0.044) | ND (0.039) | ND (0.042) | ND (0.065) | ND (0.044) | ND (0.053) | ND (0.046) | ND (0.067) | ND (0.045) | ND (0.028) | ND (0.031) | ND (0.25) | ND (0.044) | ND (0.13) | ND (0.11) |
| 4-Nitrophenol | - | - | mg/kg | ND (0.20) | ND (0.17) | ND (0.64) | ND (0.17) | ND (0.19) | ND (0.17) | ND (1.9) | ND (0.16) | ND (0.42) | ND (0.18) | ND (0.16) | ND (0.17) | ND (0.26) | ND (0.18) | ND (0.21) | ND (0.19) | ND (0.27) | ND (0.18) | ND (0.11) [f] | ND (0.13) [f] | ND (1.0) | ND (0.18) | ND (0.54) | ND (0.45) |
| Pentachlorophenol | 3 | 0.9 | mg/kg | ND (0.072) | ND (0.060) | ND (0.23) | ND (0.060) | ND (0.065) | ND (0.058) | ND (0.66) | ND (0.055) | ND (0.15) | ND (0.062) | ND (0.056) | ND (0.060) | ND (0.092) | ND (0.063) | ND (0.075) | ND (0.066) | ND (0.096) [f] | ND (0.064) [f] | ND (0.040) | ND (0.045) | ND (0.35) | ND (0.063) [f] | ND (0.19) [f] | ND (0.16) [f] |
| Phenol | 210000 | 18000 | mg/kg | ND (0.040) | ND (0.033) | ND (0.13) | ND (0.033) | ND (0.036) | ND (0.032) | ND (0.36) | ND (0.030) | ND (0.083) | ND (0.035) | ND (0.031) | ND (0.033) | ND (0.051) | ND (0.035) | ND (0.042) | ND (0.037) | ND (0.053) [f] | ND (0.035) [f] | ND (0.022) | ND (0.025) | ND (0.20) [f] | ND (0.035) [f] | ND (0.10) [f] | ND (0.088) [f] |
| 2,3,4,6-Tetrachlorophenol | - | - | mg/kg | ND (0.051) | ND (0.042) | ND (0.16) | ND (0.042) | ND (0.046) [a] | ND (0.041) [a] | ND (0.46) [a] | ND (0.039) [a] | ND (0.11) [a] | ND (0.044) [a] | ND (0.039) [a] | ND (0.042) | ND (0.065) | ND (0.044) | ND (0.053) | ND (0.046) | ND (0.068) | ND (0.045) | ND (0.029) | ND (0.032) | ND (0.25) | ND (0.044) | ND (0.13) | ND (0.11) |
| 2,4,5-Trichlorophenol | 68000 | 6100 | mg/kg | ND (0.057) | ND (0.048) | ND (0.18) | ND (0.047) | ND (0.052) | ND (0.046) | ND (0.52) | ND (0.044) | ND (0.12) | ND (0.050) | ND (0.045) | ND (0.048) | ND (0.074) | ND (0.050) | ND (0.060) | ND (0.053) | ND (0.076) | ND (0.051) | ND (0.032) | ND (0.036) | ND (0.28) | ND (0.050) | ND (0.15) | ND (0.13) |
| 2,4,6-Trichlorophenol | 74 | 19 | mg/kg | ND (0.046) | ND (0.038) | ND (0.14) | ND (0.038) | ND (0.041) | ND (0.037) | ND (0.42) | ND (0.035) | ND (0.095) | ND (0.040) | ND (0.035) | ND (0.038) | ND (0.058) | ND (0.040) | ND (0.048) | ND (0.042) | ND (0.061) | ND (0.040) | ND (0.026) | ND (0.028) | ND (0.22) | ND (0.040) | ND (0.12) | ND (0.10) |
| Acenaphthene | 37000 | 3400 | mg/kg | 0.114 | ND (0.022) | 2.12 | 0.0355 J | ND (0.024) | ND (0.021) | 3.35 | 0.25 | ND (0.055) | ND (0.023) | ND (0.021) | ND (0.022) | ND (0.034) | ND (0.023) | ND (0.028) | ND (0.024) | ND (0.035) | ND (0.023) | 0.144 | 0.0195 J | 5.4 | ND (0.023) | ND (0.069) | ND (0.058) |
| Acenaphthylene | 300000 | NA | mg/kg | 0.0625 J | ND (0.032) | ND (0.12) | 0.102 | ND (0.035) | ND (0.031) | ND (0.35) | ND (0.030) | ND (0.081) | ND (0.034) | ND (0.030) | ND (0.032) | ND (0.050) | ND (0.034) | ND (0.041) | ND (0.036) | ND (0.052) | ND (0.034) | ND (0.022) | ND (0.024) | ND (0.19) | ND (0.034) | ND (0.10) | ND (0.086) |
| Acetophenone | 5 | 2 | mg/kg | ND (0.016) | ND (0.014) | ND (0.052) | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.15) | ND (0.013) | ND (0.034) | ND (0.014) | ND (0.013) | ND (0.014) | ND (0.021) | ND (0.014) | ND (0.017) | ND (0.015) | ND (0.022) | ND (0.015) | ND (0.0093) | ND (0.010) | ND (0.081) | ND (0.014) | ND (0.043) | ND (0.036) |
| Anthracene | 30000 | 17000 | mg/kg | 0.152 | ND (0.039) | ND (0.15) | 0.165 | ND (0.042) | ND (0.038) | ND (0.43) | 0.26 | ND (0.097) | ND (0.041) | ND (0.036) | ND (0.039) | ND (0.060) | ND (0.041) | ND (0.049) | ND (0.043) | ND (0.063) | ND (0.042) | 0.101 | ND (0.029) | 2.15 | ND (0.041) | ND (0.12) | ND (0.10) |
| Atrazine | 2400 | 210 | mg/kg | ND (0.033) [a] | ND (0.027) [a] | ND (0.10) [a] | ND (0.027) [a] | ND (0.030) | ND (0.027) | ND (0.30) | ND (0.025) | ND (0.068) | ND (0.028) | ND (0.025) | ND (0.027) | ND (0.042) | ND (0.029) | ND (0.034) | ND (0.030) | ND (0.044) | ND (0.029) | ND (0.018) [a] | ND (0.020) [a] | ND (0.16) [a] | ND (0.029) | ND (0.086) | ND (0.072) |
| Benzo(a)anthracene | 17 | 5 | mg/kg | 0.182 | 0.0250 J | 0.683 | 0.299 | ND (0.020) | ND (0.018) | 0.552 J | 0.111 | ND (0.045) | ND (0.019) | 0.0532 J | ND (0.018) | ND (0.028) | ND (0.019) | ND (0.023) | ND (0.020) | ND (0.029) | ND (0.019) | 0.0579 | ND (0.013) | 0.767 | ND (0.019) | ND (0.057) | ND (0.048) |
| Benzo(a)pyrene | 2 | 0.5 | mg/kg | 0.138 | ND (0.029) | 0.709 | 0.395 | ND (0.032) | ND (0.028) | 0.418 J | 0.0561 J | ND (0.072) | ND (0.030) | 0.0435 J | ND (0.029) | ND (0.045) | ND (0.030) | ND (0.037) | ND (0.032) | ND (0.046) | ND (0.031) | 0.0343 J | ND (0.022) | 0.47 | ND (0.031) | ND (0.091) | ND (0.077) |
| Benzo(b)fluoranthene | 17 | 5 | mg/kg | 0.216 | ND (0.028) | 0.468 | 0.475 | ND (0.031) | ND (0.027) | 0.470 J | 0.0821 | ND (0.070) | ND (0.029) | 0.0659 | ND (0.028) | ND (0.043) | ND (0.030) | ND (0.036) | ND (0.031) | ND (0.045) | ND (0.030) | 0.0405 J | ND (0.021) | 0.343 J | ND (0.030) | ND (0.089) | ND (0.075) |
| Benzo(g,h,i)perylene | 30000 | 380000 | mg/kg | 0.11 | ND (0.032) | 0.578 | 0.28 | ND (0.035) | ND (0.031) | ND (0.35) | 0.0340 J | ND (0.079) | ND (0.033) | ND (0.030) | ND (0.032) | ND (0.049) | ND (0.033) | ND (0.040) | ND (0.035) | ND (0.051) | ND (0.034) | 0.0261 J | ND (0.024) | 0.347 J | ND (0.034) | ND (0.10) | ND (0.085) |
| Benzo(k)fluoranthene | 170 | 45 | mg/kg | 0.0772 | ND (0.030) | ND (0.11) | 0.23 | ND (0.032) | ND (0.029) | ND (0.33) | ND (0.027) | ND (0.074) | ND (0.031) | ND (0.028) | ND (0.030) | ND (0.046) | ND (0.031) | ND (0.038) | ND (0.033) | ND (0.048) | ND (0.032) | 0.0256 J [f] | ND (0.022) [f] | ND (0.18) | ND (0.031) | ND (0.094) | ND (0.079) |
| 4-Bromophenyl phenyl ether | - | - | mg/kg | ND (0.030) | ND (0.025) | ND (0.093) | ND (0.024) | ND (0.027) | ND (0.024) | ND (0.27) | ND (0.022) | ND (0.061) | ND (0.026) | ND (0.023) | ND (0.025) | ND (0.038) | ND (0.026) | ND (0.031) | ND (0.027) | ND (0.039) | ND (0.026) | ND (0.017) | ND (0.018) | ND (0.15) | ND (0.026) | ND (0.077) | ND (0.065) |
| Butyl benzyl phthalate | 14000 | 1200 | mg/kg | ND (0.019) | ND (0.016) | ND (0.058) | ND (0.015) | ND (0.017) | ND (0.015) | ND (0.17) | ND (0.014) | ND (0.039) | ND (0.016) | ND (0.015) | ND (0.015) | ND (0.024) | ND (0.016) | ND (0.020) | ND (0.017) | ND (0.025) | ND (0.017) | ND (0.011) | ND (0.012) | ND (0.092) | ND (0.016) | ND (0.049) | ND (0.041) |
| 1,1'-Biphenyl | 240 | 61 | mg/kg | 0.0488 J | 0.0130 J | ND (0.033) | 0.0331 J | ND (0.0095) | ND (0.0085) | ND (0.096) | 0.0441 J | ND (0.022) | ND (0.0091) | 0.0132 J | ND (0.0087) | ND (0.013) | ND (0.0091) | ND (0.011) | ND (0.0096) | ND (0.014) | ND (0.0093) | 0.0098 J | ND (0.0065) | 3.03 | ND (0.0092) | ND (0.027) | ND (0.023) |
| Benzaldehyde | 68000 | 6100 | mg/kg | ND (0.019) | ND (0.016) | ND (0.059) | ND (0.016) | ND (0.017) | ND (0.015) | ND (0.17) | ND (0.014) | ND (0.039) | ND (0.016) | ND (0.015) | ND (0.016) | ND (0.024) | ND (0.017) | ND (0.020) | ND (0.017) | ND (0.025) | ND (0.017) | ND (0.011) | ND (0.012) | ND (0.093) | ND (0.017) | ND (0.050) | ND (0.042) |
| 2-Chloronaphthalene | - | - | mg/kg | ND (0.018) | ND (0.015) | ND (0.057) | ND (0.015) | ND (0.016) | ND (0.015) | ND (0.17) | ND (0.014) | ND (0.038) | ND (0.016) | ND (0.014) | ND (0.015) | ND (0.023) | ND (0.016) | ND (0.019) | ND (0.017) | ND (0.024) | ND (0.016) | ND (0.010) | ND (0.011) | ND (0.090) | ND (0.016) | ND (0.048) | ND (0.040) |
| 4-Chloroaniline | - | - | mg/kg | ND (0.028) | ND (0.023) | ND (0.086) | ND (0.023) | ND (0.025) | ND (0.022) | ND (0.25) | ND (0.021) | ND (0.057) | ND (0.024) | ND (0.021) | ND (0.023) | ND (0.035) | ND (0.024) | ND (0.029) | ND (0.025) | ND (0.037) | ND (0.024) | ND (0.016) | ND (0.017) | ND (0.14) | ND (0.024) | ND (0.072) | ND (0.061) |
| Carbazole | 96 | 24 | mg/kg | 0.0352 J | ND (0.0092) | ND (0.035) | 0.0227 J | ND (0.010) | ND (0.0090) | ND (0.10) | ND (0.0084) | ND (0.023) | ND (0.0096) | ND (0.0086) | ND (0.0092) | ND (0.014) | ND (0.0097) | ND (0.012) | ND (0.010) | ND (0.015) | ND (0.0098) | 0.0136 J | ND (0.0069) | 0.539 J | ND (0.0097) | ND (0.029) | ND (0.025) |
| Caprolactam | 340000 | 31000 | mg/kg | ND (0.030) [f] | ND (0.025) [f] | ND (0.095) [f] | ND (0.025) [f] | ND (0.027) [f] | ND (0.024) [f] | ND (0.28) [f] | ND (0.023) [f] | ND (0.063) [f] | ND (0.026) [f] | ND (0.024) [f] | ND (0.025) | ND (0.039) | ND (0.026) | ND (0.032) | ND (0.028) | ND (0.040) | ND (0.027) | ND (0.017) | ND (0.019) | ND (0.15) | ND (0.027) | ND (0.079) | ND (0.067) |
| Chrysene | 1700 | 450 | mg/kg | 0.257 | 0.0233 J | 2.18 | 0.326 | ND (0.022) | ND (0.020) | 1.29 | 0.156 | ND (0.050) | ND (0.021) | 0.0446 J | ND (0.020) | ND (0.031) | ND (0.021) | ND (0.025) | ND (0.022) | ND (0.032) | ND (0.021) | 0.0927 | ND (0.015) | 2.23 | ND (0.021) | ND (0.063) | ND (0.053) |
| bis(2-Chloroethoxy)methane | - | - | mg/kg | ND (0.016) | ND (0.014) | ND (0.051) | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.15) | ND (0.012) | ND (0.034) | ND (0.014) | ND (0.013) | ND (0.014) | ND (0.021) | ND (0.014) | ND (0.017) | ND (0.015) | ND (0.022) | ND (0.015) | ND (0.0092) | ND (0.010) | ND (0.081) | ND (0.014) | ND (0.043) | ND (0.036) |
| bis(2-Chloroethyl)ether | 2 | 0.4 | mg/kg | ND (0.033) | ND (0.027) | ND (0.10) | ND (0.027) | ND (0.030) | ND (0.027) | ND (0.30) | ND (0.025) | ND (0.068) | ND (0.029) | ND (0.026) | ND (0.027) | ND (0.042) | ND (0.029) | ND (0.035) | ND (0.030) | ND (0.044) | ND (0.029) | ND (0.019) | ND (0.021) | ND (0.16) | ND (0.029) | ND (0.086) | ND (0.073) |
| 2,2'-Oxybis(1-chloropropane) | 67 | 23 | mg/kg | ND (0.028) [f] | ND (0.023) [f] | ND (0.086) [f] | ND (0.023) [f] | ND (0.025) [f] | ND (0.022) [f] | ND (0.25) [f] | ND (0.021) [f] | ND (0.057) [f] | ND (0.024) [f] | ND (0.021) [f] | ND (0.023) | ND (0.035) | ND (0.024) | ND (0.029) | ND (0.025) | ND (0.037) | ND (0.024) | ND (0.015) | ND (0.017) | ND (0.14) | ND (0.024) | ND (0.072) | ND (0.061) |
| 4-Chlorophenyl phenyl ether | - | - | mg/kg | ND (0.025) | ND (0.021) | ND (0.078) | ND (0.021) | ND (0.022) | ND (0.020) | ND (0.23) | ND (0.019) | ND (0.051) | ND (0.021) | ND (0.019) | ND (0.021) | ND (0.032) | ND (0.022) | ND (0.026) | ND (0.023) | ND (0.033) | ND (0.022) | ND (0.014) | ND (0.015) | ND (0.12) | ND (0.022) | ND (0.065) | ND (0.055) |
| 2,4-Dinitrotoluene | 3 | 0.7 | mg/kg | ND (0.024) [a] | ND (0.020) [a] | ND (0.074) [a] | ND (0.020) [a] | ND (0.021) | ND (0.019) | ND (0.22) | ND (0.018) | ND (0.049) | ND (0.021) | ND (0.018) | ND (0.020) | ND (0.030) | ND (0.021) | ND (0.025) | ND (0.022) | ND (0.032) | ND (0.021) | ND (0.013) | ND (0.015) | ND (0.12) | ND (0.021) | ND (0.062) | ND (0.052) |
| 2,6-Dinitrotoluene | 3 | 0.7 | mg/kg | ND (0.039) | ND (0.032) | ND (0.12) | ND (0.032) | ND (0.035) | ND (0.031) | ND (0.35) | ND (0.029) | ND (0.080) | ND (0.033) | ND (0.030) | ND (0.032) | ND (0.049) | ND (0.034) | ND (0.040) | ND (0.035) | ND (0.051) | ND (0.034) | ND (0.022) | ND (0.024) | ND (0.19) | ND (0.034) | ND (0.10) | ND (0.085) |
| 3,3'-Dichlorobenzidine | 4 | 1 | mg/kg | ND (0.064) | ND (0.053) | ND (0.20) | ND (0.053) | ND (0.058) | ND (0.052) | ND (0.58) | ND (0.049) | ND (0.13) | ND (0.055) | ND (0.050) | ND (0.053) | ND (0.082) | ND (0.056) | ND (0.067) | ND (0.058) | ND (0.085) | ND (0.057) | ND (0.036) | ND (0.040) | ND (0.31) | ND (0.056) | ND (0.17) | ND (0.14) |
| 1,4-Dioxane | - | - | mg/kg | ND (0.051) | ND (0.042) | ND (0.16) | ND (0.042) | ND (0.046) [f] | ND (0.041) [f] | ND (0.46) [f] | ND (0.039) [f] | ND (0.11) [f] | ND (0.044) [f] | ND (0.039) [f] | ND (0.042) | ND (0.065) | ND (0.044) | ND (0.053) | ND (0.046) | ND (0.067) | ND (0.045) | ND (0.028) | ND (0.031) | ND (0.25) | ND (0.044) | ND (0.13) | ND (0.11) |
| Dibenzo(a,h)anthracene | 2 | 0.5 | mg/kg | ND (0.034) | ND (0.028) | 0.205 J | 0.143 | ND (0.031) | ND (0.027) | ND (0.31) | ND (0.026) | ND (0.070) | ND (0.029) | ND (0.026) | ND (0.028) | ND (0.043) | ND (0.030) | ND (0.036) | ND (0.031) | ND (0.045) | ND (0.030) | ND (0.019) [f] | ND (0.021) [f] | ND (0.17) | ND (0.030) | ND (0.089) | ND (0.075) |
| Dibenzofuran | - | - | mg/kg | 0.0914 J | ND (0.026) | 1.62 | 0.0712 J | ND (0.028) | ND (0.025) | ND (0.28) | 0.18 | ND (0.065) | ND (0.027) | ND (0.024) | ND (0.026) | ND (0.040) | ND (0.027) | ND (0.033) | ND (0.029) | ND (0.042) | ND (0.028) | ND (0.018) | ND (0.019) | 3.7 | ND (0.027) | ND (0.082) | ND (0.069) |
| Di-n-butyl phthalate | 68000 | 6100 | mg/kg | ND (0.013) | ND (0.010) | ND (0.039) | ND (0.010) | ND (0.011) | ND (0.010) | ND (0.11) | ND (0.0095) | ND (0.026) | ND (0.011) | ND (0.0097) | ND (0.010) | ND (0.016) | ND (0.011) | ND (0.013) | ND (0.011) | ND (0.017) | ND (0.011) | ND (0.0070) | ND (0.0078) | ND (0.061) | ND (0.011) | ND (0.033) | ND (0.028) |
| Di-n-octyl phthalate | 27000 | 2400 | mg/kg | ND (0.019) | ND (0.016) | ND (0.060) | 0.0874 J | ND (0.017) | ND (0.015) | ND (0.17) | ND (0.015) | ND (0.040) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.024) | ND (0.017) | ND (0.020) | ND (0.017) | ND (0.025) | ND (0.017) | ND (0.011) | ND (0.012) | ND (0.094) | ND (0.017) | ND (0.050) | ND (0.042) |
| Diethyl phthalate | 550000 | 49000 | mg/kg | ND (0.016) | ND (0.014) | ND (0.051) | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.15) | ND (0.012) | ND (0.034) | ND (0.014) | ND (0.013) | ND (0.014) | ND (0.021) | ND (0.014) | ND (0.017) | ND (0.015) | ND (0.022) | ND (0.014) | ND (0.0092) | ND (0.010) | ND (0.080) | ND (0.014) | ND (0.043) | ND (0.036) |
| Dimethyl phthalate | - | - | mg/kg | ND (0.014) | ND (0.011) | ND (0.043) | ND (0.011) | ND (0.012) | ND (0.011) | ND (0.12) | ND (0.010) | ND (0.028) | ND (0.012) | ND (0.011) | ND (0.011) | ND (0.017) | ND (0.012) | ND (0.014) | ND (0.012) | ND (0.018) | ND (0.012) | ND (0.0077) | ND (0.0085) | ND (0.067) | ND (0.012) | ND (0.036) | ND (0.030) |
| bis(2-Ethylhexyl)phthalate | 140 | 35 | mg/kg | 3.09 [f] | 0.0246 J [f] | 0.357 J [f] | 0.117 J [f] | ND (0.016) | ND (0.014) | 4.31 | 1.37 | ND (0.037) | ND (0.016) | ND (0.014) | ND (0.015) | ND (0.023) | ND (0.016) | ND (0.019) | ND (0.016) | ND (0.024) [a] | ND (0.016) [a] | 0.0908 | 0.0561 J | 0.652 J | ND (0.016) [a] | ND (0.047) [a] | ND (0.040) [a] |
| Fluoranthene | 24000 | 2300 | mg/kg | 0.57 | 0.0406 J | 1.04 | 1.41 | ND (0.031) | ND (0.028) | 1.02 | 0.502 | ND (0.071) | ND (0.030) | 0.112 | ND (0.028) | ND (0.044) | ND (0.030) | ND (0.036) | ND (0.031) | ND (0.046) [f] | ND (0.030) [f] | 0.197 | ND (0.021) | 1.05 | ND (0.030) [f] | ND (0.089) [f] | ND (0.075) [f] |
| Fluorene | 24000 | 2300 | mg/kg | 0.137 | 0.0336 J | 5.87 | 0.0797 | ND (0.032) | ND (0.028) | 8.48 | 0.295 | ND (0.073) | ND (0.030) | ND (0.027) | 0.0314 J | ND (0.045) | ND (0.031) | ND (0.037) | ND (0.032) | ND (0.047) | ND (0.031) | 0.166 | ND (0.022) | 11 | ND (0.031) | ND (0.092) | ND (0.078) |
| Hexachlorobenzene | 1 | 0.3 | mg/kg | ND (0.019) | ND (0.016) | ND (0.061) | 0.0181 J | ND (0.018) | ND (0.016) | ND (0.18) | ND (0.015) | ND (0.040) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.025) | ND (0.017) | ND (0.020) | ND (0.018) | ND (0.026) | ND (0.017) | ND (0.011) | ND (0.012) | ND (0.095) | ND (0.017) | ND (0.051) | ND (0.043) |
| Hexachlorobutadiene | 25 | 6 | mg/kg | ND (0.031) | ND (0.026) | ND (0.096) | ND (0.025) | ND (0.028) | ND (0.025) | ND (0.28) | ND (0.023) | ND (0.064) | ND (0.027) | ND (0.024) | ND (0.026) | ND (0.039) | ND (0.027) | ND (0.032) | ND (0.028) | ND (0.041) [f] | ND (0.027) [f] | ND (0.017) [f] | ND (0.019) [f] | ND (0.15) | ND (0.027) [f] | ND (0.081) [f] | ND (0.068) [f] |
| Hexachlorocyclopentadiene | 110 | 45 | mg/kg | ND (0.031) | ND (0.025) | ND (0.095) | ND (0.025) | ND (0.028) [a] | ND (0.025) [a] | ND (0.28) [a] | ND (0.023) [a] | ND (0.063) [a] | ND (0.026) [a] | ND (0.024) [a] | ND (0.025) | ND (0.039) | ND (0.027) | ND (0.032) | ND (0.028) | ND (0.041) | ND (0.027) | ND (0.017) | ND (0.019) | ND (0.15) | ND (0.027) | ND (0.080) | ND (0.067) |
| Hexachloroethane | 48 | 12 | mg/kg | ND (0.038) | ND (0.032) | ND (0.12) | ND (0.031) | ND (0.034) | ND (0.031) | ND (0.35) | ND (0.029) | ND (0.079) | ND (0.033) | ND (0.029) | ND (0.031) | ND (0.049) | ND (0.033) | ND (0.040) | ND (0.035) | ND (0.051) [f] | ND (0.034) [f] | ND (0.021) [f] | ND (0.024) [f] | ND (0.19) | ND (0.033) [f] | ND (0.099) [f] | ND (0.084) [f] |
| Indeno(1,2,3-cd)pyrene | 17 | 5 | mg/kg | 0.0942 [g] | ND (0.030) [a] | 0.299 [g] | 0.312 [g] | ND (0.033) | ND (0.029) | ND (0.33) | ND (0.027) | ND (0.075) | ND (0.031) | 0.0284 J | ND (0.030) | ND (0.046) | ND (0.031) | ND (0.038) | ND (0.033) | ND (0.048) | ND (0.032) | 0.0213 J | ND (0.022) | 0.204 J | ND (0.031) | ND (0.094) | ND (0.079) |
| Isophorone | 2000 | 510 | mg/kg | ND (0.016) | ND (0.014) | ND (0.051) | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.15) | ND (0.012) | ND (0.034) | ND (0.014) | ND (0.013) | ND (0.014) | ND (0.021) | ND (0.014) | ND (0.017) | ND (0.015) | ND (0.022) | ND (0.015) | ND (0.0092) | ND (0.010) | ND (0.081) | ND (0.014) | ND (0.043) | ND (0.036) |
| 2-Methylnaphthalene | 2400 | 230 | mg/kg | 0.287 | 0.126 | 22.5 | 0.16 | ND (0.016) | ND (0.014) | 4.95 | 0.391 | ND (0.036) | ND (0.015) | 0.0687 | 0.198 | ND (0.022) | ND (0.015) | 0.0208 J | ND (0.016) | ND (0.023) | ND (0.015) | 0.155 | 0.0562 | 126 | 0.0979 | ND (0.045) | ND (0.038) |
| 2-Nitroaniline | 23000 | 39 | mg/kg | ND (0.018) | ND (0.015) | ND (0.057) | ND (0.015) | ND (0.016) | ND (0.015) | ND (0.16) | ND (0.014) | ND (0.037) | ND (0.016) | ND (0.014) | ND (0.015) | ND (0.023) | ND (0.016) | ND (0.019) | ND (0.017) | ND (0.024) | ND (0.016) | ND (0.010) | ND (0.011) | ND (0.089) | ND (0.016) | ND (0.047) | ND (0.040) |
| 3-Nitroaniline | - | - | mg/kg | ND (0.019) | ND (0.016) | ND (0.060) | ND (0.016) | ND (0.017) | ND (0.015) | ND (0.17) | ND (0.015) | ND (0.040) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.025) | ND (0.017) | ND (0.020) | ND (0.018) | ND (0.026) | ND (0.017) | ND (0.011) | ND (0.012) | ND (0.094) | ND (0.017) | ND (0.050) | ND (0.042) |
| 4-Nitroaniline | - | - | mg/kg | ND (0.020) | ND (0.017) | ND (0.062) | ND (0.016) | ND (0.018) | ND (0.016) | ND (0.18) | ND (0.015) | ND (0.041) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.025) | ND (0.017) | ND (0.021) | ND (0.018) | ND (0.026) | ND (0.018) | ND (0.011) | ND (0.012) | ND (0.098) | ND (0.017) | ND (0.052) | ND (0.044) |
| Naphthalene | 17 | 6 | mg/kg | 0.135 | 0.0204 J | 1.06 | 0.147 | ND (0.020) | ND (0.017) | ND (0.20) | 0.129 | ND (0.045) | ND (0.019) | 0.0388 J | ND (0.018) | ND (0.028) | ND (0.019) | ND (0.023) | ND (0.020) | ND (0.029) | ND (0.019) | 0.0744 | 0.0217 J | 42.4 | 0.0459 J | ND (0.057) | ND (0.048) |
| Nitrobenzene | 14 | 5 | mg/kg | ND (0.030) | ND (0.025) | ND (0.093) | ND (0.024) | ND (0.027) | ND (0.024) | ND (0.27) | ND (0.022) | ND (0.061) | ND (0.026) | ND (0.023) | ND (0.025) | ND (0.038) | ND (0.026) | ND (0.031) | ND (0.027) | ND (0.039) | ND (0.026) | ND (0.017) [f] | ND (0.018) [f] | ND (0.15) | ND (0.026) | ND (0.077) | ND (0.065) |
| N-Nitroso-di-n-propylamine | 0.3 | 0.2 | mg/kg | ND (0.022) | ND (0.018) | ND (0.069) | ND (0.018) | ND (0.020) | ND (0.018) | ND (0.20) | ND (0.017) | ND (0.046) | ND (0.019) | ND (0.017) | ND (0.018) | ND (0.028) | ND (0.019) | ND (0.023) | ND (0.020) | ND (0.030) | ND (0.020) | ND (0.012) | ND (0.014) | ND (0.11) | ND (0.019) | ND (0.058) | ND (0.049) |
| N-Nitrosodiphenylamine | 390 | 99 | mg/kg | ND (0.028) | ND (0.023) | ND (0.088) | ND (0.023) | ND (0.025) | ND (0.023) | ND (0.26) | ND (0.021) | ND (0.058) | ND (0.024) | ND (0.022) | ND (0.023) | ND (0.036) | ND (0.024) | ND (0.029) | ND (0.026) | ND (0.037) | ND (0.025) | ND (0.016) | ND (0.017) | ND (0.14) | ND (0.025) | ND (0.073) | ND (0.062) |
| Phenanthrene | 300000 | NA | mg/kg | 0.26 | 0.0744 | 11.9 | 0.212 | ND (0.023) | ND (0.021) | 8.07 | 0.428 | ND (0.053) | ND (0.022) | 0.0563 J | 0.0796 | ND (0.033) | ND (0.022) | ND (0.027) | ND (0.024) | ND (0.034) | ND (0.023) | 0.479 | 0.0355 J | 31.5 | ND (0.023) | ND (0.067) | ND (0.057) |
| Pyrene | 18000 | 1700 | mg/kg | 0.51 | 0.0424 J | 2.48 | 0.905 | ND (0.022) | ND (0.020) | 1.79 | 0.439 | ND (0.051) | ND (0.021) | 0.0917 | ND (0.020) | ND (0.031) | ND (0.021) | ND (0.026) | ND (0.022) | ND (0.033) | ND (0.022) | 0.209 | ND (0.015) | 3.06 | ND (0.021) | ND (0.064) | ND (0.054) |
| 1,2,4,5-Tetrachlorobenzene | - | - | mg/kg | 0.0729 J | ND (0.016) | ND (0.061) | ND (0.016) | ND (0.018) | ND (0.016) | ND (0.18) | 0.0152 J | ND (0.040) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.025) | ND (0.017) | ND (0.020) | ND (0.018) | ND (0.026) | ND (0.017) | ND (0.011) | ND (0.012) | ND (0.096) | ND (0.017) | ND (0.051) | ND (0.043) |

**Table** 5c
**Detention Basin Deep** Sediment Screening
**Former Hess Port Reading Terminal Site**
**Port Reading New Jersey**

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SB-1M | SB-1B | SB-2M | SB-2B | SB-3M | SB-3B | SB-4M | SB-4B | SB-5M | SB-5B | SB-6M | SB-6B | SB-7M | SB-7B | SB-8M | SB-8B | SB-9M | SB-9B | SB-10M | SB-10B | SB-11M | SB-11B | SB-12M | SB-12B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth (ft.) | | | | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.0-5.4 | 3.5-4.0 | 7.0-7.5 | 1.5-2.0 | 3.5-4.0 | 3.5-4.0 | 7.0-7.5 | 3.5-4.0 | 6.5-7.0 | 2.5-3.0 | 5.5-6.0 | 3.5-4.0 | 6.0-6.5 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 | 3.5-4.0 | 6.5-7.0 |
| Date Sampled: | | | | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/9/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 | 11/12/2018 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | - | - | mg/kg | 19.01 J | 3.33 J | 283.7 J | 12.02 J | 2.46 J | 1.52 J | 474 J | 24.26 J | 110.3 J | 7.35 J | 0 | 10.06 J | 30.78 J | 0.83 J | 1.61 J | 3.01 J | 2.69 J | 1.8 J | 9.85 J | 3 J | 759 J | 0 | 4.8 J | 26.16 J |
| Total Alkanes | - | - | mg/kg | 9.15 J | 1.58 J | 123.3 J | 1.63 J | 0 | 0.54 J | 281 J | 11.82 J | 1.4 J | 0 | 0 | 3.57 J | 1.59 J | 0 | 0 | 0 | 0 | 0 | 5.31 J | 0.62 J | - | 0 | 0 | 0 |
| **GC/LC Semi-volatiles (NJDEP EPH)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C10-C12 Aromatics | - | - | mg/kg | ND (5.7) | ND (5.1) | 98.6 | ND (4.9) | ND (5.7) | ND (5.1) | 171 | ND (4.6) | ND (13) | ND (4.7) | ND (4.6) | ND (5.1) | ND (7.9) | ND (5.2) | ND (6.1) | ND (5.4) | ND (8.3) | ND (5.4) | 8.57 | ND (3.6) | 538 | ND (4.8) | ND (16) | ND (13) |
| C12-C16 Aromatics | - | - | mg/kg | ND (5.7) | ND (5.1) | 586 | ND (4.9) | ND (5.7) | ND (5.1) | 1220 | 22.5 | ND (13) | ND (4.7) | ND (4.6) | ND (5.1) | ND (7.9) | ND (5.2) | ND (6.1) | ND (5.4) | ND (8.3) | ND (5.4) | 95.4 | 9.75 | 1510 | ND (4.8) | ND (16) | ND (13) |
| C16-C21 Aromatics | - | - | mg/kg | 139 | ND (5.1) | 3370 | ND (4.9) | 178 | ND (5.1) | 4730 | 169 | ND (13) | ND (4.7) | ND (4.6) | ND (5.1) | 23.2 | ND (5.2) | ND (6.1) | ND (5.4) | ND (8.3) | ND (5.4) | 521 | 45.2 | 3490 | ND (4.8) | ND (16) | 27.8 |
| C21-C36 Aromatics | | | mg/kg | 179 | ND (5.1) | 1770 | ND (4.9) | 400 | ND (5.1) | 2060 | 103 | 68 | ND (4.7) | ND (4.6) | ND (5.1) | 64.4 | ND (5.2) | ND (6.1) | ND (5.4) | 85.3 | ND (5.4) | 379 | ND (3.6) | 1720 | ND (4.8) | 148 | 287 |
| Total Aromatics | | | mg/kg | 318 | ND (5.1) | 5830 | ND (4.9) | 579 | ND (5.1) | 8180 | 294 | 68 | ND (4.7) | ND (4.6) | ND (5.1) | 87.6 | ND (5.2) | ND (6.1) | ND (5.4) | 85.3 | ND (5.4) | 1000 | 54.9 | 7260 | ND (4.8) | 148 | 315 |
| C9-C12 Aliphatics | - | - | mg/kg | 33.9 | ND (5.1) | 181 | 20.5 | ND (5.7) | ND (5.1) | 549 | 18.3 | ND (13) | ND (4.7) | ND (4.6) | ND (5.1) | ND (7.9) | ND (5.2) | ND (6.1) | ND (5.4) | ND (8.3) | ND (5.4) | 58 | 7.79 | 2410 | ND (4.8) | ND (16) | ND (13) |
| C12-C16 Aliphatics | - | - | mg/kg | 130 | ND (5.1) | 1490 | 180 | ND (5.7) | ND (5.1) | 3780 | 134 | ND (13) | ND (4.7) | ND (4.6) | ND (5.1) | ND (7.9) | ND (5.2) | ND (6.1) | ND (5.4) | ND (8.3) | ND (5.4) | 344 | 28.9 | 4730 | ND (4.8) | ND (16) | ND (13) |
| C16-C21 Aliphatics | - | - | mg/kg | 204 | ND (5.1) | 3040 | 261 | 15 | ND (5.1) | 6450 | 250 | 29.4 | ND (4.7) | ND (4.6) | 21 | 44.6 | ND (5.2) | ND (6.1) | ND (5.4) | 31.3 | ND (5.4) | 491 | 44.4 | 5620 | ND (4.8) | ND (16) | 34.9 |
| C21-C40 Aliphatics | - | - | mg/kg | 420 | ND (5.1) | 2760 | 718 | 33 | ND (5.1) | 7270 | 245 | 44.8 | ND (4.7) | ND (4.6) | ND (5.1) | 85.9 | ND (5.2) | ND (6.1) | ND (5.4) | 61 | ND (5.4) | 600 | 54.1 | 4580 | ND (4.8) | 142 | 167 |
| Total Aliphatics | | | mg/kg | 788 | ND (5.1) | 7470 | 1180 | 48 | ND (5.1) | 18100 | 647 | 74.2 | ND (4.7) | ND (4.6) | 21 | 130 | ND (5.2) | ND (6.1) | ND (5.4) | 92.3 | ND (5.4) | 1490 | 135 | 17300 | ND (4.8) | 142 | 202 |
| Total EPH | - | - | mg/kg | 1110 | ND (10) | 13300 | 1180 | 627 | ND (10) | 26200 | 941 | 142 | ND (9.4) | ND (9.1) | 21 | 218 | ND (10) | ND (12) | ND (11) | 178 | ND (11) | 2500 | 190 | 24600 | ND (9.7) | 290 | 517 |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | NA | 78000 | mg/kg | 30500 | 29200 | 15000 | 22600 | 21600 | 21600 | 16900 | 23400 | 19500 | 22900 | 31700 | 24400 | 31500 | 22400 | 25500 | 23800 | 21400 | 19900 | 18400 | 30300 | 33100 | 27800 | 22700 | 13700 |
| Antimony | 450 | 31 | mg/kg | <4.4 | <4.0 | <3.1 | 6 | <4.4 | <4.1 | 7.9 | <3.5 | <9.6 | <3.8 | <3.8 | <3.9 | <6.1 | <4.3 | <4.7 | <4.1 | <6.2 | <4.2 | <2.6 | <3.0 | <14 [h] | <4.0 | <12 | <11 |
| Arsenic | 19 | 19 | mg/kg | 161 | 17.5 | 19 | 12000 | 12000 | 14.4 | 53.7 | 116 | 12.5 | 27.6 | 26.2 | 19.6 | 15.8 | 12.4 | 14.2 | 18.1 [h] | 20.7 | 22.5 | 63.8 [h] | 83.4 [h] | 70.1 [h] | 32.7 [h] | 33.4 | <11 |
| Barium | 59000 | 16000 | mg/kg | 546 | 81.8 | 76.6 | 389 | 45.7 | 45.3 | 204 | 568 | <96 | 45.1 | 72.3 | 55.1 | 65.5 | 45.7 | 55.2 | 47.7 | <62 | <42 | 264 | 676 | 429 | 58.1 | <120 | <110 |
| Beryllium | 140 | 16 | mg/kg | 2.7 | 1.5 | 1.3 | 1.6 | 1.3 | 1.3 | 1.4 | 2.4 | 1.1 | 1.3 | 1.6 | 1.3 | 1.9 | 1.5 | 1.6 | 1.5 | 1.3 | 1.2 | 1.4 | 3.4 | 3.7 | 1.5 | 1.3 | <1.1 |
| Cadmium | 78 | 78 | mg/kg | 3.2 | <1.0 | 1.2 | 2.5 | <1.1 | <1.0 | 3.8 | 2.7 | <2.4 | <0.95 | <0.95 | <0.97 | <1.5 | <1.1 | <1.2 | <1.0 | <1.6 | <1.0 | 1.8 [h] | <2.2 [h] | 5.8 [h] | <2.0 [h] | <3.0 | <2.7 |
| Calcium | | | mg/kg | 7200 | 2290 | 1360 | 3240 | 1970 | 2040 | 14400 | 8390 | <2400 | 1770 | 1920 | 2380 | 2940 | 2160 | 2870 | 2380 | 1980 | 1740 | 2980 | 14100 | 14500 | 2020 | 3950 | 3010 |
| Chromium | - | - | mg/kg | 152 | 53 | 477 | 108 | 43.1 | 39 | 1390 | 122 | 39.8 | 45.6 | 58.6 | 50.6 | 57.2 | 41.7 | 53.5 | 41.9 | 38.7 | 37.5 | 95.8 | 69.2 | 4500 [h] | 55.9 | 133 | 73.6 |
| Cobalt | 590 | 1600 | mg/kg | 17.8 | 15.8 | 18.3 | 14.3 | 13.6 | 12.1 | 15.9 | 11.4 | <24 | 14.6 | 15.7 | 14 | <15 | 11.1 | 12.1 | 11.3 | <16 | 11.6 | 10 | 12.6 | 29.2 | 14.1 | <30 | <27 |
| Copper | 45000 | 3100 | mg/kg | 471 | 34.6 | 75.2 | 762 [h] | 16.5 | 15.1 | 296 | 324 [h] | <12 | 16.3 [h] | 49.5 [h] | 21.5 [h] | 23.3 | 15.6 | 20.6 | 16.5 [h] | 14 | 13.1 | 241 [h] | 77.6 [h] | 819 [h] | 69.4 [h] | 40.7 | 18.5 |
| Iron | | | mg/kg | 70300 | 38500 | 28100 | 46800 | 38600 | 32000 | 32100 | 47400 | 24300 | 56100 | 42800 | 46600 | 40400 | 39200 | 43300 | 49500 | 44800 | 39000 | 36900 [h] | 66400 [h] | 51700 [h] | 44400 [h] | 58900 | 16100 |
| Lead | 800 | 400 | mg/kg | 301 | 58.9 | 57.2 | 437 [h] | 18.9 | 17.2 | 321 | 179 [h] | 12.7 | 16.7 [h] | 111 [h] | 19.4 [h] | 26.9 | 16 | 20.2 | 16.0 [h] | 14.6 | 14.4 | 142 [h] | 44.9 [h] | 212 [h] | 77.8 [h] | 62.9 | 25.1 |
| Magnesium | - | - | mg/kg | 7010 | 8870 | 4380 | 6990 | 7870 | 7970 | 4310 | 3370 | 6120 | 7570 | 8720 | 8840 | 9150 | 7400 | 8970 | 8070 | 6990 | 7360 | 4430 | 5080 | 9700 | 8770 | 9090 | 5450 |
| Manganese | 5900 | 11000 | mg/kg | 378 | 391 | 209 | 336 [h] | 372 | 384 | 274 | 218 [h] | 125 | 333 [h] | 359 [h] | 461 | 457 | 339 | 394 | 398 [h] | 218 | 277 | 276 [h] | 179 [h] | 936 [h] | 603 [h] | 325 | 62.4 |
| Mercury | 65 | 23 | mg/kg | 6.8 | 0.14 | 0.36 | 7.5 | 0.05 | 0.15 | 0.91 | 2.1 | 0.077 | <0.033 | 1.1 | 0.17 | 0.073 | 0.077 | <0.077 | <0.065 | 0.026 | <0.021 | 1.8 | 0.55 | 1 | 1.7 | 0.15 | <0.017 |
| Nickel | 23000 | 1600 | mg/kg | 60.5 | 39.2 | 46.7 | 81.5 | 32.2 | 30 | 340 | 38.7 | 23.5 | 31.8 | 39.5 | 33.8 | 41.1 | 31.3 | 35 | 31.2 | 29.7 | 27.2 | 33 | 37.1 | 111 | 44.4 | 35.6 | <21 |
| Potassium | | | mg/kg | 4740 | 5730 | 2700 | 4500 | 5310 | 5340 | 2480 | 2910 | 4850 | 5670 | 6110 | 6110 | 5790 | 5030 | 5790 | 5370 | 4810 | 4570 | 2550 | 2590 | 2590 | 4910 | <6100 | <5300 |
| Selenium | 5700 | 390 | mg/kg | <8.8 | <4.0 | <3.1 | 24.1 [h] | <4.4 | <4.1 | <4.1 | <7.0 [h] | <9.6 | <3.8 | <7.6 [h] | <7.8 [h] | <6.1 | <4.3 | <4.7 | <8.3 [h] | <6.2 | <4.2 | <5.2 [h] | <8.9 [h] | <4.5 | <7.9 [h] | <12 | <11 |
| Silver | 5700 | 390 | mg/kg | <2.2 | 1.8 | <0.77 | 2.9 [h] | <1.1 | <1.0 | <1.0 | 1.5 | <2.4 | <1.9 [h] | <1.9 [h] | <1.9 [h] | <1.5 | <1.1 | <1.2 | <2.1 [h] | 2.6 | 2.6 | 2.1 [h] | <2.2 [h] | <3.4 [h] | <2.0 [h] | 4.2 | <2.7 |
| Sodium | - | - | mg/kg | 4790 | 4740 | <1500 | <1900 | 6040 | 7330 | <2100 | <1700 | 13700 | 7060 | 4640 | 5920 | 5990 | 3390 | 7910 | 8380 | 7930 | 6790 | 1430 | 2580 | 5630 | 6130 | 17300 | 24100 |
| Thallium | | | mg/kg | <4.4 | <2.0 | <1.5 | <3.8 [h] | <2.2 | <2.0 | <2.1 | <3.5 [h] | <4.8 | <3.8 [h] | <3.8 [h] | <3.9 [h] | <3.1 | <2.1 | <2.4 | <4.1 [h] | <3.1 | <2.1 | <2.6 [h] | <4.5 [h] | <6.8 [h] | <4.0 [h] | <6.1 | <5.3 |
| Vanadium | 1100 | 78 | mg/kg | 201 | 58.4 | 54.7 | 51.8 | 47.8 | 45.9 | 405 | 82.4 | 58.1 | 50.8 | 61 | 52.5 | 66.6 | 47.7 | 51.4 | 50.3 | 52.5 | 47.4 | 63.3 | 120 | 242 [h] | 55.8 | 84.5 | 50.7 |
| Zinc | 110000 | 23000 | mg/kg | 455 | 110 | 370 | 687 | 103 | 98.1 | 908 | 312 | 58.5 | 84.7 | 194 | 94.5 | 108 | 81.8 | 96.2 | 84 | 98.2 | 80.1 | 249 | 119 | 2120 [h] | 166 | 86.5 | 50.8 |

Table 5d
Smith Creek and Smith Creek Pond Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SS-13B | SS-13C | SS-14B | SS-14C | SS-15B | SS-15C | SS-16B | SS-16C | SS-17B | SS-17C | SS-18B | SS-18C | SS-19B | SS-19C | SS-20B | SS-20C | SS-21B | SS-21C | SS-22B | SS-22C | SS-23B | SS-23C | SS-24B | SS-24C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth | | | | 3.0-3.5 | 6.0-6.5 | 3.5-4.0 | 7.0-7.5 | 4.0-4.5 | 7.5-8.0 | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.0-5.5 | 3.0-3.5 | 6.5-7.0 | 6.0-6.5 | 3.0-3.5 | 2.5-3.0 | 5.5-6.0 | 3.0-3.5 | 6.5-7.0 | 2.0-2.5 | 4.5-5.0 | 3.0-3.5 | 6.0-6.5 |
| Date Sampled: | | | | 2/26/2019 | 2/26/2019 | 2/27/2019 | 2/27/2019 | 2/26/2019 | 2/26/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | NA | 70000 | mg/kg | 0.0878 | 0.125 | 0.0767 | 0.0742 | 0.0457 | 0.0529 | 0.0564 | 0.114 | 0.189 | 0.074 | 0.132 | 0.0834 | 0.0525 | 0.0483 | 0.0643 | 0.0692 | 0.0285 | 0.032 | 0.0431 | 0.0732 | 0.0314 | 0.0861 | 0.0927 | 0.0653 |
| Benzene | 5 | 2 | mg/kg | ND (0.0011) | ND (0.0011) | 0.0014 | ND (0.00096) | ND (0.00089) | ND (0.00087) | ND (0.0014) | ND (0.0013) | ND (0.0017) | 0.0034 | 0.0118 | 0.002 | ND (0.0011) | ND (0.0011) | ND (0.00097) | ND (0.0011) | ND (0.00092) | ND (0.00081) | ND (0.00084) | ND (0.00092) | ND (0.00066) | ND (0.00074) | ND (0.0011) | ND (0.00082) |
| Bromochloromethane | - | - | mg/kg | ND (0.0013) | ND (0.0012) | ND (0.0010) | ND (0.0011) | ND (0.0010) | ND (0.00099) | ND (0.0016) | ND (0.0015) | ND (0.0019) | ND (0.0011) | ND (0.0013) | ND (0.0012) | ND (0.0012) | ND (0.0013) | ND (0.0011) | ND (0.0013) | ND (0.0010) | ND (0.00092) | ND (0.00096) | ND (0.0011) | ND (0.00076) | ND (0.00084) | ND (0.0012) | ND (0.00093) |
| Bromodichloromethane | 3 | 1 | mg/kg | ND (0.0013) | ND (0.0013) | ND (0.0011) | ND (0.0011) | ND (0.0010) | ND (0.0010) | ND (0.0016) | ND (0.0015) | ND (0.0020) | ND (0.0011) | ND (0.0013) | ND (0.0012) | ND (0.0013) | ND (0.0013) | ND (0.0011) | ND (0.0013) | ND (0.0011) | ND (0.00095) | ND (0.00099) | ND (0.0011) | ND (0.00078) | ND (0.00087) | ND (0.0013) | ND (0.00096) |
| Bromoform | 280 | 81 | mg/kg | ND (0.0012) | ND (0.0011) | ND (0.00096) | ND (0.0010) | ND (0.00095) | ND (0.00093) | ND (0.0015) | ND (0.0014) | ND (0.0018) | ND (0.0010) | ND (0.0012) | ND (0.0011) | ND (0.0012) | ND (0.0012) | ND (0.0010) | ND (0.0012) | ND (0.00098) | ND (0.00087) | ND (0.00090) | ND (0.00099) | ND (0.00071) | ND (0.00079) | ND (0.0012) | ND (0.00087) |
| Bromomethane | 59 | 25 | mg/kg | ND (0.0029) | ND (0.0028) | ND (0.0024) | ND (0.0025) | ND (0.0024) | ND (0.0023) | ND (0.0037) | ND (0.0034) | ND (0.0044) | ND (0.0026) | ND (0.0029) | ND (0.0027) | ND (0.0029) [b] | ND (0.0030) [b] | ND (0.0026) [b] | ND (0.0030) [b] | ND (0.0024) [b] | ND (0.0021) [b] | ND (0.0022) | ND (0.0024) | ND (0.0018) | ND (0.0019) | ND (0.0028) | ND (0.0022) |
| 2-Butanone (MEK) | 44000 | 3100 | mg/kg | 0.0131 J | 0.0150 J | ND (0.0089) [a] | ND (0.0095) [a] | ND (0.0088) | ND (0.0086) | ND (0.014) | ND (0.013) | 0.0191 J | ND (0.0097) | 0.0169 J | ND (0.010) | ND (0.011) | ND (0.011) | ND (0.0096) | ND (0.011) | ND (0.0091) | ND (0.0080) | ND (0.0083) | ND (0.0092) | ND (0.0066) | ND (0.0073) | ND (0.011) | ND (0.0081) |
| Carbon disulfide | 110000 | 7800 | mg/kg | 0.0071 | 0.008 | ND (0.0022) | 0.0061 | 0.024 J | 0.024 J | 0.0079 | 0.0171 | 0.0045 J | 0.0036 J | 0.0046 J | 0.0026 J | 0.0076 | 0.0093 | 0.0067 | 0.0129 | 0.0273 | 0.0176 | 0.0089 | 0.0062 | ND (0.0016) | ND (0.0018) | 0.0058 | ND (0.0020) |
| Carbon tetrachloride | 4 | 2 | mg/kg | ND (0.0016) | ND (0.0016) | ND (0.0013) | ND (0.0014) | ND (0.0013) | ND (0.0013) | ND (0.0020) | ND (0.0019) | ND (0.0024) | ND (0.0014) | ND (0.0016) | ND (0.0015) | ND (0.0016) | ND (0.0017) | ND (0.0014) | ND (0.0017) | ND (0.0013) | ND (0.0012) | ND (0.0012) | ND (0.0013) | ND (0.00097) | ND (0.0011) | ND (0.0016) | ND (0.0012) |
| Chlorobenzene | 7400 | 510 | mg/kg | ND (0.0010) | ND (0.0010) | ND (0.00084) | ND (0.00090) | ND (0.00084) | ND (0.00082) | ND (0.0013) | ND (0.0012) | ND (0.0016) | ND (0.00092) | 0.0040 J | 0.0012 J | ND (0.0010) | ND (0.0011) | ND (0.00091) | 0.0012 J | ND (0.00086) | ND (0.00076) | ND (0.00079) | ND (0.00087) | ND (0.00062) | ND (0.00069) | 0.0012 J | ND (0.00077) |
| Chloroethane | 1100 | 220 | mg/kg | ND (0.0020) | ND (0.0019) | ND (0.0016) | ND (0.0017) | ND (0.0016) | ND (0.0016) | ND (0.0025) | ND (0.0023) | ND (0.0030) | ND (0.0018) | ND (0.0020) | ND (0.0018) | ND (0.0020) | ND (0.0021) | ND (0.0018) | ND (0.0021) | ND (0.0017) | ND (0.0015) | ND (0.0015) | ND (0.0017) | ND (0.0012) | ND (0.0013) | ND (0.0020) | ND (0.0015) |
| Chloroform | 2 | 0.6 | mg/kg | ND (0.0011) | ND (0.0011) | ND (0.00088) | ND (0.00095) | ND (0.00088) | ND (0.00086) | ND (0.0014) | ND (0.0013) | ND (0.0016) | ND (0.00096) | ND (0.0011) | ND (0.0010) | ND (0.0011) | ND (0.0011) | ND (0.00096) | ND (0.0011) | ND (0.00090) | ND (0.00080) | ND (0.00083) | ND (0.00091) | ND (0.00065) | ND (0.00073) | ND (0.0011) | ND (0.00081) |
| Chloromethane | 12 | 4 | mg/kg | ND (0.0057) | ND (0.0056) | ND (0.0047) | ND (0.0050) | ND (0.0046) | ND (0.0045) | ND (0.0073) | ND (0.0067) | ND (0.0087) | ND (0.0051) | ND (0.0058) | ND (0.0053) | ND (0.0056) | ND (0.0059) | ND (0.0051) | ND (0.0059) | ND (0.0048) | ND (0.0042) | ND (0.0044) | ND (0.0048) | ND (0.0035) | ND (0.0038) | ND (0.0056) | ND (0.0042) |
| Cyclohexane | - | - | mg/kg | ND (0.0012) | ND (0.0012) | ND (0.00096) | ND (0.0010) | ND (0.00096) | ND (0.00094) | ND (0.0015) | ND (0.0014) | ND (0.0018) | 0.0014 J | 0.0050 J | 0.0015 J | ND (0.0012) | ND (0.0012) | ND (0.0010) | ND (0.0012) | ND (0.00099) | ND (0.00087) | ND (0.00090) | ND (0.0010) | ND (0.00071) | ND (0.00079) | ND (0.0012) | ND (0.00088) |
| 1,2-Dibromo-3-chloropropane | 0.2 | 0.08 | mg/kg | ND (0.0025) | ND (0.0024) | ND (0.0020) | ND (0.0021) | ND (0.0020) | ND (0.0019) | ND (0.0031) | ND (0.0029) | ND (0.0037) | ND (0.0022) | ND (0.0025) | ND (0.0022) | ND (0.0024) | ND (0.0025) | ND (0.0022) | ND (0.0025) | ND (0.0020) | ND (0.0018) | ND (0.0019) | ND (0.0020) | ND (0.0015) | ND (0.0016) | ND (0.0024) | ND (0.0018) |
| Dibromochloromethane | 8 | 3 | mg/kg | ND (0.00099) | ND (0.00096) | ND (0.00080) | ND (0.00086) | ND (0.00080) | ND (0.00078) | ND (0.0013) | ND (0.0012) | ND (0.0015) | ND (0.00088) | ND (0.00099) | ND (0.00091) | ND (0.00097) | ND (0.0010) | ND (0.00087) | ND (0.0010) | ND (0.00082) | ND (0.00073) | ND (0.00075) | ND (0.00083) | ND (0.00060) | ND (0.00066) | ND (0.00097) | ND (0.00073) |
| 1,2-Dibromoethane | 0.04 | 0.008 | mg/kg | ND (0.00095) | ND (0.00092) | ND (0.00077) | ND (0.00083) | ND (0.00077) | ND (0.00075) | ND (0.0012) | ND (0.0011) | ND (0.0014) | ND (0.00084) | ND (0.00096) | ND (0.00087) | ND (0.00093) | ND (0.00098) | ND (0.00084) | ND (0.00098) | ND (0.00079) | ND (0.00070) | ND (0.00072) | ND (0.00080) | ND (0.00057) | ND (0.00064) | ND (0.00093) | ND (0.00070) |
| 1,2-Dichlorobenzene | 59000 | 5300 | mg/kg | ND (0.00089) | ND (0.00086) | ND (0.00072) | ND (0.00077) | ND (0.00072) | ND (0.00070) | ND (0.0011) | ND (0.0010) | ND (0.0014) | ND (0.00079) | 0.0012 J | ND (0.00082) | ND (0.00087) | ND (0.00092) | ND (0.00079) | ND (0.00092) | ND (0.00074) | ND (0.00066) | ND (0.00068) | ND (0.00075) | ND (0.00054) | ND (0.00060) | ND (0.00087) | ND (0.00066) |
| 1,3-Dichlorobenzene | 59000 | 5300 | mg/kg | ND (0.0011) | ND (0.0010) | ND (0.00085) | ND (0.00091) | ND (0.00085) | ND (0.00083) | ND (0.0013) | ND (0.0012) | ND (0.0016) | ND (0.00093) | 0.0019 J | ND (0.00096) | ND (0.0010) | ND (0.0011) | ND (0.00093) | ND (0.0011) | ND (0.00087) | ND (0.00077) | ND (0.00080) | ND (0.00088) | ND (0.00063) | ND (0.00070) | ND (0.0010) | ND (0.00078) |
| 1,4-Dichlorobenzene | 13 | 5 | mg/kg | ND (0.0010) | ND (0.00098) | ND (0.00082) | ND (0.00087) | ND (0.00081) | ND (0.00079) | ND (0.0013) | ND (0.0012) | ND (0.0015) | ND (0.00089) | 0.0037 | ND (0.00092) | ND (0.00099) | ND (0.0010) | ND (0.00089) | ND (0.0010) | ND (0.00084) | ND (0.00074) | ND (0.00077) | ND (0.00084) | ND (0.00061) | ND (0.00067) | ND (0.00098) | ND (0.00074) |
| Dichlorodifluoromethane | 230000 | 490 | mg/kg | ND (0.0019) | ND (0.0018) | ND (0.0015) | ND (0.0016) | ND (0.0015) | ND (0.0015) | ND (0.0024) | ND (0.0022) | ND (0.0028) | ND (0.0016) | ND (0.0019) | ND (0.0017) | ND (0.0018) | ND (0.0019) | ND (0.0016) | ND (0.0019) | ND (0.0015) | ND (0.0014) | ND (0.0014) [a] | ND (0.0016) [a] | ND (0.0011) | ND (0.0012) [a] | ND (0.0018) | ND (0.0014) [a] |
| 1,1-Dichloroethane | 24 | 8 | mg/kg | ND (0.0011) | ND (0.0011) | ND (0.00091) | ND (0.00098) | ND (0.00091) | ND (0.00089) | ND (0.0014) | ND (0.0013) | ND (0.0017) | ND (0.0010) | ND (0.0011) | ND (0.0010) | ND (0.0011) | ND (0.0012) | ND (0.00099) | ND (0.0012) | ND (0.00093) | ND (0.00083) | ND (0.00086) | ND (0.00094) | ND (0.00068) | ND (0.00075) | ND (0.0011) | ND (0.00083) |
| 1,2-Dichloroethane | 3 | 0.9 | mg/kg | ND (0.0014) | ND (0.0013) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.0011) | ND (0.0017) | ND (0.0016) | ND (0.0021) | ND (0.0012) | ND (0.0014) | ND (0.0013) | ND (0.0013) | ND (0.0014) | ND (0.0012) | ND (0.0014) | ND (0.0011) | ND (0.0010) | ND (0.0010) | ND (0.0012) | ND (0.00083) | ND (0.00092) | ND (0.0013) | ND (0.0010) |
| 1,1-Dichloroethene | 150 | 11 | mg/kg | ND (0.0019) | ND (0.0019) | ND (0.0016) | ND (0.0017) | ND (0.0016) | ND (0.0015) | ND (0.0024) | ND (0.0022) | ND (0.0029) | ND (0.0017) | ND (0.0019) | ND (0.0018) | ND (0.0019) | ND (0.0020) | ND (0.0017) | ND (0.0020) | ND (0.0016) | ND (0.0014) | ND (0.0015) | ND (0.0016) | ND (0.0012) | ND (0.0013) | ND (0.0019) | ND (0.0014) |
| cis-1,2-Dichloroethene | 560 | 230 | mg/kg | ND (0.0028) | ND (0.0027) | ND (0.0023) | ND (0.0024) | ND (0.0023) | ND (0.0022) | ND (0.0035) | ND (0.0033) | ND (0.0042) | ND (0.0025) | ND (0.0028) | ND (0.0026) | ND (0.0027) | ND (0.0029) | ND (0.0025) | ND (0.0029) | ND (0.0023) | ND (0.0021) | ND (0.0021) | ND (0.0023) | ND (0.0017) | ND (0.0019) | ND (0.0027) | ND (0.0021) |
| trans-1,2-Dichloroethene | 720 | 300 | mg/kg | ND (0.0020) | ND (0.0019) | ND (0.0016) | ND (0.0017) | ND (0.0016) | ND (0.0015) | ND (0.0025) | ND (0.0023) | ND (0.0030) | ND (0.0017) | ND (0.0020) | ND (0.0018) | ND (0.0019) | ND (0.0020) | ND (0.0017) | ND (0.0020) | ND (0.0016) | ND (0.0014) | ND (0.0015) | ND (0.0016) | ND (0.0012) | ND (0.0013) | ND (0.0019) | ND (0.0014) |
| 1,2-Dichloropropane | 5 | 2 | mg/kg | ND (0.0012) | ND (0.0012) | ND (0.00097) | ND (0.0010) | ND (0.00096) | ND (0.00094) | ND (0.0015) | ND (0.0014) | ND (0.0018) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.0012) | ND (0.0012) | ND (0.0011) | ND (0.0012) | ND (0.00099) | ND (0.00087) | ND (0.00091) | ND (0.0010) | ND (0.00072) | ND (0.00080) | ND (0.0012) | ND (0.00088) |
| cis-1,3-Dichloropropene | 7 | 2 | mg/kg | ND (0.0010) | ND (0.0010) | ND (0.00084) | ND (0.00089) | ND (0.00083) | ND (0.00081) | ND (0.0013) | ND (0.0012) | ND (0.0016) | ND (0.00091) | ND (0.0010) | ND (0.00094) | ND (0.0010) | ND (0.0011) | ND (0.00091) | ND (0.0011) | ND (0.00085) | ND (0.00076) | ND (0.00078) | ND (0.00086) | ND (0.00062) | ND (0.00069) | ND (0.0010) | ND (0.00076) |
| trans-1,3-Dichloropropene | 7 | 2 | mg/kg | ND (0.00096) | ND (0.00093) | ND (0.00078) | ND (0.00083) | ND (0.00077) | ND (0.00076) | ND (0.0012) | ND (0.0011) | ND (0.0014) | ND (0.00085) | ND (0.00096) | ND (0.00088) | ND (0.00094) | ND (0.00098) | ND (0.00084) | ND (0.00099) | ND (0.00079) | ND (0.00070) | ND (0.00073) | ND (0.00080) | ND (0.00058) | ND (0.00064) | ND (0.00093) | ND (0.00071) |
| Ethylbenzene | 110000 | 7800 | mg/kg | ND (0.0016) | ND (0.0016) | ND (0.0013) | ND (0.0014) | ND (0.0013) | ND (0.0013) | ND (0.0020) | ND (0.0019) | ND (0.0024) | ND (0.0014) | 0.0024 J | ND (0.0015) | ND (0.0016) | ND (0.0017) | ND (0.0014) | ND (0.0017) | ND (0.0013) | ND (0.0012) | ND (0.0012) | ND (0.0014) | ND (0.00097) | ND (0.0011) | ND (0.0016) | ND (0.0012) |
| Freon 113 | - | - | mg/kg | ND (0.0022) | ND (0.0022) | ND (0.0018) | ND (0.0019) | ND (0.0018) | ND (0.0018) | ND (0.0028) | ND (0.0026) [a] | ND (0.0034) | ND (0.0020) | ND (0.0022) | ND (0.0020) | ND (0.0022) | ND (0.0023) | ND (0.0020) | ND (0.0023) | ND (0.0018) | ND (0.0016) | ND (0.0017) [a] | ND (0.0019) [a] | ND (0.0013) [a] | ND (0.0015) [a] | ND (0.0022) [a] | ND (0.0016) [a] |
| 2-Hexanone | - | - | mg/kg | ND (0.0037) | ND (0.0036) | ND (0.0030) | ND (0.0032) | ND (0.0030) | ND (0.0029) | ND (0.0047) | ND (0.0043) | ND (0.0056) | ND (0.0033) | ND (0.0037) | ND (0.0034) | ND (0.0036) | ND (0.0038) | ND (0.0033) | ND (0.0038) | ND (0.0031) | ND (0.0027) | ND (0.0028) | ND (0.0031) | ND (0.0022) | ND (0.0025) | ND (0.0036) | ND (0.0027) |
| Isopropylbenzene | - | - | mg/kg | ND (0.0020) | ND (0.0020) | ND (0.0017) | ND (0.0018) | ND (0.0016) | ND (0.0016) | ND (0.0026) | ND (0.0024) | ND (0.0031) | ND (0.0018) | 0.0028 J | ND (0.0019) | ND (0.0020) | ND (0.0021) | ND (0.0018) | ND (0.0021) | ND (0.0017) | ND (0.0015) | ND (0.0016) | ND (0.0017) | ND (0.0012) | ND (0.0014) | ND (0.0020) | ND (0.0015) |
| Methyl Acetate | NA | 78000 | mg/kg | ND (0.0041) | ND (0.0039) | ND (0.0033) | ND (0.0035) | ND (0.0033) | ND (0.0032) | ND (0.0052) | ND (0.0047) | ND (0.0062) | ND (0.0036) | ND (0.0041) | ND (0.0037) | ND (0.0040) | ND (0.0042) | ND (0.0036) | ND (0.0042) | ND (0.0034) | ND (0.0030) | ND (0.0031) | ND (0.0034) | ND (0.0024) | ND (0.0027) | ND (0.0040) | ND (0.0030) |
| Methylcyclohexane | - | - | mg/kg | ND (0.0021) | ND (0.0020) | ND (0.0017) | ND (0.0018) | ND (0.0017) | ND (0.0016) | ND (0.0026) | ND (0.0024) | ND (0.0031) | 0.0041 J | 0.0151 | 0.0059 | ND (0.0020) | ND (0.0021) | 0.0018 J | ND (0.0021) | ND (0.0017) | ND (0.0015) | ND (0.0016) | ND (0.0017) | ND (0.0012) | ND (0.0014) | ND (0.0020) | ND (0.0015) |
| Methyl Tert Butyl Ether | 320 | 110 | mg/kg | ND (0.0010) | ND (0.0010) | ND (0.00084) | ND (0.00089) | ND (0.00083) | ND (0.00081) | ND (0.0013) | ND (0.0012) | ND (0.0016) | ND (0.00091) | ND (0.0010) | ND (0.00094) | ND (0.0010) | ND (0.0011) | ND (0.00091) | ND (0.0011) | ND (0.00085) | ND (0.00076) | ND (0.00078) | ND (0.00086) | ND (0.00062) | ND (0.00069) | ND (0.0010) | ND (0.00076) |
| 4-Methyl-2-pentanone(MIBK) | - | - | mg/kg | ND (0.0046) | ND (0.0044) | ND (0.0037) | ND (0.0040) | ND (0.0037) | ND (0.0036) | ND (0.0058) | ND (0.0053) | ND (0.0069) | ND (0.0040) | ND (0.0046) | ND (0.0042) | ND (0.0045) | ND (0.0047) | ND (0.0040) | ND (0.0047) | ND (0.0038) | ND (0.0034) | ND (0.0035) | ND (0.0038) | ND (0.0027) | ND (0.0031) | ND (0.0045) | ND (0.0034) |
| Methylene chloride | 230 | 46 | mg/kg | ND (0.0073) | ND (0.0071) | ND (0.0059) | ND (0.0064) | ND (0.0059) | ND (0.0058) | ND (0.0093) | ND (0.0085) | ND (0.011) | ND (0.0065) | ND (0.0074) | ND (0.0067) | ND (0.0072) | ND (0.0075) | ND (0.0064) | ND (0.0075) | ND (0.0061) | ND (0.0054) | ND (0.0056) | ND (0.0061) | ND (0.0044) | ND (0.0049) | ND (0.0071) | ND (0.0054) |
| Styrene | 260 | 90 | mg/kg | ND (0.0017) | ND (0.0016) | ND (0.0014) | ND (0.0015) | ND (0.0014) | ND (0.0013) | ND (0.0021) | ND (0.0020) | ND (0.0025) | ND (0.0015) | ND (0.0017) | ND (0.0015) | ND (0.0016) | ND (0.0017) | ND (0.0015) | ND (0.0017) | ND (0.0014) | ND (0.0012) | ND (0.0013) | ND (0.0014) | ND (0.0010) | ND (0.0011) | ND (0.0016) | ND (0.0012) |
| 1,1,2,2-Tetrachloroethane | 3 | 1 | mg/kg | ND (0.0011) | ND (0.0011) | ND (0.00093) | ND (0.00099) | ND (0.00092) | ND (0.00090) | ND (0.0014) | ND (0.0013) | ND (0.0017) | ND (0.0010) | ND (0.0011) | ND (0.0010) | ND (0.0011) | ND (0.0012) | ND (0.0010) | ND (0.0012) | ND (0.00095) | ND (0.00084) | ND (0.00087) | ND (0.00096) | ND (0.00069) | ND (0.00076) | ND (0.0011) | ND (0.00084) |
| Tetrachloroethene | 1500 | 43 | mg/kg | ND (0.0014) | ND (0.0013) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.0011) | ND (0.0017) | ND (0.0016) | ND (0.0020) | ND (0.0012) | ND (0.0014) | ND (0.0012) | ND (0.0013) | ND (0.0014) | ND (0.0012) | ND (0.0014) | ND (0.0011) | ND (0.00099) | ND (0.0010) | ND (0.0011) | ND (0.00081) | ND (0.00090) | ND (0.0013) | ND (0.0010) |
| Toluene | 91000 | 6300 | mg/kg | ND (0.0011) | ND (0.0011) | ND (0.00089) | ND (0.00096) | ND (0.00089) | ND (0.00087) | ND (0.0014) | 0.0014 J | ND (0.0017) | ND (0.00097) | 0.004 | ND (0.0010) | ND (0.0011) | ND (0.0011) | ND (0.00097) | ND (0.0011) | ND (0.00091) | ND (0.00081) | ND (0.00084) | 0.0010 J | ND (0.00066) | 0.00096 J | ND (0.0011) | ND (0.00081) |
| 1,2,3-Trichlorobenzene | - | - | mg/kg | ND (0.0029) | ND (0.0028) | ND (0.0024) | ND (0.0025) | ND (0.0024) | ND (0.0023) | ND (0.0037) | ND (0.0034) | ND (0.0044) | ND (0.0026) | ND (0.0029) | ND (0.0027) | ND (0.0029) | ND (0.0030) | ND (0.0026) | ND (0.0030) | ND (0.0024) | ND (0.0021) | ND (0.0022) | ND (0.0025) | ND (0.0018) | ND (0.0020) | ND (0.0029) | ND (0.0022) |
| 1,2,4-Trichlorobenzene | 820 | 73 | mg/kg | ND (0.0029) | ND (0.0028) | ND (0.0024) | ND (0.0025) | ND (0.0024) | ND (0.0023) | ND (0.0037) | ND (0.0034) | ND (0.0044) | ND (0.0026) | ND (0.0029) | ND (0.0027) | ND (0.0029) | ND (0.0030) | ND (0.0026) | ND (0.0030) | ND (0.0024) | ND (0.0021) | ND (0.0022) | ND (0.0025) | ND (0.0018) | ND (0.0020) | ND (0.0029) | ND (0.0022) |
| 1,1,1-Trichloroethane | NA | 160000 | mg/kg | ND (0.0012) | ND (0.0012) | ND (0.0010) | ND (0.0011) | ND (0.0010) | ND (0.00098) | ND (0.0016) | ND (0.0015) | ND (0.0019) | ND (0.0011) | ND (0.0013) | ND (0.0011) | ND (0.0012) | ND (0.0013) | ND (0.0011) | ND (0.0013) | ND (0.0010) | ND (0.00092) | ND (0.00095) | ND (0.0010) | ND (0.00075) | ND (0.00083) | ND (0.0012) | ND (0.00092) |
| 1,1,2-Trichloroethane | 6 | 2 | mg/kg | ND (0.0010) | ND (0.00097) | ND (0.00081) | ND (0.00087) | ND (0.00081) | ND (0.00079) | ND (0.0013) | ND (0.0012) | ND (0.0015) | ND (0.00089) | ND (0.0010) | ND (0.00092) | ND (0.00098) | ND (0.0010) | ND (0.00088) | ND (0.0010) | ND (0.00083) | ND (0.00074) | ND (0.00076) | ND (0.00084) | ND (0.00060) | ND (0.00067) | ND (0.00098) | ND (0.00074) |
| Trichloroethene | 10 | 3 | mg/kg | ND (0.0022) | ND (0.0022) | ND (0.0018) | ND (0.0019) | ND (0.0018) | ND (0.0018) | ND (0.0028) | ND (0.0026) | ND (0.0034) | ND (0.0020) | ND (0.0022) | ND (0.0020) | ND (0.0022) | ND (0.0023) | ND (0.0020) | ND (0.0023) | ND (0.0018) | ND (0.0016) | ND (0.0017) | ND (0.0019) | ND (0.0013) | ND (0.0015) | ND (0.0022) | ND (0.0016) |
| Trichlorofluoromethane | 340000 | 23000 | mg/kg | ND (0.0020) | ND (0.0019) | ND (0.0016) | ND (0.0017) | ND (0.0016) | ND (0.0016) | ND (0.0025) | ND (0.0023) | ND (0.0030) | ND (0.0018) | ND (0.0020) | ND (0.0018) | ND (0.0020) | ND (0.0020) | ND (0.0018) | ND (0.0021) | ND (0.0017) | ND (0.0015) | ND (0.0015) | ND (0.0017) | ND (0.0012) | ND (0.0013) | ND (0.0019) | ND (0.0015) |
| Vinyl chloride | 2 | 0.7 | mg/kg | ND (0.0014) | ND (0.0013) | ND (0.0011) | ND (0.0012) | ND (0.0011) | ND (0.0011) | ND (0.0017) | ND (0.0016) | ND (0.0021) | ND (0.0012) | ND (0.0014) | ND (0.0013) | ND (0.0013) | ND (0.0014) | ND (0.0012) | ND (0.0014) | ND (0.0011) | ND (0.0010) | ND (0.0010) | ND (0.0011) | ND (0.00083) | ND (0.00092) | ND (0.0013) | ND (0.0010) |
| m,p-Xylene | 170000 | 12000 | mg/kg | ND (0.0022) | ND (0.0021) | 0.0028 | ND (0.0019) | ND (0.0018) | ND (0.0017) | ND (0.0028) | ND (0.0025) | ND (0.0033) | 0.0033 | 0.113 | 0.0067 | ND (0.0021) | ND (0.0022) | ND (0.0019) | ND (0.0022) | ND (0.0018) | ND (0.0016) | ND (0.0017) | ND (0.0018) | ND (0.0013) | ND (0.0015) | 0.0046 | ND (0.0016) |
| o-Xylene | 170000 | 12000 | mg/kg | ND (0.0017) | ND (0.0017) | 0.0073 | ND (0.0015) | ND (0.0014) | ND (0.0013) | ND (0.0022) | ND (0.0020) | ND (0.0026) | 0.0056 | 0.157 | 0.0138 | ND (0.0017) | ND (0.0017) | ND (0.0015) | ND (0.0018) | ND (0.0014) | ND (0.0013) | ND (0.0013) | ND (0.0014) | ND (0.0010) | ND (0.0011) | 0.0262 | ND (0.0013) |
| Xylene (total) | 170000 | 12000 | mg/kg | ND (0.0017) | ND (0.0017) | 0.0101 | ND (0.0015) | ND (0.0014) | ND (0.0013) | ND (0.0022) | ND (0.0020) | ND (0.0026) | 0.0089 | 0.27 | 0.0205 | ND (0.0017) | ND (0.0017) | ND (0.0015) | ND (0.0018) | ND (0.0014) | ND (0.0013) | ND (0.0013) | ND (0.0014) | ND (0.0010) | ND (0.0011) | 0.0308 | ND (0.0013) |
| **MS Volatile TIC** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Volatile | - | - | mg/kg | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.051 J | 1.188 J | 0.214 J | 0 | 0 | 0 | 0.095 J | 0 | 0 | 0 | 0 | 0 | 0 | 0.373 J | 0 |

Table 5d
Smith Creek and Smith Creek Pond Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SS-13B | SS-13C | SS-14B | SS-14C | SS-15B | SS-15C | SS-16B | SS-16C | SS-17B | SS-17C | SS-18B | SS-18C | SS-19B | SS-19C | SS-20B | SS-20C | SS-21B | SS-21C | SS-22B | SS-22C | SS-23B | SS-23C | SS-24B | SS-24C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth | | | | 3.0-3.5 | 6.0-6.5 | 3.5-4.0 | 7.0-7.5 | 4.0-4.5 | 7.5-8.0 | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.0-5.5 | 3.0-3.5 | 6.5-7.0 | 6.0-6.5 | 3.0-3.5 | 2.5-3.0 | 5.5-6.0 | 3.0-3.5 | 6.5-7.0 | 2.0-2.5 | 4.5-5.0 | 3.0-3.5 | 6.0-6.5 |
| Date Sampled: | | | | 2/26/2019 | 2/26/2019 | 2/27/2019 | 2/27/2019 | 2/26/2019 | 2/26/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| | | | | | | | | | | | | | | | | | | | | | | | - | | | | |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 2200 | 310 | mg/kg | ND (0.033) | ND (0.033) | ND (0.030) | ND (0.031) | ND (0.031) | ND (0.029) | ND (0.048) | ND (0.043) | ND (0.042) | ND (0.032) | ND (0.035) | ND (0.029) | ND (0.032) | ND (0.032) | ND (0.032) | ND (0.029) | ND (0.030) | ND (0.030) | ND (0.030) | ND (0.032) | ND (0.028) | ND (0.026) | ND (0.031) | ND (0.027) |
| 4-Chloro-3-methyl phenol | - | - | mg/kg | ND (0.041) | ND (0.042) | ND (0.037) | ND (0.039) | ND (0.038) | ND (0.036) | ND (0.059) [a] | ND (0.053) [a] | ND (0.052) [a] | ND (0.040) [a] | ND (0.043) [a] | ND (0.036) [a] | ND (0.040) | ND (0.039) | ND (0.039) | ND (0.036) | ND (0.037) | ND (0.038) | ND (0.037) [a] | ND (0.040) [a] | ND (0.035) [a] | ND (0.032) [a] | ND (0.039) [a] | ND (0.034) [a] |
| 2,4-Dichlorophenol | 2100 | 180 | mg/kg | ND (0.057) | ND (0.058) | ND (0.051) | ND (0.054) | ND (0.053) | ND (0.050) | ND (0.083) | ND (0.074) | ND (0.072) | ND (0.056) | ND (0.060) | ND (0.050) | ND (0.055) | ND (0.055) | ND (0.055) | ND (0.050) | ND (0.051) | ND (0.052) | ND (0.051) | ND (0.055) | ND (0.049) | ND (0.044) | ND (0.054) | ND (0.047) |
| 2,4-Dimethylphenol | 14000 | 1200 | mg/kg | ND (0.12) | ND (0.12) | ND (0.11) | ND (0.11) | ND (0.11) | ND (0.10) | ND (0.17) | ND (0.15) | ND (0.15) | ND (0.12) | ND (0.13) | ND (0.10) | ND (0.12) | ND (0.11) | ND (0.11) | ND (0.10) | ND (0.11) | ND (0.11) | ND (0.11) | ND (0.12) | ND (0.10) | ND (0.092) | ND (0.11) | ND (0.098) |
| 2,4-Dinitrophenol | 1400 | 120 | mg/kg | ND (0.25) | ND (0.25) | ND (0.23) | ND (0.24) | ND (0.24) | ND (0.22) | ND (0.36) | ND (0.32) | ND (0.32) | ND (0.25) | ND (0.27) | ND (0.22) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.21) | ND (0.20) | ND (0.24) | ND (0.21) |
| 4,6-Dinitro-o-cresol | 68 | 6 | mg/kg | ND (0.072) | ND (0.073) | ND (0.064) | ND (0.068) | ND (0.067) | ND (0.063) | ND (0.10) | ND (0.092) | ND (0.090) | ND (0.070) | ND (0.076) | ND (0.062) | ND (0.069) | ND (0.069) | ND (0.069) | ND (0.063) | ND (0.065) | ND (0.065) | ND (0.064) | ND (0.069) | ND (0.061) | ND (0.056) | ND (0.068) | ND (0.059) |
| 2-Methylphenol | 3400 | 310 | mg/kg | ND (0.043) | ND (0.043) | ND (0.038) | ND (0.040) | ND (0.040) | ND (0.037) | ND (0.062) | ND (0.055) | ND (0.054) | ND (0.042) | ND (0.045) | ND (0.037) | ND (0.041) | ND (0.041) | ND (0.041) | ND (0.038) | ND (0.039) | ND (0.039) | ND (0.038) | ND (0.041) | ND (0.037) | ND (0.033) | ND (0.041) | ND (0.035) |
| 3&4-Methylphenol | - | - | mg/kg | ND (0.055) | ND (0.056) | ND (0.050) | ND (0.052) | ND (0.051) | ND (0.048) | ND (0.080) | ND (0.071) | ND (0.069) | ND (0.054) | ND (0.058) | ND (0.048) | ND (0.053) | ND (0.053) | ND (0.053) | ND (0.048) | ND (0.050) | ND (0.050) | ND (0.050) | ND (0.053) | ND (0.047) | ND (0.043) | ND (0.052) | ND (0.045) |
| 2-Nitrophenol | - | - | mg/kg | ND (0.044) | ND (0.045) | ND (0.040) [a] | ND (0.042) [a] | ND (0.041) | ND (0.039) | ND (0.064) | ND (0.057) | ND (0.056) | ND (0.043) | ND (0.047) | ND (0.038) | ND (0.043) | ND (0.042) | ND (0.042) | ND (0.039) | ND (0.040) | ND (0.040) | ND (0.040) | ND (0.043) | ND (0.038) | ND (0.034) | ND (0.042) | ND (0.036) |
| 4-Nitrophenol | - | - | mg/kg | ND (0.18) [b] | ND (0.18) [b] | ND (0.16) [a] | ND (0.17) [a] | ND (0.17) b | ND (0.16) [b] | ND (0.26) [a] | ND (0.23) [a] | ND (0.23) [a] | ND (0.17) [a] | ND (0.19) [a] | ND (0.16) [a] | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.15) | ND (0.14) | ND (0.17) | ND (0.15) |
| Pentachlorophenol | 3 | 0.9 | mg/kg | ND (0.063) | ND (0.064) | ND (0.057) | ND (0.059) | ND (0.059) | ND (0.055) | ND (0.091) | ND (0.081) | ND (0.079) | ND (0.061) | ND (0.066) | ND (0.055) | ND (0.061) | ND (0.060) | ND (0.060) | ND (0.055) | ND (0.057) | ND (0.057) | ND (0.057) | ND (0.061) | ND (0.054) | ND (0.049) | ND (0.060) | ND (0.051) |
| Phenol | 210000 | 18000 | mg/kg | ND (0.035) | ND (0.035) | ND (0.031) | ND (0.033) | ND (0.033) | ND (0.031) | ND (0.051) | ND (0.045) | ND (0.044) | ND (0.034) | ND (0.037) | ND (0.030) | ND (0.034) | ND (0.034) | ND (0.033) | ND (0.031) | ND (0.031) | ND (0.032) | ND (0.031) | ND (0.034) | ND (0.030) | ND (0.027) | ND (0.033) | ND (0.029) |
| 2,3,4,6-Tetrachlorophenol | - | - | mg/kg | ND (0.044) [a] | ND (0.045) [a] | ND (0.040) | ND (0.042) | ND (0.041) a | ND (0.039) [a] | ND (0.064) | ND (0.057) | ND (0.056) | ND (0.043) | ND (0.047) | ND (0.038) | ND (0.043) | ND (0.043) | ND (0.042) | ND (0.039) | ND (0.040) | ND (0.041) | ND (0.040) | ND (0.043) | ND (0.038) | ND (0.034) | ND (0.042) | ND (0.036) |
| 2,4,5-Trichlorophenol | 68000 | 6100 | mg/kg | ND (0.050) | ND (0.051) | ND (0.045) | ND (0.047) | ND (0.047) | ND (0.044) | ND (0.073) | ND (0.065) | ND (0.063) | ND (0.049) | ND (0.053) | ND (0.044) | ND (0.049) | ND (0.048) | ND (0.048) | ND (0.044) | ND (0.045) | ND (0.046) | ND (0.045) | ND (0.048) | ND (0.043) | ND (0.039) | ND (0.048) | ND (0.041) |
| 2,4,6-Trichlorophenol | 74 | 19 | mg/kg | ND (0.040) | ND (0.040) | ND (0.036) | ND (0.038) | ND (0.037) | ND (0.035) | ND (0.058) | ND (0.051) | ND (0.050) | ND (0.039) | ND (0.042) | ND (0.035) | ND (0.039) | ND (0.038) | ND (0.038) | ND (0.035) | ND (0.036) | ND (0.036) | ND (0.036) | ND (0.039) | ND (0.034) | ND (0.031) | ND (0.038) | ND (0.033) |
| Acenaphthene | 37000 | 3400 | mg/kg | ND (0.023) | ND (0.023) | ND (0.021) | ND (0.022) | ND (0.022) | ND (0.020) | ND (0.033) | ND (0.030) | ND (0.029) | ND (0.023) | 0.0641 J | 0.0267 J | ND (0.022) | ND (0.022) | ND (0.022) | ND (0.020) | ND (0.021) | ND (0.021) | ND (0.021) | ND (0.022) | ND (0.020) | ND (0.018) | 0.0237 J | ND (0.019) |
| Acenaphthylene | 300000 | NA | mg/kg | ND (0.034) | ND (0.034) | ND (0.031) | ND (0.032) | ND (0.032) | ND (0.030) | ND (0.049) | ND (0.044) | ND (0.043) | ND (0.033) | ND (0.036) | ND (0.030) | ND (0.033) | ND (0.033) | ND (0.033) | ND (0.030) | ND (0.031) | ND (0.031) | ND (0.031) | ND (0.033) | ND (0.029) | ND (0.026) | ND (0.032) | ND (0.028) |
| Acetophenone | 5 | 2 | mg/kg | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.014) | ND (0.013) | ND (0.013) | ND (0.021) | ND (0.019) | ND (0.018) | ND (0.014) | ND (0.015) | ND (0.012) | ND (0.014) | ND (0.014) | ND (0.014) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.011) | ND (0.014) | ND (0.012) |
| Anthracene | 30000 | 17000 | mg/kg | ND (0.041) | ND (0.042) | ND (0.037) | ND (0.039) | ND (0.038) | ND (0.036) | ND (0.059) | ND (0.053) | ND (0.052) | ND (0.040) | 0.162 | 0.0433 J | ND (0.040) | ND (0.039) | ND (0.039) | ND (0.036) | ND (0.037) | ND (0.038) | ND (0.037) | ND (0.040) | ND (0.035) | ND (0.032) | 0.0495 J | ND (0.034) |
| Atrazine | 2400 | 210 | mg/kg | ND (0.029) | ND (0.029) | ND (0.026) [a] | ND (0.027) [a] | ND (0.027) | ND (0.025) | ND (0.042) | ND (0.037) | ND (0.036) | ND (0.028) | ND (0.030) | ND (0.025) | ND (0.028) | ND (0.028) | ND (0.027) | ND (0.025) [a] | ND (0.026) | ND (0.026) | ND (0.026) | ND (0.028) | ND (0.024) | ND (0.022) | ND (0.027) | ND (0.023) |
| Benzo(a)anthracene | 17 | 5 | mg/kg | ND (0.019) | ND (0.019) | 0.0314 J | ND (0.018) | ND (0.018) | ND (0.017) | ND (0.027) | ND (0.024) | 0.105 | 0.0242 J | 0.109 | 0.0535 J | ND (0.018) | ND (0.018) | ND (0.018) | ND (0.017) | ND (0.017) | ND (0.017) | ND (0.017) | ND (0.018) | ND (0.016) | ND (0.015) | 0.0638 J | ND (0.016) |
| Benzo(a)pyrene | 2 | 0.5 | mg/kg | ND (0.030) | ND (0.031) | ND (0.027) [a] | ND (0.029) [a] | ND (0.028) | ND (0.027) | ND (0.044) | ND (0.039) | 0.0939 | ND (0.030) | 0.0854 | 0.0444 J | ND (0.030) | ND (0.029) | ND (0.029) | ND (0.027) | ND (0.027) | ND (0.028) | ND (0.027) | ND (0.029) | ND (0.026) | ND (0.024) | 0.0443 J | ND (0.025) |
| Benzo(b)fluoranthene | 17 | 5 | mg/kg | ND (0.030) | ND (0.030) | ND (0.027) [a] | ND (0.028) [a] | ND (0.028) | ND (0.026) | ND (0.043) | ND (0.038) | 0.135 | ND (0.029) | 0.0933 | 0.0508 J | ND (0.029) | ND (0.028) | ND (0.028) | ND (0.026) | ND (0.027) | ND (0.027) | ND (0.027) | ND (0.029) | ND (0.025) | ND (0.023) | 0.0550 J | ND (0.024) |
| Benzo(g,h,i)perylene | 30000 | 380000 | mg/kg | ND (0.033) | ND (0.034) | ND (0.030) | ND (0.032) | ND (0.031) | ND (0.029) | ND (0.048) | ND (0.043) | 0.0674 J | ND (0.033) | 0.0757 | 0.0462 J | ND (0.032) | ND (0.032) | ND (0.032) | ND (0.029) | ND (0.030) | ND (0.031) | ND (0.030) | ND (0.032) | ND (0.029) | ND (0.026) | ND (0.032) | ND (0.027) |
| Benzo(k)fluoranthene | 170 | 45 | mg/kg | ND (0.031) | ND (0.032) | ND (0.028) | ND (0.029) | ND (0.029) | ND (0.027) | ND (0.045) | ND (0.040) | 0.0611 J | ND (0.031) | 0.0344 J | ND (0.027) | ND (0.030) | ND (0.030) | ND (0.030) | ND (0.027) | ND (0.028) | ND (0.029) | ND (0.028) | ND (0.030) | ND (0.027) | ND (0.024) | ND (0.030) | ND (0.026) |
| 4-Bromophenyl phenyl ether | - | - | mg/kg | ND (0.026) | ND (0.026) | ND (0.023) | ND (0.024) | ND (0.024) | ND (0.023) | ND (0.037) | ND (0.033) | ND (0.033) | ND (0.025) | ND (0.027) | ND (0.022) | ND (0.025) | ND (0.025) | ND (0.025) | ND (0.023) | ND (0.023) | ND (0.024) | ND (0.023) | ND (0.025) | ND (0.022) | ND (0.020) | ND (0.025) | ND (0.021) |
| Butyl benzyl phthalate | 14000 | 1200 | mg/kg | ND (0.016) | ND (0.017) | ND (0.015) [a] | ND (0.015) [a] | ND (0.015) | ND (0.014) | ND (0.024) | ND (0.021) | ND (0.021) | ND (0.016) | ND (0.017) | ND (0.014) | ND (0.016) [a] | ND (0.016) [a] | ND (0.016) [a] | ND (0.014) | ND (0.015) [a] | ND (0.015) [a] | ND (0.015) | ND (0.016) | ND (0.014) | ND (0.013) | ND (0.016) | ND (0.013) |
| 1,1'-Biphenyl | 240 | 61 | mg/kg | ND (0.0092) | ND (0.0093) | ND (0.0083) | ND (0.0086) | ND (0.0086) | ND (0.0080) | ND (0.013) | ND (0.012) | ND (0.012) | ND (0.0090) | 0.0107 J | 0.0137 J | ND (0.0089) | ND (0.0088) | ND (0.0088) | ND (0.0081) | ND (0.0083) | ND (0.0084) | ND (0.0083) | ND (0.0089) | ND (0.0078) | ND (0.0071) | ND (0.0087) | ND (0.0075) |
| Benzaldehyde | 68000 | 6100 | mg/kg | ND (0.017) | ND (0.017) | ND (0.015) [a] | ND (0.016) [a] | ND (0.016) | ND (0.015) | ND (0.024) [a] | ND (0.021) [a] | ND (0.021) [a] | ND (0.016) [a] | ND (0.018) [a] | ND (0.014) [a] | ND (0.016) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.015) [a] | ND (0.016) [a] | ND (0.014) [a] | ND (0.013) [a] | ND (0.016) [a] | ND (0.014) [a] |
| 2-Chloronaphthalene | - | - | mg/kg | ND (0.016) | ND (0.016) | ND (0.014) | ND (0.015) | ND (0.015) | ND (0.014) | ND (0.023) | ND (0.021) | ND (0.020) | ND (0.016) | ND (0.017) | ND (0.014) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.014) | ND (0.014) | ND (0.015) | ND (0.014) | ND (0.015) | ND (0.014) | ND (0.012) | ND (0.015) | ND (0.013) |
| 4-Chloroaniline | - | - | mg/kg | ND (0.024) | ND (0.024) | ND (0.022) | ND (0.023) | ND (0.023) | ND (0.021) | ND (0.035) | ND (0.031) | ND (0.030) | ND (0.024) | ND (0.025) | ND (0.021) | ND (0.023) | ND (0.023) | ND (0.023) | ND (0.021) | ND (0.022) | ND (0.022) | ND (0.022) | ND (0.023) | ND (0.021) | ND (0.019) | ND (0.023) | ND (0.020) |
| Carbazole | 96 | 24 | mg/kg | ND (0.0097) | ND (0.0098) | ND (0.0087) | ND (0.0092) | ND (0.0091) | ND (0.0085) | ND (0.014) | ND (0.012) | 0.0126 J | ND (0.0095) | ND (0.010) | ND (0.0084) | ND (0.0094) | ND (0.0093) | ND (0.0093) | ND (0.0085) | ND (0.0087) | ND (0.0089) | ND (0.0087) | ND (0.0094) | ND (0.0083) | ND (0.0075) | ND (0.0092) | ND (0.0079) |
| Caprolactam | 340000 | 31000 | mg/kg | ND (0.026) | ND (0.027) | ND (0.024) | ND (0.025) | ND (0.025) | ND (0.023) | ND (0.038) | ND (0.034) | ND (0.033) | ND (0.026) | ND (0.028) | ND (0.023) | ND (0.026) | ND (0.025) | ND (0.025) | ND (0.023) | ND (0.024) | ND (0.024) | ND (0.024) | ND (0.026) | ND (0.023) | ND (0.021) | ND (0.025) | ND (0.022) |
| Chrysene | 1700 | 450 | mg/kg | ND (0.021) | ND (0.021) | 0.0263 J | ND (0.020) | ND (0.020) | ND (0.018) | ND (0.031) | ND (0.027) | 0.124 | 0.0257 J | 0.154 | 0.07 | ND (0.020) | ND (0.020) | ND (0.020) | ND (0.019) | ND (0.019) | ND (0.019) | ND (0.019) | ND (0.020) | ND (0.018) | ND (0.016) | 0.0847 | ND (0.017) |
| bis(2-Chloroethoxy)methane | - | - | mg/kg | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.014) | ND (0.013) | ND (0.013) | ND (0.021) | ND (0.018) | ND (0.018) | ND (0.014) | ND (0.015) | ND (0.012) | ND (0.014) | ND (0.014) | ND (0.014) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.011) | ND (0.014) | ND (0.012) |
| bis(2-Chloroethyl)ether | 2 | 0.4 | mg/kg | ND (0.029) | ND (0.029) | ND (0.026) | ND (0.027) | ND (0.027) | ND (0.025) | ND (0.042) | ND (0.037) | ND (0.036) | ND (0.028) | ND (0.031) | ND (0.025) | ND (0.028) | ND (0.028) | ND (0.028) | ND (0.025) | ND (0.026) | ND (0.026) | ND (0.026) | ND (0.028) | ND (0.025) | ND (0.022) | ND (0.027) | ND (0.024) |
| 2,2'-Oxybis(1-chloropropane) | 67 | 23 | mg/kg | ND (0.024) | ND (0.024) | ND (0.022) [b] | ND (0.023) [b] | ND (0.022) | ND (0.021) | ND (0.035) | ND (0.031) | ND (0.030) | ND (0.023) | ND (0.025) | ND (0.021) | ND (0.023) | ND (0.023) | ND (0.023) | ND (0.021) | ND (0.022) | ND (0.022) | ND (0.022) | ND (0.023) | ND (0.021) | ND (0.019) | ND (0.023) | ND (0.020) |
| 4-Chlorophenyl phenyl ether | - | - | mg/kg | ND (0.022) | ND (0.022) | ND (0.020) | ND (0.020) | ND (0.020) | ND (0.019) | ND (0.031) | ND (0.028) | ND (0.027) | ND (0.021) | ND (0.023) | ND (0.019) | ND (0.021) | ND (0.021) | ND (0.021) | ND (0.019) | ND (0.020) | ND (0.020) | ND (0.020) | ND (0.021) | ND (0.019) | ND (0.017) | ND (0.021) | ND (0.018) |
| 2,4-Dinitrotoluene | 3 | 0.7 | mg/kg | ND (0.021) [a] | ND (0.021) [a] | ND (0.019) | ND (0.020) | ND (0.019) a | ND (0.018) [a] | ND (0.030) | ND (0.027) | ND (0.026) | ND (0.020) | ND (0.022) | ND (0.018) | ND (0.020) | ND (0.020) | ND (0.020) | ND (0.018) | ND (0.019) | ND (0.019) | ND (0.019) [a] | ND (0.020) [a] | ND (0.018) [a] | ND (0.016) [a] | ND (0.020) [a] | ND (0.017) [a] |
| 2,6-Dinitrotoluene | 3 | 0.7 | mg/kg | ND (0.034) | ND (0.034) | ND (0.030) | ND (0.032) | ND (0.031) | ND (0.029) | ND (0.049) | ND (0.043) | ND (0.042) | ND (0.033) | ND (0.036) | ND (0.029) | ND (0.033) | ND (0.032) | ND (0.032) | ND (0.030) | ND (0.030) | ND (0.031) | ND (0.030) | ND (0.032) | ND (0.029) | ND (0.026) | ND (0.032) | ND (0.028) |
| 3,3'-Dichlorobenzidine | 4 | 1 | mg/kg | ND (0.056) | ND (0.057) | ND (0.050) | ND (0.053) | ND (0.052) | ND (0.049) | ND (0.081) | ND (0.072) | ND (0.070) | ND (0.055) | ND (0.059) | ND (0.048) | ND (0.054) | ND (0.054) | ND (0.053) | ND (0.049) | ND (0.050) | ND (0.051) | ND (0.050) | ND (0.054) | ND (0.048) | ND (0.043) | ND (0.053) | ND (0.046) |
| 1,4-Dioxane | - | - | mg/kg | ND (0.044) | ND (0.045) | ND (0.040) | ND (0.042) | ND (0.041) | ND (0.039) | ND (0.064) | ND (0.057) | ND (0.056) | ND (0.043) | ND (0.047) | ND (0.038) | ND (0.043) | ND (0.042) | ND (0.042) | ND (0.039) | ND (0.040) | ND (0.040) | ND (0.040) | ND (0.043) | ND (0.038) | ND (0.034) | ND (0.042) | ND (0.036) |
| Dibenzo(a,h)anthracene | 2 | 0.5 | mg/kg | ND (0.030) | ND (0.030) | 0.0969 | ND (0.028) | ND (0.028) | ND (0.026) | ND (0.043) | ND (0.038) | ND (0.037) | ND (0.029) | ND (0.031) | ND (0.026) | ND (0.029) | ND (0.028) | ND (0.028) | ND (0.026) | ND (0.027) | ND (0.027) | ND (0.027) | ND (0.029) | ND (0.025) | ND (0.023) | ND (0.028) | ND (0.024) |
| Dibenzofuran | - | - | mg/kg | ND (0.027) | ND (0.028) | ND (0.025) | ND (0.026) | ND (0.025) | ND (0.024) | ND (0.039) | ND (0.035) | ND (0.034) | ND (0.027) | ND (0.029) | ND (0.024) | ND (0.026) | ND (0.026) | ND (0.026) | ND (0.024) | ND (0.025) | ND (0.025) | ND (0.025) | ND (0.026) | ND (0.023) | ND (0.021) | ND (0.026) | ND (0.022) |
| Di-n-butyl phthalate | 68000 | 6100 | mg/kg | ND (0.011) | ND (0.011) | ND (0.0098) [a] | ND (0.010) [a] | ND (0.010) | ND (0.0095) | ND (0.016) | ND (0.014) | ND (0.014) | ND (0.011) | ND (0.012) | ND (0.0095) | ND (0.011) [a] | ND (0.010) [a] | ND (0.010) [a] | ND (0.0096) | ND (0.0098) [a] | ND (0.010) [a] | ND (0.0098) | ND (0.011) | ND (0.0093) | ND (0.0085) | ND (0.010) | ND (0.0089) |
| Di-n-octyl phthalate | 27000 | 2400 | mg/kg | ND (0.017) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.024) | ND (0.021) | ND (0.021) | ND (0.016) | ND (0.018) | ND (0.014) | ND (0.016) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.016) | ND (0.014) | ND (0.013) | ND (0.016) | ND (0.014) |
| Diethyl phthalate | 550000 | 49000 | mg/kg | ND (0.014) | ND (0.014) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.012) | ND (0.021) | ND (0.018) | ND (0.018) | ND (0.014) | ND (0.015) | ND (0.012) | ND (0.014) | ND (0.014) | ND (0.014) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.011) | ND (0.014) | ND (0.012) |
| Dimethyl phthalate | - | - | mg/kg | ND (0.012) | ND (0.012) | ND (0.011) | ND (0.011) | ND (0.011) | ND (0.010) | ND (0.017) | ND (0.015) | ND (0.015) | ND (0.012) | ND (0.013) | ND (0.010) | ND (0.012) | ND (0.011) | ND (0.011) | ND (0.010) | ND (0.011) | ND (0.011) | ND (0.011) | ND (0.012) | ND (0.010) | ND (0.0092) | ND (0.011) | ND (0.0098) |
| bis(2-Ethylhexyl)phthalate | 140 | 35 | mg/kg | ND (0.016) | ND (0.016) | ND (0.014) [a] | ND (0.015) [a] | ND (0.015) | ND (0.014) | ND (0.023) | ND (0.020) | 0.518 | 0.108 J | 0.768 | 0.64 | ND (0.015) [a] | ND (0.015) [a] | ND (0.015) [a] | 0.0730 J | ND (0.014) [a] | ND (0.014) [a] | ND (0.014) [a] | ND (0.015) [a] | ND (0.013) [a] | ND (0.012) [a] | ND (0.015) [a] | ND (0.013) [a] |
| Fluoranthene | 24000 | 2300 | mg/kg | ND (0.030) | ND (0.030) | 0.0558 J | ND (0.028) | ND (0.028) | ND (0.026) | ND (0.043) | ND (0.038) | 0.183 | 0.0374 J | 0.228 | 0.109 | ND (0.029) | ND (0.029) | ND (0.029) | ND (0.026) | ND (0.027) | ND (0.027) | ND (0.027) | ND (0.029) | ND (0.025) | ND (0.023) | 0.126 | ND (0.024) |
| Fluorene | 24000 | 2300 | mg/kg | ND (0.031) | ND (0.031) | ND (0.028) | ND (0.029) | ND (0.029) | ND (0.027) | ND (0.045) | ND (0.040) | ND (0.039) | ND (0.030) | 0.0976 | ND (0.027) | ND (0.030) | ND (0.030) | ND (0.029) | ND (0.027) | ND (0.028) | ND (0.028) | ND (0.028) | ND (0.030) | ND (0.026) | ND (0.024) | ND (0.029) | ND (0.025) |
| Hexachlorobenzene | 1 | 0.3 | mg/kg | ND (0.017) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.025) [b] | ND (0.022) [b] | ND (0.021) [b] | ND (0.017) [b] | ND (0.018) [b] | ND (0.015) [b] | ND (0.016) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.016) | ND (0.014) | ND (0.013) | ND (0.016) | ND (0.014) |
| Hexachlorobutadiene | 25 | 6 | mg/kg | ND (0.027) | ND (0.027) | ND (0.024) | ND (0.025) | ND (0.025) | ND (0.024) | ND (0.039) | ND (0.035) | ND (0.034) | ND (0.026) | ND (0.028) | ND (0.023) | ND (0.026) | ND (0.026) | ND (0.026) | ND (0.024) | ND (0.024) | ND (0.025) | ND (0.024) | ND (0.026) | ND (0.023) | ND (0.021) | ND (0.026) | ND (0.022) |
| Hexachlorocyclopentadiene | 110 | 45 | mg/kg | ND (0.027) | ND (0.027) | ND (0.024) | ND (0.025) | ND (0.025) | ND (0.023) | ND (0.039) | ND (0.034) | ND (0.034) | ND (0.026) | ND (0.028) | ND (0.023) | ND (0.026) | ND (0.026) | ND (0.026) | ND (0.023) | ND (0.024) | ND (0.024) | ND (0.024) | ND (0.026) | ND (0.023) | ND (0.021) | ND (0.025) | ND (0.022) |
| Hexachloroethane | 48 | 12 | mg/kg | ND (0.033) | ND (0.034) | ND (0.030) | ND (0.031) | ND (0.031) | ND (0.029) | ND (0.048) | ND (0.043) | ND (0.042) | ND (0.032) | ND (0.035) | ND (0.029) | ND (0.032) | ND (0.032) | ND (0.032) | ND (0.029) | ND (0.030) | ND (0.030) | ND (0.030) | ND (0.032) | ND (0.028) | ND (0.026) | ND (0.032) | ND (0.027) |
| Indeno(1,2,3-cd)pyrene | 17 | 5 | mg/kg | ND (0.031) | ND (0.032) | 0.131 | ND (0.030) | ND (0.029) | ND (0.027) | ND (0.045) | ND (0.040) | 0.0663 J | ND (0.031) | 0.0497 J | 0.0298 J | ND (0.030) | ND (0.030) | ND (0.030) | ND (0.028) | ND (0.028) | ND (0.029) | ND (0.028) | ND (0.030) | ND (0.027) | ND (0.024) | ND (0.030) | ND (0.026) |
| Isophorone | 2000 | 510 | mg/kg | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.014) | ND (0.013) | ND (0.013) | ND (0.021) | ND (0.018) | ND (0.018) | ND (0.014) | ND (0.015) | ND (0.012) | ND (0.014) | ND (0.014) | ND (0.014) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.013) | ND (0.014) | ND (0.012) | ND (0.011) | ND (0.014) | ND (0.012) |
| 2-Methylnaphthalene | 2400 | 230 | mg/kg | ND (0.015) | ND (0.015) | ND (0.014) | ND (0.014) | ND (0.014) | ND (0.013) | ND (0.022) | ND (0.019) | ND (0.019) | 0.0215 J | 0.077 | 0.0269 J | ND (0.015) | ND (0.015) | ND (0.014) | ND (0.013) | ND (0.014) | ND (0.014) | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.012) | ND (0.014) | ND (0.012) |
| 2-Nitroaniline | 23000 | 39 | mg/kg | ND (0.016) | ND (0.016) | ND (0.014) [a] | ND (0.015) [a] | ND (0.015) | ND (0.014) | ND (0.023) | ND (0.020) | ND (0.020) | ND (0.015) | ND (0.017) | ND (0.014) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.014) | ND (0.014) | ND (0.014) | ND (0.014) | ND (0.015) | ND (0.013) | ND (0.012) | ND (0.015) | ND (0.013) |
| 3-Nitroaniline | - | - | mg/kg | ND (0.017) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.024) [a] | ND (0.022) [a] | ND (0.021) [a] | ND (0.016) [a] | ND (0.018) [a] | ND (0.015) [a] | ND (0.016) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.015) | ND (0.016) | ND (0.014) | ND (0.013) | ND (0.016) | ND (0.014) |
| 4-Nitroaniline | - | - | mg/kg | ND (0.017) | ND (0.018) | ND (0.016) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.025) | ND (0.022) | ND (0.022) | ND (0.017) | ND (0.018) | ND (0.015) | ND (0.017) [b] | ND (0.017) [b] | ND (0.017) [b] | ND (0.015) | ND (0.016) [b] | ND (0.016) [b] | ND (0.016) | ND (0.017) | ND (0.015) | ND (0.013) | ND (0.016) | ND (0.014) |
| Naphthalene | 17 | 6 | mg/kg | 0.0210 J | ND (0.019) | ND (0.017) | ND (0.018) | 0.0227 J | 0.0288 J | ND (0.027) | ND (0.024) | ND (0.024) | 0.0216 J | 0.0726 | 0.0203 J | 0.0504 J | ND (0.018) | ND (0.018) | ND (0.017) | ND (0.017) | ND (0.017) | ND (0.017) | ND (0.018) | ND (0.016) | ND (0.015) | 0.0212 J | ND (0.015) |
| Nitrobenzene | 14 | 5 | mg/kg | ND (0.026) | ND (0.026) | ND (0.023) | ND (0.024) | ND (0.024) | ND (0.023) | ND (0.037) | ND (0.033) | ND (0.033) | ND (0.025) | ND (0.027) | ND (0.022) | ND (0.025) | ND (0.025) | ND (0.025) | ND (0.023) | ND (0.023) | ND (0.024) | ND (0.023) | ND (0.025) | ND (0.022) | ND (0.020) | ND (0.025) | ND (0.021) |
| N-Nitroso-di-n-propylamine | 0.3 | 0.2 | mg/kg | ND (0.019) | ND (0.020) | ND (0.017) | ND (0.018) | ND (0.018) | ND (0.017) | ND (0.028) | ND (0.025) | ND (0.024) | ND (0.019) | ND (0.020) | ND (0.017) | ND (0.019) | ND (0.019) | ND (0.019) | ND (0.017) | ND (0.017) | ND (0.018) | ND (0.017) | ND (0.019) | ND (0.017) | ND (0.015) | ND (0.018) | ND (0.016) |
| N-Nitrosodiphenylamine | 390 | 99 | mg/kg | ND (0.024) | ND (0.025) | ND (0.022) | ND (0.023) | ND (0.023) | ND (0.021) | ND (0.035) | ND (0.032) | ND (0.031) | ND (0.024) | ND (0.026) | ND (0.021) | ND (0.024) | ND (0.024) | ND (0.023) | ND (0.022) | ND (0.022) | ND (0.022) | ND (0.022) | ND (0.024) | ND (0.021) | ND (0.019) | ND (0.023) | ND (0.020) |
| Phenanthrene | 300000 | NA | mg/kg | ND (0.022) | ND (0.023) | 0.0419 J | ND (0.021) | ND (0.021) | ND (0.020) | ND (0.033) [b] | ND (0.029) [b] | 0.0919 [b] | ND (0.022) [b] | 0.150 [b] | 0.0622 [b] | ND (0.022) | ND (0.022) | ND (0.022) | ND (0.020) | ND (0.020) | ND (0.021) | ND (0.020) | ND (0.022) | ND (0.019) | ND (0.017) | ND (0.021) | ND (0.018) |
| Pyrene | 18000 | 1700 | mg/kg | ND (0.021) | ND (0.022) | 0.0909 | ND (0.020) | ND (0.020) | ND (0.019) | ND (0.031) | ND (0.028) | 0.243 | 0.0498 J | 0.377 | 0.162 | ND (0.021) | ND (0.021) | 0.0245 J | ND (0.019) | ND (0.019) | ND (0.020) | ND (0.019) | ND (0.021) | 0.0999 | ND (0.017) | 0.181 | 0.0334 J |
| 1,2,4,5-Tetrachlorobenzene | - | - | mg/kg | ND (0.017) | ND (0.017) | ND (0.015) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.025) | ND (0.022) | ND (0.021) | ND (0.017) | ND (0.018) | ND (0.015) | ND (0.016) | ND (0.016) | ND (0.016) | ND (0.015) | ND (0.015) | ND (0.016) | ND (0.015) | ND (0.016) | ND (0.015) | ND (0.013) | ND (0.016) | ND (0.014) |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | - | - | mg/kg | 3.41 J | 5.62 J | 0.26 J | 0 | 1.31 J | 2.28 J | 2.92 J | 1.1 J | 1.14 J | 0.46 J | 25.01 J | 13.02 J | 0 | 0 | 1.5 J | 1.6 J | 0.71 J | 0.62 J | 0.29 J | 0.76 J | 0 | 0.89 J | 0 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | - | | | | |
| **GC/LC Semi-volatiles (NJDEP EPH)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C10-C12 Aromatics | - | - | mg/kg | ND (5.4) | ND (5.2) | ND (5.1) | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | ND (6.8) | ND (5.2) | ND (5.5) | ND (4.7) | ND (5.4) | ND (4.8) | ND (5.1) | ND (4.9) | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | ND (5.1) | ND (4.2) |
| C12-C16 Aromatics | - | - | mg/kg | ND (5.4) | ND (5.2) | ND (5.1) | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | ND (6.8) | ND (5.2) | ND (5.5) | ND (4.7) | ND (5.4) | ND (4.8) | ND (5.1) | ND (4.9) | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | ND (5.1) | ND (4.2) |
| C16-C21 Aromatics | - | - | mg/kg | ND (5.4) | ND (5.2) | ND (5.1) | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | ND (6.8) | ND (5.2) | 86.7 | 102 | ND (5.4) | ND (4.8) | ND (5.1) | ND (4.9) | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | 16 | ND (4.2) |
| C21-C36 Aromatics | - | - | mg/kg | ND (5.4) | ND (5.2) | ND (5.1) | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | ND (6.8) | ND (5.2) | 79.4 | 95.5 | ND (5.4) | ND (4.8) | ND (5.1) | ND (4.9) | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | 23.7 | ND (4.2) |
| Total Aromatics | - | - | mg/kg | ND (5.4) | ND (5.2) | ND (5.1) | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | ND (6.8) | ND (5.2) | 166 | 198 | ND (5.4) | ND (4.8) | ND (5.1) | ND (4.9) | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | 39.7 | ND (4.2) |
| C9-C12 Aliphatics | - | - | mg/kg | ND (5.4) | ND (5.2) | ND (5.1) | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | ND (6.8) | ND (5.2) | 35.8 | 34.9 | ND (5.4) | ND (4.8) | ND (5.1) | ND (4.9) | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | ND (5.1) | ND (4.2) |
| C12-C16 Aliphatics | - | - | mg/kg | ND (5.4) | ND (5.2) | 11.5 | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | ND (6.8) | ND (5.2) | 126 | 133 | ND (5.4) | ND (4.8) | ND (5.1) | 23.3 | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | 29.4 | 9.45 |
| C16-C21 Aliphatics | - | - | mg/kg | ND (5.4) | ND (5.2) | 17.2 | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | 27.4 | ND (5.2) | 197 | 202 | ND (5.4) | ND (4.8) | ND (5.1) | 29.6 | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | 40.4 | 16.7 |
| C21-C40 Aliphatics | - | - | mg/kg | ND (5.4) | ND (5.2) | 27.6 | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | 72.3 | ND (5.2) | 266 | 254 | ND (5.4) | ND (4.8) | ND (5.1) | 41.1 | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | 70.4 | 28.9 |
| Total Aliphatics | - | - | mg/kg | ND (5.4) | ND (5.2) | 56.3 | ND (4.8) | ND (5.0) | ND (4.6) | ND (7.9) | ND (7.3) | 99.7 | ND (5.2) | 625 | 623 | ND (5.4) | ND (4.8) | ND (5.1) | 94 | ND (4.9) | ND (5.0) | ND (4.8) | ND (5.0) | ND (4.6) | ND (4.1) | 140 | 55.1 |
| Total EPH | - | - | mg/kg | ND (11) | ND (10) | 56.3 | ND (9.7) | ND (10) | ND (9.2) | ND (16) | ND (15) | 99.7 | ND (10) | 791 | 821 | ND (11) | ND (9.7) | ND (10) | 94 | ND (9.8) | ND (10) | ND (9.5) | ND (10) | ND (9.3) | ND (8.1) | 180 | 55.1 |

Table 5d
Smith Creek and Smith Creek Pond Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SS-13B | SS-13C | SS-14B | SS-14C | SS-15B | SS-15C | SS-16B | SS-16C | SS-17B | SS-17C | SS-18B | SS-18C | SS-19B | SS-19C | SS-20B | SS-20C | SS-21B | SS-21C | SS-22B | SS-22C | SS-23B | SS-23C | SS-24B | SS-24C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth | | | | 3.0-3.5 | 6.0-6.5 | 3.5-4.0 | 7.0-7.5 | 4.0-4.5 | 7.5-8.0 | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.5-6.0 | 2.5-3.0 | 5.0-5.5 | 3.0-3.5 | 6.5-7.0 | 6.0-6.5 | 3.0-3.5 | 2.5-3.0 | 5.5-6.0 | 3.0-3.5 | 6.5-7.0 | 2.0-2.5 | 4.5-5.0 | 3.0-3.5 | 6.0-6.5 |
| Date Sampled: | | | | 2/26/2019 | 2/26/2019 | 2/27/2019 | 2/27/2019 | 2/26/2019 | 2/26/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/1/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alumiumn | NA | 78000 | mg/kg | 21600 | 20800 | 21800 | 22000 | 22400 | 21600 | 23100 | 28900 | 20500 | 19300 | 25400 | 24400 | 27500 | 24600 | 25500 | 27700 | 22500 | 27700 | 22500 | 23500 | 23400 | 22300 | 28400 | 33300 |
| Antimony | 450 | 31 | mg/kg | <3.9 | <4.1 | <4.0 | <4.3 | <3.7 | <3.6 | <5.9 | <5.4 | <5.5 | <4.1 | <4.4 | <3.6 | <4.0 | <4.1 | <4.0 | <3.7 | <3.8 | <4.0 | <3.8 | <3.8 | <3.6 | <3.1 | <4.0 | <3.1 |
| Arsenic | 19 | 19 | mg/kg | 10.7 | 16.7 | 28.4 | 21.7 | 9.5 | 12.4 | 13.4 | 16.2 | 57.7 | 39.2 [f] | 141 [f] | 101 [f] | 9 | 9.3 | 45.6 [f] | 101 [f] | 19.6 [f] | 22.8 [f] | 10.9 | 11.6 | 88.8 | 96.2 | 76.4 | 100 [f] |
| Barium | 59000 | 16000 | mg/kg | 48.7 | 47.9 | 93.2 | 77.2 | 47.9 | 48.6 | <59 | <54 | 182 | 154 | 346 | 379 | 56.6 | 53.4 | 179 | 498 | 89.5 | 44 | 50.3 | 47.9 | 328 | 735 | 256 | 787 |
| Beryllium | 140 | 16 | mg/kg | 1.2 | 1.2 | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.7 | 1.4 | 1.8 | 1.9 | 1.3 | 1.1 | 1.7 | 3.3 | 1.3 | 1.2 | 1.2 | 1.1 | 2.1 | 3.5 | 1.9 | 3.6 |
| Cadmium | 78 | 78 | mg/kg | <0.98 | <1.0 | <0.99 | <1.1 | <0.93 | <0.91 | <1.5 | <1.3 | 4 | <1.0 | 4.9 | 2.1 | <0.99 | <1.0 | 1.1 | 2.1 | <0.95 | <1.0 | <0.94 | <0.96 | 2.3 | <0.76 | 2.4 | <0.78 |
| Calcium | - | - | mg/kg | 2950 | 3790 | 3480 | 3820 | 2160 | 2390 | 2870 | 2620 | 4620 | 5090 | 5980 | 7050 | 2080 | 3180 | 3940 | 9120 | 3180 | 2030 | 3310 | 3240 | 4000 | 15700 | 2800 | 17200 |
| Chromium | - | - | mg/kg | 40.3 | 42.2 | 55.4 | 52.4 | 40.8 | 42 | 42.8 | 47.4 | 98.3 | 67.8 | 297 | 211 | 44.2 | 42.5 | 110 | 108 | 47.9 | 44.4 | 40.8 [f] | 39.6 [f] | 118 | 59.4 [f] | 129 [f] | 67.6 [f] |
| Cobalt | 590 | 1600 | mg/kg | 11.8 | 11 | 11.8 | 12.2 | 11.9 | 12.6 | <15 | <13 | <14 | 10.8 | 14.7 | 12.4 | 11.8 | 12.4 | 13.5 | 15 | 10.9 | 12.7 | 12.4 | 12.2 | 21.7 | 13.9 | 24 | 14.1 |
| Copper | 45000 | 3100 | mg/kg | 16.1 | 17.8 | 55.7 | 48.8 [f] | 16.5 | 16 | 27.1 | 15.7 | 354 | 128 [f] | 595 [f] | 351 [f] | 21.5 | 18.9 | 120 [f] | 159 [f] | 20.5 [f] | 13.2 [f] | 13.9 [f] | 12.4 [f] | 299 [f] | 45.3 [f] | 288 [f] | 60.2 [f] |
| Iron | - | - | mg/kg | 37400 | 45500 | 39600 | 45800 | 33000 | 35200 | 34700 | 53300 | 53900 | 52100 | 54300 | 59900 | 34600 | 38400 | 48500 | 55500 | 45400 | 48800 | 36800 | 36900 | 62700 | 73700 | 63900 | 79300 |
| Lead | 800 | 400 | mg/kg | 16.3 | 16.1 | 39 | 31.6 | 16.8 | 16.7 | 23.8 | 20.7 | 242 | 74.7 [f] | 366 [f] | 207 [f] | 24.2 | 17.2 | 82.6 | 95.4 [f] | 20.1 [f] | 17.4 [f] | 16.4 | 15.7 | 180 [f] | 32.2 [f] | 181 [f] | 41.2 [f] |
| Magnesium | - | - | mg/kg | 9160 | 8820 | 7860 | 8220 | 8580 | 8770 | 8760 | 9650 | 6890 | 6230 | 8740 | 5970 | 9420 | 9170 | 7410 | 4840 | 7980 | 8920 | 9310 | 9280 | 7670 | 5930 | 9910 | 6900 |
| Manganese | 5900 | 11000 | mg/kg | 405 | 449 | 500 | 556 [f] | 340 | 485 | 278 | 377 | 260 | 278 [f] | 391 [f] | 290 [f] | 387 | 450 | 377 [f] | 170 [f] | 383 [f] | 393 [f] | 491 [f] | 418 [f] | 547 [f] | 157 [f] | 556 [f] | 187 [f] |
| Mercury | 65 | 23 | mg/kg | <0.049 | <0.055 | 0.9 | 0.075 | <0.048 | <0.051 | 0.11 | 0.084 | 2 | 0.23 | 9.3 | 6.4 | 0.071 | <0.051 | 1.1 | 1.9 | 0.062 | <0.050 | <0.052 | <0.051 | 500 | 500 | 500 | 500 |
| Nickel | 23000 | 1600 | mg/kg | 31.1 | 29.7 | 34.1 | 34.8 | 31 | 32.6 | 30.8 | 36.9 | 60.5 | 37.7 | 63.1 | 71.3 | 34.4 | 33.3 | 47.1 | 79.4 | 34.5 | 33.5 | 31.8 | 31.5 | 53.5 | 41.2 | 57.2 | 43 |
| Potassium | - | - | mg/kg | 4890 | 4960 | 4290 | 4610 | 4830 | 4970 | 5270 | 6160 | 3450 | 3460 | 4200 | 3260 | 5130 | 4820 | 4310 | 2660 | 4390 | 4940 | 5160 | 5140 | 4550 | 2790 | 5830 | 3230 |
| Selenium | 5700 | 390 | mg/kg | <3.9 | <8.2 | <4.0 | <8.6 [f] | <3.7 | <3.6 | <5.9 | <11 | <5.5 | <8.1 [f] | 9.5 [f] | <7.3 [f] | <4.0 | <4.1 | <7.9 [f] | <7.5 [f] | <7.6 [f] | <8.0 [f] | <7.5 [f] | <7.7 [f] | <11 [f] | <15 [f] | <12 [f] | <16 [f] |
| Silver | 5700 | 390 | mg/kg | <0.98 | <2.0 | <0.99 | <2.1 [f] | <0.93 | <0.91 | <1.5 | <2.7 | 3.6 | <2.0 [f] | 5.1 [f] | 2.8 [f] | <0.99 | <1.0 | <2.0 [f] | <1.9 [f] | <1.9 [f] | <2.0 [f] | <1.9 [f] | <1.9 [f] | <2.7 [f] | <3.8 [f] | <3.0 [f] | <3.9 [f] |
| Sodium | - | - | mg/kg | 3900 | 3130 | 4350 | 3610 | 7420 | 7310 | 9670 | 9190 | 11900 | 7070 | 9380 | 6290 | 7900 | 7420 | 6760 | 6230 | 5760 | 6670 | 8750 | 9080 | 5630 | 4560 | 8010 | 5800 |
| Thallium | - | - | mg/kg | <2.0 | <4.1 | <2.0 | <4.3 [f] | <1.9 | <1.8 | <3.0 | <5.4 | <2.8 | <4.1 [f] | <4.4 [f] | <3.6 [f] | <2.0 | <2.0 | <4.0 [f] | <3.7 [f] | <3.8 [f] | <4.0 [f] | <3.8 [f] | <3.8 [f] | <5.3 [f] | <7.6 [f] | <6.1 [f] | <7.8 [f] |
| Vanadium | 1100 | 78 | mg/kg | 47.1 | 51.8 | 65.1 | 61.3 | 48.7 | 49.9 | 50.9 | 58.4 | 151 | 96.1 | 102 | 183 | 55.6 | 51.9 | 136 | 488 | 72 | 51.9 | 49.9 | 47.2 | 89.9 | 122 | 95.9 | 119 |
| Zinc | 110000 | 23000 | mg/kg | 94.1 | 86.6 | 117 | 115 | 87.1 | 91.7 | 93.2 | 104 | 586 | 169 | 562 | 341 | 92.8 | 89.9 | 160 | 181 | 86.4 | 94.1 | 83.5 | 82.1 | 288 | 70.7 | 296 | 99.7 |

Table 5d
Smith Creek and Smith Creek Pond Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SS-25B | SS-25C | SS-26B | SS-26C | SS-27B | SS-28C | SS-29B | SS-29C | SS-30B | SS-30C | SS-31B | SS-31C | SS-32B | SS-32C | SS-33B | SS-33C | SS-34B | SS-34C | SS-35B | SS-35C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth | | | | 2.0-2.5 | 3.5-4.0 | 2.0-2.5 | 3.5-4.0 | 2.5-3.0 | 4.5-5.0 | 2.0-2.5 | 3.5-4.0 | 2.0-2.5 | 3.5-4.0 | 2.5-3.0 | 5.0-5.5 | 2.5-3.0 | 4.5-5.0 | 1.0-1.5 | 1.5-2.0 | 2.5-3.0 | 4.5-5.0 | 2.0-2.5 | 3.5-4.0 |
| Date Sampled: | | | | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | NA | 70000 | mg/kg | 0.0298 J | 0.0488 J | 0.0167 | 0.0451 | 0.0383 | 0.0797 | 0.379 | 0.243 | 0.0407 | 0.0233 J | 0.0524 | 0.0984 | 0.0445 | 0.0229 | 0.0305 | 0.0247 | 0.114 | 0.107 | 0.0616 | 0.0872 |
| Benzene | 5 | 2 | mg/kg | ND (0.0015) | ND (0.0019) | ND (0.00060) | ND (0.0015) | ND (0.0010) | ND (0.0020) | 0.0064 | 0.0032 | ND (0.00094) | ND (0.00093) | ND (0.0013) | ND (0.0028) | ND (0.00055) | ND (0.00047) | ND (0.00088) | ND (0.00081) | ND (0.0010) | ND (0.0011) | ND (0.00076) | ND (0.00076) |
| Bromochloromethane | - | - | mg/kg | ND (0.0017) | ND (0.0021) | ND (0.00068) | ND (0.0017) | ND (0.0012) | ND (0.0022) | ND (0.0023) | ND (0.0015) | ND (0.0011) | ND (0.0011) | ND (0.0015) | ND (0.0032) | ND (0.00063) | ND (0.00054) | ND (0.0010) | ND (0.00092) | ND (0.0011) | ND (0.0012) | ND (0.00087) | ND (0.00087) |
| Bromodichloromethane | 3 | 1 | mg/kg | ND (0.0017) | ND (0.0022) | ND (0.00071) | ND (0.0017) | ND (0.0012) | ND (0.0023) | ND (0.0023) | ND (0.0015) | ND (0.0011) | ND (0.0011) | ND (0.0015) | ND (0.0033) | ND (0.00065) | ND (0.00056) | ND (0.0010) | ND (0.00095) | ND (0.0012) | ND (0.0013) | ND (0.00090) | ND (0.00089) |
| Bromoform | 280 | 81 | mg/kg | ND (0.0016) | ND (0.0020) | ND (0.00064) | ND (0.0016) | ND (0.0011) | ND (0.0021) | ND (0.0021) | ND (0.0014) | ND (0.0010) | ND (0.00099) | ND (0.0014) | ND (0.0030) | ND (0.00059) | ND (0.00051) | ND (0.00094) | ND (0.00086) | ND (0.0011) | ND (0.0012) | ND (0.00081) | ND (0.00081) |
| Bromomethane | 59 | 25 | mg/kg | ND (0.0038) | ND (0.0049) | ND (0.0016) | ND (0.0039) | ND (0.0027) | ND (0.0052) | ND (0.0052) [a] | ND (0.0034) [a] | ND (0.0025) | ND (0.0024) | ND (0.0034) [a] | ND (0.0074) [a] | ND (0.0015) [a] | ND (0.0012) [a] | ND (0.0023) | ND (0.0021) | ND (0.0027) [a] | ND (0.0029) [a] | ND (0.0020) [a] | ND (0.0020) [a] |
| 2-Butanone (MEK) | 44000 | 3100 | mg/kg | ND (0.014) | ND (0.018) | ND (0.0060) | ND (0.014) | ND (0.010) | ND (0.019) | 0.0777 | 0.0298 J | ND (0.0093) | ND (0.0092) | ND (0.013) | ND (0.028) | ND (0.0055) | ND (0.0047) | ND (0.0088) | ND (0.0080) | 0.0170 J | 0.0143 J | ND (0.0076) | 0.0091 J |
| Carbon disulfide | 110000 | 7800 | mg/kg | 0.0046 J | 0.0231 | ND (0.0015) | ND (0.0036) | 0.0064 | 0.0364 | 0.0546 | 0.0272 | 0.0082 | 0.013 | 0.027 | 0.0389 | 0.0037 | 0.0052 | 0.0089 | 0.0048 | 0.0054 | 0.0030 J | 0.0054 | 0.0089 |
| Carbon tetrachloride | 4 | 2 | mg/kg | ND (0.0021) | ND (0.0027) | ND (0.00088) | ND (0.0021) | ND (0.0015) | ND (0.0029) | ND (0.0029) | ND (0.0019) | ND (0.0014) | ND (0.0013) | ND (0.0019) | ND (0.0041) | ND (0.00080) | ND (0.00069) | ND (0.0013) | ND (0.0012) | ND (0.0015) | ND (0.0016) | ND (0.0011) | ND (0.0011) |
| Chlorobenzene | 7400 | 510 | mg/kg | ND (0.0014) | ND (0.0017) | ND (0.00056) | ND (0.0014) | ND (0.00095) | ND (0.0018) | ND (0.0019) | ND (0.0012) | ND (0.00088) | ND (0.00087) | ND (0.0012) | ND (0.0026) | ND (0.00052) | ND (0.00044) | ND (0.00083) | ND (0.00076) | ND (0.00094) | ND (0.0010) | ND (0.00072) | ND (0.00071) |
| Chloroethane | 1100 | 220 | mg/kg | ND (0.0026) | ND (0.0034) | ND (0.0011) | ND (0.0027) | ND (0.0018) | ND (0.0036) | ND (0.0036) [a] | ND (0.0024) [a] | ND (0.0017) | ND (0.0017) | ND (0.0023) [a] | ND (0.0051) [a] | ND (0.0010) [a] | ND (0.00086) [a] | ND (0.0016) | ND (0.0015) | ND (0.0018) [a] | ND (0.0020) [a] | ND (0.0014) [a] | ND (0.0014) [a] |
| Chloroform | 2 | 0.6 | mg/kg | ND (0.0014) | ND (0.0018) | ND (0.00059) | ND (0.0014) | ND (0.0010) | ND (0.0019) | ND (0.0020) | ND (0.0013) | ND (0.00093) | ND (0.00091) | ND (0.0013) | ND (0.0028) | ND (0.00054) | ND (0.00047) | ND (0.00087) | ND (0.00080) | ND (0.00099) | ND (0.0011) | ND (0.00075) | ND (0.00075) |
| Chloromethane | 12 | 4 | mg/kg | ND (0.0075) | ND (0.0097) | ND (0.0031) | ND (0.0076) | ND (0.0053) | ND (0.010) | ND (0.010) [a] | ND (0.0067) [a] | ND (0.0049) | ND (0.0048) | ND (0.0066) [a] | ND (0.015) [a] | ND (0.0029) [a] | ND (0.0025) [a] | ND (0.0046) | ND (0.0042) | ND (0.0052) [a] | ND (0.0056) [a] | ND (0.0040) [a] | ND (0.0039) [a] |
| Cyclohexane | - | - | mg/kg | ND (0.0016) | ND (0.0020) | ND (0.00065) | ND (0.0016) | ND (0.0011) | ND (0.0021) | 0.0149 | 0.0095 | ND (0.0010) | ND (0.0010) | ND (0.0014) | ND (0.0030) | ND (0.00059) | ND (0.00051) | ND (0.00095) | ND (0.00087) | ND (0.0011) | ND (0.0012) | ND (0.00082) | ND (0.00082) |
| 1,2-Dibromo-3-chloropropane | 0.2 | 0.08 | mg/kg | ND (0.0032) | ND (0.0041) | ND (0.0013) | ND (0.0032) | ND (0.0023) | ND (0.0043) | ND (0.0044) | ND (0.0029) | ND (0.0021) | ND (0.0021) | ND (0.0028) | ND (0.0062) | ND (0.0012) | ND (0.0010) | ND (0.0020) | ND (0.0018) | ND (0.0022) | ND (0.0024) | ND (0.0017) | ND (0.0017) |
| Dibromochloromethane | 8 | 3 | mg/kg | ND (0.0013) | ND (0.0017) | ND (0.00054) | ND (0.0013) | ND (0.00091) | ND (0.0018) | ND (0.0018) | ND (0.0012) | ND (0.00084) | ND (0.00083) | ND (0.0011) | ND (0.0025) | ND (0.00049) | ND (0.00042) | ND (0.00079) | ND (0.00072) | ND (0.00090) | ND (0.00097) | ND (0.00068) | ND (0.00068) |
| 1,2-Dibromoethane | 0.04 | 0.008 | mg/kg | ND (0.0013) | ND (0.0016) | ND (0.00052) | ND (0.0013) | ND (0.00087) | ND (0.0017) | ND (0.0017) | ND (0.0011) | ND (0.00081) | ND (0.00080) | ND (0.0011) | ND (0.0024) | ND (0.00047) | ND (0.00041) | ND (0.00076) | ND (0.00070) | ND (0.00087) | ND (0.00093) | ND (0.00066) | ND (0.00065) |
| 1,2-Dichlorobenzene | 59000 | 5300 | mg/kg | ND (0.0012) | ND (0.0015) | ND (0.00049) | ND (0.0012) | ND (0.00082) | ND (0.0016) | ND (0.0016) | ND (0.0010) | ND (0.00076) | ND (0.00075) | ND (0.0010) | ND (0.0023) | ND (0.00045) | ND (0.00038) | ND (0.00071) | ND (0.00065) | ND (0.00081) | ND (0.00088) | ND (0.00062) | ND (0.00061) |
| 1,3-Dichlorobenzene | 59000 | 5300 | mg/kg | ND (0.0014) | ND (0.0018) | ND (0.00057) | ND (0.0014) | ND (0.00097) | ND (0.0019) | ND (0.0019) | ND (0.0012) | ND (0.00089) | ND (0.00088) | ND (0.0012) | ND (0.0027) | ND (0.00052) | ND (0.00045) | ND (0.00084) | ND (0.00077) | ND (0.00096) | ND (0.0010) | ND (0.00073) | ND (0.00072) |
| 1,4-Dichlorobenzene | 13 | 5 | mg/kg | ND (0.0013) | ND (0.0017) | ND (0.00055) | ND (0.0013) | ND (0.00093) | ND (0.0018) | ND (0.0018) | ND (0.0012) | ND (0.00086) | ND (0.00084) | ND (0.0012) | ND (0.0026) | ND (0.00050) | ND (0.00043) | ND (0.00081) | ND (0.00074) | ND (0.00092) | ND (0.00099) | ND (0.00070) | ND (0.00069) |
| Dichlorodifluoromethane | 230000 | 490 | mg/kg | ND (0.0024) | ND (0.0031) | ND (0.0010) | ND (0.0025) | ND (0.0017) | ND (0.0033) | ND (0.0033) | ND (0.0022) | ND (0.0016) | ND (0.0016) | ND (0.0021) | ND (0.0047) | ND (0.00093) | ND (0.00080) | ND (0.0015) | ND (0.0014) | ND (0.0017) | ND (0.0018) | ND (0.0013) | ND (0.0013) |
| 1,1-Dichloroethane | 24 | 8 | mg/kg | ND (0.0015) | ND (0.0019) | ND (0.00061) | ND (0.0015) | ND (0.0010) | ND (0.0020) | ND (0.0020) | ND (0.0013) | ND (0.00096) | ND (0.00094) | ND (0.0013) | ND (0.0029) | ND (0.00056) | ND (0.00048) | ND (0.00090) | ND (0.00082) | ND (0.0010) | ND (0.0011) | ND (0.00078) | ND (0.00077) |
| 1,2-Dichloroethane | 3 | 0.9 | mg/kg | ND (0.0018) | ND (0.0023) | ND (0.00075) | ND (0.0018) | ND (0.0013) | ND (0.0024) | ND (0.0025) | ND (0.0016) | ND (0.0012) | ND (0.0012) | ND (0.0016) | ND (0.0035) | ND (0.00069) | ND (0.00059) | ND (0.0011) | ND (0.0010) | ND (0.0013) | ND (0.0014) | ND (0.00095) | ND (0.00095) |
| 1,1-Dichloroethene | 150 | 11 | mg/kg | ND (0.0025) | ND (0.0032) | ND (0.0010) | ND (0.0025) | ND (0.0018) | ND (0.0034) | ND (0.0035) | ND (0.0023) | ND (0.0016) | ND (0.0016) | ND (0.0022) | ND (0.0049) | ND (0.00096) | ND (0.00082) | ND (0.0015) | ND (0.0014) | ND (0.0018) | ND (0.0019) | ND (0.0013) | ND (0.0013) |
| cis-1,2-Dichloroethene | 560 | 230 | mg/kg | ND (0.0037) | ND (0.0047) | ND (0.0015) | ND (0.0037) | ND (0.0026) | ND (0.0050) | ND (0.0050) | ND (0.0033) | ND (0.0024) | ND (0.0023) | ND (0.0032) | ND (0.0071) | ND (0.0014) | ND (0.0012) | ND (0.0022) | ND (0.0020) | ND (0.0026) | ND (0.0028) | ND (0.0019) | ND (0.0019) |
| trans-1,2-Dichloroethene | 720 | 300 | mg/kg | ND (0.0026) | ND (0.0033) | ND (0.0011) | ND (0.0026) | ND (0.0018) | ND (0.0035) | ND (0.0035) | ND (0.0023) | ND (0.0017) | ND (0.0016) | ND (0.0023) | ND (0.0050) | ND (0.00097) | ND (0.00084) | ND (0.0016) | ND (0.0014) | ND (0.0018) | ND (0.0019) | ND (0.0013) | ND (0.0013) |
| 1,2-Dichloropropane | 5 | 2 | mg/kg | ND (0.0016) | ND (0.0020) | ND (0.00065) | ND (0.0016) | ND (0.0011) | ND (0.0021) | ND (0.0021) | ND (0.0014) | ND (0.0010) | ND (0.0010) | ND (0.0014) | ND (0.0030) | ND (0.00059) | ND (0.00051) | ND (0.00095) | ND (0.00087) | ND (0.0011) | ND (0.0012) | ND (0.00082) | ND (0.00082) |
| cis-1,3-Dichloropropene | 7 | 2 | mg/kg | ND (0.0014) | ND (0.0017) | ND (0.00056) | ND (0.0014) | ND (0.00095) | ND (0.0018) | ND (0.0019) | ND (0.0012) | ND (0.00088) | ND (0.00086) | ND (0.0012) | ND (0.0026) | ND (0.00051) | ND (0.00044) | ND (0.00082) | ND (0.00075) | ND (0.00094) | ND (0.0010) | ND (0.00071) | ND (0.00071) |
| trans-1,3-Dichloropropene | 7 | 2 | mg/kg | ND (0.0013) | ND (0.0016) | ND (0.00052) | ND (0.0013) | ND (0.00088) | ND (0.0017) | ND (0.0017) | ND (0.0011) | ND (0.00081) | ND (0.00080) | ND (0.0011) | ND (0.0024) | ND (0.00048) | ND (0.00041) | ND (0.00077) | ND (0.00070) | ND (0.00087) | ND (0.00094) | ND (0.00066) | ND (0.00066) |
| Ethylbenzene | 110000 | 7800 | mg/kg | ND (0.0021) | ND (0.0027) | ND (0.00088) | ND (0.0021) | ND (0.0015) | ND (0.0029) | 0.0189 | ND (0.0019) | ND (0.0014) | ND (0.0014) | ND (0.0019) | ND (0.0041) | ND (0.00081) | ND (0.00069) | ND (0.0013) | ND (0.0012) | ND (0.0015) | ND (0.0016) | ND (0.0011) | ND (0.0011) |
| Freon 113 | - | - | mg/kg | ND (0.0029) | ND (0.0038) | ND (0.0012) | ND (0.0030) | ND (0.0021) | ND (0.0040) | ND (0.0040) | ND (0.0026) | ND (0.0019) | ND (0.0019) | ND (0.0026) | ND (0.0057) | ND (0.0011) | ND (0.00096) | ND (0.0018) | ND (0.0016) | ND (0.0020) | ND (0.0022) | ND (0.0015) | ND (0.0015) |
| 2-Hexanone | - | - | mg/kg | ND (0.0049) | ND (0.0063) | ND (0.0020) | ND (0.0049) | ND (0.0034) | ND (0.0066) | ND (0.0067) | ND (0.0044) | ND (0.0032) | ND (0.0031) | ND (0.0043) | ND (0.0094) | ND (0.0019) | ND (0.0016) | ND (0.0030) | ND (0.0027) | ND (0.0034) | ND (0.0037) | ND (0.0026) | ND (0.0026) |
| Isopropylbenzene | - | - | mg/kg | ND (0.0027) | ND (0.0034) | ND (0.0011) | ND (0.0027) | ND (0.0019) | ND (0.0036) | 0.0072 J | 0.0026 J | ND (0.0017) | ND (0.0017) | ND (0.0024) | ND (0.0052) | ND (0.0010) | ND (0.00087) | ND (0.0016) | ND (0.0015) | ND (0.0019) | ND (0.0020) | ND (0.0014) | ND (0.0014) |
| Methyl Acetate | NA | 78000 | mg/kg | ND (0.0054) | ND (0.0068) | ND (0.0022) | ND (0.0054) | ND (0.0037) | ND (0.0072) | ND (0.0073) | ND (0.0048) | ND (0.0035) | ND (0.0034) | ND (0.0047) | ND (0.010) | ND (0.0020) | ND (0.0017) | ND (0.0033) | ND (0.0030) | ND (0.0037) | ND (0.0040) | ND (0.0028) | ND (0.0028) |
| Methylcyclohexane | - | - | mg/kg | ND (0.0027) | ND (0.0035) | ND (0.0011) | ND (0.0027) | ND (0.0019) | ND (0.0037) | 0.161 | 0.0567 | ND (0.0018) | ND (0.0017) | ND (0.0024) | ND (0.0053) | ND (0.0010) | ND (0.00089) | ND (0.0017) | ND (0.0015) | ND (0.0019) | ND (0.0020) | ND (0.0014) | ND (0.0014) |
| Methyl Tert Butyl Ether | 320 | 110 | mg/kg | ND (0.0014) | ND (0.0017) | ND (0.00056) | 0.004 | ND (0.00095) | ND (0.0018) | ND (0.0019) | ND (0.0012) | ND (0.00088) | ND (0.00086) | ND (0.0012) | ND (0.0026) | ND (0.00051) | ND (0.00044) | ND (0.00082) | ND (0.00075) | ND (0.00094) | ND (0.0010) | 0.00075 J | 0.00079 J |
| 4-Methyl-2-pentanone(MIBK) | - | - | mg/kg | ND (0.0060) | ND (0.0077) | ND (0.0025) | ND (0.0060) | ND (0.0042) | ND (0.0081) | ND (0.0082) | ND (0.0054) | ND (0.0039) | ND (0.0038) | ND (0.0053) | ND (0.012) | ND (0.0023) | ND (0.0020) | ND (0.0037) | ND (0.0033) | ND (0.0042) | ND (0.0045) | ND (0.0032) | ND (0.0031) |
| Methylene chloride | 230 | 46 | mg/kg | ND (0.0096) | ND (0.012) | ND (0.0040) | ND (0.0097) | ND (0.0067) | ND (0.013) | ND (0.013) | ND (0.0086) | ND (0.0062) | ND (0.0061) | ND (0.0085) | ND (0.019) | ND (0.0037) | ND (0.0031) | ND (0.0059) | ND (0.0054) | ND (0.0067) | ND (0.0072) | ND (0.0051) | ND (0.0050) |
| Styrene | 260 | 90 | mg/kg | ND (0.0022) | ND (0.0028) | ND (0.00092) | ND (0.0022) | ND (0.0015) | ND (0.0030) | ND (0.0030) | ND (0.0020) | ND (0.0014) | ND (0.0014) | ND (0.0019) | ND (0.0043) | ND (0.00084) | ND (0.00072) | ND (0.0013) | ND (0.0012) | ND (0.0015) | ND (0.0017) | ND (0.0012) | ND (0.0012) |
| 1,1,2,2-Tetrachloroethane | 3 | 1 | mg/kg | ND (0.0015) | ND (0.0019) | ND (0.00062) | ND (0.0015) | ND (0.0010) | ND (0.0020) | ND (0.0021) | ND (0.0013) | ND (0.00097) | ND (0.00096) | ND (0.0013) | ND (0.0029) | ND (0.00057) | ND (0.00049) | ND (0.00091) | ND (0.00083) | ND (0.0010) | ND (0.0011) | ND (0.00079) | ND (0.00078) |
| Tetrachloroethene | 1500 | 43 | mg/kg | ND (0.0018) | ND (0.0023) | ND (0.00074) | ND (0.0018) | ND (0.0012) | ND (0.0024) | ND (0.0024) | ND (0.0016) | ND (0.0012) | ND (0.0011) | ND (0.0016) | ND (0.0034) | ND (0.00068) | ND (0.00058) | ND (0.0011) | ND (0.00099) | ND (0.0012) | ND (0.0013) | ND (0.00093) | ND (0.00093) |
| Toluene | 91000 | 6300 | mg/kg | ND (0.0014) | ND (0.0019) | ND (0.00060) | ND (0.0015) | ND (0.0010) | ND (0.0020) | 0.0023 J | ND (0.0013) | ND (0.00094) | ND (0.00092) | ND (0.0013) | ND (0.0028) | ND (0.00055) | ND (0.00047) | ND (0.00088) | ND (0.00080) | ND (0.0010) | ND (0.0011) | ND (0.00076) | ND (0.00076) |
| 1,2,3-Trichlorobenzene | - | - | mg/kg | ND (0.0039) | ND (0.0049) | ND (0.0016) | ND (0.0039) | ND (0.0027) | ND (0.0052) | ND (0.0053) | ND (0.0034) | ND (0.0025) | ND (0.0025) | ND (0.0034) | ND (0.0074) | ND (0.0015) | ND (0.0013) | ND (0.0023) | ND (0.0021) | ND (0.0027) | ND (0.0029) | ND (0.0020) | ND (0.0020) |
| 1,2,4-Trichlorobenzene | 820 | 73 | mg/kg | ND (0.0039) | ND (0.0049) | ND (0.0016) | ND (0.0039) | ND (0.0027) | ND (0.0052) | ND (0.0053) | ND (0.0034) | ND (0.0025) | ND (0.0025) | ND (0.0034) | ND (0.0074) | ND (0.0015) | ND (0.0013) | ND (0.0023) | ND (0.0021) | ND (0.0027) | ND (0.0029) | ND (0.0020) | ND (0.0020) |
| 1,1,1-Trichloroethane | NA | 160000 | mg/kg | ND (0.0016) | ND (0.0021) | ND (0.00068) | ND (0.0017) | ND (0.0011) | ND (0.0022) | ND (0.0022) | ND (0.0015) | ND (0.0011) | ND (0.0010) | ND (0.0014) | ND (0.0032) | ND (0.00062) | ND (0.00053) | ND (0.0010) | ND (0.00091) | ND (0.0011) | ND (0.0012) | ND (0.00086) | ND (0.00086) |
| 1,1,2-Trichloroethane | 6 | 2 | mg/kg | ND (0.0013) | ND (0.0017) | ND (0.00054) | ND (0.0013) | ND (0.00092) | ND (0.0018) | ND (0.0018) | ND (0.0012) | ND (0.00085) | ND (0.00084) | ND (0.0012) | ND (0.0025) | ND (0.00050) | ND (0.00043) | ND (0.00080) | ND (0.00073) | ND (0.00091) | ND (0.00098) | ND (0.00069) | ND (0.00069) |
| Trichloroethene | 10 | 3 | mg/kg | ND (0.0029) | ND (0.0038) | ND (0.0012) | ND (0.0030) | ND (0.0021) | ND (0.0040) | ND (0.0040) | ND (0.0026) | ND (0.0019) | ND (0.0019) | ND (0.0026) | ND (0.0057) | ND (0.0011) | ND (0.00096) | ND (0.0018) | ND (0.0016) | ND (0.0020) | ND (0.0022) | ND (0.0015) | ND (0.0015) |
| Trichlorofluoromethane | 340000 | 23000 | mg/kg | ND (0.0026) | ND (0.0034) | ND (0.0011) | ND (0.0026) | ND (0.0018) | ND (0.0035) | ND (0.0036) | ND (0.0023) | ND (0.0017) | ND (0.0017) | ND (0.0023) | ND (0.0051) | ND (0.0010) | ND (0.00085) | ND (0.0016) | ND (0.0015) | ND (0.0018) | ND (0.0020) | ND (0.0014) | ND (0.0014) |
| Vinyl chloride | 2 | 0.7 | mg/kg | ND (0.0018) [a] | ND (0.0023) [a] | ND (0.00075) | ND (0.0018) | ND (0.0013) [a] | ND (0.0024) [a] | ND (0.0025) | ND (0.0016) | ND (0.0012) [a] | ND (0.0012) [a] | ND (0.0016) | ND (0.0035) | ND (0.00069) | ND (0.00059) | ND (0.0011) [a] | ND (0.0010) [a] | ND (0.0013) | ND (0.0013) | ND (0.00095) | ND (0.00094) |
| m,p-Xylene | 170000 | 12000 | mg/kg | ND (0.0029) | ND (0.0037) | ND (0.0012) | ND (0.0029) | ND (0.0020) | ND (0.0039) | 0.0399 | 0.0073 | ND (0.0019) | ND (0.0018) | ND (0.0025) | ND (0.0055) | ND (0.0011) | ND (0.00094) | ND (0.0017) | ND (0.0016) | ND (0.0020) | ND (0.0021) | ND (0.0015) | ND (0.0015) |
| o-Xylene | 170000 | 12000 | mg/kg | ND (0.0022) | ND (0.0029) | ND (0.00093) | ND (0.0023) | ND (0.0016) | ND (0.0030) | 0.021 | 0.0207 | ND (0.0015) | ND (0.0014) | ND (0.0020) | ND (0.0043) | ND (0.00085) | ND (0.00073) | ND (0.0014) | ND (0.0012) | ND (0.0016) | ND (0.0017) | ND (0.0012) | ND (0.0012) |
| Xylene (total) | 170000 | 12000 | mg/kg | ND (0.0022) | ND (0.0029) | ND (0.00093) | ND (0.0023) | ND (0.0016) | ND (0.0030) | 0.0609 | 0.028 | ND (0.0015) | ND (0.0014) | ND (0.0020) | ND (0.0043) | ND (0.00085) | ND (0.00073) | ND (0.0014) | ND (0.0012) | ND (0.0016) | ND (0.0017) | ND (0.0012) | ND (0.0012) |
| **MS Volatile TIC** | | | | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Volatile | - | - | mg/kg | 0 | 0 | 0 | 0 | 0 | 0 | 2.95 J | 0.587 J | 0 | 0 | 0 | 0.039 J | 0 | 0.1693 J | 0 | 0 | 0.182 J | 0.121 J | 2.251 J | 0 |

Table 5d
Smith Creek and Smith Creek Pond Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SS-25B | SS-25C | SS-26B | SS-26C | SS-27B | SS-28C | SS-29B | SS-29C | SS-30B | SS-30C | SS-31B | SS-31C | SS-32B | SS-32C | SS-33B | SS-33C | SS-34B | SS-34C | SS-35B | SS-35C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth | | | | 2.0-2.5 | 3.5-4.0 | 2.0-2.5 | 3.5-4.0 | 2.5-3.0 | 4.5-5.0 | 2.0-2.5 | 3.5-4.0 | 2.0-2.5 | 3.5-4.0 | 2.5-3.0 | 5.0-5.5 | 2.5-3.0 | 4.5-5.0 | 1.0-1.5 | 1.5-2.0 | 2.5-3.0 | 4.5-5.0 | 2.0-2.5 | 3.5-4.0 |
| Date Sampled: | | | | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 2200 | 310 | mg/kg | ND (0.045) | ND (0.058) | ND (0.026) | ND (0.035) | ND (0.032) | ND (0.052) | ND (0.057) | ND (0.038) | ND (0.030) | ND (0.030) | ND (0.039) | ND (0.079) | ND (0.024) | ND (0.021) | ND (0.031) | ND (0.030) | ND (0.035) | ND (0.036) | ND (0.028) | ND (0.026) |
| 4-Chloro-3-methyl phenol | - | - | mg/kg | ND (0.055) | ND (0.072) | ND (0.032) | ND (0.044) | ND (0.040) | ND (0.064) | ND (0.071) | ND (0.048) | ND (0.038) | ND (0.038) | ND (0.048) | ND (0.098) | ND (0.030) | ND (0.026) | ND (0.039) | ND (0.037) | ND (0.043) | ND (0.044) | ND (0.034) | ND (0.033) |
| 2,4-Dichlorophenol | 2100 | 180 | mg/kg | ND (0.077) | ND (0.10) | ND (0.045) | ND (0.061) | ND (0.056) | ND (0.089) | ND (0.099) | ND (0.066) | ND (0.053) | ND (0.052) | ND (0.066) | ND (0.14) | ND (0.042) | ND (0.036) | ND (0.054) | ND (0.052) | ND (0.060) | ND (0.062) | ND (0.048) | ND (0.046) |
| 2,4-Dimethylphenol | 14000 | 1200 | mg/kg | ND (0.16) | ND (0.21) | ND (0.094) | ND (0.13) | ND (0.12) | ND (0.19) | ND (0.21) | ND (0.14) | ND (0.11) | ND (0.11) | ND (0.14) | ND (0.29) | ND (0.088) | ND (0.075) | ND (0.11) | ND (0.11) | ND (0.13) | ND (0.13) | ND (0.099) | ND (0.095) |
| 2,4-Dinitrophenol | 1400 | 120 | mg/kg | ND (0.34) | ND (0.44) | ND (0.20) | ND (0.27) | ND (0.25) | ND (0.39) | ND (0.44) | ND (0.29) | ND (0.23) | ND (0.23) | ND (0.29) | ND (0.60) | ND (0.18) | ND (0.16) | ND (0.24) | ND (0.23) | ND (0.26) | ND (0.27) | ND (0.21) | ND (0.20) |
| 4,6-Dinitro-o-cresol | 68 | 6 | mg/kg | ND (0.097) | ND (0.13) | ND (0.057) | ND (0.076) | ND (0.070) | ND (0.11) | ND (0.12) | ND (0.083) | ND (0.066) | ND (0.066) | ND (0.083) | ND (0.17) | ND (0.053) | ND (0.045) | ND (0.068) | ND (0.065) | ND (0.075) | ND (0.077) | ND (0.060) | ND (0.057) |
| 2-Methylphenol | 3400 | 310 | mg/kg | ND (0.058) | ND (0.075) | ND (0.034) | ND (0.046) | ND (0.042) | ND (0.067) | ND (0.074) | ND (0.050) | ND (0.039) | ND (0.039) | ND (0.050) | ND (0.10) | ND (0.031) | ND (0.027) | ND (0.040) | ND (0.039) | ND (0.045) | ND (0.046) | ND (0.036) | ND (0.034) |
| 3&4-Methylphenol | - | - | mg/kg | ND (0.074) | ND (0.096) | ND (0.043) | ND (0.059) | ND (0.054) | ND (0.086) | ND (0.095) | ND (0.064) | ND (0.051) | ND (0.050) | ND (0.064) | ND (0.13) | ND (0.040) | ND (0.035) | ND (0.052) | ND (0.050) | ND (0.058) | ND (0.059) | ND (0.046) | ND (0.044) |
| 2-Nitrophenol | - | - | mg/kg | ND (0.060) | ND (0.077) | ND (0.035) | ND (0.047) | ND (0.043) [a] | ND (0.069) [a] | ND (0.077) | ND (0.051) | ND (0.041) [a] | ND (0.041) [a] | ND (0.052) | ND (0.11) | ND (0.033) | ND (0.028) | ND (0.042) [a] | ND (0.040) [a] | ND (0.046) | ND (0.048) | ND (0.037) | ND (0.035) |
| 4-Nitrophenol | - | - | mg/kg | ND (0.24) | ND (0.31) | ND (0.14) | ND (0.19) | ND (0.17) | ND (0.28) | ND (0.31) [c] | ND (0.21) [a] | ND (0.16) | ND (0.16) | ND (0.21) | ND (0.43) | ND (0.13) | ND (0.11) [c] | ND (0.17) | ND (0.16) | ND (0.19) | ND (0.19) | ND (0.15) | ND (0.14) |
| Pentachlorophenol | 3 | 0.9 | mg/kg | ND (0.085) | ND (0.11) | ND (0.050) | ND (0.067) | ND (0.062) | ND (0.098) | ND (0.11) | ND (0.073) | ND (0.058) | ND (0.058) | ND (0.073) | ND (0.15) | ND (0.046) | ND (0.040) | ND (0.059) | ND (0.057) | ND (0.066) | ND (0.068) | ND (0.052) | ND (0.050) |
| Phenol | 210000 | 18000 | mg/kg | ND (0.047) | ND (0.061) | ND (0.028) | ND (0.037) | ND (0.034) | ND (0.055) | ND (0.061) | ND (0.041) | ND (0.032) | ND (0.032) | ND (0.041) | ND (0.084) | ND (0.026) | ND (0.022) | ND (0.033) | ND (0.032) | ND (0.037) | ND (0.038) | ND (0.029) | ND (0.028) |
| 2,3,4,6-Tetrachlorophenol | - | - | mg/kg | ND (0.060) | ND (0.077) | ND (0.035) | ND (0.047) | ND (0.043) [a] | ND (0.069) [a] | ND (0.077) | ND (0.051) | ND (0.041) [a] | ND (0.041) [a] | ND (0.052) | ND (0.11) | ND (0.033) | ND (0.028) | ND (0.042) [a] | ND (0.040) [a] | ND (0.047) | ND (0.048) | ND (0.037) | ND (0.035) |
| 2,4,5-Trichlorophenol | 68000 | 6100 | mg/kg | ND (0.068) | ND (0.088) | ND (0.040) | ND (0.053) | ND (0.049) [a] | ND (0.078) [a] | ND (0.087) | ND (0.058) | ND (0.046) [a] | ND (0.046) [a] | ND (0.058) | ND (0.12) | ND (0.037) | ND (0.032) | ND (0.047) [a] | ND (0.045) [a] | ND (0.053) | ND (0.054) | ND (0.042) | ND (0.040) |
| 2,4,6-Trichlorophenol | 74 | 19 | mg/kg | ND (0.054) | ND (0.070) | ND (0.032) | ND (0.043) | ND (0.039) | ND (0.062) | ND (0.069) | ND (0.046) | ND (0.037) | ND (0.037) | ND (0.046) | ND (0.096) | ND (0.029) | ND (0.025) | ND (0.038) | ND (0.036) | ND (0.042) | ND (0.043) | ND (0.033) | ND (0.032) |
| Acenaphthene | 37000 | 3400 | mg/kg | ND (0.031) | ND (0.040) | ND (0.018) | ND (0.025) | ND (0.023) | ND (0.036) | ND (0.040) | ND (0.027) | ND (0.021) | ND (0.021) | ND (0.027) | ND (0.055) | ND (0.017) | ND (0.015) | ND (0.022) | ND (0.021) | ND (0.024) | ND (0.025) | ND (0.019) | ND (0.018) |
| Acenaphthylene | 300000 | NA | mg/kg | ND (0.046) | ND (0.059) | ND (0.027) | ND (0.036) | ND (0.033) | ND (0.053) | ND (0.059) | ND (0.039) | ND (0.031) | ND (0.031) | ND (0.040) | ND (0.081) | ND (0.025) | ND (0.021) | ND (0.032) | ND (0.031) | ND (0.036) | 0.0646 J | ND (0.028) | ND (0.027) |
| Acetophenone | 5 | 2 | mg/kg | ND (0.019) | ND (0.025) | 0.0251 J | ND (0.015) | ND (0.014) | ND (0.023) | ND (0.025) | ND (0.017) | ND (0.013) | ND (0.013) | ND (0.017) | ND (0.034) | ND (0.011) | ND (0.0091) | ND (0.014) | ND (0.013) | ND (0.015) | ND (0.016) | ND (0.012) | ND (0.011) |
| Anthracene | 30000 | 17000 | mg/kg | ND (0.055) | ND (0.072) | ND (0.032) | ND (0.044) | ND (0.040) | ND (0.064) | ND (0.071) | 0.0612 J | ND (0.038) | ND (0.038) | ND (0.048) | ND (0.098) | ND (0.030) | ND (0.026) | ND (0.039) | ND (0.037) | ND (0.043) | 0.0708 J | ND (0.034) | ND (0.033) |
| Atrazine | 2400 | 210 | mg/kg | ND (0.039) [a] | ND (0.050) [a] | ND (0.023) | ND (0.031) | ND (0.028) | ND (0.045) | ND (0.050) | ND (0.033) | ND (0.026) | ND (0.026) | ND (0.033) | ND (0.069) | ND (0.021) | ND (0.018) | ND (0.027) | ND (0.026) | ND (0.030) | ND (0.031) | ND (0.024) | ND (0.023) |
| Benzo(a)anthracene | 17 | 5 | mg/kg | ND (0.026) | ND (0.033) | ND (0.015) | ND (0.020) | 0.0871 | ND (0.030) | ND (0.033) | 0.0973 | ND (0.017) | ND (0.017) | 0.0482 J | ND (0.045) | 0.0186 J | ND (0.012) | ND (0.018) | ND (0.017) | 0.0654 J | 0.294 | 0.0230 J | ND (0.015) |
| Benzo(a)pyrene | 2 | 0.5 | mg/kg | ND (0.041) | ND (0.053) | ND (0.024) | ND (0.032) | 0.109 [d] | ND (0.048) [a] | ND (0.053) | 0.0817 | ND (0.028) [a] | ND (0.028) [a] | 0.0489 J | ND (0.073) | ND (0.022) | 0.0241 J | ND (0.029) [a] | ND (0.028) [a] | 0.0661 J | 0.257 | ND (0.025) | ND (0.024) |
| Benzo(b)fluoranthene | 17 | 5 | mg/kg | ND (0.040) | ND (0.052) | ND (0.023) | ND (0.032) | 0.106 | ND (0.046) | ND (0.051) [d] | 0.109 [d] | ND (0.027) | ND (0.027) | 0.0503 J | ND (0.071) | 0.0221 J | 0.0289 J [d] | ND (0.028) | ND (0.027) | 0.0650 J | 0.255 | ND (0.025) | ND (0.024) |
| Benzo(g,h,i)perylene | 30000 | 380000 | mg/kg | ND (0.045) | ND (0.059) | ND (0.026) | ND (0.036) | 0.0715 | ND (0.052) | ND (0.058) | 0.0653 J | ND (0.031) | ND (0.031) | ND (0.039) | ND (0.080) | ND (0.025) | ND (0.021) | ND (0.032) | ND (0.030) | 0.0469 J | 0.137 | ND (0.028) | ND (0.027) |
| Benzo(k)fluoranthene | 170 | 45 | mg/kg | ND (0.042) | ND (0.055) | ND (0.025) | ND (0.033) | 0.0399 J | ND (0.049) | ND (0.054) | ND (0.036) | ND (0.029) | ND (0.029) | ND (0.036) | ND (0.075) | ND (0.023) | ND (0.020) | ND (0.029) | ND (0.028) | 0.0346 J | 0.102 | ND (0.026) | ND (0.025) |
| 4-Bromophenyl phenyl ether | - | - | mg/kg | ND (0.035) [b] | ND (0.045) [b] | ND (0.020) | ND (0.028) [b] | ND (0.025) | ND (0.040) | ND (0.045) | ND (0.030) | ND (0.024) | ND (0.024) | ND (0.030) [b] | ND (0.062) [b] | ND (0.019) [b] | ND (0.016) | ND (0.024) | ND (0.023) | ND (0.027) [b] | ND (0.028) [b] | ND (0.022) [b] | ND (0.021) [b] |
| Butyl benzyl phthalate | 14000 | 1200 | mg/kg | ND (0.022) [e] | ND (0.029) [e] | ND (0.013) | ND (0.017) [e] | ND (0.016) [a] | ND (0.026) [a] | ND (0.028) [c] | ND (0.019) [a] | ND (0.015) [a] | ND (0.015) [a] | ND (0.019) [e] | ND (0.039) [e] | ND (0.012) [e] | ND (0.010) [c] | ND (0.015) [a] | ND (0.015) [a] | ND (0.017) [e] | ND (0.018) [a] | ND (0.014) [e] | ND (0.013) [e] |
| 1,1'-Biphenyl | 240 | 61 | mg/kg | ND (0.012) | ND (0.016) | ND (0.0072) | ND (0.0098) | 0.0093 J | ND (0.014) | 0.0283 J | 0.0137 J | ND (0.0084) | ND (0.0084) | ND (0.011) | ND (0.022) | ND (0.0067) | ND (0.0058) | ND (0.0086) | ND (0.0083) | ND (0.0096) | ND (0.0099) | ND (0.0077) | ND (0.0073) |
| Benzaldehyde | 68000 | 6100 | mg/kg | ND (0.022) | ND (0.029) | ND (0.013) | ND (0.018) | ND (0.016) | ND (0.026) | ND (0.029) | ND (0.019) | ND (0.015) | ND (0.015) | ND (0.019) | ND (0.040) | ND (0.012) | ND (0.010) | ND (0.016) | ND (0.015) | ND (0.017) | ND (0.018) | ND (0.014) | ND (0.013) |
| 2-Chloronaphthalene | - | - | mg/kg | ND (0.022) | ND (0.028) | ND (0.013) | ND (0.017) | ND (0.016) | ND (0.025) | ND (0.028) | ND (0.018) | ND (0.015) | ND (0.015) | ND (0.019) | ND (0.038) | ND (0.012) | ND (0.010) | ND (0.015) | ND (0.014) | ND (0.017) | ND (0.017) | ND (0.013) | ND (0.013) |
| 4-Chloroaniline | - | - | mg/kg | ND (0.033) | ND (0.042) | ND (0.019) | ND (0.026) | ND (0.024) | ND (0.038) | ND (0.042) | ND (0.028) | ND (0.022) | ND (0.022) | ND (0.028) | ND (0.058) | ND (0.018) | ND (0.015) | ND (0.023) | ND (0.022) | ND (0.025) | ND (0.026) | ND (0.020) | ND (0.019) |
| Carbazole | 96 | 24 | mg/kg | ND (0.013) | ND (0.017) | ND (0.0077) | ND (0.010) | ND (0.0095) | ND (0.015) | ND (0.017) | ND (0.011) | ND (0.0089) | ND (0.0089) | ND (0.011) | ND (0.023) | ND (0.0071) | ND (0.0061) | ND (0.0092) | ND (0.0088) | ND (0.010) | ND (0.010) | ND (0.0081) | ND (0.0077) |
| Caprolactam | 340000 | 31000 | mg/kg | ND (0.036) | ND (0.046) | ND (0.021) | ND (0.028) [a] | ND (0.026) | ND (0.041) | ND (0.046) | ND (0.031) | ND (0.024) | ND (0.024) | ND (0.031) [a] | ND (0.063) [a] | ND (0.019) [a] | ND (0.017) | ND (0.025) | ND (0.024) | ND (0.028) [a] | ND (0.029) [a] | ND (0.022) [a] | ND (0.021) [a] |
| Chrysene | 1700 | 450 | mg/kg | ND (0.028) | ND (0.037) | ND (0.017) | ND (0.022) | 0.0805 | ND (0.033) | ND (0.037) | 0.144 | ND (0.019) | ND (0.019) | 0.0409 J | ND (0.051) | 0.0166 J | ND (0.013) | ND (0.020) | ND (0.019) | 0.0628 J | 0.281 | 0.0287 J | ND (0.017) |
| bis(2-Chloroethoxy)methane | - | - | mg/kg | ND (0.019) | ND (0.025) | ND (0.011) | ND (0.015) | ND (0.014) | ND (0.022) | ND (0.025) | ND (0.017) | ND (0.013) | ND (0.013) | ND (0.017) | ND (0.034) | ND (0.011) | ND (0.0090) | ND (0.014) | ND (0.013) | ND (0.015) | ND (0.015) | ND (0.012) | ND (0.011) |
| bis(2-Chloroethyl)ether | 2 | 0.4 | mg/kg | ND (0.039) | ND (0.050) | ND (0.023) | ND (0.031) | ND (0.028) | ND (0.045) | ND (0.050) | ND (0.034) | ND (0.027) | ND (0.026) | ND (0.034) | ND (0.069) | ND (0.021) | ND (0.018) | ND (0.027) | ND (0.026) | ND (0.030) | ND (0.031) | ND (0.024) | ND (0.023) |
| 2,2'-Oxybis(1-chloropropane) | 67 | 23 | mg/kg | ND (0.032) | ND (0.042) | ND (0.019) | ND (0.026) | ND (0.024) | ND (0.038) | ND (0.042) | ND (0.028) | ND (0.022) | ND (0.022) | ND (0.028) | ND (0.058) | ND (0.018) | ND (0.015) | ND (0.023) | ND (0.022) | ND (0.025) | ND (0.026) | ND (0.020) | ND (0.019) |
| 4-Chlorophenyl phenyl ether | - | - | mg/kg | ND (0.029) | ND (0.038) | ND (0.017) | ND (0.023) | ND (0.021) | ND (0.034) | ND (0.038) | ND (0.025) | ND (0.020) | ND (0.020) | ND (0.025) | ND (0.052) | ND (0.016) | ND (0.014) | ND (0.020) | ND (0.020) | ND (0.023) | ND (0.023) | ND (0.018) | ND (0.017) |
| 2,4-Dinitrotoluene | 3 | 0.7 | mg/kg | ND (0.028) | ND (0.036) | ND (0.016) | ND (0.022) | ND (0.020) | ND (0.032) | ND (0.036) | ND (0.024) | ND (0.019) | ND (0.019) | ND (0.024) | ND (0.050) | ND (0.015) | ND (0.013) | ND (0.020) | ND (0.019) | ND (0.022) | ND (0.022) | ND (0.017) | ND (0.017) |
| 2,6-Dinitrotoluene | 3 | 0.7 | mg/kg | ND (0.045) | ND (0.059) | ND (0.027) | ND (0.036) | ND (0.033) | ND (0.053) | ND (0.058) | ND (0.039) | ND (0.031) | ND (0.031) | ND (0.039) | ND (0.080) | ND (0.025) | ND (0.021) | ND (0.032) | ND (0.030) | ND (0.035) | ND (0.036) | ND (0.028) | ND (0.027) |
| 3,3'-Dichlorobenzidine | 4 | 1 | mg/kg | ND (0.075) | ND (0.098) | ND (0.044) | ND (0.060) | ND (0.055) | ND (0.087) | ND (0.097) | ND (0.065) | ND (0.051) | ND (0.051) | ND (0.065) | ND (0.13) | ND (0.041) | ND (0.035) | ND (0.053) | ND (0.051) | ND (0.059) | ND (0.060) | ND (0.047) | ND (0.045) |
| 1,4-Dioxane | - | - | mg/kg | ND (0.060) | ND (0.077) | ND (0.035) | ND (0.047) | ND (0.043) | ND (0.069) | ND (0.077) [c] | ND (0.051) [a] | ND (0.041) | ND (0.041) | ND (0.052) | ND (0.11) | ND (0.033) | ND (0.028) [c] | ND (0.042) | ND (0.040) | ND (0.046) | ND (0.048) | ND (0.037) | ND (0.035) |
| Dibenzo(a,h)anthracene | 2 | 0.5 | mg/kg | ND (0.040) | ND (0.052) | ND (0.023) | ND (0.032) | ND (0.029) [a] | ND (0.046) [a] | ND (0.051) | 0.134 | ND (0.027) [a] | ND (0.027) [a] | ND (0.034) | ND (0.071) | ND (0.022) | ND (0.019) | ND (0.028) [a] | ND (0.027) [a] | ND (0.031) | ND (0.032) | ND (0.025) | ND (0.024) |
| Dibenzofuran | - | - | mg/kg | ND (0.037) | ND (0.048) | ND (0.022) | ND (0.029) | ND (0.027) | ND (0.043) | ND (0.047) | ND (0.032) | ND (0.025) | ND (0.025) | ND (0.032) | ND (0.065) | ND (0.020) | ND (0.017) | ND (0.026) | ND (0.025) | ND (0.029) | ND (0.029) | ND (0.023) | ND (0.022) |
| Di-n-butyl phthalate | 68000 | 6100 | mg/kg | ND (0.015) | ND (0.019) | ND (0.0086) | ND (0.012) | ND (0.011) | ND (0.017) | ND (0.019) | ND (0.013) | ND (0.010) | ND (0.010) | ND (0.013) | ND (0.026) | ND (0.0080) | ND (0.0069) | ND (0.010) | ND (0.0099) | ND (0.011) | ND (0.012) | ND (0.0091) | ND (0.0087) |
| Di-n-octyl phthalate | 27000 | 2400 | mg/kg | ND (0.023) | ND (0.029) | ND (0.013) | ND (0.018) [a] | ND (0.016) [a] | ND (0.026) [a] | ND (0.029) | ND (0.019) | ND (0.015) [a] | ND (0.015) [a] | ND (0.019) [a] | ND (0.040) [a] | ND (0.012) [a] | ND (0.011) | ND (0.016) [a] | ND (0.015) [a] | ND (0.018) [a] | ND (0.018) [a] | ND (0.014) [a] | ND (0.013) [a] |
| Diethyl phthalate | 550000 | 49000 | mg/kg | ND (0.019) | ND (0.025) | 0.0385 J | ND (0.015) | ND (0.014) | ND (0.022) | ND (0.025) | ND (0.017) | ND (0.013) | ND (0.013) | ND (0.017) | ND (0.034) | ND (0.010) | ND (0.0090) | ND (0.013) | ND (0.013) | ND (0.015) | ND (0.015) | ND (0.012) | ND (0.011) |
| Dimethyl phthalate | - | - | mg/kg | ND (0.016) | ND (0.021) | ND (0.0094) | ND (0.013) | ND (0.012) | ND (0.019) | ND (0.021) | ND (0.014) | ND (0.011) | ND (0.011) | ND (0.014) | ND (0.029) | ND (0.0088) | ND (0.0075) | ND (0.011) | ND (0.011) | ND (0.013) | ND (0.013) | ND (0.0099) | ND (0.0095) |
| bis(2-Ethylhexyl)phthalate | 140 | 35 | mg/kg | ND (0.021) [e] | ND (0.027) [e] | ND (0.012) | ND (0.017) [e] | ND (0.015) [a] | ND (0.025) [a] | 0.481 [d] | 0.433 [d] | ND (0.014) [a] | ND (0.014) [a] | ND (0.018) [e] | ND (0.038) [e] | ND (0.012) [e] | 0.141 [d] | ND (0.015) [a] | ND (0.014) [a] | ND (0.016) [e] | ND (0.017) [a] | ND (0.013) [e] | ND (0.012) [e] |
| Fluoranthene | 24000 | 2300 | mg/kg | ND (0.040) | ND (0.052) | ND (0.024) | ND (0.032) | 0.113 | ND (0.047) | ND (0.052) | 0.23 | ND (0.028) | ND (0.027) | 0.0716 J | ND (0.072) | ND (0.022) | ND (0.019) | ND (0.028) | ND (0.027) | 0.127 | 1.02 | ND (0.025) | ND (0.024) |
| Fluorene | 24000 | 2300 | mg/kg | ND (0.042) | ND (0.054) | ND (0.024) | ND (0.033) | ND (0.030) | ND (0.048) | ND (0.053) | ND (0.036) | ND (0.028) | ND (0.028) | ND (0.036) | ND (0.074) | ND (0.023) | ND (0.019) | ND (0.029) | ND (0.028) | ND (0.032) | ND (0.033) | ND (0.026) | ND (0.025) |
| Hexachlorobenzene | 1 | 0.3 | mg/kg | ND (0.023) [b] | ND (0.030) [b] | ND (0.013) | ND (0.018) [b] | ND (0.017) | ND (0.026) | ND (0.029) | ND (0.020) | ND (0.016) | ND (0.016) | ND (0.020) [b] | ND (0.041) [b] | ND (0.012) [b] | ND (0.011) | ND (0.016) | ND (0.015) | ND (0.018) [b] | ND (0.018) [b] | ND (0.014) [b] | ND (0.014) [b] |
| Hexachlorobutadiene | 25 | 6 | mg/kg | ND (0.036) | ND (0.047) | ND (0.021) | ND (0.029) | ND (0.026) | ND (0.042) | ND (0.047) | ND (0.031) | ND (0.025) | ND (0.025) | ND (0.031) | ND (0.064) | ND (0.020) | ND (0.017) | ND (0.025) | ND (0.024) | ND (0.028) | ND (0.029) | ND (0.022) | ND (0.021) |
| Hexachlorocyclopentadiene | 110 | 45 | mg/kg | ND (0.036) | ND (0.047) | ND (0.021) | ND (0.028) | ND (0.026) | ND (0.042) | ND (0.046) | ND (0.031) | ND (0.025) | ND (0.024) | ND (0.031) | ND (0.064) | ND (0.020) | ND (0.017) | ND (0.025) | ND (0.024) | ND (0.028) | ND (0.029) | ND (0.022) | ND (0.021) |
| Hexachloroethane | 48 | 12 | mg/kg | ND (0.045) | ND (0.058) | ND (0.026) | ND (0.035) | ND (0.032) | ND (0.052) | ND (0.057) | ND (0.038) | ND (0.031) | ND (0.030) | ND (0.039) | ND (0.079) | ND (0.024) | ND (0.021) | ND (0.031) | ND (0.030) | ND (0.035) | ND (0.036) | ND (0.028) | ND (0.026) |
| Indeno(1,2,3-cd)pyrene | 17 | 5 | mg/kg | ND (0.042) | ND (0.055) | ND (0.025) | ND (0.033) | 0.0499 J [d] | ND (0.049) [a] | ND (0.054) | 0.196 | ND (0.029) [a] | ND (0.029) [a] | 0.0984 | ND (0.075) | ND (0.023) | ND (0.020) | ND (0.030) [a] | ND (0.028) [a] | 0.0985 | 0.189 | ND (0.026) | ND (0.025) |
| Isophorone | 2000 | 510 | mg/kg | ND (0.019) | ND (0.025) | ND (0.011) | ND (0.015) | ND (0.014) | ND (0.022) | ND (0.025) | ND (0.017) | ND (0.013) | ND (0.013) | ND (0.017) | ND (0.034) | ND (0.011) | ND (0.0090) | ND (0.014) | ND (0.013) | ND (0.015) | ND (0.015) | ND (0.012) | ND (0.011) |
| 2-Methylnaphthalene | 2400 | 230 | mg/kg | ND (0.020) | ND (0.026) | 0.0190 J | ND (0.016) | ND (0.015) | ND (0.024) | 0.0856 J | 0.0266 J | ND (0.014) | ND (0.014) | ND (0.018) | ND (0.036) | ND (0.011) | ND (0.0095) | ND (0.014) | ND (0.014) | ND (0.016) | ND (0.016) | ND (0.013) | ND (0.012) |
| 2-Nitroaniline | 23000 | 39 | mg/kg | ND (0.021) | ND (0.028) | ND (0.012) [a] | ND (0.017) | ND (0.015) [a] | ND (0.025) [a] | ND (0.027) [c] | ND (0.018) [a] | ND (0.015) [a] | ND (0.014) [a] | ND (0.018) | ND (0.038) | ND (0.012) | ND (0.010) [c] | ND (0.015) [a] | ND (0.014) [a] | ND (0.017) | ND (0.017) | ND (0.013) | ND (0.013) |
| 3-Nitroaniline | - | - | mg/kg | ND (0.023) | ND (0.029) | ND (0.013) | ND (0.018) | ND (0.016) | ND (0.026) | ND (0.029) | ND (0.019) | ND (0.015) | ND (0.015) | ND (0.019) | ND (0.040) | ND (0.012) | ND (0.011) | ND (0.016) | ND (0.015) | ND (0.018) | ND (0.018) | ND (0.014) | ND (0.013) |
| 4-Nitroaniline | - | - | mg/kg | ND (0.023) | ND (0.030) | ND (0.014) | ND (0.018) | ND (0.017) | ND (0.027) | ND (0.030) | ND (0.020) | ND (0.016) | ND (0.016) | ND (0.020) | ND (0.042) | ND (0.013) | ND (0.011) | ND (0.016) | ND (0.016) | ND (0.018) | ND (0.019) | ND (0.014) | ND (0.014) |
| Naphthalene | 17 | 6 | mg/kg | ND (0.026) | ND (0.033) | 0.0169 J | ND (0.020) | ND (0.018) | ND (0.030) | 0.0736 J | 0.0353 J | ND (0.017) | ND (0.017) | ND (0.022) | ND (0.045) | ND (0.014) | ND (0.012) | ND (0.018) | ND (0.017) | ND (0.020) | 0.0300 J | ND (0.016) | ND (0.015) |
| Nitrobenzene | 14 | 5 | mg/kg | ND (0.035) | ND (0.045) | ND (0.020) | ND (0.028) | ND (0.025) | ND (0.040) | ND (0.045) | ND (0.030) | ND (0.024) | ND (0.024) | ND (0.030) | ND (0.062) | ND (0.019) | ND (0.016) | ND (0.024) | ND (0.023) | ND (0.027) | ND (0.028) | ND (0.022) | ND (0.021) |
| N-Nitroso-di-n-propylamine | 0.3 | 0.2 | mg/kg | ND (0.026) | ND (0.034) | ND (0.015) | ND (0.021) | ND (0.019) | ND (0.030) | ND (0.034) | ND (0.022) | ND (0.018) | ND (0.018) | ND (0.023) | ND (0.046) | ND (0.014) | ND (0.012) | ND (0.018) | ND (0.018) | ND (0.020) | ND (0.021) | ND (0.016) | ND (0.015) |
| N-Nitrosodiphenylamine | 390 | 99 | mg/kg | ND (0.033) | ND (0.043) | ND (0.019) | ND (0.026) | ND (0.024) | ND (0.038) | ND (0.042) | ND (0.028) | ND (0.023) | ND (0.022) | ND (0.029) | ND (0.059) | ND (0.018) | ND (0.015) | ND (0.023) | ND (0.022) | ND (0.026) | ND (0.026) | ND (0.020) | ND (0.020) |
| Phenanthrene | 300000 | NA | mg/kg | ND (0.030) | ND (0.039) | ND (0.018) | ND (0.024) | 0.0402 J | ND (0.035) | 0.0546 J | 0.0617 J | ND (0.021) | ND (0.021) | ND (0.026) | ND (0.054) | ND (0.017) | ND (0.014) | ND (0.021) | ND (0.020) | ND (0.024) | 0.0473 J | ND (0.019) | ND (0.018) |
| Pyrene | 18000 | 1700 | mg/kg | ND (0.029) | ND (0.037) | ND (0.017) | ND (0.023) | 0.136 | ND (0.034) | 0.0430 J | 0.282 | ND (0.020) | ND (0.020) | 0.117 | ND (0.051) | 0.0408 J | 0.0791 | ND (0.020) | ND (0.019) | 0.177 | 0.876 | 0.0383 J | ND (0.017) |
| 1,2,4,5-Tetrachlorobenzene | - | - | mg/kg | ND (0.023) | ND (0.030) | ND (0.013) | ND (0.018) [b] | ND (0.017) | ND (0.027) | ND (0.029) | ND (0.020) | ND (0.016) | ND (0.016) | ND (0.020) [b] | ND (0.041) [b] | ND (0.012) [b] | ND (0.011) | ND (0.016) | ND (0.015) | ND (0.018) [b] | ND (0.018) [b] | ND (0.014) [b] | ND (0.014) [b] |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | - | - | mg/kg | 0.47 J | 2.14 J | 1.27 J | 3.9 J | 0.38 J | 0.67 J | 10.39 J | 2.18 J | 0.55 J | 0.85 J | 0 | 0 | 0.41 J | 4.45 J | 0.29 J | 0.25 J | 0.3 J | 0.4 J | 0.4 J | 10.04 J |
| **GC/LC Semi-volatiles (NJDEP EPH)** | | | | | | | | | | | | | | | | | | | | | | | |
| C10-C12 Aromatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | ND (5.7) | ND (4.7) | ND (8.1) | ND (8.8) | ND (6.2) | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | ND (3.8) | ND (3.4) | ND (5.0) | ND (5.0) | ND (5.4) | ND (5.6) | ND (4.2) | ND (4.2) |
| C12-C16 Aromatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | ND (5.7) | ND (4.7) | ND (8.1) | ND (8.8) | ND (6.2) | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | ND (3.8) | ND (3.4) | ND (5.0) | ND (5.0) | ND (5.4) | ND (5.6) | ND (4.2) | ND (4.2) |
| C16-C21 Aromatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | ND (5.7) | ND (4.7) | ND (8.1) | 114 | ND (6.2) | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | ND (3.8) | 12 | ND (5.0) | ND (5.0) | 58.4 | 38.7 | ND (4.2) | ND (4.2) |
| C21-C36 Aromatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | ND (5.7) | ND (4.7) | ND (8.1) | 115 | ND (6.2) | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | ND (3.8) | 29.5 | ND (5.0) | ND (5.0) | 113 | 63.5 | ND (4.2) | ND (4.2) |
| Total Aromatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | ND (5.7) | ND (4.7) | ND (8.1) | 229 | ND (6.2) | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | ND (3.8) | 41.5 | ND (5.0) | ND (5.0) | 171 | 102 | ND (4.2) | ND (4.2) |
| C9-C12 Aliphatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | ND (5.7) | ND (4.7) | ND (8.1) | 28.9 | ND (6.2) | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | ND (3.8) | ND (3.4) | ND (5.0) | ND (5.0) | 13.1 | 19.9 | ND (4.2) | ND (4.2) |
| C12-C16 Aliphatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | ND (5.7) | ND (4.7) | ND (8.1) | 184 | 26.7 | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | ND (3.8) | 13.5 | ND (5.0) | ND (5.0) | 58.5 | 78.8 | ND (4.2) | ND (4.2) |
| C16-C21 Aliphatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | 12.8 | ND (4.7) | ND (8.1) | 262 | 43 | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | 16.4 | 26.7 | ND (5.0) | ND (5.0) | 133 | 95 | 11.5 | 13.2 |
| C21-C40 Aliphatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | ND (5.7) | ND (4.7) | ND (8.1) | 353 | 60.2 | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | 41.1 | 62.3 | ND (5.0) | ND (5.0) | 247 | 167 | 30.3 | 27.3 |
| Total Aliphatics | - | - | mg/kg | ND (7.4) | ND (8.7) | ND (3.8) | 12.8 | ND (4.7) | ND (8.1) | 828 | 130 | ND (5.1) | ND (5.0) | ND (6.3) | ND (13) | 57.6 | 102 | ND (5.0) | ND (5.0) | 452 | 361 | 41.8 | 40.5 |
| Total EPH | - | - | mg/kg | ND (15) | ND (17) | ND (7.5) | 12.8 | ND (9.4) | ND (16) | 1060 | 130 | ND (10) | ND (9.9) | ND (13) | ND (26) | 57.6 | 144 | ND (9.9) | ND (10) | 623 | 463 | 41.8 | 40.5 |

Table 5d
Smith Creek and Smith Creek Pond Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil | | SS-25B | SS-25C | SS-26B | SS-26C | SS-27B | SS-28C | SS-29B | SS-29C | SS-30B | SS-30C | SS-31B | SS-31C | SS-32B | SS-32C | SS-33B | SS-33C | SS-34B | SS-34C | SS-35B | SS-35C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Depth | | | | 2.0-2.5 | 3.5-4.0 | 2.0-2.5 | 3.5-4.0 | 2.5-3.0 | 4.5-5.0 | 2.0-2.5 | 3.5-4.0 | 2.0-2.5 | 3.5-4.0 | 2.5-3.0 | 5.0-5.5 | 2.5-3.0 | 4.5-5.0 | 1.0-1.5 | 1.5-2.0 | 2.5-3.0 | 4.5-5.0 | 2.0-2.5 | 3.5-4.0 |
| Date Sampled: | | | | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/21/2019 | 2/21/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 | 2/22/2019 |
| Matrix: | | | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | NA | 78000 | mg/kg | 28700 | 35300 | 24300 | 27800 | 15000 | 17800 | 31100 | 29700 | 29700 | 34300 | 32900 | 31900 | 22100 | 19000 | 5980 | 5390 | 30900 | 26300 | 30100 | 33300 |
| Antimony | 450 | 31 | mg/kg | <5.6 | <7.0 | <3.2 | <4.4 | <3.8 | <6.4 | <7.2 | <4.9 | <4.0 | <3.8 | <4.6 | <11 | <3.0 | 2.7 | <3.7 | <3.7 | <4.6 | 5.8 | <3.4 | <3.3 |
| Arsenic | 19 | 19 | mg/kg | 8.3 | 18.2 | 34.7 [f] | 36.2 [f] | 86.5 | 12.3 | 64.4 | 123 [f] | 17.9 | 11.1 | 28.8 | 30.8 | 22.1 | 12.9 | 11.7 | 11.1 | 139 | 175 [f] | 92.7 [f] | 96.6 [f] |
| Barium | 59000 | 16000 | mg/kg | 60.9 | <70 | 276 | 375 | 107 | 65.5 | 558 | 554 | 70.9 | 68.7 | 72.1 | <110 | 36.6 | 34.7 | 67.5 | 59.8 | 315 | 352 | 538 | 811 |
| Beryllium | 140 | 16 | mg/kg | 1.1 | 1.5 | 2.7 | 2.3 | 1.6 | 1.6 | 3.2 | 3.2 | 1.6 | 1.5 | 1.1 | <1.1 | 0.5 | 0.48 | 1.5 | 1.3 | 1.3 | 1.6 | 3.4 | 3.3 |
| Cadmium | 78 | 78 | mg/kg | <1.4 | <1.7 | <0.81 | <1.1 | <1.9 [g] | <1.6 | 4.6 | 3.7 | <2.0 [g] | <1.9 [g] | <1.1 | <2.6 | 3.1 | 2.1 | <1.8 [g] | <1.9 [g] | 5 | 2.7 | <0.84 | <0.82 |
| Calcium | - | - | mg/kg | 2560 | 4110 | 5310 | 9340 | 2390 | 2740 | 7320 | 7780 | 3980 | 7350 | 2080 | 4320 | <760 | <650 | 2070 | 2360 | 2890 | 3580 | 14700 | 17200 |
| Chromium | - | - | mg/kg | 46.3 | 53.2 | 33.1 | 43.1 [f] | 91.1 | 52.8 | 276 | 514 [f] | 49.6 | 48.9 | 50.1 | 48.3 | 30.6 | 28.3 | 47.3 | 44.8 | 177 | 117 | 75.5 [f] | 72.4 [f] |
| Cobalt | 590 | 1600 | mg/kg | <14 | <17 | 11.8 | <11 | 14.7 | <16 | <18 | 18.3 | 15.1 | 13.6 | 11.4 | <26 | <7.6 | 7.1 | 13.7 | 12.1 | 13.1 | 16.4 | 19.9 | 13.5 |
| Copper | 45000 | 3100 | mg/kg | 15 | 28.5 | 37.2 [f] | 31.4 [f] | 175 [g] | 17.1 | 442 | 283 [f] | 25.5 [g] | 23.2 [g] | 71.2 | 92.1 | 123 | 169 | 29.0 [g] | 21.4 [g] | 586 | 1100 [f] | 69.7 [f] | 61.5 [f] |
| Iron | - | - | mg/kg | 24400 | 38600 | 37800 | 51300 | 45000 | 42000 | 71400 | 66100 | 53700 | 45300 | 34000 | 35100 | 26600 | 13800 | 42100 | 42800 | 44400 | 53800 | 87500 | 80600 |
| Lead | 800 | 400 | mg/kg | 18.2 | 31 | 23.5 [f] | 22.0 [f] | 226 [g] | 18.7 | 297 | 179 [f] | 36.1 [g] | 26.7 [g] | 61.4 | 72.1 | 67.1 | 89.5 | 66.5 [g] | 22.4 [g] | 370 | 527 [f] | 40.7 [f] | 40.4 [f] |
| Magnesium | - | - | mg/kg | 7060 | 9010 | 2770 | 6450 | 8710 | 9450 | 7220 | 6680 | 9860 | 9620 | 6480 | 5680 | 1540 | 1250 | 9140 | 8810 | 7230 | 9460 | 5870 | 6560 |
| Manganese | 5900 | 11000 | mg/kg | 192 | 280 | 67.3 [f] | 120 [f] | 363 [g] | 336 | 198 | 305 [f] | 1220 [g] | 677 [g] | 203 | 147 | 76.9 | 54.4 | 434 [g] | 453 [g] | 311 | 388 [f] | 209 [f] | 237 [f] |
| Mercury | 65 | 23 | mg/kg | <0.069 | <0.087 | 0.099 | 0.4 | 2.6 | <0.073 | 3 | 3.5 | 0.065 | 0.058 | 1.5 | 1.1 | 0.49 | 0.17 | 0.089 | <0.044 | 11.4 | 3.5 | 1.5 | 1.4 |
| Nickel | 23000 | 1600 | mg/kg | 25.8 | 40.5 | 38.7 | 36.8 | 55.3 | 33 | 103 | 68.4 | 39.1 | 37.3 | 35.1 | 32.2 | 25.7 | 26 | 36.6 | 33.3 | 59 | 105 | 78.9 | 47.3 |
| Potassium | - | - | mg/kg | 6180 | 6920 | 1690 | <2200 | 5470 | 6800 | <3600 | 4110 | 6300 | 6360 | 4630 | <5300 | <1500 | <1300 | 5850 | 5500 | 4120 | 5230 | 2810 | 2880 |
| Selenium | 5700 | 390 | mg/kg | <5.6 | <7.0 | <8.5 [f] | <8.8 [f] | <7.6 [g] | <6.4 | <7.2 | <9.7 [g] | <8.0 [g] | <7.7 [g] | <4.6 | <11 | <3.0 | <2.6 | <7.3 [g] | <7.4 [g] | 9.8 | 28.6 [f] | <17 [f] | <9.8 [f] |
| Silver | 5700 | 390 | mg/kg | <1.4 | <1.7 | <1.6 [f] | <2.2 [f] | <1.9 [g] | <1.6 | 5.2 | <2.4 [f] | <2.0 [g] | <1.9 [g] | <1.1 | <2.6 | 1.1 | 0.73 | <1.8 [g] | <1.9 [g] | 5.4 | 3.4 [f] | <4.2 [f] | <2.5 [f] |
| Sodium | - | - | mg/kg | 10200 | 13500 | 4810 | 7170 | 6710 | 10900 | 18100 | 10300 | 7670 | 9160 | 7120 | 17900 | 2920 | 2190 | 7180 | 7070 | 5400 | 7100 | 1890 | 2740 |
| Thallium | - | - | mg/kg | <2.8 | <3.5 | <3.2 [f] | <4.4 [f] | <3.8 [g] | <3.2 | <7.2 [f] | <4.9 [f] | <4.0 [g] | <3.8 [g] | <2.3 | <5.3 | <1.5 | <1.3 | <3.7 [g] | <3.7 [g] | <4.6 [f] | <4.6 [f] | <8.4 [f] | <4.9 [f] |
| Vanadium | 1100 | 78 | mg/kg | 62.3 | 75.6 | 143 | 144 | 105 | 64.9 | 428 | 221 | 66.3 | 65.5 | 59 | 71.2 | 51.5 | 49.2 | 61.6 | 57.5 | 113 | 58.1 | 517 | 177 |
| Zinc | 110000 | 23000 | mg/kg | 54.7 | 98.9 | 45.5 | 47.9 | 268 | 86.6 | 467 | 357 | 103 | 105 | 130 | 141 | 230 | 310 | 108 | 92.3 | 542 | 591 | 101 | 98.4 |

Table 6a(R)
Detention Basin Surface Water Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | | NJDEP Ecological Surface Water-Freshwater Chronic Screening Criterion | SS-1B | SS-1M | SS-1T | SS-2B | SS-2M | SS-2T | SS-3B | SS-3M | SS-3T | SS-4B | SS-4M | SS-4T | SS-5B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC77633-3 | JC77633-4 | JC77633-5 | JC77633-6 | JC77633-7 | JC77633-8 | JC77633-9 | JC77633-10 | JC77633-11 | JC77633-12 | JC77633-13 | JC77633-14 | JC77633-15 |
| Date Sampled: | | | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 |
| Matrix: | | | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | |
| Acetone | ug/l | NC | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) |
| Benzene | ug/l | 114 [8] 824 [16] | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Bromochloromethane | ug/l | NC | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| Bromodichloromethane | ug/l | NC | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) |
| Bromoform | ug/l | 230 [8] | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) |
| Bromomethane | ug/l | NC | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) |
| 2-Butanone (MEK) | ug/l | NC | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) |
| Carbon disulfide | ug/l | NC | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) |
| Carbon tetrachloride | ug/l | 240 [8] | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) |
| Chlorobenzene | ug/l | 47 [8] | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| Chloroethane | ug/l | NC | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) |
| Chloroform | ug/l | 140 [8] | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| Chloromethane | ug/l | NC | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) |
| Cyclohexane | ug/l | NC | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] | ND (0.78) [a] |
| 1,2-Dibromo-3-chloropropane | ug/l | NC | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) |
| Dibromochloromethane | ug/l | NC | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| 1,2-Dibromoethane | ug/l | NC | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| 1,2-Dichlorobenzene | ug/l | 14 [8] | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,3-Dichlorobenzene | ug/l | 38 [8] | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,4-Dichlorobenzene | ug/l | 9.4 [8] | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| Dichlorodifluoromethane | ug/l | NC | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| 1,1-Dichloroethane | ug/l | NC | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) |
| 1,2-Dichloroethane | ug/l | 910 [8] | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| 1,1-Dichloroethene | ug/l | NC | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| cis-1,2-Dichloroethene | ug/l | NC | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| trans-1,2-Dichloroethene | ug/l | NC | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,2-Dichloropropane | ug/l | 360 [8] | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| cis-1,3-Dichloropropene | ug/l | NC | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) |
| trans-1,3-Dichloropropene | ug/l | NC | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Ethylbenzene | ug/l | 14 [8] 81 [16] | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Freon 113 | ug/l | NC | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| 2-Hexanone | ug/l | NC | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Isopropylbenzene | ug/l | NC | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Methyl Acetate | ug/l | NC | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) |
| Methylcyclohexane | ug/l | NC | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Methyl Tert Butyl Ether | ug/l | 51,450 [16] 51,000 [17] | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| 4-Methyl-2-pentanone(MIBK) | ug/l | NC | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| Methylene chloride | ug/l | 940 [8] | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) |
| Styrene | ug/l | 32 [8] | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) |
| 1,1,2,2-Tetrachloroethane | ug/l | 380 [8] | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Tetrachloroethene | ug/l | NC | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) |
| Toluene | ug/l | 253 [8] 822 [16] | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,2,3-Trichlorobenzene | ug/l | NC | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,2,4-Trichlorobenzene | ug/l | 30 [8] | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,1,1-Trichloroethane | ug/l | 76 [8] | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,1,2-Trichloroethane | ug/l | 500 [8] | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichloroethene | ug/l | NC | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichlorofluoromethane | ug/l | NC | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) |
| Vinyl chloride | ug/l | 930 [8] | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) |
| m,p-Xylene | ug/l | NC | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| o-Xylene | ug/l | NC | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| Xylene (total) | ug/l | 27 296 [16] | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| **MS Volatile TIC** | | | | | | | | | | | | | | | |
| Total TIC, Volatile | ug/l | NC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Alkanes | ug/l | NC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Client Sample ID: | SS-5M | SS-5T | SS-6B | SS-6M | SS-6T | SS-7B | SS-7M | SS-7T | SS-8B | SS-8M | SS-8T | SS-9B | SS-9M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | JC77633-16 | JC77633-17 | JC77633-18 | JC77633-19 | JC77633-20 | JC77633-21 | JC77633-22 | JC77633-23 | JC77633-24 | JC77633-25 | JC77633-26 | JC77633-27 | JC77633-28 |
| Date Sampled: | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 |
| Matrix: | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | |
| Acetone | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] |
| Benzene | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Bromochloromethane | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| Bromodichloromethane | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) |
| Bromoform | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) |
| Bromomethane | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) |
| 2-Butanone (MEK) | ND (6.9) [a] | ND (6.9) [a] | ND (6.9) [a] | ND (6.9) [a] | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) |
| Carbon disulfide | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) |
| Carbon tetrachloride | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) |
| Chlorobenzene | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| Chloroethane | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) |
| Chloroform | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| Chloromethane | ND (0.76) [b] | ND (0.76) [b] | ND (0.76) [b] | ND (0.76) [b] | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) |
| Cyclohexane | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| 1,2-Dibromo-3-chloropropane | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) |
| Dibromochloromethane | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| 1,2-Dibromoethane | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| 1,2-Dichlorobenzene | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,3-Dichlorobenzene | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,4-Dichlorobenzene | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| Dichlorodifluoromethane | ND (1.4) [b] | ND (1.4) [b] | ND (1.4) [b] | ND (1.4) [b] | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| 1,1-Dichloroethane | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) |
| 1,2-Dichloroethane | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| 1,1-Dichloroethene | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| cis-1,2-Dichloroethene | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| trans-1,2-Dichloroethene | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,2-Dichloropropane | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| cis-1,3-Dichloropropene | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) |
| trans-1,3-Dichloropropene | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Ethylbenzene | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Freon 113 | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| 2-Hexanone | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Isopropylbenzene | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Methyl Acetate | ND (0.80) [a] | ND (0.80) [a] | ND (0.80) [a] | ND (0.80) [a] | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) |
| Methylcyclohexane | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Methyl Tert Butyl Ether | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| 4-Methyl-2-pentanone(MIBK) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| Methylene chloride | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) |
| Styrene | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) |
| 1,1,2,2-Tetrachloroethane | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Tetrachloroethene | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) |
| Toluene | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,2,3-Trichlorobenzene | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,2,4-Trichlorobenzene | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,1,1-Trichloroethane | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,1,2-Trichloroethane | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichloroethene | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichlorofluoromethane | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) |
| Vinyl chloride | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) |
| m,p-Xylene | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| o-Xylene | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| Xylene (total) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| **MS Volatile TIC** | | | | | | | | | | | | | |
| Total TIC, Volatile | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Alkanes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Client Sample ID: | SS-9T | SS-10B | SS-10M | SS-10T | SS-11B | SS-11M | SS-11T | SS-12B | SS-12M | SS-12T |
|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | JC77633-29 | JC77633-30 | JC77633-31 | JC77633-32 | JC77633-33 | JC77633-34 | JC77633-35 | JC77633-36 | JC77633-37 | JC77633-38 |
| Date Sampled: | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 |
| Matrix: | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | |
| Acetone | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] | ND (6.0) [a] |
| Benzene | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Bromochloromethane | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| Bromodichloromethane | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) |
| Bromoform | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) |
| Bromomethane | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) |
| 2-Butanone (MEK) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) [a] | ND (6.9) [a] | ND (6.9) [a] | ND (6.9) [a] | ND (6.9) [a] |
| Carbon disulfide | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) |
| Carbon tetrachloride | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) |
| Chlorobenzene | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| Chloroethane | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) |
| Chloroform | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| Chloromethane | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) [b] | ND (0.76) [b] | ND (0.76) [b] | ND (0.76) [b] | ND (0.76) [b] |
| Cyclohexane | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| 1,2-Dibromo-3-chloropropane | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) |
| Dibromochloromethane | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| 1,2-Dibromoethane | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| 1,2-Dichlorobenzene | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,3-Dichlorobenzene | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,4-Dichlorobenzene | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| Dichlorodifluoromethane | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) [b] | ND (1.4) [b] | ND (1.4) [b] | ND (1.4) [b] | ND (1.4) [b] |
| 1,1-Dichloroethane | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) |
| 1,2-Dichloroethane | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| 1,1-Dichloroethene | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| cis-1,2-Dichloroethene | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| trans-1,2-Dichloroethene | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,2-Dichloropropane | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| cis-1,3-Dichloropropene | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) |
| trans-1,3-Dichloropropene | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Ethylbenzene | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Freon 113 | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| 2-Hexanone | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Isopropylbenzene | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Methyl Acetate | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) [a] | ND (0.80) [a] | ND (0.80) [a] | ND (0.80) [a] | ND (0.80) [a] |
| Methylcyclohexane | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Methyl Tert Butyl Ether | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| 4-Methyl-2-pentanone(MIBK) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| Methylene chloride | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) |
| Styrene | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) |
| 1,1,2,2-Tetrachloroethane | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Tetrachloroethene | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) |
| Toluene | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,2,3-Trichlorobenzene | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,2,4-Trichlorobenzene | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,1,1-Trichloroethane | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,1,2-Trichloroethane | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichloroethene | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichlorofluoromethane | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) |
| Vinyl chloride | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) |
| m,p-Xylene | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| o-Xylene | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| Xylene (total) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| **MS Volatile TIC** | | | | | | | | | | |
| Total TIC, Volatile | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Alkanes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 6a(R)
Detention Basin Surface Water Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | | NJDEP Ecological Surface Water-Freshwater Chronic Screening Criterion | SS-1B | SS-1M | SS-1T | SS-2B | SS-2M | SS-2T | SS-3B | SS-3M | SS-3T | SS-4B | SS-4M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC77633-3 | JC77633-4 | JC77633-5 | JC77633-6 | JC77633-7 | JC77633-8 | JC77633-9 | JC77633-10 | JC77633-11 | JC77633-12 | JC77633-13 |
| Date Sampled: | | | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 |
| Matrix: | | | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | |
| 2-Chlorophenol | ug/l | 24[8] | ND (0.80) | ND (0.78) | ND (0.82) | ND (0.82) | ND (0.85) | ND (0.87) | ND (0.78) | ND (0.82) | ND (0.78) | ND (0.78) | ND (0.82) |
| 4-Chloro-3-methyl phenol | ug/l | NC | ND (0.87) | ND (0.85) | ND (0.89) | ND (0.89) | ND (0.93) | ND (0.95) | ND (0.85) | ND (0.89) | ND (0.85) | ND (0.85) | ND (0.89) |
| 2,4-Dichlorophenol | ug/l | 11[8] | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.4) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.3) |
| 2,4-Dimethylphenol | ug/l | 100[8] | ND (2.4) | ND (2.3) | ND (2.4) | ND (2.4) | ND (2.5) | ND (2.6) | ND (2.3) | ND (2.4) | ND (2.3) | ND (2.3) | ND (2.4) |
| 2,4-Dinitrophenol | ug/l | 19[8] | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.5) | ND (1.6) | ND (1.5) | ND (1.5) | ND (1.6) |
| 4,6-Dinitro-o-cresol | ug/l | NC | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.4) | ND (1.4) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.3) |
| 2-Methylphenol | ug/l | NC | ND (0.87) | ND (0.85) | ND (0.89) | ND (0.89) | ND (0.93) | ND (0.94) | ND (0.85) | ND (0.89) | ND (0.85) | ND (0.85) | ND (0.89) |
| 3&4-Methylphenol | ug/l | NC | ND (0.86) | ND (0.84) | ND (0.88) | ND (0.88) | ND (0.92) | ND (0.94) | ND (0.84) | ND (0.88) | ND (0.84) | ND (0.84) | ND (0.88) |
| 2-Nitrophenol | ug/l | NC | ND (0.94) | ND (0.91) | ND (0.96) | ND (0.96) | ND (1.0) | ND (1.0) | ND (0.91) | ND (0.96) | ND (0.91) | ND (0.91) | ND (0.96) |
| 4-Nitrophenol | ug/l | 60[8] | ND (1.1) [a] | ND (1.1) [a] | ND (1.2) [a] | ND (1.2) [a] | ND (1.2) [a] | ND (1.2) [a] | ND (1.1) | ND (1.2) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.2) [a] |
| Pentachlorophenol | ug/l | NC | ND (1.4) [a] | ND (1.3) [a] | ND (1.4) [a] | ND (1.4) [a] | ND (1.4) [a] | ND (1.5) [a] | ND (1.3) | ND (1.4) [a] | ND (1.3) [a] | ND (1.3) [a] | ND (1.4) [a] |
| Phenol | ug/l | 180[8] | ND (0.38) | ND (0.37) | ND (0.39) | ND (0.39) | ND (0.41) | ND (0.42) | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.39) |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | |
| 2,3,4,6-Tetrachlorophenol | ug/l | NC | ND (1.4) | ND (1.4) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.4) | ND (1.5) | ND (1.4) | ND (1.4) | ND (1.5) |
| 2,4,5-Trichlorophenol | ug/l | NC | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.4) | ND (1.4) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2,4,6-Trichlorophenol | ug/l | 4.9[8] | ND (0.91) | ND (0.88) | ND (0.92) | ND (0.92) | ND (0.96) | ND (0.98) | ND (0.88) | ND (0.92) | ND (0.88) | ND (0.88) | ND (0.92) |
| Acenaphthene | ug/l | 38[8] | ND (0.19) | ND (0.18) | ND (0.19) | ND (0.19) | ND (0.20) | ND (0.20) | ND (0.18) | ND (0.19) | ND (0.18) | ND (0.18) | ND (0.19) |
| Acenaphthylene | ug/l | 4840[8] | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.14) | ND (0.14) | ND (0.14) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.13) | ND (0.14) |
| Acetophenone | ug/l | NC | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) |
| Anthracene | ug/l | 0.035[8] | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) |
| Atrazine | ug/l | NC | ND (0.44) | ND (0.43) | ND (0.45) | ND (0.45) | ND (0.47) | ND (0.48) | ND (0.43) | ND (0.45) | ND (0.43) | ND (0.43) | ND (0.45) |
| Benzaldehyde | ug/l | NC | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.30) | ND (0.31) | ND (0.28) | ND (0.29) | ND (0.28) | ND (0.28) | ND (0.29) |
| Benzo(a)anthracene | ug/l | NC | ND (0.20) | ND (0.19) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.22) | ND (0.19) | ND (0.20) | ND (0.19) | ND (0.19) | ND (0.20) |
| Benzo(a)pyrene | ug/l | 0.014[8] | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.23) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) |
| Benzo(b)fluoranthene | ug/l | 9.07[8] | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) |
| Benzo(g,h,i)perylene | ug/l | 7.64[8] | ND (0.33) | ND (0.32) | ND (0.34) | ND (0.34) | ND (0.36) | ND (0.36) | ND (0.32) [b] | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.34) |
| Benzo(k)fluoranthene | ug/l | NC | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) |
| 4-Bromophenyl phenyl ether | ug/l | NC | ND (0.40) | ND (0.38) | ND (0.40) | ND (0.40) | ND (0.42) | ND (0.43) | ND (0.38) | ND (0.40) | ND (0.38) | ND (0.38) | ND (0.40) |
| Butyl benzyl phthalate | ug/l | 23[8] | ND (0.45) | ND (0.44) | ND (0.46) | ND (0.46) | ND (0.48) | ND (0.49) | ND (0.44) | ND (0.46) | ND (0.44) | ND (0.44) | ND (0.46) |
| 1,1'-Biphenyl | ug/l | NC | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.23) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) |
| 2-Chloronaphthalene | ug/l | 0.396[8] | ND (0.23) | ND (0.22) | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.22) | ND (0.24) | ND (0.22) | ND (0.22) | ND (0.24) |
| 4-Chloroaniline | ug/l | NC | ND (0.33) | ND (0.32) | ND (0.34) | ND (0.34) | ND (0.35) | ND (0.36) | ND (0.32) | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.34) |
| Carbazole | ug/l | NC | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.24) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) |
| Caprolactam | ug/l | NC | ND (0.64) | ND (0.62) | ND (0.65) | ND (0.65) | ND (0.68) | ND (0.69) | ND (0.62) | ND (0.65) | ND (0.62) | ND (0.62) | ND (0.65) |
| Chrysene | ug/l | NC | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.18) |
| bis(2-Chloroethoxy)methane | ug/l | NC | ND (0.27) | ND (0.26) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.30) | ND (0.26) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.28) |
| bis(2-Chloroethyl)ether | ug/l | 1900[8] | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.26) | ND (0.26) | ND (0.24) | ND (0.25) | ND (0.24) | ND (0.24) | ND (0.25) |
| 2,2'-Oxybis(1-chloropropane) | ug/l | NC | ND (0.40) | ND (0.38) | ND (0.40) | ND (0.40) | ND (0.42) | ND (0.43) | ND (0.38) | ND (0.40) | ND (0.38) | ND (0.38) | ND (0.40) |
| 4-Chlorophenyl phenyl ether | ug/l | NC | ND (0.36) | ND (0.35) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.39) | ND (0.35) | ND (0.37) | ND (0.35) | ND (0.35) | ND (0.37) |
| 2,4-Dinitrotoluene | ug/l | 44[8] | ND (0.54) | ND (0.53) | ND (0.55) | ND (0.55) | ND (0.58) | ND (0.59) | ND (0.53) | ND (0.55) | ND (0.53) | ND (0.53) | ND (0.55) |
| 2,6-Dinitrotoluene | ug/l | NC | ND (0.47) | ND (0.45) | ND (0.48) | ND (0.48) | ND (0.50) | ND (0.51) | ND (0.45) | ND (0.48) | ND (0.45) | ND (0.45) | ND (0.48) |
| 3,3'-Dichlorobenzidine | ug/l | 4.5[8] | ND (0.50) | ND (0.48) | ND (0.51) | ND (0.51) | ND (0.53) | ND (0.54) | ND (0.48) | ND (0.51) | ND (0.48) | ND (0.48) | ND (0.51) |
| 1,4-Dioxane | ug/l | NC | ND (0.64) | ND (0.63) | ND (0.66) | ND (0.66) | ND (0.68) | ND (0.70) | ND (0.63) | ND (0.66) | ND (0.63) | ND (0.63) | ND (0.66) |
| Dibenzo(a,h)anthracene | ug/l | NC | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.34) | ND (0.35) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.33) |
| Dibenzofuran | ug/l | NC | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) |
| Di-n-butyl phthalate | ug/l | 9.7[8] | ND (0.49) | ND (0.47) | ND (0.50) | ND (0.50) | ND (0.52) | ND (0.53) | ND (0.47) | ND (0.50) | ND (0.47) | ND (0.47) | ND (0.50) |
| Di-n-octyl phthalate | ug/l | NC | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.25) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) |
| Diethyl phthalate | ug/l | 110[8] | ND (0.26) | ND (0.25) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.28) | ND (0.25) | ND (0.26) | ND (0.25) | ND (0.25) | ND (0.26) |
| Dimethyl phthalate | ug/l | NC | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) |
| bis(2-Ethylhexyl)phthalate | ug/l | 0.3[8] | ND (1.6) | ND (1.6) | ND (1.7) | ND (1.7) | ND (1.7) | ND (1.8) | ND (1.6) | ND (1.7) | ND (1.6) | ND (1.6) | ND (1.7) |
| Fluoranthene | ug/l | 1.9[8] | ND (0.17) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.17) |
| Fluorene | ug/l | 19[8] | ND (0.17) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.17) |
| Hexachlorobenzene | ug/l | 0.0003[8] | ND (0.32) | ND (0.31) | ND (0.33) | ND (0.33) | ND (0.34) | ND (0.35) | ND (0.31) | ND (0.33) | ND (0.31) | ND (0.31) | ND (0.33) |
| Hexachlorobutadiene | ug/l | 0.053[8] | ND (0.48) | ND (0.47) | ND (0.49) | ND (0.49) | ND (0.51) | ND (0.52) | ND (0.47) | ND (0.49) | ND (0.47) | ND (0.47) | ND (0.49) |
| Hexachlorocyclopentadiene | ug/l | 77[8] | ND (2.7) | ND (2.6) | ND (2.8) | ND (2.8) | ND (2.9) | ND (3.0) | ND (2.6) | ND (2.8) | ND (2.6) | ND (2.6) | ND (2.8) |
| Hexachloroethane | ug/l | 8[8] | ND (0.38) | ND (0.37) | ND (0.39) | ND (0.39) | ND (0.41) | ND (0.41) | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.39) |
| Indeno(1,2,3-cd)pyrene | ug/l | 4.31[8] | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.35) | ND (0.35) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.33) |
| Isophorone | ug/l | 920[8] | ND (0.27) | ND (0.26) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.26) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.28) |
| 2-Methylnaphthalene | ug/l | 330[8] | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) |
| 2-Nitroaniline | ug/l | NC | ND (0.27) | ND (0.26) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.26) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.28) |
| 3-Nitroaniline | ug/l | NC | ND (0.38) | ND (0.37) | ND (0.39) | ND (0.39) | ND (0.40) | ND (0.41) | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.39) |
| 4-Nitroaniline | ug/l | NC | ND (0.43) | ND (0.42) | ND (0.44) | ND (0.44) | ND (0.46) | ND (0.47) | ND (0.42) | ND (0.44) | ND (0.42) | ND (0.42) | ND (0.44) |
| Naphthalene | ug/l | 13[8] | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.25) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) |
| Nitrobenzene | ug/l | 220[8] | ND (0.63) | ND (0.61) | ND (0.64) | ND (0.64) | ND (0.67) | ND (0.68) | ND (0.61) | ND (0.64) | ND (0.61) | ND (0.61) | ND (0.64) |
| N-Nitroso-di-n-propylamine | ug/l | NC | ND (0.47) | ND (0.46) | ND (0.48) | ND (0.48) | ND (0.50) | ND (0.51) | ND (0.46) | ND (0.48) | ND (0.46) | ND (0.46) | ND (0.48) |
| N-Nitrosodiphenylamine | ug/l | NC | ND (0.22) [b] | ND (0.21) [b] | ND (0.22) [b] | ND (0.22) [b] | ND (0.23) [b] | ND (0.24) [b] | ND (0.21) [b] | ND (0.22) [b] | ND (0.21) [b] | ND (0.21) [b] | ND (0.22) [b] |
| Phenanthrene | ug/l | 3.6[8] | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.18) |
| Pyrene | ug/l | 0.30[8] | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) |
| 1,2,4,5-Tetrachlorobenzene | ug/l | 3[8] | ND (0.36) [b] | ND (0.35) [b] | ND (0.37) [b] | ND (0.37) [b] | ND (0.39) [b] | ND (0.39) [b] | ND (0.35) [b] | ND (0.37) [b] | ND (0.35) [b] | ND (0.35) [b] | ND (0.37) [b] |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | ug/l | NC | 23.4 J | 26.5 J | 28.1 J | 16 J | 16 J | 22.8 J | 104.6 J | 19.1 J | 34.8 J | 90.4 J | 0 |
| Total Alkanes | ug/l | NC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |

| Client Sample ID: | SS-4T | SS-5B | SS-5M | SS-5T | SS-6B | SS-6M | SS-6T | SS-7B | SS-7M | SS-7T | SS-8B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | JC77633-14 | JC77633-15 | JC77633-16 | JC77633-17 | JC77633-18 | JC77633-19 | JC77633-20 | JC77633-21 | JC77633-22 | JC77633-23 | JC77633-24 |
| Date Sampled: | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 |
| Matrix: | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | |
| 2-Chlorophenol | ND (0.80) | ND (0.79) | ND (0.79) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.81) | ND (0.81) | ND (0.82) |
| 4-Chloro-3-methyl phenol | ND (0.87) | ND (0.86) | ND (0.86) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.88) | ND (0.88) | ND (0.89) |
| 2,4-Dichlorophenol | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2,4-Dimethylphenol | ND (2.4) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.4) | ND (2.4) | ND (2.4) |
| 2,4-Dinitrophenol | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) |
| 4,6-Dinitro-o-cresol | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2-Methylphenol | ND (0.87) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.88) | ND (0.88) | ND (0.89) |
| 3&4-Methylphenol | ND (0.86) | ND (0.85) | ND (0.85) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.87) | ND (0.87) | ND (0.88) |
| 2-Nitrophenol | ND (0.94) | ND (0.92) | ND (0.92) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.95) [b] | ND (0.95) [b] | ND (0.96) [b] |
| 4-Nitrophenol | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.2) |
| Pentachlorophenol | ND (1.4) [a] | ND (1.3) [a] | ND (1.3) [a] | ND (1.3) [a] | ND (1.3) [a] | ND (1.3) [a] | ND (1.3) [a] | ND (1.3) | ND (1.4) [a] | ND (1.4) [a] | ND (1.4) [a] |
| Phenol | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.39) | ND (0.39) |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | |
| 2,3,4,6-Tetrachlorophenol | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.5) |
| 2,4,5-Trichlorophenol | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2,4,6-Trichlorophenol | ND (0.91) | ND (0.89) | ND (0.89) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.91) | ND (0.91) | ND (0.92) |
| Acenaphthene | ND (0.19) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.19) | ND (0.19) |
| Acenaphthylene | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) |
| Acetophenone | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) |
| Anthracene | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) |
| Atrazine | ND (0.44) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.44) | ND (0.44) | ND (0.45) |
| Benzaldehyde | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.29) |
| Benzo(a)anthracene | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.20) | ND (0.20) | ND (0.20) |
| Benzo(a)pyrene | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) |
| Benzo(b)fluoranthene | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) |
| Benzo(g,h,i)perylene | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) [b] | ND (0.34) [b] | ND (0.34) [b] | ND (0.34) [b] |
| Benzo(k)fluoranthene | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) |
| 4-Bromophenyl phenyl ether | ND (0.40) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.40) | ND (0.40) |
| Butyl benzyl phthalate | ND (0.45) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.45) | ND (0.45) | ND (0.46) |
| 1,1'-Biphenyl | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) |
| 2-Chloronaphthalene | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.24) |
| 4-Chloroaniline | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.34) | ND (0.34) | ND (0.34) |
| Carbazole | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) |
| Caprolactam | ND (0.64) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.64) | ND (0.64) | ND (0.65) |
| Chrysene | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) |
| bis(2-Chloroethoxy)methane | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.28) | ND (0.28) | ND (0.28) |
| bis(2-Chloroethyl)ether | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.25) |
| 2,2'-Oxybis(1-chloropropane) | ND (0.40) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.40) | ND (0.40) |
| 4-Chlorophenyl phenyl ether | ND (0.36) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.36) | ND (0.36) | ND (0.37) |
| 2,4-Dinitrotoluene | ND (0.54) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.55) | ND (0.55) | ND (0.55) |
| 2,6-Dinitrotoluene | ND (0.47) | ND (0.46) | ND (0.46) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.47) | ND (0.47) | ND (0.48) |
| 3,3'-Dichlorobenzidine | ND (0.50) | ND (0.49) | ND (0.49) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.50) | ND (0.50) | ND (0.51) |
| 1,4-Dioxane | ND (0.64) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.65) | ND (0.65) | ND (0.66) |
| Dibenzo(a,h)anthracene | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) [c] | ND (0.33) [c] | ND (0.33) [c] |
| Dibenzofuran | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) |
| Di-n-butyl phthalate | ND (0.49) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.49) | ND (0.49) | ND (0.50) |
| Di-n-octyl phthalate | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) |
| Diethyl phthalate | ND (0.26) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.26) | ND (0.26) | ND (0.26) |
| Dimethyl phthalate | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) |
| bis(2-Ethylhexyl)phthalate | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.7) |
| Fluoranthene | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) |
| Fluorene | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) |
| Hexachlorobenzene | ND (0.32) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.32) | ND (0.32) | ND (0.33) |
| Hexachlorobutadiene | ND (0.48) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.49) | ND (0.49) | ND (0.49) |
| Hexachlorocyclopentadiene | ND (2.7) | ND (2.7) | ND (2.7) | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.8) | ND (2.8) | ND (2.8) |
| Hexachloroethane | ND (0.38) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.39) | ND (0.39) |
| Indeno(1,2,3-cd)pyrene | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) [d] | ND (0.33) [d] | ND (0.33) [d] |
| Isophorone | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.27) | ND (0.28) |
| 2-Methylnaphthalene | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) |
| 2-Nitroaniline | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.27) [b] | ND (0.27) [b] | ND (0.28) [b] |
| 3-Nitroaniline | ND (0.38) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.38) | ND (0.39) |
| 4-Nitroaniline | ND (0.43) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.44) | ND (0.44) | ND (0.44) |
| Naphthalene | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) |
| Nitrobenzene | ND (0.63) | ND (0.62) | ND (0.62) | ND (0.61) | ND (0.61) | ND (0.61) | ND (0.61) | ND (0.61) | ND (0.64) | ND (0.64) | ND (0.64) |
| N-Nitroso-di-n-propylamine | ND (0.47) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.48) | ND (0.48) | ND (0.48) |
| N-Nitrosodiphenylamine | ND (0.22) [b] | ND (0.21) [b] | ND (0.21) [b] | ND (0.21) [b] | ND (0.21) [b] | ND (0.21) [b] | ND (0.21) [b] | ND (0.21) [b] | ND (0.22) | ND (0.22) | ND (0.22) |
| Phenanthrene | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) |
| Pyrene | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) |
| 1,2,4,5-Tetrachlorobenzene | ND (0.36) [b] | ND (0.36) [b] | ND (0.36) [b] | ND (0.35) [b] | ND (0.35) [b] | ND (0.35) [b] | ND (0.35) [b] | ND (0.35) [b] | ND (0.37) | ND (0.37) | ND (0.37) |
| **MS Semi-volatile TIC** | | | | | | | | | | | |
| Total TIC, Semi-Volatile | 34.6 J | 178.5 J | 23.6 J | 13 J | 9.3 J | 23.9 J | 10 J | 25 J | 48.8 J | 33.8 J | 34.2 J |
| Total Alkanes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Client Sample ID: | SS-8M | SS-8T | SS-9B | SS-9M | SS-9T | SS-10B | SS-10M | SS-10T | SS-11B | SS-11M | SS-11T | SS-12B | SS-12M | SS-12T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | JC77633-25 | JC77633-26 | JC77633-27 | JC77633-28 | JC77633-29 | JC77633-30 | JC77633-31 | JC77633-32 | JC77633-33 | JC77633-34 | JC77633-35 | JC77633-36 | JC77633-37 | JC77633-38 |
| Date Sampled: | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 |
| Matrix: | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | |
| 2-Chlorophenol | ND (0.82) | ND (0.82) | ND (0.84) | ND (0.80) | ND (0.82) | ND (0.82) | ND (0.82) | ND (0.80) | ND (0.80) | ND (0.79) | ND (0.81) | ND (0.82) | ND (0.80) | ND (0.80) |
| 4-Chloro-3-methyl phenol | ND (0.89) | ND (0.89) | ND (0.91) | ND (0.87) | ND (0.89) | ND (0.89) | ND (0.89) | ND (0.87) | ND (0.87) | ND (0.86) | ND (0.88) | ND (0.89) | ND (0.87) | ND (0.87) |
| 2,4-Dichlorophenol | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.2) |
| 2,4-Dimethylphenol | ND (2.4) | ND (2.4) | ND (2.5) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.3) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) |
| 2,4-Dinitrophenol | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.5) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.5) | ND (1.5) |
| 4,6-Dinitro-o-cresol | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2-Methylphenol | ND (0.89) | ND (0.89) | ND (0.91) | ND (0.87) | ND (0.89) | ND (0.89) | ND (0.89) | ND (0.87) | ND (0.87) | ND (0.85) | ND (0.88) | ND (0.89) | ND (0.87) | ND (0.87) |
| 3&4-Methylphenol | ND (0.88) | ND (0.88) | ND (0.90) | ND (0.86) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.86) | ND (0.86) | ND (0.85) | ND (0.87) | ND (0.88) | ND (0.86) | ND (0.86) |
| 2-Nitrophenol | ND (0.96) [b] | ND (0.96) | ND (0.98) | ND (0.94) | ND (0.96) | ND (0.96) | ND (0.96) | ND (0.94) | ND (0.94) | ND (0.92) | ND (0.95) | ND (0.96) | ND (0.94) | ND (0.94) |
| 4-Nitrophenol | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.1) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.2) | ND (1.1) | ND (1.1) |
| Pentachlorophenol | ND (1.4) [a] | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.3) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| Phenol | ND (0.39) | ND (0.39) | ND (0.40) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.38) |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | |
| 2,3,4,6-Tetrachlorophenol | ND (1.5) | ND (1.5) [b] | ND (1.5) [b] | ND (1.4) [b] | ND (1.5) [b] | ND (1.5) [b] | ND (1.5) [b] | ND (1.4) [b] | ND (1.4) [b] | ND (1.4) [b] | ND (1.4) [b] | ND (1.5) [b] | ND (1.4) [b] | ND (1.4) [b] |
| 2,4,5-Trichlorophenol | ND (1.3) | ND (1.3) | ND (1.4) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2,4,6-Trichlorophenol | ND (0.92) | ND (0.92) | ND (0.94) | ND (0.91) | ND (0.92) | ND (0.92) | ND (0.92) | ND (0.91) | ND (0.91) | ND (0.89) | ND (0.91) | ND (0.92) | ND (0.91) | ND (0.91) |
| Acenaphthene | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.18) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) |
| Acenaphthylene | ND (0.14) | ND (0.14) | ND (0.14) | ND (0.13) | ND (0.14) | ND (0.14) | ND (0.14) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.13) |
| Acetophenone | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) |
| Anthracene | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) |
| Atrazine | ND (0.45) | ND (0.45) | ND (0.46) | ND (0.44) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.44) | ND (0.44) | ND (0.43) | ND (0.44) | ND (0.45) | ND (0.44) | ND (0.44) |
| Benzaldehyde | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.28) | ND (0.28) |
| Benzo(a)anthracene | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) |
| Benzo(a)pyrene | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) |
| Benzo(b)fluoranthene | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) |
| Benzo(g,h,i)perylene | ND (0.34) [b] | ND (0.34) | ND (0.35) | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.33) |
| Benzo(k)fluoranthene | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) |
| 4-Bromophenyl phenyl ether | ND (0.40) | ND (0.40) | ND (0.41) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.39) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) |
| Butyl benzyl phthalate | ND (0.46) | ND (0.46) | ND (0.47) | ND (0.45) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.45) | ND (0.45) | ND (0.44) | ND (0.45) | ND (0.46) | ND (0.45) | ND (0.45) |
| 1,1'-Biphenyl | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) |
| 2-Chloronaphthalene | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.23) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.23) | ND (0.23) |
| 4-Chloroaniline | ND (0.34) | ND (0.34) | ND (0.35) | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.33) |
| Carbazole | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.22) |
| Caprolactam | ND (0.65) | ND (0.65) | ND (0.66) | ND (0.64) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.64) | ND (0.64) | ND (0.62) | ND (0.64) | ND (0.65) | ND (0.64) | ND (0.64) |
| Chrysene | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) |
| bis(2-Chloroethoxy)methane | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.27) |
| bis(2-Chloroethyl)ether | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.24) | ND (0.24) |
| 2,2'-Oxybis(1-chloropropane) | ND (0.40) | ND (0.40) | ND (0.41) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.39) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) |
| 4-Chlorophenyl phenyl ether | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.36) | ND (0.35) | ND (0.36) | ND (0.37) | ND (0.36) | ND (0.36) |
| 2,4-Dinitrotoluene | ND (0.55) | ND (0.55) | ND (0.56) | ND (0.54) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.54) | ND (0.54) | ND (0.53) | ND (0.55) | ND (0.55) | ND (0.54) | ND (0.54) |
| 2,6-Dinitrotoluene | ND (0.48) | ND (0.48) | ND (0.49) | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.47) | ND (0.46) | ND (0.47) | ND (0.48) | ND (0.47) | ND (0.47) |
| 3,3'-Dichlorobenzidine | ND (0.51) | ND (0.51) | ND (0.52) | ND (0.50) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.50) | ND (0.50) | ND (0.49) | ND (0.50) | ND (0.51) | ND (0.50) | ND (0.50) |
| 1,4-Dioxane | ND (0.66) | ND (0.66) | ND (0.67) | ND (0.64) | ND (0.66) | ND (0.66) | ND (0.66) | ND (0.64) | ND (0.64) | ND (0.63) | ND (0.65) | ND (0.66) | ND (0.64) | ND (0.64) |
| Dibenzo(a,h)anthracene | ND (0.33) [c] | ND (0.33) | ND (0.34) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.32) |
| Dibenzofuran | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) |
| Di-n-butyl phthalate | ND (0.50) | ND (0.50) | ND (0.51) | ND (0.49) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.49) | ND (0.49) | ND (0.48) | ND (0.49) | ND (0.50) | ND (0.49) | ND (0.49) |
| Di-n-octyl phthalate | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) |
| Diethyl phthalate | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.25) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) |
| Dimethyl phthalate | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.21) |
| bis(2-Ethylhexyl)phthalate | ND (1.7) | ND (1.7) | ND (1.7) | ND (1.6) | ND (1.7) | ND (1.7) | ND (1.7) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.7) | ND (1.6) | ND (1.6) |
| Fluoranthene | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) |
| Fluorene | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) |
| Hexachlorobenzene | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.31) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) |
| Hexachlorobutadiene | ND (0.49) | ND (0.49) | ND (0.50) | ND (0.48) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.49) | ND (0.49) | ND (0.48) | ND (0.48) |
| Hexachlorocyclopentadiene | ND (2.8) | ND (2.8) | ND (2.8) | ND (2.7) | ND (2.8) | ND (2.8) | ND (2.8) | ND (2.7) | ND (2.7) | ND (2.7) | ND (2.8) | ND (2.8) | ND (2.7) | ND (2.7) |
| Hexachloroethane | ND (0.39) | ND (0.39) | ND (0.40) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.37) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.38) |
| Indeno(1,2,3-cd)pyrene | ND (0.33) [d] | ND (0.33) | ND (0.34) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) |
| Isophorone | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.27) | ND (0.27) |
| 2-Methylnaphthalene | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) |
| 2-Nitroaniline | ND (0.28) [b] | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.27) | ND (0.27) |
| 3-Nitroaniline | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.37) | ND (0.38) | ND (0.39) | ND (0.38) | ND (0.38) |
| 4-Nitroaniline | ND (0.44) | ND (0.44) | ND (0.45) | ND (0.43) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.43) | ND (0.43) | ND (0.42) | ND (0.44) | ND (0.44) | ND (0.43) | ND (0.43) |
| Naphthalene | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) |
| Nitrobenzene | ND (0.64) | ND (0.64) | ND (0.66) | ND (0.63) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.63) | ND (0.63) | ND (0.62) | ND (0.64) | ND (0.64) | ND (0.63) | ND (0.63) |
| N-Nitroso-di-n-propylamine | ND (0.48) | ND (0.48) | ND (0.49) | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.47) | ND (0.46) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.47) |
| N-Nitrosodiphenylamine | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) |
| Phenanthrene | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) |
| Pyrene | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.21) |
| 1,2,4,5-Tetrachlorobenzene | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.36) |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | 38.5 J | 29.1 J | 23.7 J | 19.2 J | 29.3 J | 26.2 J | 35.3 J | 36.6 J | 70.9 J | 29.6 J | 13 J | 37.9 J | 16 J | 25.4 J |
| Total Alkanes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 6a(R)
Detention Basin Surface Water Screening - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | | NJDEP Ecological Surface Water-Freshwater Chronic Screening Criterion | SS-1B | SS-1M | SS-1T | SS-2B | SS-2M | SS-2T | SS-3B | SS-3M | SS-3T | SS-4B | SS-4M | SS-4T | SS-5B | SS-5M | SS-5T | SS-6B | SS-6M | SS-6T | SS-7B | SS-7M | SS-7T | SS-8B | SS-8M | SS-8T | SS-9B | SS-9M | SS-9T | SS-10B | SS-10M | SS-10T | SS-11B | SS-11M | SS-11T | SS-12B | SS-12M | SS-12T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | JC77633-3 | JC77633-4 | JC77633-5 | JC77633-6 | JC77633-7 | JC77633-8 | JC77633-9 | JC77633-10 | JC77633-11 | JC77633-12 | JC77633-13 | JC77633-14 | JC77633-15 | JC77633-16 | JC77633-17 | JC77633-18 | JC77633-19 | JC77633-20 | JC77633-21 | JC77633-22 | JC77633-23 | JC77633-24 | JC77633-25 | JC77633-26 | JC77633-27 | JC77633-28 | JC77633-29 | JC77633-30 | JC77633-31 | JC77633-32 | JC77633-33 | JC77633-34 | JC77633-35 | JC77633-36 | JC77633-37 | JC77633-38 |
| Date Sampled: | | | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 | 11/8/2018 |
| Matrix: | | | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | ug/l | NC | <200 | 507 | <200 | <200 | <200 | <200 | 1420 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | 320 | <200 | <200 | 566 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | 268 | <200 | <200 | <200 | <200 | <200 |
| Antimony | ug/l | 80[8] | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 |
| Arsenic | ug/l | 150 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | 3.1 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Barium | ug/l | 220[9] | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 |
| Beryllium | ug/l | 3.68 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Cadmium | ug/l | 108.9 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Calcium | ug/l | 116,000 | 26800 | 27000 | 27100 | 27300 | 26300 | 27500 | 29100 | 27300 | 27600 | 27900 | 27300 | 27200 | 26100 | 26800 | 27300 | 26300 | 26800 | 26500 | 27200 | 26100 | 25600 | 26600 | 26500 | 26900 | 26900 | 25400 | 27700 | 26600 | 26600 | 26800 | 27000 | 26500 | 26400 | 25800 | 26500 | 27200 |
| Chromium | ug/l | 428 | <10 | <10 | <10 | <10 | <10 | <10 | 30 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 23.6 | <10 | <10 | <10 | <10 | <10 |
| Cobalt | ug/l | 24[8] | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Copper | ug/l | 9.1 [a] | <10 | <10 | <10 | <10 | <10 | <10 | 18.7 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Iron[2] | ug/l | 1,000 | 187 | 507 | 154 | <100 | <100 | <100 | 3750 | <100 | 120 | 149 | <100 | <100 | 102 | 157 | <100 | 581 | <100 | <100 | 751 | 189 | <100 | <100 | 132 | <100 | <100 | <100 | <100 | 106 | 137 | <100 | 468 | 102 | 100 | <100 | <100 | <100 |
| Lead | ug/l | 5.4(d)(s) | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | 15.3 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | 3.3 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Magnesium | ug/l | 82,000 | 10300 | 10400 | 10300 | 10300 | 10000 | 10400 | 11100 | 10300 | 10400 | 10500 | 10300 | 10200 | 10100 | 10200 | 10300 | 10100 | 10100 | 10000 | 10300 | 9830 | 9690 | 10000 | 9940 | 10100 | 10100 | 10100 | 10400 | 9980 | 9930 | 10000 | 10200 | 9920 | 9890 | 9690 | 9950 | 10300 |
| Manganese | ug/l | 137 | 16.4 | 28.5 | 15.7 | 16 | 15 | 15.8 | 137 | 20 | 19.9 | 33.4 | 19.2 | 18.6 | 17.4 | 16 | 15.3 | 21.6 | <15 | <15 | 21 | <15 | <15 | <15 | 15.5 | <15 | <15 | <15 | <15 | 21.5 | 21.5 | 15.9 | 15.3 | 20.5 | <15 | <15 | <15 | <15 | <15 |
| Mercury | ug/l | 0.77(d)(s) | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Nickel | ug/l | NC | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Potassium | ug/l | NC | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 | <10000 |
| Selenium | ug/l | 5.0(s) | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Silver | ug/l | NC | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Sodium | ug/l | 680,000 | 87900 | 88400 | 89200 | 89200 | 85900 | 89900 | 90100 | 89000 | 90200 | 90500 | 89000 | 88800 | 87200 | 88400 | 89800 | 87200 | 88500 | 87600 | 88800 | 86200 | 84900 | 88500 | 88300 | 89000 | 89200 | 84600 | 91600 | 87600 | 87700 | 88600 | 89200 | 88000 | 87700 | 85500 | 88000 | 90500 |
| Thallium | ug/l | 10 [8] | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Vanadium | ug/l | 12 [8] | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Zinc | ug/l | 108.9 | <20 | <20 | <20 | <20 | <20 | <20 | 40.1 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| **General Chemistry** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride[2] | ug/l | 230 | 100000 | 96700 | 98500 | 98200 | 98100 | 97400 | 95500 | 98500 | 97400 | 98300 | 99100 | 100000 | 97200 | 98100 | 96900 | 95300 | 97600 | 100000 | 96600 | 102000 | 102000 | 102000 | 102000 | 102000 | 103000 | 102000 | 102000 | 101000 | 102000 | 102000 | 102000 | 102000 | 103000 | 102000 | 102000 | 103000 |
| Nitrogen, Ammonia | ug/l | NC | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 |
| Nitrogen, Nitrate | ug/l | NC | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | 150 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | 130 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | 160 [e] | <110 [e] | <110 [e] | <110 [e] | <110 [e] | 130 [e] |
| Nitrogen, Nitrate + Nitrite | ug/l | NC | <100 | <100 | <100 | <100 | <100 | 150 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 100 | <100 | 130 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 160 | <100 | <100 | <100 | <100 | 130 |
| Nitrogen, Nitrite | ug/l | NC | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Solids, Total Dissolved | ug/l | NC | 321000 | 296000 | 299000 | 268000 | 276000 | 310000 | 305000 | 306000 | 300000 | 320000 | 292000 | 280000 | 282000 | 296000 | 282000 | 258000 | 288000 | 302000 | 275000 | 292000 | 278000 | 274000 | 264000 | 284000 | 288000 | 290000 | 264000 | 235000 | 274000 | 276000 | 278000 | 266000 | 296000 | 272000 | 290000 | 287000 |

**Results Key:**
a Associated CCV outside of control limits low.
b Associated CCV outside of control limits high, sample was ND.
c Associated CCV BSD outside of control limits high, sample was ND.
d Associated CCV and BSD outside of control limits high, sample was ND.
e Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

| | |
|---|---|
| NC: | No Criteria |
| BLUE: | Compound Detected, No Criteria |
| GREEN: | Compound Detected, Non-Toxic |
| ORANGE: | Exceedance, Result > Criteria |

[2]USEPA National Recommended Water Quality Criterion

**Criteria Key:**
(a) Expressed as a function of water hardness; an average water hardness of 108.9 mg/L was calculated and applied to the screening value calculation.
(b) Criteria as listed at (f)4 below as formula
(d) Criterion is expressed as a function of the Water Effect Ratio (WER). For criterion in the table, WER equates to the default value of 1.0.
(fc) Criteria expressed as free cyanide (as CN)/L
(h) Human health noncarcinogen
(hc) Human health carcinogen
(s) Dissolved criterion
(T) Total recoverable criterion

1 Lowest Effects Levels (LELs) indicate concentrations at which adverse benthic impact may begin to occur (level tolerated by most benthic organisms). Water column species and wildlife are at potential risk via bio-magnification (food chain toxicity) if site-related sediment concentrations of PCBs, organochlorine pesticides, or mercury are at or above the LEL. Other known biomagnifiers without ESC warrant case-by-case evaluation.
2. Severe Effects Levels (SELs) are also provided, but the SEL is not a BEE screening value. Contamination at this level indicates severe impacts to the benthic community in most cases studied. For non-polar organics (PAHs, organochlorine pesticides, PCBs), the SEL is calculated from a site-specific TOC level. Since the table SEL is based on 100% organic carbon, the calculated site-specific number is lower.

To calculate a site-specific SEL, TOC is multiplied by the table SEL. For TOC at 1% (10,000 ppm) the SEL is multiplied by 0.01. If the table SEL is 360 ppm, 360 x 0.01 = a 3.6 ppm SEL. A default value of 1% is used when a TOC value is not available. 10% TOC is upper limit for SEL calculation. 1% and 10% TOC represents the average range over which this approach has been examined (USEPA, 1988).

3. Refer to Estuarine/Marine Screening Criteria when a freshwater parameter has no corresponding value. Since the biological activity of non-polar organics is not expected to differ greatly in the estuarine/marine environment, these screens can be used as surrogates. While uncertainty associated with the use of estuarine/marine metal screens as freshwater surrogates is greater than with non-polar organics, one surrogate metal (silver) is provided.
4. Effects Range-Low (ER-L) represents a concentration at which adverse benthic impacts are found in approximately 10% of studies. Water column species and wildlife are at potential risk via biomagnification (food chain toxicity) if site-related sediment concentrations of PCBs, organochlorine pesticides, or mercury are at or above the ER-L. Other known biomagnifiers without NOAA screening numbers (dioxins, furans, other chlorinated organics, and selenium) warrant case-by-case e
5. The Effects Range-Median (ER-M) is also provided. The ER-M is not a BEE screening value. Contamination greater than the ER-M value indicates adverse benthic impacts in more than 50% of cases studied.
6. Refer to Freshwater Sediment Screening Criteria when a Estuarine/Marine parameter has no corresponding value and for individual Aroclor values. Since the biological activity of non-polar organics is not expected to differ greatly in the fresh water environment, freshwater screens can be used as surrogates.
7. Screening values were developed for the protection of marine receptors; however, for the purpose of this document they are considered surrogates for freshwater systems.
8. USEPA Region 5, RCRA Ecological Screening Levels (ESLs) represent a protective benchmark (e.g., water quality criteria, sediment quality guidelines/ criteria, and chronic no adverse effect levels) for 223 contaminants and are not intended to serve as cleanup levels, but are intended to function as screening levels. http://www.epa.gov/reg5rcra/ca/ESL.pdf
9. Wildlife Preliminary Remediation Goal based on plant study.
10. Wildlife Preliminary Remediation Goal based on shrew study.
11. Wildlife Preliminary Remediation Goal based on woodcock study.
12. Wildlife Preliminary Remediation Goal based on earthworm study.
13. Wildlife Preliminary Remediation Goal based on mouse study.
14. Wildlife Preliminary Remediation Goal based on hawk study.
15. Sediment value from NOAA Screening Quick Reference Tables (SQuiRTs).
16. Westhollow Technical Center Levels were developed by Shell Oil for surface water and were approved for use by NJDEP with the following conditions: 1) the source area is removed, 2) these levels are on the fringe of the contamination area, and 3) active remediation is occurring. These levels are applicable to surface water and wetland areas.
17. USEPA Ambient Water Quality Criteria Update for Methyl Tertiary-Butyl Ether (MTBE) http://www.epa.gov/waterscience/criteria/mtbe-fs.html
18. Low Molecular Weight PAHs are defined as compounds composed of fewer than four rings.
19. High Molecular Weight PAHs are defined as compounds composed of four or more rings.
20. Guidance for Developing Ecological Soil Screening Levels, OSWER Directive 9285.7-55, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460, November 2003, Revised February 2005, http://www.epa.gov/ecotox/ecossl/pdf/ecossl_guidance_chapters.pdf
21. Value applies to DDT and metabolites.

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-13A | SW-13B | SW-13C | SW-14A | SW-14B | SW-14C | SW-15A | SW-15B | SW-15C | SW-16A | SW-16B | SW-16C | SW-17A | SW-17B | SW-17C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83457-1 | JC83457-2 | JC83457-3 | JC83457-4 | JC83457-5 | JC83457-6 | JC83457-7 | JC83457-8 | JC83457-9 | JC83501-3 | JC83501-4 | JC83501-5 | JC83501-6 | JC83501-7 | JC83501-8 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | | | | | | |
| Acetone | 6000 | NC | NC | NC | ug/l | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) |
| Benzene | NC | 114 [8] 824 [16] | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Bromochloromethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| Bromodichloromethane | NC | NC | NC | NC | ug/l | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) |
| Bromoform | NC | 230[8] | NC | NC | ug/l | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) |
| Bromomethane | NC | NC | NC | NC | ug/l | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) |
| 2-Butanone (MEK) | NC | NC | NC | NC | ug/l | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) |
| Carbon disulfide | NC | NC | NC | NC | ug/l | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) |
| Carbon tetrachloride | NC | 240[8] | NC | NC | ug/l | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) |
| Chlorobenzene | NC | 47[8] | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| Chloroethane | NC | NC | NC | NC | ug/l | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) |
| Chloroform | NC | 140[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| Chloromethane | NC | NC | NC | NC | ug/l | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) |
| Cyclohexane | NC | NC | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| 1,2-Dibromo-3-chloropropane | NC | NC | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) |
| Dibromochloromethane | NC | NC | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| 1,2-Dibromoethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| 1,2-Dichlorobenzene | NC | 14[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,3-Dichlorobenzene | NC | 38[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,4-Dichlorobenzene | NC | 9.4[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| Dichlorodifluoromethane | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| 1,1-Dichloroethane | NC | NC | NC | NC | ug/l | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) |
| 1,2-Dichloroethane | NC | 910[8] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| 1,1-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| cis-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| trans-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,2-Dichloropropane | NC | 360[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| cis-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) |
| trans-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Ethylbenzene | NC | 14[8] 81[16] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Freon 113 | NC | NC | NC | NC | ug/l | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] |
| 2-Hexanone | NC | NC | NC | NC | ug/l | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Isopropylbenzene | NC | NC | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Methyl Acetate | NC | NC | NC | NC | ug/l | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) |
| Methylcyclohexane | NC | NC | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Methyl Tert Butyl Ether | 151,000[17] | 51,450[16] 51,000[17] | 53,000[17] | 18,000[17] | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| 4-Methyl-2-pentanone(MIBK) | NC | NC | NC | NC | ug/l | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| Methylene chloride | NC | 940[8] | NC | NC | ug/l | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) |
| Styrene | NC | 32[8] | NC | NC | ug/l | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) |
| 1,1,2,2-Tetrachloroethane | NC | 380[8] | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Tetrachloroethene | NC | NC | NC | NC | ug/l | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) |
| Toluene | NC | 253[8] 822[16] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,2,3-Trichlorobenzene | NC | NC | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,2,4-Trichlorobenzene | NC | 30[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) [g] | ND (0.50) [g] | ND (0.50) [g] | ND (0.50) [g] | ND (0.50) [g] | ND (0.50) [g] |
| 1,1,1-Trichloroethane | NC | 76[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,1,2-Trichloroethane | NC | 500[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichloroethene | NC | NC | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichlorofluoromethane | NC | NC | NC | NC | ug/l | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) |
| Vinyl chloride | NC | 930[8] | NC | NC | ug/l | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) |
| m,p-Xylene | NC | NC | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| o-Xylene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| Xylene (total) | NC | 27[8] 296[16] | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| **MS Volatile TIC** | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-13A | SW-13B | SW-13C | SW-14A | SW-14B | SW-14C | SW-15A | SW-15B | SW-15C | SW-16A | SW-16B | SW-16C | SW-17A | SW-17B | SW-17C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83457-1 | JC83457-2 | JC83457-3 | JC83457-4 | JC83457-5 | JC83457-6 | JC83457-7 | JC83457-8 | JC83457-9 | JC83501-3 | JC83501-4 | JC83501-5 | JC83501-6 | JC83501-7 | JC83501-8 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | NC | 24[g] | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.80) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.82) | ND (0.78) | ND (0.78) | ND (0.81) | ND (0.78) | ND (0.82) | ND (0.80) | ND (0.82) |
| 4-Chloro-3-methyl phenol | NC | NC | NC | NC | ug/l | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.87) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.89) | ND (0.85) | ND (0.85) | ND (0.88) | ND (0.85) | ND (0.89) | ND (0.87) | ND (0.89) |
| 2,4-Dichlorophenol | NC | 11[g] | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.3) |
| 2,4-Dimethylphenol | NC | 100[g] | NC | NC | ug/l | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.4) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.4) | ND (2.3) | ND (2.3) | ND (2.4) | ND (2.3) | ND (2.4) | ND (2.4) | ND (2.4) |
| 2,4-Dinitrophenol | NC | 19[g] | NC | NC | ug/l | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.5) | ND (1.6) |
| 4,6-Dinitro-o-cresol | NC | NC | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.86) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.89) | ND (0.85) | ND (0.85) | ND (0.88) | ND (0.85) | ND (0.89) | ND (0.86) | ND (0.89) |
| 3&4-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.85) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.88) | ND (0.84) | ND (0.84) | ND (0.87) | ND (0.84) | ND (0.88) | ND (0.85) | ND (0.88) |
| 2-Nitrophenol | NC | NC | NC | NC | ug/l | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.93) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.96) | ND (0.91) | ND (0.91) | ND (0.95) | ND (0.91) | ND (0.96) | ND (0.93) | ND (0.96) |
| 4-Nitrophenol | NC | 60[g] | NC | NC | ug/l | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.2) | ND (1.1) | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.2) [a] | ND (1.1) [a] | ND (1.2) [a] |
| Pentachlorophenol | (b) | (b) | 13 | 7.9 | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.4) | ND (1.3) | ND (1.3) | ND (1.4) | ND (1.3) | ND (1.4) | ND (1.3) | ND (1.4) |
| Phenol | NC | 180[g] | NC | NC | ug/l | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.39) | ND (0.38) | ND (0.39) |
| 2,3,4,6-Tetrachlorophenol | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.5) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.5) | ND (1.4) | ND (1.5) |
| 2,4,5-Trichlorophenol | NC | NC | NC | NC | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2,4,6-Trichlorophenol | NC | 4.9[g] | NC | NC | ug/l | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.90) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.92) | ND (0.88) | ND (0.88) | ND (0.91) | ND (0.88) | ND (0.92) | ND (0.90) | ND (0.92) |
| Acenaphthene | NC | 38[g] | NC | NC | ug/l | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.18) | ND (0.19) | ND (0.19) | ND (0.19) |
| Acenaphthylene | NC | 4840[g] | NC | NC | ug/l | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.14) |
| Acetophenone | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) |
| Anthracene | NC | 0.035[g] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) |
| Atrazine | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.45) | ND (0.43) | ND (0.43) | ND (0.44) | ND (0.43) | ND (0.45) | ND (0.43) | ND (0.45) |
| Benzaldehyde | NC | NC | NC | NC | ug/l | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.28) | ND (0.29) | ND (0.28) | ND (0.29) |
| Benzo(a)anthracene | NC | 0.025[g] | NC | NC | ug/l | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.20) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.20) | ND (0.19) | ND (0.19) | ND (0.20) | ND (0.19) | ND (0.20) | ND (0.20) | ND (0.20) |
| Benzo(a)pyrene | NC | 0.014[g] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) |
| Benzo(b)fluoranthene | NC | 9.08[a] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) |
| Benzo(g,h,i)perylene | NC | 7.64[g] | NC | NC | ug/l | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.34) | ND (0.32) | ND (0.34) | ND (0.33) | ND (0.34) |
| Benzo(k)fluoranthene | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) |
| 4-Bromophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.38) | ND (0.40) | ND (0.39) | ND (0.40) |
| Butyl benzyl phthalate | NC | NC | NC | NC | ug/l | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.46) | ND (0.44) | ND (0.44) [a] | ND (0.45) [a] | ND (0.44) [a] | ND (0.46) [a] | ND (0.44) [a] | ND (0.46) [a] |
| 1,1'-Biphenyl | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) |
| 2-Chloronaphthalene | NC | 0.396[g] | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.24) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.24) | ND (0.23) | ND (0.24) |
| 4-Chloroaniline | NC | NC | NC | NC | ug/l | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.34) | ND (0.32) | ND (0.34) | ND (0.33) | ND (0.34) |
| Carbazole | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.23) |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-13A | SW-13B | SW-13C | SW-14A | SW-14B | SW-14C | SW-15A | SW-15B | SW-15C | SW-16A | SW-16B | SW-16C | SW-17A | SW-17B | SW-17C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83457-1 | JC83457-2 | JC83457-3 | JC83457-4 | JC83457-5 | JC83457-6 | JC83457-7 | JC83457-8 | JC83457-9 | JC83501-3 | JC83501-4 | JC83501-5 | JC83501-6 | JC83501-7 | JC83501-8 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | |
| Caprolactam | NC | NC | NC | NC | ug/l | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.63) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.65) | ND (0.62) | ND (0.62) | ND (0.64) | ND (0.62) | ND (0.65) | ND (0.63) | ND (0.65) |
| Chrysene | NC | NC | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.18) |
| bis(2-Chloroethoxy)methane | NC | NC | NC | NC | ug/l | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.28) | ND (0.26) | ND (0.28) | ND (0.27) | ND (0.28) |
| bis(2-Chloroethyl)ether | NC | 1900[S] | NC | NC | ug/l | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.24) | ND (0.25) | ND (0.24) | ND (0.25) |
| 2,2'-Oxybis(1-chloropropane) | NC | NC | NC | NC | ug/l | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.38) | ND (0.40) | ND (0.39) | ND (0.40) |
| 4-Chlorophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.36) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.37) | ND (0.35) | ND (0.35) | ND (0.36) | ND (0.35) | ND (0.37) | ND (0.36) | ND (0.37) |
| 2,4-Dinitrotoluene | NC | 44[S] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.54) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.55) | ND (0.53) | ND (0.53) | ND (0.55) | ND (0.53) | ND (0.55) | ND (0.54) | ND (0.55) |
| 2,6-Dinitrotoluene | NC | NC | NC | NC | ug/l | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.46) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.48) | ND (0.45) | ND (0.45) | ND (0.47) | ND (0.45) | ND (0.48) | ND (0.46) | ND (0.48) |
| 3,3'-Dichlorobenzidine | NC | 4.5[S] | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.49) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.51) | ND (0.48) | ND (0.48) | ND (0.50) | ND (0.48) | ND (0.51) | ND (0.49) | ND (0.51) |
| 1,4-Dioxane | NC | NC | NC | NC | ug/l | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.64) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.66) | ND (0.63) | ND (0.63) | ND (0.65) | ND (0.63) | ND (0.66) | ND (0.64) | ND (0.66) |
| Dibenzo(a,h)anthracene | NC | NC | NC | NC | ug/l | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.33) |
| Dibenzofuran | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) |
| Di-n-butyl phthalate | NC | 9.7[S] | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.48) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.50) | ND (0.47) | ND (0.47) | ND (0.49) | ND (0.47) | ND (0.50) | ND (0.48) | ND (0.50) |
| Di-n-octyl phthalate | NC | NC | NC | NC | ug/l | ND (0.22) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.23) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.23) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.23) [a] | ND (0.22) [a] | ND (0.23) [a] | ND (0.23) [a] | ND (0.23) [a] |
| Diethyl phthalate | NC | 110[S] | NC | NC | ug/l | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.26) | ND (0.25) | ND (0.25) | ND (0.26) | ND (0.25) | ND (0.26) | ND (0.25) | ND (0.26) |
| Dimethyl phthalate | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) |
| bis(2-Ethylhexyl)phthalate | NC | 0.3[S] | NC | NC | ug/l | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.7) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.7) | ND (1.6) | ND (1.7) |
| Fluoranthene | NC | 1.9[S] | NC | NC | ug/l | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) |
| Fluorene | NC | 19[S] | NC | NC | ug/l | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) |
| Hexachlorobenzene | NC | 0.0003[S] | NC | NC | ug/l | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.32) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.33) | ND (0.31) | ND (0.31) | ND (0.32) | ND (0.31) | ND (0.33) | ND (0.32) | ND (0.33) |
| Hexachlorobutadiene | NC | 0.053[S] | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.48) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.49) | ND (0.47) | ND (0.47) | ND (0.49) | ND (0.47) | ND (0.49) | ND (0.48) | ND (0.49) |
| Hexachlorocyclopentadiene | NC | 77[S] | NC | NC | ug/l | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.7) | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.8) | ND (2.6) | ND (2.6) | ND (2.8) | ND (2.6) | ND (2.8) | ND (2.7) | ND (2.8) |
| Hexachloroethane | NC | 8[S] | NC | NC | ug/l | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.39) | ND (0.38) | ND (0.39) |
| Indeno(1,2,3-cd)pyrene | NC | 4.31[S] | NC | NC | ug/l | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.33) |
| Isophorone | NC | 920[S] | NC | NC | ug/l | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.26) | ND (0.28) | ND (0.27) | ND (0.28) |
| 2-Methylnaphthalene | NC | 330[S] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) |
| 2-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.26) [a] | ND (0.26) [a] | ND (0.26) [a] | ND (0.27) [a] | ND (0.26) [a] | ND (0.26) [a] | ND (0.26) [a] | ND (0.28) [a] | ND (0.26) [a] | ND (0.26) [a] | ND (0.27) [a] | ND (0.26) [a] | ND (0.28) [a] | ND (0.27) [a] | ND (0.28) [a] |
| 3-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.37) | ND (0.39) | ND (0.38) | ND (0.39) |
| 4-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.43) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.44) | ND (0.42) | ND (0.42) | ND (0.44) | ND (0.42) | ND (0.44) | ND (0.43) | ND (0.44) |
| Naphthalene | NC | 13[S] | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) |
| Nitrobenzene | NC | NC | NC | NC | ug/l | ND (0.61) | ND (0.61) | ND (0.61) | ND (0.62) | ND (0.61) | ND (0.61) | ND (0.61) | ND (0.64) | ND (0.61) | ND (0.61) | ND (0.64) | ND (0.61) | ND (0.64) | ND (0.62) | ND (0.64) |
| N-Nitroso-di-n-propylamine | NC | NC | NC | NC | ug/l | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.47) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.48) | ND (0.46) | ND (0.46) | ND (0.48) | ND (0.46) | ND (0.48) | ND (0.47) | ND (0.48) |
| N-Nitrosodiphenylamine | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) |
| Phenanthrene | NC | 3.6[S] | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.18) |
| Pyrene | NC | 0.30[S] | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) |
| 1,2,4,5-Tetrachlorobenzene | NC | NC | NC | NC | ug/l | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.36) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.37) | ND (0.35) | ND (0.35) | ND (0.37) | ND (0.35) | ND (0.37) | ND (0.36) | ND (0.37) |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | NC | NC | NC | NC | ug/l | 28 J | 0 | 0 | 0 | 0 | 0 | 0 | 7.8 J | 0 | 0 | 0 | 0 | 0 | 0 | 6 J |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-13A | SW-13B | SW-13C | SW-14A | SW-14B | SW-14C | SW-15A | SW-15B | SW-15C | SW-16A | SW-16B | SW-16C | SW-17A | SW-17B | SW-17C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83457-1 | JC83457-2 | JC83457-3 | JC83457-4 | JC83457-5 | JC83457-6 | JC83457-7 | JC83457-8 | JC83457-9 | JC83501-3 | JC83501-4 | JC83501-5 | JC83501-6 | JC83501-7 | JC83501-8 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/26/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/27/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | |
| Aluminum | NC | NC | NC | NC | ug/l | <200 | 200 | <200 | <200 | 226 | 298 | 201 | 256 | 301 | <200 | <200 | <200 | <200 | <200 | <200 |
| Antimony | NC | 80[8] | NC | NC | ug/l | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 |
| Arsenic | 340(d)(s) | 150(d)(s) | 69(d)(s) | 36(d)(s) | ug/l | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 | <30 [i] | <30 [i] | <30 [i] | <30 [i] | <30 [i] | <30 [i] |
| Barium | NC | 220[8] | NC | NC | ug/l | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 |
| Beryllium | NC | 3.6[8] | NC | NC | ug/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Cadmium | (a) | (a) | 40(d)(s) | 8.8(d)(s) | ug/l | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Calcium[1] | NC | 116,000 | NC | NC | ug/l | 241000 | 242000 | 246000 | 233000 | 244000 | 248000 | 244000 | 243000 | 241000 | 229000 | 233000 | 233000 | 231000 | 223000 | 231000 |
| Chromium | (a) | 42[8] | NC | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Cobalt | 17.25 | 24[8] | NC | NC | ug/l | <500 [j] | <500 [j] | <500 [j] | <500 [j] | <500 [j] | <500 [j] | <500 [j] | <500 [j] | <500 [j] | <500 | <50 | <500 | <500 | <500 | <500 |
| Copper | (a) | (a) | 4.8(d)(s) | 3.1(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Iron | NC | 1000 | NC | NC | ug/l | 380 | 333 | 329 | 359 | 365 | 479 | 357 | 355 | 437 | 335 | 370 | 333 | 539 | 401 | 363 |
| Lead | 38(d)(s) | 5.4(d)(s) | 210(d)(s) | 24(d)(s) | ug/l | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [o] | <30 [o] | <30 [o] | <30 [o] | <30 [o] | <30 [o] |
| Magnesium[1] | NC | 82,000 | NC | NC | ug/l | 719000 | 722000 | 742000 | 697000 | 738000 | 749000 | 737000 | 734000 | 726000 | 677000 | 692000 | 691000 | 685000 | 660000 | 685000 |
| Manganese | NC | NC | NC | NC | ug/l | 68.5 | 68.2 | 66.3 | 67.8 | 60.7 | 61.8 | 66.9 | 62.8 | 60.9 | 66.4 | 67.2 | 66.8 | 74.4 | 69 | 68.7 |
| Mercury | 1.4(d)(s) | 0.77(d)(s) | 1.8(d)(s) | 0.94(d)(s) | ug/l | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Nickel | (a) | (a) | 64(d)(s) | 22(d)(s) | ug/l | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [o] | <10 | <100 [o] | <100 [o] | <100 [o] | <100 [o] |
| Potassium | NC | NC | NC | NC | ug/l | 219000 | 220000 | 225000 | 212000 | 224000 | 228000 | 222000 | 223000 | 221000 | 207000 | 211000 | 212000 | 209000 | 202000 | 210000 |
| Selenium | 20(s) | 5.0(s) | 290(d)(s) | 71(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Silver | (a) | (a) | 1.9(d)(s) | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Sodium | NC | 680,000 | NC | NC | ug/l | 5980000 | 6040000 | 6270000 | 5690000 | 6000000 | 5980000 | 5860000 | 5980000 | 5850000 | 5620000 | 5580000 | 5420000 | 5350000 | 5390000 | 5220000 |
| Thallium | NC | 10[8] | NC | NC | ug/l | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [j] | <100 [o] | <100 [o] | <100 [o] | <100 [o] | <100 [o] | <100 [o] |
| Vanadium | NC | 12[8] | NC | NC | ug/l | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Zinc | (a) | (a) | 90(d)(s) | 81(d)(s) | ug/l | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| **General Chemistry** | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total as CaCO3 | NC | NC | NC | NC | mg/l | 103 [k] | 97.8 [k] | 97.8 [k] | 104 [k] | 104 [k] | 91.5 [k] | 98.8 [k] | 96.7 [k] | 97.2 [k] | 102 [k] | 99.8 [k] | 59.8 [k] | 97.8 [k] | 103 [k] | 105 [k] |
| Chloride[2] | 860 | 230 | NC | NC | mg/l | 9960 [r] | 10100 [r] | 10300 [r] | 9810 [r] | 10400 [r] | 10400 [r] | 9920 [r] | 10200 [r] | 10300 [r] | 9310 [r] | 9230 [r] | 9260 [r] | 9220 [r] | 9260 [r] | 9300 [r] |
| Hardness, Total as CaCO3 | NC | NC | NC | NC | mg/l | 3300 | 3950 | 3650 | 3380 | 3500 | 3630 | 3880 | 3630 | 3450 | 3290 | 3380 | 3280 | 3150 | 3350 | 3080 |
| Nitrogen, Ammonia | NC | NC | NC | NC | mg/l | 0.34 | 0.33 | 0.33 | 0.33 | 0.33 | 0.34 | 0.32 | 0.33 | 0.34 | 0.44 | 0.37 | 0.36 | 0.34 | 0.32 | 0.34 |
| Nitrogen, Nitrate | NC | NC | NC | NC | mg/l | 0.32 [m] | 0.45 [m] | 0.39 [m] | 0.60 [m] | 0.54 [m] | 0.51 [m] | 0.31 [m] | 0.31 [m] | 0.61 [m] | 0.40 [m] | 0.35 [m] | 0.34 [m] | 0.33 [m] | 0.35 [m] | 0.36 [m] |
| Nitrogen, Nitrate + Nitrite | NC | NC | NC | NC | mg/l | 0.35 | 0.48 | 0.42 | 0.63 | 0.57 | 0.54 | 0.34 | 0.34 | 0.64 | 0.42 | 0.38 | 0.37 | 0.35 | 0.37 | 0.39 |
| Nitrogen, Nitrite | NC | NC | NC | NC | mg/l | 0.03 | 0.031 | 0.028 | 0.029 | 0.031 | 0.029 | 0.029 | 0.03 | 0.027 | 0.017 | 0.032 | 0.028 | 0.019 | 0.02 | 0.035 |
| Solids, Total Dissolved | NC | NC | NC | NC | mg/l | 17800 | 19300 | 18600 | 18200 | 18500 | 19100 | 18400 | 19100 | 18600 | 17200 | 18400 | 17300 | 17400 | 17400 | 17400 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-18A | SW-18B | SW-18C | SW-19A | SW-19B | SW-19C | SW-20A | SW-20B | SW-20C | SW-21A | SW-21B | SW-21C | SW-22A | SW-22B | SW-22C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83501-9 | JC83501-10 | JC83501-11 | JC83595-3 | JC83595-4 | JC83595-5 | JC83595-6 | JC83595-7 | JC83595-8 | JC83595-9 | JC83595-10 | JC83595-11 | JC83841-2 | JC83841-3 | JC83841-4 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | | | | | | |
| Acetone | 6000 | NC | NC | NC | ug/l | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) |
| Benzene | NC | 114[8] 824[16] | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Bromochloromethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| Bromodichloromethane | NC | NC | NC | NC | ug/l | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) |
| Bromoform | NC | 230[8] | NC | NC | ug/l | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) |
| Bromomethane | NC | NC | NC | NC | ug/l | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) |
| 2-Butanone (MEK) | NC | NC | NC | NC | ug/l | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) |
| Carbon disulfide | NC | NC | NC | NC | ug/l | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) |
| Carbon tetrachloride | NC | 240[8] | NC | NC | ug/l | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) |
| Chlorobenzene | NC | 47[8] | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| Chloroethane | NC | NC | NC | NC | ug/l | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) |
| Chloroform | NC | 140[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| Chloromethane | NC | NC | NC | NC | ug/l | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) |
| Cyclohexane | NC | NC | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| 1,2-Dibromo-3-chloropropane | NC | NC | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) |
| Dibromochloromethane | NC | NC | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| 1,2-Dibromoethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| 1,2-Dichlorobenzene | NC | 14[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,3-Dichlorobenzene | NC | 38[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,4-Dichlorobenzene | NC | 9.4[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| Dichlorodifluoromethane | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| 1,1-Dichloroethane | NC | NC | NC | NC | ug/l | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) |
| 1,2-Dichloroethane | NC | 910[8] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| 1,1-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| cis-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| trans-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,2-Dichloropropane | NC | 360[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| cis-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) |
| trans-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Ethylbenzene | NC | 14[8] 81[16] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Freon 113 | NC | NC | NC | NC | ug/l | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| 2-Hexanone | NC | NC | NC | NC | ug/l | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Isopropylbenzene | NC | NC | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Methyl Acetate | NC | NC | NC | NC | ug/l | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) |
| Methylcyclohexane | NC | NC | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Methyl Tert Butyl Ether | 151,000[17] | 51,450[16] 51,000[17] | 53,000[17] | 18,000[17] | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| 4-Methyl-2-pentanone(MIBK) | NC | NC | NC | NC | ug/l | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| Methylene chloride | NC | 940[8] | NC | NC | ug/l | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) |
| Styrene | NC | 32[8] | NC | NC | ug/l | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) |
| 1,1,2,2-Tetrachloroethane | NC | 380[8] | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Tetrachloroethene | NC | NC | NC | NC | ug/l | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) |
| Toluene | NC | 253[8] 822[16] | NC | NC | ug/l | 0.83 J | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,2,3-Trichlorobenzene | NC | NC | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,2,4-Trichlorobenzene | NC | 30[8] | NC | NC | ug/l | ND (0.50) [g] | ND (0.50) [g] | ND (0.50) [g] | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,1,1-Trichloroethane | NC | 76[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,1,2-Trichloroethane | NC | 500[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichloroethene | NC | NC | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichlorofluoromethane | NC | NC | NC | NC | ug/l | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) |
| Vinyl chloride | NC | 930[8] | NC | NC | ug/l | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) |
| m,p-Xylene | NC | NC | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| o-Xylene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| Xylene (total) | NC | 27[8] 296[16] | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| **MS Volatile TIC** | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-18A | SW-18B | SW-18C | SW-19A | SW-19B | SW-19C | SW-20A | SW-20B | SW-20C | SW-21A | SW-21B | SW-21C | SW-22A | SW-22B | SW-22C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83501-9 | JC83501-10 | JC83501-11 | JC83595-3 | JC83595-4 | JC83595-5 | JC83595-6 | JC83595-7 | JC83595-8 | JC83595-9 | JC83595-10 | JC83595-11 | JC83841-2 | JC83841-3 | JC83841-4 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | NC | 24[g] | NC | NC | ug/l | ND (0.78) | ND (0.81) | ND (0.78) | ND (0.78) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.82) | ND (0.80) | ND (0.82) | ND (0.78) | ND (0.78) | ND (0.78) |
| 4-Chloro-3-methyl phenol | NC | NC | NC | NC | ug/l | ND (0.85) | ND (0.88) | ND (0.85) | ND (0.85) | ND (0.87) | ND (0.87) | ND (0.87) | ND (0.87) | ND (0.87) | ND (0.89) | ND (0.87) | ND (0.89) | ND (0.85) | ND (0.85) | ND (0.85) |
| 2,4-Dichlorophenol | NC | 11[g] | NC | NC | ug/l | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.2) |
| 2,4-Dimethylphenol | NC | 100[g] | NC | NC | ug/l | ND (2.3) | ND (2.4) | ND (2.3) | ND (2.3) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.3) | ND (2.3) | ND (2.3) |
| 2,4-Dinitrophenol | NC | 19[g] | NC | NC | ug/l | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.5) | ND (1.6) | ND (1.5) | ND (1.5) | ND (1.5) |
| 4,6-Dinitro-o-cresol | NC | NC | NC | NC | ug/l | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.2) | ND (1.2) |
| 2-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.85) | ND (0.88) | ND (0.85) | ND (0.85) | ND (0.86) | ND (0.87) | ND (0.87) | ND (0.86) | ND (0.87) | ND (0.89) | ND (0.87) | ND (0.89) | ND (0.85) | ND (0.85) | ND (0.85) |
| 3&4-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.84) | ND (0.87) | ND (0.84) | ND (0.84) | ND (0.85) | ND (0.86) | ND (0.86) | ND (0.85) | ND (0.86) | ND (0.88) | ND (0.86) | ND (0.88) | ND (0.84) | ND (0.84) | ND (0.84) |
| 2-Nitrophenol | NC | NC | NC | NC | ug/l | ND (0.91) | ND (0.95) | ND (0.91) | ND (0.91) | ND (0.93) | ND (0.94) | ND (0.94) | ND (0.93) | ND (0.94) | ND (0.96) | ND (0.94) | ND (0.96) | ND (0.91) | ND (0.91) | ND (0.91) |
| 4-Nitrophenol | NC | 60[g] | NC | NC | ug/l | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.1) [a] | ND (1.2) [a] | ND (1.1) [a] | ND (1.2) [a] | ND (1.1) [c] | ND (1.1) [c] | ND (1.1) [c] |
| Pentachlorophenol | (b) | (b) | 13 | 7.9 | ug/l | ND (1.3) | ND (1.4) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.4) | ND (1.4) | ND (1.3) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.3) | ND (1.3) | ND (1.3) |
| Phenol | NC | 180[g] | NC | NC | ug/l | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.37) |
| 2,3,4,6-Tetrachlorophenol | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.5) | ND (1.4) | ND (1.5) | ND (1.4) | ND (1.4) | ND (1.4) |
| 2,4,5-Trichlorophenol | NC | NC | NC | NC | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2,4,6-Trichlorophenol | NC | 4.9[g] | NC | NC | ug/l | ND (0.88) | ND (0.91) | ND (0.88) | ND (0.88) | ND (0.90) | ND (0.91) | ND (0.91) | ND (0.90) | ND (0.91) | ND (0.92) | ND (0.91) | ND (0.92) | ND (0.88) | ND (0.88) | ND (0.88) |
| Acenaphthene | NC | 38[g] | NC | NC | ug/l | ND (0.18) | ND (0.19) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.18) | ND (0.18) | ND (0.18) |
| Acenaphthylene | NC | 4840[g] | NC | NC | ug/l | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.13) | ND (0.13) |
| Acetophenone | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) |
| Anthracene | NC | 0.035[g] | NC | NC | ug/l | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | 0.65 J | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) |
| Atrazine | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.44) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.44) | ND (0.44) | ND (0.43) | ND (0.44) | ND (0.45) | ND (0.44) | ND (0.45) | ND (0.43) | ND (0.43) | ND (0.43) |
| Benzaldehyde | NC | NC | NC | NC | ug/l | ND (0.28) | ND (0.29) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.28) | ND (0.29) | ND (0.28) | ND (0.28) | ND (0.28) |
| Benzo(a)anthracene | NC | 0.025[g] | NC | NC | ug/l | ND (0.19) | ND (0.20) | ND (0.19) | ND (0.19) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.19) | ND (0.19) | ND (0.19) |
| Benzo(a)pyrene | NC | 0.014[g] | NC | NC | ug/l | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) |
| Benzo(b)fluoranthene | NC | 9.08[a] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) |
| Benzo(g,h,i)perylene | NC | 7.64[g] | NC | NC | ug/l | ND (0.32) | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.34) | ND (0.33) | ND (0.34) | ND (0.32) [a] | ND (0.32) [a] | ND (0.32) [a] |
| Benzo(k)fluoranthene | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) |
| 4-Bromophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.38) | ND (0.40) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.40) | ND (0.40) | ND (0.39) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.38) | ND (0.38) | ND (0.38) |
| Butyl benzyl phthalate | NC | NC | NC | NC | ug/l | ND (0.44) [a] | ND (0.45) [a] | ND (0.44) [a] | ND (0.44) | ND (0.44) | ND (0.45) | ND (0.45) | ND (0.44) | ND (0.45) | ND (0.46) | ND (0.45) | ND (0.46) | ND (0.44) [c] | ND (0.44) [c] | ND (0.44) [c] |
| 1,1'-Biphenyl | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) |
| 2-Chloronaphthalene | NC | 0.396[g] | NC | NC | ug/l | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.23) | ND (0.24) | ND (0.22) | ND (0.22) | ND (0.22) |
| 4-Chloroaniline | NC | NC | NC | NC | ug/l | ND (0.32) | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.34) | ND (0.33) | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.32) |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-18A | SW-18B | SW-18C | SW-19A | SW-19B | SW-19C | SW-20A | SW-20B | SW-20C | SW-21A | SW-21B | SW-21C | SW-22A | SW-22B | SW-22C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83501-9 | JC83501-10 | JC83501-11 | JC83595-3 | JC83595-4 | JC83595-5 | JC83595-6 | JC83595-7 | JC83595-8 | JC83595-9 | JC83595-10 | JC83595-11 | JC83841-2 | JC83841-3 | JC83841-4 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | |
| Carbazole | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) |
| Caprolactam | NC | NC | NC | NC | ug/l | ND (0.62) | ND (0.64) | ND (0.62) | ND (0.62) | ND (0.63) | ND (0.64) | ND (0.64) | ND (0.63) | ND (0.64) | ND (0.65) | ND (0.64) | ND (0.65) | ND (0.62) | ND (0.62) | ND (0.62) |
| Chrysene | NC | NC | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) |
| bis(2-Chloroethoxy)methane | NC | NC | NC | NC | ug/l | ND (0.26) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.26) |
| bis(2-Chloroethyl)ether | NC | 1900[g] | NC | NC | ug/l | ND (0.24) | ND (0.25) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.24) | ND (0.25) | ND (0.24) | ND (0.24) | ND (0.24) |
| 2,2'-Oxybis(1-chloropropane) | NC | NC | NC | NC | ug/l | ND (0.38) | ND (0.40) | ND (0.38) | ND (0.38) [g] | ND (0.39) [g] | ND (0.40) [g] | ND (0.40) [g] | ND (0.39) [g] | ND (0.40) [g] | ND (0.40) [g] | ND (0.40) [g] | ND (0.40) [g] | ND (0.38) [a] | ND (0.38) [a] | ND (0.38) [a] |
| 4-Chlorophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.35) | ND (0.36) | ND (0.35) | ND (0.35) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.35) | ND (0.35) | ND (0.35) |
| 2,4-Dinitrotoluene | NC | 44[g] | NC | NC | ug/l | ND (0.53) | ND (0.55) | ND (0.53) | ND (0.53) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.55) | ND (0.54) | ND (0.55) | ND (0.53) | ND (0.53) | ND (0.53) |
| 2,6-Dinitrotoluene | NC | NC | NC | NC | ug/l | ND (0.45) | ND (0.47) | ND (0.45) | ND (0.45) | ND (0.46) | ND (0.47) | ND (0.47) | ND (0.46) | ND (0.47) | ND (0.48) | ND (0.47) | ND (0.48) | ND (0.45) | ND (0.45) | ND (0.45) |
| 3,3'-Dichlorobenzidine | NC | 4.5[g] | NC | NC | ug/l | ND (0.48) | ND (0.50) | ND (0.48) | ND (0.48) [c] | ND (0.49) [c] | ND (0.50) [c] | ND (0.50) [c] | ND (0.49) [c] | ND (0.50) [c] | ND (0.51) [c] | ND (0.50) [c] | ND (0.51) [c] | ND (0.48) [c] | ND (0.48) [c] | ND (0.48) [c] |
| 1,4-Dioxane | NC | NC | NC | NC | ug/l | ND (0.63) | ND (0.65) | ND (0.63) | ND (0.63) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.66) | ND (0.64) | ND (0.66) | ND (0.63) | ND (0.63) | ND (0.63) |
| Dibenzo(a,h)anthracene | NC | NC | NC | NC | ug/l | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) |
| Dibenzofuran | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | 0.33 J | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) |
| Di-n-butyl phthalate | NC | 9.7[g] | NC | NC | ug/l | ND (0.47) | ND (0.49) | ND (0.47) | ND (0.47) [f] | ND (0.48) [f] | ND (0.49) [f] | ND (0.49) [f] | ND (0.48) [f] | ND (0.49) [f] | ND (0.50) [f] | ND (0.49) [f] | ND (0.50) [f] | ND (0.47) | ND (0.47) | ND (0.47) |
| Di-n-octyl phthalate | NC | NC | NC | NC | ug/l | ND (0.22) [a] | ND (0.23) [a] | ND (0.22) [a] | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) [c] | ND (0.22) [c] | ND (0.22) [c] |
| Diethyl phthalate | NC | 110[g] | NC | NC | ug/l | ND (0.25) | ND (0.26) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.26) | ND (0.26) | ND (0.25) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.25) | ND (0.25) | ND (0.25) |
| Dimethyl phthalate | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) |
| bis(2-Ethylhexyl)phthalate | NC | 0.3[g] | NC | NC | ug/l | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.7) | ND (1.6) | ND (1.7) | ND (1.6) | ND (1.6) | ND (1.6) |
| Fluoranthene | NC | 1.9[g] | NC | NC | ug/l | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.16) |
| Fluorene | NC | 19[g] | NC | NC | ug/l | ND (0.16) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | 0.31 J | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.16) |
| Hexachlorobenzene | NC | 0.0003[g] | NC | NC | ug/l | ND (0.31) | ND (0.32) | ND (0.31) | ND (0.31) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.31) | ND (0.31) | ND (0.31) |
| Hexachlorobutadiene | NC | 0.053[g] | NC | NC | ug/l | ND (0.47) | ND (0.49) | ND (0.47) | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.49) | ND (0.48) | ND (0.49) | ND (0.47) | ND (0.47) | ND (0.47) |
| Hexachlorocyclopentadiene | NC | 77[g] | NC | NC | ug/l | ND (2.6) | ND (2.8) | ND (2.6) | ND (2.6) | ND (2.7) | ND (2.7) | ND (2.7) | ND (2.7) | ND (2.7) | ND (2.8) | ND (2.7) | ND (2.8) | ND (2.6) | ND (2.6) | ND (2.6) |
| Hexachloroethane | NC | 8[g] | NC | NC | ug/l | ND (0.37) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.37) |
| Indeno(1,2,3-cd)pyrene | NC | 4.31[g] | NC | NC | ug/l | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) |
| Isophorone | NC | 920[g] | NC | NC | ug/l | ND (0.26) | ND (0.27) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.26) |
| 2-Methylnaphthalene | NC | 330[g] | NC | NC | ug/l | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) |
| 2-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.26) [a] | ND (0.27) [a] | ND (0.26) [a] | ND (0.26) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.26) |
| 3-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.37) | ND (0.38) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.37) |
| 4-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.42) | ND (0.44) | ND (0.42) | ND (0.42) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.44) | ND (0.43) | ND (0.44) | ND (0.42) | ND (0.42) | ND (0.42) |
| Naphthalene | NC | 13[g] | NC | NC | ug/l | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.22) |
| Nitrobenzene | NC | NC | NC | NC | ug/l | ND (0.61) | ND (0.64) | ND (0.61) | ND (0.61) | ND (0.62) | ND (0.63) | ND (0.63) | ND (0.62) | ND (0.63) | ND (0.64) | ND (0.63) | ND (0.64) | ND (0.61) [c] | ND (0.61) [c] | ND (0.61) [c] |
| N-Nitroso-di-n-propylamine | NC | NC | NC | NC | ug/l | ND (0.46) | ND (0.48) | ND (0.46) | ND (0.46) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.48) | ND (0.47) | ND (0.48) | ND (0.46) | ND (0.46) | ND (0.46) |
| N-Nitrosodiphenylamine | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.22) [a] | ND (0.21) [a] | ND (0.21) [a] | ND (0.21) [a] |
| Phenanthrene | NC | 3.6[g] | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | 0.64 J | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) |
| Pyrene | NC | 0.30[g] | NC | NC | ug/l | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.21) |
| 1,2,4,5-Tetrachlorobenzene | NC | NC | NC | NC | ug/l | ND (0.35) | ND (0.37) | ND (0.35) | ND (0.35) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.35) | ND (0.35) | ND (0.35) |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-18A | SW-18B | SW-18C | SW-19A | SW-19B | SW-19C | SW-20A | SW-20B | SW-20C | SW-21A | SW-21B | SW-21C | SW-22A | SW-22B | SW-22C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83501-9 | JC83501-10 | JC83501-11 | JC83595-3 | JC83595-4 | JC83595-5 | JC83595-6 | JC83595-7 | JC83595-8 | JC83595-9 | JC83595-10 | JC83595-11 | JC83841-2 | JC83841-3 | JC83841-4 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/27/2019 | 2/27/2019 | 2/27/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 2/28/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | |
| Aluminum | NC | NC | NC | NC | ug/l | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | 221 | 239 |
| Antimony | NC | 80[g] | NC | NC | ug/l | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 |
| Arsenic | 340(d)(s) | 150(d)(s) | 69(d)(s) | 36(d)(s) | ug/l | <30 [i] | <30 [i] | <30 [i] | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <30 | <30 [i] | <30 [i] |
| Barium | NC | 220[g] | NC | NC | ug/l | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 |
| Beryllium | NC | 3.6[g] | NC | NC | ug/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Cadmium | (a) | (a) | 40(d)(s) | 8.8(d)(s) | ug/l | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Calcium[1] | NC | 116,000 | NC | NC | ug/l | 231000 | 237000 | 227000 | 231000 | 223000 | 225000 | 224000 | 223000 | 224000 | 229000 | 222000 | 226000 | 235000 | 229000 | 232000 [o] |
| Chromium | (a) | 42[g] | NC | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Cobalt | 17.25 | 24[g] | NC | NC | ug/l | <500 | <500 | <500 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <500 [o] | <500 [i] | <500 [o] |
| Copper | (a) | (a) | 4.8(d)(s) | 3.1(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <100 [i] | <10 |
| Iron | NC | 1000 | NC | NC | ug/l | 517 | 461 | 379 | 345 | 344 | 329 | 364 | 367 | 346 | 427 | 379 | 375 | <1000 [j] | <1000 [j] | <1000 [j] |
| Lead | 38(d)(s) | 5.4(d)(s) | 210(d)(s) | 24(d)(s) | ug/l | <30 [o] | <30 [o] | <30 [o] | <15 | <15 | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <30 [o] | <30 [o] | <30 [o] |
| Magnesium[1] | NC | 82,000 | NC | NC | ug/l | 684000 | 700000 | 673000 | 689000 | 664000 | 671000 | 667000 | 664000 | 666000 | 681000 | 661000 | 672000 | 694000 | 679000 | 684000 |
| Manganese | NC | NC | NC | NC | ug/l | 72.7 | 70.8 | 69.4 | 63.7 | 63.1 | 63 | 64.6 | 64 | 64.2 | 66.9 | 64.3 | 64.7 | 61.3 | 61.6 | 63.5 |
| Mercury | 1.4(d)(s) | 0.77(d)(s) | 1.8(d)(s) | 0.94(d)(s) | ug/l | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Nickel | (a) | (a) | 64(d)(s) | 22(d)(s) | ug/l | <100 [o] | <100 [o] | <100 [o] | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <100 [o] | <100 [o] | <100 [o] |
| Potassium | NC | NC | NC | NC | ug/l | 209000 | 214000 | 206000 | 199000 | 209000 | 212000 | 210000 | 209000 | 210000 | 214000 | 208000 | 212000 | 223000 | 220000 | 224000 |
| Selenium | 20(s) | 5.0(s) | 290(d)(s) | 71(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Silver | (a) | (a) | 1.9(d)(s) | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Sodium | NC | 680,000 | NC | NC | ug/l | 5490000 | 5270000 | 5460000 | 5430000 | 5280000 | 5230000 | 5110000 | 5330000 | 5300000 | 5480000 | 5260000 | 5510000 | 5360000 | 5260000 | 5330000 |
| Thallium | NC | 10[g] | NC | NC | ug/l | <100 [o] | <100 [o] | <100 [o] | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <100 [o] | <100 [o] | <100 [o] |
| Vanadium | NC | 12[g] | NC | NC | ug/l | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Zinc | (a) | (a) | 90(d)(s) | 81(d)(s) | ug/l | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| **General Chemistry** | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total as CaCO3 | NC | NC | NC | NC | mg/l | 90.5 [k] | 93.6 [k] | 92.0 [k] | 96.7 [k] | 95.7 [k] | 97.2 [k] | 119 [k] | 108 [k] | 105 [k] | 101 [k] | 104 [k] | 105 [k] | 102 [k] | 102 [k] | 101 [k] |
| Chloride[2] | 860 | 230 | NC | NC | mg/l | 9340 [f] | 9310 [f] | 9370 [f] | 9180 [f] | 9230 [f] | 9500 [f] | 9140 [f] | 9170 [f] | 9200 [f] | 9160 [f] | 9420 [f] | 9300 [f] | 9240 [f] | 9400 [f] | 9180 [f] |
| Hardness, Total as CaCO3 | NC | NC | NC | NC | mg/l | 3150 | 3200 | 3330 | 3230 | 3100 | 3250 | 3200 | 3130 | 3250 | 3180 | 3230 | 3380 | 3250 | 3200 | 3200 |
| Nitrogen, Ammonia | NC | NC | NC | NC | mg/l | 0.33 | 0.33 | 0.34 | 0.32 | 0.33 | 0.32 | 0.31 | 0.34 | 0.32 | 0.32 | 0.34 | 0.32 | 0.38 | 0.4 | <0.20 |
| Nitrogen, Nitrate | NC | NC | NC | NC | mg/l | 0.33 [m] | 0.32 [m] | 0.34 [m] | 0.36 [m] | 0.31 [m] | 0.30 [m] | 0.33 [m] | 0.30 [m] | 0.31 [m] | 0.30 [m] | 0.30 [m] | 0.30 [m] | 1.2 [m] | 0.57 [m] | 0.82 [m] |
| Nitrogen, Nitrate + Nitrite | NC | NC | NC | NC | mg/l | 0.36 | 0.35 | 0.38 | 0.36 | 0.35 | 0.34 | 0.37 | 0.34 | 0.35 | 0.33 | 0.34 | 0.34 | 1.2 | 0.61 | 0.87 |
| Nitrogen, Nitrite | NC | NC | NC | NC | mg/l | 0.035 | 0.029 | 0.042 | <0.010 | 0.037 | 0.037 | 0.037 | 0.036 | 0.037 | 0.032 | 0.043 | 0.038 | 0.045 | 0.042 | 0.047 |
| Solids, Total Dissolved | NC | NC | NC | NC | mg/l | 16700 | 17400 | 17300 | 16600 | 16000 | 15200 | 15800 | 16100 | 16200 | 1670 | 16800 | 16500 | 17000 | 17400 | 16900 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-23A | SW-23B | SW-23C | SW-24A | SW-24B | SW-24C | SW-25A | SW-25B | SW-25C | SW-26A | SW-26B | SW-26C | SW-27A | SW-27B | SW-27C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83841-5 | JC83841-6 | JC83841-7 | JC83841-8 | JC83841-9 | JC83841-10 | JC83090-1 | JC83090-2 | JC83090-3 | JC83039-4 | JC83039-5 | JC83039-6 | JC83039-1 | JC83039-2 | JC83039-3 |
| Date Sampled: | Aquatic | | Aquatic | | | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | | | | | | |
| Acetone | 6000 | NC | NC | NC | ug/l | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) |
| Benzene | NC | 114[8] 824[16] | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Bromochloromethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| Bromodichloromethane | NC | NC | NC | NC | ug/l | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) |
| Bromoform | NC | 230[8] | NC | NC | ug/l | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) |
| Bromomethane | NC | NC | NC | NC | ug/l | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) |
| 2-Butanone (MEK) | NC | NC | NC | NC | ug/l | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) |
| Carbon disulfide | NC | NC | NC | NC | ug/l | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) |
| Carbon tetrachloride | NC | 240[8] | NC | NC | ug/l | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) |
| Chlorobenzene | NC | 47[8] | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| Chloroethane | NC | NC | NC | NC | ug/l | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) |
| Chloroform | NC | 140[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| Chloromethane | NC | NC | NC | NC | ug/l | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) |
| Cyclohexane | NC | NC | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| 1,2-Dibromo-3-chloropropane | NC | NC | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) |
| Dibromochloromethane | NC | NC | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| 1,2-Dibromoethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| 1,2-Dichlorobenzene | NC | 14[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,3-Dichlorobenzene | NC | 38[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,4-Dichlorobenzene | NC | 9.4[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| Dichlorodifluoromethane | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| 1,1-Dichloroethane | NC | NC | NC | NC | ug/l | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) |
| 1,2-Dichloroethane | NC | 910[8] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| 1,1-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| cis-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| trans-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,2-Dichloropropane | NC | 360[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| cis-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) |
| trans-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Ethylbenzene | NC | 14[8] 81[16] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Freon 113 | NC | NC | NC | NC | ug/l | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| 2-Hexanone | NC | NC | NC | NC | ug/l | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Isopropylbenzene | NC | NC | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Methyl Acetate | NC | NC | NC | NC | ug/l | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) |
| Methylcyclohexane | NC | NC | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Methyl Tert Butyl Ether | 151,000[17] | 51,450[16] 51,000[17] | 53,000[17] | 18,000[17] | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| 4-Methyl-2-pentanone(MIBK) | NC | NC | NC | NC | ug/l | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| Methylene chloride | NC | 940[8] | NC | NC | ug/l | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) |
| Styrene | NC | 32[8] | NC | NC | ug/l | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) |
| 1,1,2,2-Tetrachloroethane | NC | 380[8] | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Tetrachloroethene | NC | NC | NC | NC | ug/l | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) |
| Toluene | NC | 253[8] 822[16] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,2,3-Trichlorobenzene | NC | NC | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,2,4-Trichlorobenzene | NC | 30[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,1,1-Trichloroethane | NC | 76[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,1,2-Trichloroethane | NC | 500[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichloroethene | NC | NC | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichlorofluoromethane | NC | NC | NC | NC | ug/l | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) |
| Vinyl chloride | NC | 930[8] | NC | NC | ug/l | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) |
| m,p-Xylene | NC | NC | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | 0.98 J | 1.2 | 1.2 | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| o-Xylene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| Xylene (total) | NC | 27[8] 296[16] | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | 0.98 J | 1.2 | 1.2 | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| **MS Volatile TIC** | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-23A | SW-23B | SW-23C | SW-24A | SW-24B | SW-24C | SW-25A | SW-25B | SW-25C | SW-26A | SW-26B | SW-26C | SW-27A | SW-27B | SW-27C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83841-5 | JC83841-6 | JC83841-7 | JC83841-8 | JC83841-9 | JC83841-10 | JC83090-1 | JC83090-2 | JC83090-3 | JC83039-4 | JC83039-5 | JC83039-6 | JC83039-1 | JC83039-2 | JC83039-3 |
| Date Sampled: | Aquatic | | Aquatic | | | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | NC | 24[g] | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.81) | ND (0.80) | ND (0.82) | ND (0.81) [b] | ND (0.83) [b] | ND (0.78) [b] | ND (0.78) [b] | ND (0.81) [b] | ND (0.82) [b] |
| 4-Chloro-3-methyl phenol | NC | NC | NC | NC | ug/l | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.88) | ND (0.87) | ND (0.89) | ND (0.88) [b] | ND (0.90) [b] | ND (0.85) [b] | ND (0.85) [b] | ND (0.88) [b] | ND (0.89) [b] |
| 2,4-Dichlorophenol | NC | 11[g] | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) [b] | ND (1.3) [b] | ND (1.2) [b] | ND (1.2) [b] | ND (1.3) [b] | ND (1.3) [b] |
| 2,4-Dimethylphenol | NC | 100[g] | NC | NC | ug/l | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.3) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) [b] | ND (2.5) [b] | ND (2.3) [b] | ND (2.3) [b] | ND (2.4) [b] | ND (2.4) [b] |
| 2,4-Dinitrophenol | NC | 19[g] | NC | NC | ug/l | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) [c] | ND (1.5) [c] | ND (1.6) [c] | ND (1.5) [b] | ND (1.6) [b] | ND (1.5) [b] | ND (1.5) [b] | ND (1.5) [b] | ND (1.6) [b] |
| 4,6-Dinitro-o-cresol | NC | NC | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) [b] | ND (1.3) [b] | ND (1.2) [b] | ND (1.2) [b] | ND (1.3) [b] | ND (1.3) [b] |
| 2-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.85) | ND (0.88) | ND (0.87) | ND (0.89) | ND (0.88) [b] | ND (0.90) [b] | ND (0.85) [b] | ND (0.85) [b] | ND (0.88) [b] | ND (0.89) [b] |
| 3&4-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.87) | ND (0.86) | ND (0.88) | ND (0.87) [b] | ND (0.89) [b] | ND (0.84) [b] | ND (0.84) [b] | ND (0.87) [b] | ND (0.88) [b] |
| 2-Nitrophenol | NC | NC | NC | NC | ug/l | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.95) | ND (0.94) | ND (0.96) | ND (0.95) [d] | ND (0.97) [d] | ND (0.91) [d] | ND (0.91) [d] | ND (0.95) [d] | ND (0.96) [d] |
| 4-Nitrophenol | NC | 60[g] | NC | NC | ug/l | ND (1.1) [c] | ND (1.1) [c] | ND (1.1) [c] | ND (1.1) [c] | ND (1.1) [c] | ND (1.1) [c] | ND (1.1) | ND (1.1) | ND (1.2) | ND (1.1) [e] | ND (1.2) [e] | ND (1.1) [e] | ND (1.1) [e] | ND (1.1) [e] | ND (1.2) [e] |
| Pentachlorophenol | (b) | (b) | 13 | 7.9 | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) [b] | ND (1.4) [b] | ND (1.3) [b] | ND (1.3) [b] | ND (1.4) [b] | ND (1.4) [b] |
| Phenol | NC | 180[g] | NC | NC | ug/l | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.39) [b] | ND (0.40) [b] | ND (0.37) [b] | ND (0.37) [b] | ND (0.39) [b] | ND (0.39) [b] |
| 2,3,4,6-Tetrachlorophenol | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.5) | ND (1.4) [f] | ND (1.5) [f] | ND (1.4) [f] | ND (1.4) [f] | ND (1.4) [f] | ND (1.5) [f] |
| 2,4,5-Trichlorophenol | NC | NC | NC | NC | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) [b] | ND (1.3) [b] | ND (1.3) [b] | ND (1.3) [b] | ND (1.3) [b] | ND (1.3) [b] |
| 2,4,6-Trichlorophenol | NC | 4.9[g] | NC | NC | ug/l | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.91) | ND (0.91) | ND (0.92) | ND (0.91) [b] | ND (0.93) [b] | ND (0.88) [b] | ND (0.88) [b] | ND (0.91) [b] | ND (0.92) [b] |
| Acenaphthene | NC | 38[g] | NC | NC | ug/l | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.18) | ND (0.18) | ND (0.19) | ND (0.19) |
| Acenaphthylene | NC | 4840[g] | NC | NC | ug/l | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) |
| Acetophenone | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) |
| Anthracene | NC | 0.035[g] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) |
| Atrazine | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.44) [a] | ND (0.44) [a] | ND (0.45) [a] | ND (0.44) [a] | ND (0.45) [a] | ND (0.43) [a] | ND (0.43) [a] | ND (0.44) [a] | ND (0.45) [a] |
| Benzaldehyde | NC | NC | NC | NC | ug/l | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.28) | ND (0.28) | ND (0.29) | ND (0.29) |
| Benzo(a)anthracene | NC | 0.025[g] | NC | NC | ug/l | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | 0.20 JB | ND (0.21) | 0.19 JB | 0.26 JB | 0.23 JB | 0.25 JB |
| Benzo(a)pyrene | NC | 0.014[g] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [a] | ND (0.22) [a] | ND (0.20) [a] | ND (0.20) [a] | ND (0.21) [a] | ND (0.21) [a] |
| Benzo(b)fluoranthene | NC | 9.08[a] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) [g] | ND (0.20) [g] | ND (0.21) [g] | ND (0.20) [a] | ND (0.21) [a] | ND (0.20) [a] | 0.24 JB [h] | 0.26 JB [h] | ND (0.21) [a] |
| Benzo(g,h,i)perylene | NC | 7.64[g] | NC | NC | ug/l | ND (0.32) [a] | ND (0.32) [a] | ND (0.32) [a] | ND (0.32) [a] | ND (0.32) [a] | ND (0.32) [a] | ND (0.34) [g] | ND (0.33) [g] | ND (0.34) [g] | ND (0.34) [a] | ND (0.34) [a] | ND (0.32) [a] | ND (0.32) [a] | ND (0.34) [a] | ND (0.34) [a] |
| Benzo(k)fluoranthene | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) [g] | ND (0.20) [g] | ND (0.21) [g] | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) |
| 4-Bromophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.41) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.40) |
| Butyl benzyl phthalate | NC | NC | NC | NC | ug/l | ND (0.44) [c] | ND (0.44) [c] | ND (0.44) [c] | ND (0.44) [c] | ND (0.44) [c] | ND (0.44) [c] | ND (0.45) | ND (0.45) | ND (0.46) | ND (0.45) [a] | ND (0.46) [a] | ND (0.44) [a] | ND (0.44) [a] | ND (0.45) [a] | ND (0.46) [a] |
| 1,1'-Biphenyl | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) |
| 2-Chloronaphthalene | NC | 0.396[g] | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.23) | ND (0.24) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.24) |
| 4-Chloroaniline | NC | NC | NC | NC | ug/l | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.34) | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.34) | ND (0.34) |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-23A | SW-23B | SW-23C | SW-24A | SW-24B | SW-24C | SW-25A | SW-25B | SW-25C | SW-26A | SW-26B | SW-26C | SW-27A | SW-27B | SW-27C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83841-5 | JC83841-6 | JC83841-7 | JC83841-8 | JC83841-9 | JC83841-10 | JC83090-1 | JC83090-2 | JC83090-3 | JC83039-4 | JC83039-5 | JC83039-6 | JC83039-1 | JC83039-2 | JC83039-3 |
| Date Sampled: | Aquatic | | Aquatic | | | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | |
| Carbazole | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) |
| Caprolactam | NC | NC | NC | NC | ug/l | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.62) | ND (0.64) | ND (0.64) | ND (0.65) | ND (0.64) [a] | ND (0.66) [a] | ND (0.62) [a] | ND (0.62) [a] | ND (0.64) [a] | ND (0.65) [a] |
| Chrysene | NC | NC | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) [g] | ND (0.17) [g] | ND (0.18) [g] | ND (0.17) | ND (0.18) | ND (0.17) | 0.17 JB | ND (0.17) | ND (0.18) |
| bis(2-Chloroethoxy)methane | NC | NC | NC | NC | ug/l | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.28) | ND (0.28) |
| bis(2-Chloroethyl)ether | NC | 1900[g] | NC | NC | ug/l | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.24) | ND (0.24) | ND (0.25) | ND (0.25) |
| 2,2'-Oxybis(1-chloropropane) | NC | NC | NC | NC | ug/l | ND (0.38) [a] | ND (0.38) [a] | ND (0.38) [a] | ND (0.38) [a] | ND (0.38) [a] | ND (0.38) [a] | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.41) | ND (0.38) | ND (0.38) | ND (0.40) | ND (0.40) |
| 4-Chlorophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.36) | ND (0.36) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.35) | ND (0.35) | ND (0.36) | ND (0.37) |
| 2,4-Dinitrotoluene | NC | 44[g] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.55) | ND (0.54) | ND (0.55) | ND (0.55) | ND (0.56) | ND (0.53) | ND (0.53) | ND (0.55) | ND (0.55) |
| 2,6-Dinitrotoluene | NC | NC | NC | NC | ug/l | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.47) | ND (0.47) | ND (0.48) | ND (0.47) | ND (0.48) | ND (0.45) | ND (0.45) | ND (0.47) | ND (0.48) |
| 3,3'-Dichlorobenzidine | NC | 4.5[g] | NC | NC | ug/l | ND (0.48) [c] | ND (0.48) [c] | ND (0.48) [c] | ND (0.48) [c] | ND (0.48) [c] | ND (0.48) [c] | ND (0.50) | ND (0.50) | ND (0.51) | ND (0.50) | ND (0.51) | ND (0.48) | ND (0.48) | ND (0.50) | ND (0.51) |
| 1,4-Dioxane | NC | NC | NC | NC | ug/l | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.65) | ND (0.64) | ND (0.66) | ND (0.65) | ND (0.66) | ND (0.63) | ND (0.63) | ND (0.65) | ND (0.66) |
| Dibenzo(a,h)anthracene | NC | NC | NC | NC | ug/l | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) [g] | ND (0.32) [g] | ND (0.33) [g] | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) |
| Dibenzofuran | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) |
| Di-n-butyl phthalate | NC | 9.7[g] | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.49) | ND (0.49) | ND (0.50) | ND (0.49) [a] | ND (0.50) [a] | ND (0.47) [a] | 1.9 [h] | 1.4 J [h] | ND (0.50) [a] |
| Di-n-octyl phthalate | NC | NC | NC | NC | ug/l | ND (0.22) [c] | ND (0.22) [c] | ND (0.22) [c] | ND (0.22) [c] | ND (0.22) [c] | ND (0.22) [c] | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) |
| Diethyl phthalate | NC | 110[g] | NC | NC | ug/l | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.25) | ND (0.25) | ND (0.26) | ND (0.26) |
| Dimethyl phthalate | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) |
| bis(2-Ethylhexyl)phthalate | NC | 0.3[g] | NC | NC | ug/l | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.7) | ND (1.6) [a] | ND (1.7) [a] | ND (1.6) [a] | 2.4 [h] | ND (1.6) [a] | ND (1.7) [a] |
| Fluoranthene | NC | 1.9[g] | NC | NC | ug/l | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) | ND (0.17) | ND (0.16) | 0.22 JB | 0.18 JB | ND (0.17) |
| Fluorene | NC | 19[g] | NC | NC | ug/l | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.16) | ND (0.16) | ND (0.17) | ND (0.17) |
| Hexachlorobenzene | NC | 0.0003[g] | NC | NC | ug/l | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.31) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.31) | ND (0.31) | ND (0.32) | ND (0.33) |
| Hexachlorobutadiene | NC | 0.053[g] | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.49) | ND (0.48) | ND (0.49) | ND (0.49) | ND (0.50) | ND (0.47) | ND (0.47) | ND (0.49) | ND (0.49) |
| Hexachlorocyclopentadiene | NC | 77[g] | NC | NC | ug/l | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.6) | ND (2.8) | ND (2.7) | ND (2.8) | ND (2.8) | ND (2.8) | ND (2.6) | ND (2.6) | ND (2.8) | ND (2.8) |
| Hexachloroethane | NC | 8[g] | NC | NC | ug/l | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.37) | ND (0.37) | ND (0.39) | ND (0.39) |
| Indeno(1,2,3-cd)pyrene | NC | 4.31[g] | NC | NC | ug/l | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.34) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) |
| Isophorone | NC | 920[g] | NC | NC | ug/l | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.26) | ND (0.26) | ND (0.27) | ND (0.28) |
| 2-Methylnaphthalene | NC | 330[g] | NC | NC | ug/l | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.21) |
| 2-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.27) [a] | ND (0.27) [a] | ND (0.28) [a] | ND (0.27) [a] | ND (0.28) [a] | ND (0.26) [a] | ND (0.26) [a] | ND (0.27) [a] | ND (0.28) [a] |
| 3-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.38) [a] | ND (0.39) [a] | ND (0.37) [a] | ND (0.37) [a] | ND (0.38) [a] | ND (0.39) [a] |
| 4-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.42) | ND (0.44) | ND (0.43) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.42) | ND (0.42) | ND (0.44) | ND (0.44) |
| Naphthalene | NC | 13[g] | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.22) | ND (0.23) | ND (0.23) |
| Nitrobenzene | NC | NC | NC | NC | ug/l | ND (0.61) [c] | ND (0.61) [c] | ND (0.61) [c] | ND (0.61) [c] | ND (0.61) [c] | ND (0.61) [c] | ND (0.64) | ND (0.63) | ND (0.64) | ND (0.64) | ND (0.65) | ND (0.61) | ND (0.61) | ND (0.64) | ND (0.64) |
| N-Nitroso-di-n-propylamine | NC | NC | NC | NC | ug/l | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.46) | ND (0.48) | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.49) | ND (0.46) | ND (0.46) | ND (0.48) | ND (0.48) |
| N-Nitrosodiphenylamine | NC | NC | NC | NC | ug/l | ND (0.21) [a] | ND (0.21) [a] | ND (0.21) [a] | ND (0.21) [a] | ND (0.21) [a] | ND (0.21) [a] | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.21) | ND (0.22) | ND (0.22) |
| Phenanthrene | NC | 3.6[g] | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) |
| Pyrene | NC | 0.30[g] | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.22) [g] | ND (0.21) [g] | ND (0.22) [g] | ND (0.22) [g] | ND (0.22) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.22) [g] | ND (0.22) [g] |
| 1,2,4,5-Tetrachlorobenzene | NC | NC | NC | NC | ug/l | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.35) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.35) | ND (0.35) | ND (0.37) | ND (0.37) |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 J | 0 | 0 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-23A | SW-23B | SW-23C | SW-24A | SW-24B | SW-24C | SW-25A | SW-25B | SW-25C | SW-26A | SW-26B | SW-26C | SW-27A | SW-27B | SW-27C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83841-5 | JC83841-6 | JC83841-7 | JC83841-8 | JC83841-9 | JC83841-10 | JC83090-1 | JC83090-2 | JC83090-3 | JC83039-4 | JC83039-5 | JC83039-6 | JC83039-1 | JC83039-2 | JC83039-3 |
| Date Sampled: | Aquatic | | Aquatic | | | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 3/5/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 | 2/18/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | |
| Aluminum | NC | NC | NC | NC | ug/l | <200 | <200 | <200 | <200 | <200 | <200 | <200 | 364 | <200 | <200 | <200 | 210 | <200 | 246 | 224 |
| Antimony | NC | 80[g] | NC | NC | ug/l | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 |
| Arsenic | 340(d)(s) | 150(d)(s) | 69(d)(s) | 36(d)(s) | ug/l | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <30 [j] | <15 [j] | <15 [j] | <15 [j] | <30 [j] | <30 [j] | <30 [j] | <30 | <30 [j] | <30 [j] |
| Barium | NC | 220[g] | NC | NC | ug/l | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 |
| Beryllium | NC | 3.6[g] | NC | NC | ug/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Cadmium | (a) | (a) | 40(d)(s) | 8.8(d)(s) | ug/l | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Calcium[1] | NC | 116,000 | NC | NC | ug/l | 239000 | 239000 | 232000 | 246000 | 242000 | 240000 | 275000 | 247000 | 245000 | 247000 | 255000 | 254000 | 248000 [l] | 249000 | 254000 |
| Chromium | (a) | 42[g] | NC | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Cobalt | 17.25 | 24[g] | NC | NC | ug/l | <500 [o] | <500 [o] | <500 [o] | <500 [o] | <500 [o] | <500 [o] | <250 [j] | <250 [j] | <250 [j] | <50 | <50 | <50 | <50 | <50 | <50 |
| Copper | (a) | (a) | 4.8(d)(s) | 3.1(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Iron | NC | 1000 | NC | NC | ug/l | <1000 [j] | <1000 [j] | <1000 [j] | <1000 [j] | <1000 [j] | <1000 [j] | 447 | 905 | 524 | 277 | 327 | 375 | 266 | 376 | 345 |
| Lead | 38(d)(s) | 5.4(d)(s) | 210(d)(s) | 24(d)(s) | ug/l | <30 [o] | <30 [o] | <30 [o] | <30 [o] | <30 [o] | <30 [o] | <15 [j] | <15 [j] | <15 [j] | <30 [j] | <30 [j] | <30 [j] | <30 | <30 [j] | <30 [j] |
| Magnesium[1] | NC | 82,000 | NC | NC | ug/l | 705000 | 710000 | 688000 | 731000 | 720000 | 713000 | 815000 | 734000 | 727000 | 753000 | 776000 | 771000 | 754000 [l] | 757000 | 773000 |
| Manganese | NC | NC | NC | NC | ug/l | 61.4 | 61.1 | 61.6 | 60.8 | 61.3 | 59.7 | 56.5 | 59.9 | 56.8 | 43.9 | 43.7 | 45.2 | 43.9 | 45 | 43.8 |
| Mercury | 1.4(d)(s) | 0.77(d)(s) | 1.8(d)(s) | 0.94(d)(s) | ug/l | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Nickel | (a) | (a) | 64(d)(s) | 22(d)(s) | ug/l | <100 [o] | <100 [o] | <100 [o] | <100 [o] | <100 [o] | <100 [o] | <50 [j] | <50 [j] | <50 [j] | <10 | <10 | <10 | <10 | <10 | <10 |
| Potassium | NC | NC | NC | NC | ug/l | 231000 | 232000 | 224000 | 239000 | 236000 | 234000 | 254000 | 229000 | 228000 | 227000 | 234000 | 233000 | 228000 [l] | 229000 | 235000 |
| Selenium | 20(s) | 5.0(s) | 290(d)(s) | 71(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Silver | (a) | (a) | 1.9(d)(s) | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 15.2 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Sodium | NC | 680,000 | NC | NC | ug/l | 5360000 | 5430000 | 5300000 | 5610000 | 5610000 | 5540000 | 5600000 | 5770000 | 5690000 | 5500000 | 5480000 | 5630000 | 5650000 | 6030000 | 5650000 |
| Thallium | NC | 10[g] | NC | NC | ug/l | <100 [o] | <100 [o] | <100 [o] | <100 [o] | <100 [o] | <100 [o] | <50 [j] | <50 [j] | <50 [j] | <100 [i] | <100 [i] | <100 [i] | <100 | <100 [i] | <100 [i] |
| Vanadium | NC | 12[g] | NC | NC | ug/l | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Zinc | (a) | (a) | 90(d)(s) | 81(d)(s) | ug/l | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| **General Chemistry** | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total as CaCO3 | NC | NC | NC | NC | mg/l | 103 [k] | 102 [k] | 102 [k] | 104 [k] | 101 [k] | 103 [k] | 108 [k] | 106 [k] | 107 [k] | 101 [k] | 101 [k] | 101 [k] | 101 [k] | 99.8 [k] | 99.8 [k] |
| Chloride[2] | 860 | 230 | NC | NC | mg/l | 9590 [f] | 10800 [f] | 10100 [f] | 9660 [f] | 10000 [f] | 9450 [f] | 10100 | 10200 | 10100 | 10400 | 10500 | 10600 | 10600 | 10600 | 10700 |
| Hardness, Total as CaCO3 | NC | NC | NC | NC | mg/l | 3380 | 3380 | 3330 | 3350 | 3200 | 3380 | 3100 | 3650 | 3700 | 3600 | 3700 | 3700 | 3800 | 3990 | 3990 |
| Nitrogen, Ammonia | NC | NC | NC | NC | mg/l | 0.4 | 0.42 | 0.42 | 0.51 | 0.44 | 0.43 | 0.37 | 0.32 | 0.32 | 0.29 | 0.29 | 0.26 | 0.28 | 0.3 | 0.31 |
| Nitrogen, Nitrate | NC | NC | NC | NC | mg/l | 0.34 [m] | 0.60 [m] | 0.39 [m] | 0.89 [m] | 1.1 [m] | 1.8 [m] | 0.38 [m] | 0.35 [m] | 0.35 [m] | 0.34 [m] | 0.35 [m] | 0.38 [m] | 0.35 [m] | 0.35 [m] | 0.43 [m] |
| Nitrogen, Nitrate + Nitrite | NC | NC | NC | NC | mg/l | 0.38 | 0.64 | 0.43 | 0.94 | 1.1 | 1.8 | 0.42 | 0.4 | 0.4 | 0.38 | 0.4 | 0.43 | 0.4 | 0.39 | 0.48 |
| Nitrogen, Nitrite | NC | NC | NC | NC | mg/l | 0.045 | 0.04 | 0.045 | 0.049 | 0.045 | 0.05 | 0.043 | 0.053 | 0.055 | 0.045 | 0.048 | 0.049 | 0.046 | 0.045 | 0.052 |
| Solids, Total Dissolved | NC | NC | NC | NC | mg/l | 18500 | 17600 | 17400 | 16800 | 17900 | 17200 | 17400 | 18300 | 18300 | 18400 | 18900 | 18300 | 19300 | 18000 | 19100 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-28A | SW-28B | SW-28C | SW-29A | SW-29B | SW-29C | SW-30A | SW-30B | SW-30C | SW-31A | SW-31B | SW-31C | SW-32A | SW-32B | SW-32C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83090-4 | JC83090-5 | JC83090-6 | JC83090-7 | JC83090-8 | JC83090-9 | JC83090-10 | JC83090-11 | JC83090-12 | JC83146-1 | JC83146-2 | JC83146-3 | JC83146-4 | JC83146-5 | JC83146-6 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | | | | | | | |
| Acetone | 6000 | NC | NC | NC | ug/l | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) |
| Benzene | NC | 114[8] 824[16] | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Bromochloromethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| Bromodichloromethane | NC | NC | NC | NC | ug/l | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) |
| Bromoform | NC | 230[8] | NC | NC | ug/l | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) |
| Bromomethane | NC | NC | NC | NC | ug/l | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) [a] | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) |
| 2-Butanone (MEK) | NC | NC | NC | NC | ug/l | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) |
| Carbon disulfide | NC | NC | NC | NC | ug/l | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) |
| Carbon tetrachloride | NC | 240[8] | NC | NC | ug/l | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) |
| Chlorobenzene | NC | 47[8] | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| Chloroethane | NC | NC | NC | NC | ug/l | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) |
| Chloroform | NC | 140[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| Chloromethane | NC | NC | NC | NC | ug/l | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) |
| Cyclohexane | NC | NC | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| 1,2-Dibromo-3-chloropropane | NC | NC | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) |
| Dibromochloromethane | NC | NC | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| 1,2-Dibromoethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| 1,2-Dichlorobenzene | NC | 14[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,3-Dichlorobenzene | NC | 38[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,4-Dichlorobenzene | NC | 9.4[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| Dichlorodifluoromethane | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| 1,1-Dichloroethane | NC | NC | NC | NC | ug/l | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) |
| 1,2-Dichloroethane | NC | 910[8] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| 1,1-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| cis-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| trans-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,2-Dichloropropane | NC | 360[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| cis-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) |
| trans-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Ethylbenzene | NC | 14[8] 81[16] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Freon 113 | NC | NC | NC | NC | ug/l | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) [a] | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| 2-Hexanone | NC | NC | NC | NC | ug/l | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Isopropylbenzene | NC | NC | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Methyl Acetate | NC | NC | NC | NC | ug/l | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) |
| Methylcyclohexane | NC | NC | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Methyl Tert Butyl Ether | 151,000[17] | 51,450[16] 51,000[17] | 53,000[17] | 18,000[17] | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| 4-Methyl-2-pentanone(MIBK) | NC | NC | NC | NC | ug/l | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| Methylene chloride | NC | 940[8] | NC | NC | ug/l | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) |
| Styrene | NC | 32[8] | NC | NC | ug/l | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) |
| 1,1,2,2-Tetrachloroethane | NC | 380[8] | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Tetrachloroethene | NC | NC | NC | NC | ug/l | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) |
| Toluene | NC | 253[8] 822[16] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | 0.54 J | ND (0.53) | 0.53 J | 0.55 J |
| 1,2,3-Trichlorobenzene | NC | NC | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,2,4-Trichlorobenzene | NC | 30[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,1,1-Trichloroethane | NC | 76[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,1,2-Trichloroethane | NC | 500[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichloroethene | NC | NC | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichlorofluoromethane | NC | NC | NC | NC | ug/l | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) |
| Vinyl chloride | NC | 930[8] | NC | NC | ug/l | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) |
| m,p-Xylene | NC | NC | NC | NC | ug/l | 0.93 J | 0.97 J | 1.1 | ND (0.78) | ND (0.78) | 1.1 | ND (0.78) | ND (0.78) | ND (0.78) | 0.89 J | 0.91 J | 1 | 0.96 J | 1 | 1.1 |
| o-Xylene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| Xylene (total) | NC | 27[8] 296[16] | NC | NC | ug/l | 0.93 J | 0.97 J | 1.1 | ND (0.59) | ND (0.59) | 1.1 | ND (0.59) | ND (0.59) | ND (0.59) | 0.89 J | 0.91 J | 1 | 0.96 J | 1 | 1.1 |
| **MS Volatile TIC** | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-28A | SW-28B | SW-28C | SW-29A | SW-29B | SW-29C | SW-30A | SW-30B | SW-30C | SW-31A | SW-31B | SW-31C | SW-32A | SW-32B | SW-32C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83090-4 | JC83090-5 | JC83090-6 | JC83090-7 | JC83090-8 | JC83090-9 | JC83090-10 | JC83090-11 | JC83090-12 | JC83146-1 | JC83146-2 | JC83146-3 | JC83146-4 | JC83146-5 | JC83146-6 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | NC | 24[g] | NC | NC | ug/l | ND (0.80) | ND (0.81) | ND (0.81) | ND (0.81) | ND (0.80) | ND (0.82) | ND (0.82) | ND (0.81) | ND (0.81) | ND (0.81) | ND (0.82) | ND (0.81) | ND (0.78) | ND (0.81) | ND (0.82) |
| 4-Chloro-3-methyl phenol | NC | NC | NC | NC | ug/l | ND (0.87) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.87) | ND (0.89) | ND (0.89) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.89) | ND (0.88) | ND (0.85) | ND (0.88) | ND (0.89) |
| 2,4-Dichlorophenol | NC | 11[g] | NC | NC | ug/l | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) |
| 2,4-Dimethylphenol | NC | 100[g] | NC | NC | ug/l | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.3) | ND (2.4) | ND (2.4) |
| 2,4-Dinitrophenol | NC | 19[g] | NC | NC | ug/l | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.6) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.5) | ND (1.5) | ND (1.5) | ND (1.6) |
| 4,6-Dinitro-o-cresol | NC | NC | NC | NC | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) |
| 2-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.87) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.87) | ND (0.89) | ND (0.89) | ND (0.88) | ND (0.88) | ND (0.88) | ND (0.89) | ND (0.88) | ND (0.85) | ND (0.88) | ND (0.89) |
| 3&4-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.86) | ND (0.87) | ND (0.87) | ND (0.87) | ND (0.86) | ND (0.88) | ND (0.88) | ND (0.87) | ND (0.87) | ND (0.87) | ND (0.88) | ND (0.87) | ND (0.84) | ND (0.87) | ND (0.88) |
| 2-Nitrophenol | NC | NC | NC | NC | ug/l | ND (0.94) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.94) | ND (0.96) | ND (0.96) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.96) | ND (0.95) | ND (0.91) | ND (0.95) | ND (0.96) |
| 4-Nitrophenol | NC | 60[e] | NC | NC | ug/l | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.2) | ND (1.2) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.2) | ND (1.1) | ND (1.1) | ND (1.1) | ND (1.2) |
| Pentachlorophenol | (b) | (b) | 13 | 7.9 | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.3) | ND (1.4) | ND (1.4) |
| Phenol | NC | 180[g] | NC | NC | ug/l | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.37) | ND (0.39) | ND (0.39) |
| 2,3,4,6-Tetrachlorophenol | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.5) | ND (1.5) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.5) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.5) |
| 2,4,5-Trichlorophenol | NC | NC | NC | NC | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2,4,6-Trichlorophenol | NC | 4.9[g] | NC | NC | ug/l | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.92) | ND (0.92) | ND (0.91) | ND (0.91) | ND (0.91) | ND (0.92) | ND (0.91) | ND (0.88) | ND (0.91) | ND (0.92) |
| Acenaphthene | NC | 38[g] | NC | NC | ug/l | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.18) | ND (0.19) | ND (0.19) |
| Acenaphthylene | NC | 4840[g] | NC | NC | ug/l | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.14) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.13) | ND (0.13) | ND (0.14) |
| Acetophenone | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) |
| Anthracene | NC | 0.035[g] | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) |
| Atrazine | NC | NC | NC | NC | ug/l | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.45) | ND (0.45) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.45) | ND (0.44) | ND (0.43) | ND (0.44) | ND (0.45) |
| Benzaldehyde | NC | NC | NC | NC | ug/l | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.29) | ND (0.28) | ND (0.29) | ND (0.29) |
| Benzo(a)anthracene | NC | 0.025[g] | NC | NC | ug/l | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.19) [g] | ND (0.20) [g] | ND (0.20) [g] |
| Benzo(a)pyrene | NC | 0.014[g] | NC | NC | ug/l | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.21) [n] | ND (0.20) [n] | ND (0.21) [n] | ND (0.21) [n] |
| Benzo(b)fluoranthene | NC | 9.08[a] | NC | NC | ug/l | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.21) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.21) [g] |
| Benzo(g,h,i)perylene | NC | 7.64[g] | NC | NC | ug/l | ND (0.33) [g] | ND (0.34) [g] | ND (0.34) [g] | ND (0.34) [g] | ND (0.33) [g] | ND (0.34) [g] | ND (0.34) [g] | ND (0.34) [g] | ND (0.34) [g] | ND (0.34) [g] | ND (0.34) [g] | ND (0.34) [g] | ND (0.32) [g] | ND (0.34) [g] | ND (0.34) [g] |
| Benzo(k)fluoranthene | NC | NC | NC | NC | ug/l | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.21) [g] | ND (0.21) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.21) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.20) [g] | ND (0.21) [g] |
| 4-Bromophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.38) | ND (0.40) | ND (0.40) |
| Butyl benzyl phthalate | NC | NC | NC | NC | ug/l | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.46) | ND (0.46) | ND (0.45) | ND (0.45) | ND (0.45) | ND (0.46) | ND (0.45) | ND (0.44) | ND (0.45) | ND (0.46) |
| 1,1'-Biphenyl | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-28A | SW-28B | SW-28C | SW-29A | SW-29B | SW-29C | SW-30A | SW-30B | SW-30C | SW-31A | SW-31B | SW-31C | SW-32A | SW-32B | SW-32C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83090-4 | JC83090-5 | JC83090-6 | JC83090-7 | JC83090-8 | JC83090-9 | JC83090-10 | JC83090-11 | JC83090-12 | JC83146-1 | JC83146-2 | JC83146-3 | JC83146-4 | JC83146-5 | JC83146-6 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | NC | 0.396[g] | NC | NC | ug/l | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.24) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.24) |
| 4-Chloroaniline | NC | NC | NC | NC | ug/l | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.34) | ND (0.32) | ND (0.34) | ND (0.34) |
| Carbazole | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) |
| Caprolactam | NC | NC | NC | NC | ug/l | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.65) | ND (0.65) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.65) | ND (0.64) | ND (0.62) | ND (0.64) | ND (0.65) |
| Chrysene | NC | NC | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) |
| bis(2-Chloroethoxy)methane | NC | NC | NC | NC | ug/l | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.28) | ND (0.26) | ND (0.28) | ND (0.28) |
| bis(2-Chloroethyl)ether | NC | 1900[g] | NC | NC | ug/l | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.25) | ND (0.24) | ND (0.25) | ND (0.25) |
| 2,2'-Oxybis(1-chloropropane) | NC | NC | NC | NC | ug/l | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.38) | ND (0.40) | ND (0.40) |
| 4-Chlorophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.36) | ND (0.36) | ND (0.37) | ND (0.36) | ND (0.35) | ND (0.36) | ND (0.37) |
| 2,4-Dinitrotoluene | NC | 44[g] | NC | NC | ug/l | ND (0.54) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.54) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.53) | ND (0.55) | ND (0.55) |
| 2,6-Dinitrotoluene | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.48) | ND (0.47) | ND (0.45) | ND (0.47) | ND (0.48) |
| 3,3'-Dichlorobenzidine | NC | 4.5[g] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.51) | ND (0.51) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.51) | ND (0.50) | ND (0.48) | ND (0.50) | ND (0.51) |
| 1,4-Dioxane | NC | NC | NC | NC | ug/l | ND (0.64) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.64) | ND (0.66) | ND (0.66) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.66) | ND (0.65) | ND (0.63) | ND (0.65) | ND (0.66) |
| Dibenzo(a,h)anthracene | NC | NC | NC | NC | ug/l | ND (0.32) [g] | ND (0.33) [g] | ND (0.33) [g] | ND (0.33) [g] | ND (0.32) [g] | ND (0.33) [g] | ND (0.33) [g] | ND (0.33) [g] | ND (0.33) [g] | ND (0.33) [g] | ND (0.33) [g] | ND (0.33) [g] | ND (0.32) [g] | ND (0.33) [g] | ND (0.33) [g] |
| Dibenzofuran | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) |
| Di-n-butyl phthalate | NC | 9.7[g] | NC | NC | ug/l | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.50) | ND (0.50) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.50) | ND (0.49) | ND (0.47) | ND (0.49) | ND (0.50) |
| Di-n-octyl phthalate | NC | NC | NC | NC | ug/l | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) |
| Diethyl phthalate | NC | 110[g] | NC | NC | ug/l | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.25) | ND (0.26) | ND (0.26) |
| Dimethyl phthalate | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) |
| bis(2-Ethylhexyl)phthalate | NC | 0.3[g] | NC | NC | ug/l | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.7) | ND (1.7) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.7) | 2.8 | ND (1.6) | ND (1.6) | ND (1.7) |
| Fluoranthene | NC | 1.9[g] | NC | NC | ug/l | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.17) [g] | ND (0.16) [g] | ND (0.17) [g] | ND (0.17) [g] |
| Fluorene | NC | 19[g] | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.16) | ND (0.17) | ND (0.17) |
| Hexachlorobenzene | NC | 0.0003[g] | NC | NC | ug/l | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.31) | ND (0.32) | ND (0.33) |
| Hexachlorobutadiene | NC | 0.053[g] | NC | NC | ug/l | ND (0.48) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.48) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.49) | ND (0.47) | ND (0.49) | ND (0.49) |
| Hexachlorocyclopentadiene | NC | 77[g] | NC | NC | ug/l | ND (2.7) | ND (2.8) | ND (2.8) | ND (2.8) | ND (2.7) | ND (2.8) | ND (2.8) | ND (2.8) | ND (2.8) | ND (2.8) | ND (2.8) | ND (2.8) [a] | ND (2.6) [a] | ND (2.8) [a] | ND (2.8) [a] |
| Hexachloroethane | NC | 8[g] | NC | NC | ug/l | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.39) | ND (0.37) | ND (0.39) | ND (0.39) |
| Indeno(1,2,3-cd)pyrene | NC | 4.31[g] | NC | NC | ug/l | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.33) |
| Isophorone | NC | 920[g] | NC | NC | ug/l | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.27) | ND (0.26) | ND (0.27) | ND (0.28) |
| 2-Methylnaphthalene | NC | 330[g] | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) |
| 2-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.27) [a] | ND (0.27) [a] | ND (0.27) [a] | ND (0.27) [a] | ND (0.27) [a] | ND (0.28) [a] | ND (0.28) [a] | ND (0.27) [a] | ND (0.27) [a] | ND (0.27) [a] | ND (0.28) [a] | ND (0.27) [a] | ND (0.26) [a] | ND (0.27) [a] | ND (0.28) [a] |
| 3-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.38) | ND (0.37) | ND (0.38) | ND (0.39) |
| 4-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.43) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.44) | ND (0.42) | ND (0.44) | ND (0.44) |
| Naphthalene | NC | 13[g] | NC | NC | ug/l | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) |
| Nitrobenzene | NC | NC | NC | NC | ug/l | ND (0.63) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.63) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.64) | ND (0.61) | ND (0.64) | ND (0.64) |
| N-Nitroso-di-n-propylamine | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.46) | ND (0.48) | ND (0.48) |
| N-Nitrosodiphenylamine | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) |
| Phenanthrene | NC | 3.6[g] | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.18) |
| Pyrene | NC | 0.30[g] | NC | NC | ug/l | ND (0.21) [g] | ND (0.22) [g] | ND (0.22) [g] | ND (0.22) [g] | ND (0.21) [g] | ND (0.22) [g] | ND (0.22) [g] | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) |
| 1,2,4,5-Tetrachlorobenzene | NC | NC | NC | NC | ug/l | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.37) | ND (0.35) | ND (0.37) | ND (0.37) |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 J | 0 | 0 | 0 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-28A | SW-28B | SW-28C | SW-29A | SW-29B | SW-29C | SW-30A | SW-30B | SW-30C | SW-31A | SW-31B | SW-31C | SW-32A | SW-32B | SW-32C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83090-4 | JC83090-5 | JC83090-6 | JC83090-7 | JC83090-8 | JC83090-9 | JC83090-10 | JC83090-11 | JC83090-12 | JC83146-1 | JC83146-2 | JC83146-3 | JC83146-4 | JC83146-5 | JC83146-6 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/19/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **Metals Analysis** | | | | | | | | | | | | | | | | | | | | |
| Aluminum | NC | NC | NC | NC | ug/l | <200 | <200 | 295 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | 283 | <200 | <200 | <200 |
| Antimony | NC | 80[g] | NC | NC | ug/l | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 |
| Arsenic | 340(d)(s) | 150(d)(s) | 69(d)(s) | 36(d)(s) | ug/l | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] |
| Barium | NC | 220[g] | NC | NC | ug/l | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 |
| Beryllium | NC | 3.6[g] | NC | NC | ug/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Cadmium | (a) | (a) | 40(d)(s) | 8.8(d)(s) | ug/l | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Calcium[1] | NC | 116,000 | NC | NC | ug/l | 244000 | 248000 | 242000 | 257000 | 250000 | 259000 | 264000 | 238000 | 245000 | 229000 | 237000 | 248000 | 230000 | 234000 | 233000 |
| Chromium | (a) | 42[g] | NC | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Cobalt | 17.25 | 24[g] | NC | NC | ug/l | <250 [j] | <250 [j] | <250 [j] | <250 [j] | <250 [j] | <250 [j] | <250 [j] | <250 [j] | <250 [j] | <250 [o] | <250 [o] | <250 [o] | <250 [o] | <250 [o] | <250 [o] |
| Copper | (a) | (a) | 4.8(d)(s) | 3.1(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Iron | NC | 1000 | NC | NC | ug/l | 468 | 482 | 721 | 495 | 474 | 458 | 520 | 545 | 443 | 441 | 405 | 667 | 417 | 394 | 348 |
| Lead | 38(d)(s) | 5.4(d)(s) | 210(d)(s) | 24(d)(s) | ug/l | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [j] | <15 [o] | <15 [o] | <15 [o] | <15 [o] | <15 [o] | <15 [o] |
| Magnesium[1] | NC | 82,000 | NC | NC | ug/l | 723000 | 735000 | 715000 | 760000 | 741000 | 765000 | 778000 | 697000 | 721000 | 677000 | 700000 | 732000 | 678000 | 695000 | 692000 |
| Manganese | NC | NC | NC | NC | ug/l | 56.6 | 58 | 59 | 57.8 | 56.6 | 57 | 61.6 | 61.8 | 56 | 58 | 56.2 | 58.4 | 56.9 | 56.2 | 55.3 |
| Mercury | 1.4(d)(s) | 0.77(d)(s) | 1.8(d)(s) | 0.94(d)(s) | ug/l | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <1.2 [p] | <1.2 [p] | <1.2 [p] | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Nickel | (a) | (a) | 64(d)(s) | 22(d)(s) | ug/l | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] |
| Potassium | NC | NC | NC | NC | ug/l | 226000 | 231000 | 225000 | 237000 | 232000 | 240000 | 243000 | 219000 | 226000 | 168000 | 177000 | 185000 | 186000 | 190000 | 190000 |
| Selenium | 20(s) | 5.0(s) | 290(d)(s) | 71(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Silver | (a) | (a) | 1.9(d)(s) | NC | ug/l | 21 | <10 | <10 | 14.5 | 20.8 | <10 | 20.8 | 14.7 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Sodium | NC | 680,000 | NC | NC | ug/l | 6950000 | 5790000 | 5700000 | 5690000 | 6150000 | 5620000 | 5610000 | 5550000 | 5660000 | 5740000 | 5800000 | 5920000 | 5690000 | 5860000 | 5850000 |
| Thallium | NC | 10[g] | NC | NC | ug/l | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [j] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] |
| Vanadium | NC | 12[g] | NC | NC | ug/l | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Zinc | (a) | (a) | 90(d)(s) | 81(d)(s) | ug/l | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| **General Chemistry** | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total as CaCO3 | NC | NC | NC | NC | mg/l | 107 [k] | 102 [k] | 107 [k] | 104 [k] | 106 [k] | 104 [k] | 111 [k] | 107 [k] | 111 [k] | 118 [k] | 114 [k] | 109 [k] | 115 [k] | 110 [k] | 109 [k] |
| Chloride[2] | 860 | 230 | NC | NC | mg/l | 10000 | 10000 | 10100 | 10000 | 10100 | 10000 | 9770 | 9760 | 9880 | 10000 | 10000 | 10100 | 9970 | 10100 | 10000 |
| Hardness, Total as CaCO3 | NC | NC | NC | NC | mg/l | 3350 | 3500 | 3300 | 3650 | 3500 | 3500 | 136 | 3500 | 3550 | 3600 | 3750 | 3550 | 3500 | 3550 | 3750 |
| Nitrogen, Ammonia | NC | NC | NC | NC | mg/l | 0.29 | 0.29 | 0.31 | 0.25 | 0.27 | 0.31 | 0.25 | 0.24 | 0.23 | 0.27 | 0.27 | 0.34 | 0.28 | 0.32 | 0.33 |
| Nitrogen, Nitrate | NC | NC | NC | NC | mg/l | 0.35 [m] | 0.42 [m] | 0.58 [m] | 0.37 [m] | 0.54 [m] | 0.38 [m] | 0.31 [m] | 0.36 [m] | 0.38 [m] | 0.36 [m] | 0.40 [m] | 0.87 [m] | 0.43 [m] | 0.45 [m] | 0.40 [m] |
| Nitrogen, Nitrate + Nitrite | NC | NC | NC | NC | mg/l | 0.38 | 0.43 | 0.62 | 0.41 | 0.58 | 0.42 | 0.35 | 0.38 | 0.41 | 0.41 | 0.45 | 0.92 | 0.46 | 0.48 | 0.42 |
| Nitrogen, Nitrite | NC | NC | NC | NC | mg/l | 0.035 | 0.012 | 0.043 | 0.045 | 0.036 | 0.04 | 0.037 | 0.017 | 0.027 | 0.047 | 0.05 | 0.052 | 0.032 | 0.026 | 0.018 |
| Solids, Total Dissolved | NC | NC | NC | NC | mg/l | 17500 | 17300 | 18300 | 18500 | 17600 | 18300 | 17300 | 18300 | 18900 | 19100 | 19100 | 18600 | 18900 | 19100 | 19500 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-33A | SW-33B | SW-33C | SW-34A | SW-34B | SW-34C | SW-35A | SW-35B | SW-35C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83146-7 | JC83146-8 | JC83146-9 | JC83146-12 | JC83146-13 | JC83146-14 | JC83146-15 | JC83146-16 | JC83146-17 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Volatiles (SW846 8260C)** | | | | | | | | | | | | | | |
| Acetone | 6000 | NC | NC | NC | ug/l | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) | ND (6.0) |
| Benzene | NC | 114 [8] 824 [16] | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Bromochloromethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) |
| Bromodichloromethane | NC | NC | NC | NC | ug/l | ND (0.58) | ND (0.58) | ND (0.58) | ND (0.58) [g] | ND (0.58) [g] | ND (0.58) [g] | ND (0.58) | ND (0.58) | ND (0.58) |
| Bromoform | NC | 230[8] | NC | NC | ug/l | ND (0.63) | ND (0.63) | ND (0.63) | ND (0.63) [q] | ND (0.63) [q] | ND (0.63) [q] | ND (0.63) | ND (0.63) | ND (0.63) |
| Bromomethane | NC | NC | NC | NC | ug/l | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) | ND (1.6) |
| 2-Butanone (MEK) | NC | NC | NC | NC | ug/l | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) | ND (6.9) |
| Carbon disulfide | NC | NC | NC | NC | ug/l | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) | ND (0.95) |
| Carbon tetrachloride | NC | 240[8] | NC | NC | ug/l | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) | ND (0.55) |
| Chlorobenzene | NC | 47[8] | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) |
| Chloroethane | NC | NC | NC | NC | ug/l | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) | ND (0.73) |
| Chloroform | NC | 140[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| Chloromethane | NC | NC | NC | NC | ug/l | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) | ND (0.76) |
| Cyclohexane | NC | NC | NC | NC | ug/l | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) | ND (0.78) |
| 1,2-Dibromo-3-chloropropane | NC | NC | NC | NC | ug/l | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) | ND (1.2) |
| Dibromochloromethane | NC | NC | NC | NC | ug/l | ND (0.56) | ND (0.56) | ND (0.56) | ND (0.56) [q] | ND (0.56) [q] | ND (0.56) [q] | ND (0.56) | ND (0.56) | ND (0.56) |
| 1,2-Dibromoethane | NC | NC | NC | NC | ug/l | ND (0.48) | ND (0.48) | ND (0.48) | ND (0.48) [g] | ND (0.48) [g] | ND (0.48) [g] | ND (0.48) | ND (0.48) | ND (0.48) |
| 1,2-Dichlorobenzene | NC | 14[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,3-Dichlorobenzene | NC | 38[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,4-Dichlorobenzene | NC | 9.4[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| Dichlorodifluoromethane | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| 1,1-Dichloroethane | NC | NC | NC | NC | ug/l | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) | ND (0.57) |
| 1,2-Dichloroethane | NC | 910[8] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| 1,1-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| cis-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| trans-1,2-Dichloroethene | NC | NC | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,2-Dichloropropane | NC | 360[8] | NC | NC | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| cis-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) | ND (0.47) |
| trans-1,3-Dichloropropene | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) | ND (0.43) |
| Ethylbenzene | NC | 14[8] 81[16] | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) | ND (0.60) |
| Freon 113 | NC | NC | NC | NC | ug/l | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| 2-Hexanone | NC | NC | NC | NC | ug/l | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) | ND (2.0) |
| Isopropylbenzene | NC | NC | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Methyl Acetate | NC | NC | NC | NC | ug/l | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) | ND (0.80) |
| Methylcyclohexane | NC | NC | NC | NC | ug/l | ND (0.60) | ND (0.60) | ND (0.60) | 0.61 J | 0.62 J | 0.61 J | ND (0.60) | ND (0.60) | ND (0.60) |
| Methyl Tert Butyl Ether | 151,000[17] | 51,450[16] 51,000[17] | 53,000[17] | 18,000[17] | ug/l | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) | ND (0.51) |
| 4-Methyl-2-pentanone(MIBK) | NC | NC | NC | NC | ug/l | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) | ND (1.9) |
| Methylene chloride | NC | 940[8] | NC | NC | ug/l | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) | ND (1.0) |
| Styrene | NC | 32[8] | NC | NC | ug/l | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) | ND (0.70) |
| 1,1,2,2-Tetrachloroethane | NC | 380[8] | NC | NC | ug/l | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) | ND (0.65) |
| Tetrachloroethene | NC | NC | NC | NC | ug/l | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) | ND (0.90) |
| Toluene | NC | 253[8] 822[16] | NC | NC | ug/l | ND (0.53) | ND (0.53) | 0.56 J | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| 1,2,3-Trichlorobenzene | NC | NC | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,2,4-Trichlorobenzene | NC | 30[8] | NC | NC | ug/l | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) | ND (0.50) |
| 1,1,1-Trichloroethane | NC | 76[8] | NC | NC | ug/l | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) | ND (0.54) |
| 1,1,2-Trichloroethane | NC | 500[8] | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichloroethene | NC | NC | NC | NC | ug/l | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) | ND (0.53) |
| Trichlorofluoromethane | NC | NC | NC | NC | ug/l | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) | ND (0.84) |
| Vinyl chloride | NC | 930[8] | NC | NC | ug/l | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) | ND (0.79) |
| m,p-Xylene | NC | NC | NC | NC | ug/l | 0.93 J | 0.95 J | 1.1 | 0.93 J | 0.96 J | 0.94 J | 0.85 J | 0.90 J | 0.95 J |
| o-Xylene | NC | NC | NC | NC | ug/l | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) | ND (0.59) |
| Xylene (total) | NC | 27[8] 296[16] | NC | NC | ug/l | 0.93 J | 0.95 J | 1.1 | 0.93 J | 0.96 J | 0.94 J | 0.85 J | 0.90 J | 0.95 J |
| **MS Volatile TIC** | | | | | | | | | | | | | | |
| Total TIC, Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-33A | SW-33B | SW-33C | SW-34A | SW-34B | SW-34C | SW-35A | SW-35B | SW-35C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83146-7 | JC83146-8 | JC83146-9 | JC83146-12 | JC83146-13 | JC83146-14 | JC83146-15 | JC83146-16 | JC83146-17 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | |
| 2-Chlorophenol | NC | 24[g] | NC | NC | ug/l | ND (0.80) | ND (0.82) | ND (0.82) | ND (0.80) | ND (0.82) | ND (0.81) | ND (0.80) | ND (0.82) | ND (0.80) |
| 4-Chloro-3-methyl phenol | NC | NC | NC | NC | ug/l | ND (0.87) | ND (0.89) | ND (0.89) | ND (0.87) | ND (0.89) | ND (0.88) | ND (0.87) | ND (0.89) | ND (0.87) |
| 2,4-Dichlorophenol | NC | 11[g] | NC | NC | ug/l | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.3) | ND (1.2) | ND (1.3) | ND (1.2) |
| 2,4-Dimethylphenol | NC | 100[g] | NC | NC | ug/l | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) | ND (2.4) |
| 2,4-Dinitrophenol | NC | 19[g] | NC | NC | ug/l | ND (1.5) | ND (1.6) | ND (1.6) | ND (1.5) | ND (1.6) | ND (1.5) | ND (1.5) | ND (1.6) | ND (1.5) |
| 4,6-Dinitro-o-cresol | NC | NC | NC | NC | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.87) | ND (0.89) | ND (0.89) | ND (0.86) | ND (0.89) | ND (0.88) | ND (0.87) | ND (0.89) | ND (0.87) |
| 3&4-Methylphenol | NC | NC | NC | NC | ug/l | ND (0.86) | ND (0.88) | ND (0.88) | ND (0.85) | ND (0.88) | ND (0.87) | ND (0.86) | ND (0.88) | ND (0.86) |
| 2-Nitrophenol | NC | NC | NC | NC | ug/l | ND (0.94) | ND (0.96) | ND (0.96) | ND (0.93) | ND (0.96) | ND (0.95) | ND (0.94) | ND (0.96) | ND (0.94) |
| 4-Nitrophenol | NC | 60[g] | NC | NC | ug/l | ND (1.1) | ND (1.2) | ND (1.2) | ND (1.1) | ND (1.2) | ND (1.1) | ND (1.1) | ND (1.2) | ND (1.1) |
| Pentachlorophenol | (b) | (b) | 13 | 7.9 | ug/l | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.3) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) | ND (1.4) |
| Phenol | NC | 180[g] | NC | NC | ug/l | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.38) |
| 2,3,4,6-Tetrachlorophenol | NC | NC | NC | NC | ug/l | ND (1.4) | ND (1.5) | ND (1.5) | ND (1.4) | ND (1.5) | ND (1.4) | ND (1.4) | ND (1.5) | ND (1.4) |
| 2,4,5-Trichlorophenol | NC | NC | NC | NC | ug/l | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) | ND (1.3) |
| 2,4,6-Trichlorophenol | NC | 4.9[g] | NC | NC | ug/l | ND (0.91) | ND (0.92) | ND (0.92) | ND (0.90) | ND (0.92) | ND (0.91) | ND (0.91) | ND (0.92) | ND (0.91) |
| Acenaphthene | NC | 38[g] | NC | NC | ug/l | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) | ND (0.19) |
| Acenaphthylene | NC | 4840[g] | NC | NC | ug/l | ND (0.13) | ND (0.14) | ND (0.14) | ND (0.13) | ND (0.14) | ND (0.13) | ND (0.13) | ND (0.14) | ND (0.13) |
| Acetophenone | NC | NC | NC | NC | ug/l | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) |
| Anthracene | NC | 0.035[g] | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) |
| Atrazine | NC | NC | NC | NC | ug/l | ND (0.44) | ND (0.45) | ND (0.45) | ND (0.43) | ND (0.45) | ND (0.44) | ND (0.44) | ND (0.45) | ND (0.44) |
| Benzaldehyde | NC | NC | NC | NC | ug/l | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.28) | ND (0.29) | ND (0.29) | ND (0.28) | ND (0.29) | ND (0.28) |
| Benzo(a)anthracene | NC | 0.025[g] | NC | NC | ug/l | ND (0.20) [g] | ND (0.20) | ND (0.20) | ND (0.20) | 0.33 J | ND (0.20) | ND (0.20) | ND (0.20) | ND (0.20) |
| Benzo(a)pyrene | NC | 0.014[g] | NC | NC | ug/l | ND (0.21) [n] | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) |
| Benzo(b)fluoranthene | NC | 9.08[g] | NC | NC | ug/l | ND (0.20) [g] | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) |
| Benzo(g,h,i)perylene | NC | 7.64[g] | NC | NC | ug/l | ND (0.33) [g] | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.34) | ND (0.33) |
| Benzo(k)fluoranthene | NC | NC | NC | NC | ug/l | ND (0.20) [g] | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.20) | ND (0.20) | ND (0.21) | ND (0.20) |
| 4-Bromophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.39) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) |
| Butyl benzyl phthalate | NC | NC | NC | NC | ug/l | ND (0.45) | ND (0.46) | ND (0.46) | ND (0.44) | ND (0.46) | ND (0.45) | ND (0.45) | ND (0.46) | ND (0.45) |
| 1,1'-Biphenyl | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) |
| 2-Chloronaphthalene | NC | 0.396[g] | NC | NC | ug/l | ND (0.23) | ND (0.24) | ND (0.24) | ND (0.23) | ND (0.24) | ND (0.23) | ND (0.23) | ND (0.24) | ND (0.23) |
| 4-Chloroaniline | NC | NC | NC | NC | ug/l | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.34) | ND (0.34) | ND (0.33) | ND (0.34) | ND (0.33) |
| Carbazole | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.23) | ND (0.22) | ND (0.23) | ND (0.22) |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-33A | SW-33B | SW-33C | SW-34A | SW-34B | SW-34C | SW-35A | SW-35B | SW-35C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83146-7 | JC83146-8 | JC83146-9 | JC83146-12 | JC83146-13 | JC83146-14 | JC83146-15 | JC83146-16 | JC83146-17 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **MS Semi-volatiles (SW846 8270D)** | | | | | | | | | | | | | | |
| Caprolactam | NC | NC | NC | NC | ug/l | ND (0.64) | ND (0.65) | ND (0.65) | ND (0.63) | ND (0.65) | ND (0.64) | ND (0.64) | ND (0.65) | ND (0.64) |
| Chrysene | NC | NC | NC | NC | ug/l | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.17) | 0.26 J | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) |
| bis(2-Chloroethoxy)methane | NC | NC | NC | NC | ug/l | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.27) |
| bis(2-Chloroethyl)ether | NC | 1900[g] | NC | NC | ug/l | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.24) | ND (0.25) | ND (0.25) | ND (0.24) | ND (0.25) | ND (0.24) |
| 2,2'-Oxybis(1-chloropropane) | NC | NC | NC | NC | ug/l | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.39) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) | ND (0.40) |
| 4-Chlorophenyl phenyl ether | NC | NC | NC | NC | ug/l | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.36) | ND (0.36) | ND (0.37) | ND (0.36) |
| 2,4-Dinitrotoluene | NC | 44[g] | NC | NC | ug/l | ND (0.54) | ND (0.55) | ND (0.55) | ND (0.54) | ND (0.55) | ND (0.55) | ND (0.54) | ND (0.55) | ND (0.54) |
| 2,6-Dinitrotoluene | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.46) | ND (0.48) | ND (0.47) | ND (0.47) | ND (0.48) | ND (0.47) |
| 3,3'-Dichlorobenzidine | NC | 4.5[g] | NC | NC | ug/l | ND (0.50) | ND (0.51) | ND (0.51) | ND (0.49) | ND (0.51) | ND (0.50) | ND (0.50) | ND (0.51) | ND (0.50) |
| 1,4-Dioxane | NC | NC | NC | NC | ug/l | ND (0.64) | ND (0.66) | ND (0.66) | ND (0.64) | ND (0.66) | ND (0.65) | ND (0.64) | ND (0.66) | ND (0.64) |
| Dibenzo(a,h)anthracene | NC | NC | NC | NC | ug/l | ND (0.32) [g] | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.32) |
| Dibenzofuran | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) |
| Di-n-butyl phthalate | NC | 9.7[g] | NC | NC | ug/l | ND (0.49) | ND (0.50) | ND (0.50) | ND (0.48) | ND (0.50) | ND (0.49) | ND (0.49) | ND (0.50) | ND (0.49) |
| Di-n-octyl phthalate | NC | NC | NC | NC | ug/l | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) |
| Diethyl phthalate | NC | 110[g] | NC | NC | ug/l | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.25) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) | ND (0.26) |
| Dimethyl phthalate | NC | NC | NC | NC | ug/l | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.21) |
| bis(2-Ethylhexyl)phthalate | NC | 0.3[g] | NC | NC | ug/l | ND (1.6) | ND (1.7) | ND (1.7) | ND (1.6) | ND (1.7) | ND (1.6) | ND (1.6) | ND (1.7) | ND (1.6) |
| Fluoranthene | NC | 1.9[g] | NC | NC | ug/l | ND (0.17) [g] | ND (0.17) | ND (0.17) | ND (0.17) | 0.29 J | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) |
| Fluorene | NC | 19[g] | NC | NC | ug/l | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) | ND (0.17) |
| Hexachlorobenzene | NC | 0.0003[g] | NC | NC | ug/l | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.32) | ND (0.32) | ND (0.33) | ND (0.32) |
| Hexachlorobutadiene | NC | 0.053[g] | NC | NC | ug/l | ND (0.48) | ND (0.49) | ND (0.49) | ND (0.48) | ND (0.49) | ND (0.49) | ND (0.48) | ND (0.49) | ND (0.48) |
| Hexachlorocyclopentadiene | NC | 77[g] | NC | NC | ug/l | ND (2.7) [a] | ND (2.8) | ND (2.8) | ND (2.7) | ND (2.8) | ND (2.8) | ND (2.7) | ND (2.8) | ND (2.7) |
| Hexachloroethane | NC | 8[g] | NC | NC | ug/l | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.38) |
| Indeno(1,2,3-cd)pyrene | NC | 4.31[g] | NC | NC | ug/l | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.32) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) | ND (0.33) |
| Isophorone | NC | 920[g] | NC | NC | ug/l | ND (0.27) | ND (0.28) | ND (0.28) | ND (0.27) | ND (0.28) | ND (0.27) | ND (0.27) | ND (0.28) | ND (0.27) |
| 2-Methylnaphthalene | NC | 330[g] | NC | NC | ug/l | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.20) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) | ND (0.21) |
| 2-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.27) [a] | ND (0.28) [a] | ND (0.28) [a] | ND (0.27) [a] | ND (0.28) [a] | ND (0.27) [a] | ND (0.27) [a] | ND (0.28) [a] | ND (0.27) [a] |
| 3-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.38) | ND (0.39) | ND (0.39) | ND (0.38) | ND (0.39) | ND (0.38) | ND (0.38) | ND (0.39) | ND (0.38) |
| 4-Nitroaniline | NC | NC | NC | NC | ug/l | ND (0.43) | ND (0.44) | ND (0.44) | ND (0.43) | ND (0.44) | ND (0.44) | ND (0.43) | ND (0.44) | ND (0.43) |
| Naphthalene | NC | 13[g] | NC | NC | ug/l | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) | ND (0.23) |
| Nitrobenzene | NC | NC | NC | NC | ug/l | ND (0.63) | ND (0.64) | ND (0.64) | ND (0.62) | ND (0.64) | ND (0.64) | ND (0.63) | ND (0.64) | ND (0.63) |
| N-Nitroso-di-n-propylamine | NC | NC | NC | NC | ug/l | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.48) | ND (0.48) | ND (0.47) | ND (0.48) | ND (0.47) |
| N-Nitrosodiphenylamine | NC | NC | NC | NC | ug/l | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) | ND (0.22) |
| Phenanthrene | NC | 3.6[g] | NC | NC | ug/l | ND (0.17) | ND (0.18) | ND (0.18) | ND (0.17) | 0.22 J | ND (0.17) | ND (0.17) | ND (0.18) | ND (0.17) |
| Pyrene | NC | 0.30[g] | NC | NC | ug/l | ND (0.21) | ND (0.22) | ND (0.22) | ND (0.21) | 0.44 J | ND (0.22) | ND (0.21) | ND (0.22) | ND (0.21) |
| 1,2,4,5-Tetrachlorobenzene | NC | NC | NC | NC | ug/l | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.37) | ND (0.36) | ND (0.37) | ND (0.36) |
| **MS Semi-volatile TIC** | | | | | | | | | | | | | | |
| Total TIC, Semi-Volatile | NC | NC | NC | NC | ug/l | 0 | 0 | 0 | 0 | 8.7 J | 4 J | 0 | 0 | 5.9 J |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| Client Sample ID: | Surface Water (ug/L) | | | | | SW-33A | SW-33B | SW-33C | SW-34A | SW-34B | SW-34C | SW-35A | SW-35B | SW-35C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | Freshwater (FW2) Criteria | | Saline Water (SE & SC) Criteria | | | JC83146-7 | JC83146-8 | JC83146-9 | JC83146-12 | JC83146-13 | JC83146-14 | JC83146-15 | JC83146-16 | JC83146-17 |
| Date Sampled: | Aquatic | | Aquatic | | | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 | 2/20/2019 |
| Matrix: | Acute | Chronic | Acute | Chronic | | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water |
| **Metals Analysis** | | | | | | | | | | | | | | |
| Aluminum | NC | NC | NC | NC | ug/l | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | 1450 |
| Antimony | NC | 80[g] | NC | NC | ug/l | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 | <6.0 |
| Arsenic | 340(d)(s) | 150(d)(s) | 69(d)(s) | 36(d)(s) | ug/l | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <15 [i] | <15 [i] |
| Barium | NC | 220[g] | NC | NC | ug/l | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 | <200 |
| Beryllium | NC | 3.6[g] | NC | NC | ug/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Cadmium | (a) | (a) | 40(d)(s) | 8.8(d)(s) | ug/l | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 | <3.0 |
| Calcium[1] | NC | 116,000 | NC | NC | ug/l | 235000 | 233000 | 231000 | 199000 | 197000 | 226000 | 197000 | 200000 | 222000 |
| Chromium | (a) | 42[g] | NC | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Cobalt | 17.25 | 24[g] | NC | NC | ug/l | <250 [o] | <250 [o] | <250 [o] | <250 [o] | <250 [o] | <250 [o] | <250 [o] | <250 [j] | <250 [o] |
| Copper | (a) | (a) | 4.8(d)(s) | 3.1(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 17.9 |
| Iron | NC | 1000 | NC | NC | ug/l | 423 | 411 | 423 | 535 | 516 | 602 | 511 | 515 | 2980 |
| Lead | 38(d)(s) | 5.4(d)(s) | 210(d)(s) | 24(d)(s) | ug/l | <75 [i] | <15 [o] | <15 [o] | <15 [o] | <15 [o] | <15 [o] | <15 [o] | <15 [j] | <15 [o] |
| Magnesium[1] | NC | 82,000 | NC | NC | ug/l | 696000 | 689000 | 684000 | 685000 | 633000 | 661000 | 642000 | 651000 | 648000 |
| Manganese | NC | NC | NC | NC | ug/l | 57.7 | 57.5 | 55.1 | 63.5 | 60.2 | 62.8 | 61 | 61.4 | 94.3 |
| Mercury | 1.4(d)(s) | 0.77(d)(s) | 1.8(d)(s) | 0.94(d)(s) | ug/l | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| Nickel | (a) | (a) | 64(d)(s) | 22(d)(s) | ug/l | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [j] | <50 [o] |
| Potassium | NC | NC | NC | NC | ug/l | 190000 | 195000 | 189000 | 182000 | 181000 | 187000 | 182000 | 184000 | 187000 |
| Selenium | 20(s) | 5.0(s) | 290(d)(s) | 71(d)(s) | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Silver | (a) | (a) | 1.9(d)(s) | NC | ug/l | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Sodium | NC | 680,000 | NC | NC | ug/l | 5830000 | 5860000 | 5860000 | 5620000 | 4720000 | 4820000 | 4760000 | 4930000 | 5590000 |
| Thallium | NC | 10[g] | NC | NC | ug/l | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [o] | <50 [j] | <50 [o] |
| Vanadium | NC | 12[g] | NC | NC | ug/l | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Zinc | (a) | (a) | 90(d)(s) | 81(d)(s) | ug/l | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | 39.7 |
| **General Chemistry** | | | | | | | | | | | | | | |
| Alkalinity, Total as CaCO3 | NC | NC | NC | NC | mg/l | 114 [k] | 115 [k] | 113 [k] | 118 [k] | 119 [k] | 120 [k] | 121 [k] | 119 [k] | 118 [k] |
| Chloride[2] | 860 | 230 | NC | NC | mg/l | 9970 | 9850 | 10000 | 9420 | 9470 | 9860 | 9390 | 9550 | 9620 |
| Hardness, Total as CaCO3 | NC | NC | NC | NC | mg/l | 3450 | 3600 | 3380 | 3200 | 3130 | 3150 | 3200 | 3200 | 3280 |
| Nitrogen, Ammonia | NC | NC | NC | NC | mg/l | 0.22 | <0.20 | 0.31 | 0.27 | 0.34 | 0.3 | 0.31 | 0.36 | 0.26 |
| Nitrogen, Nitrate | NC | NC | NC | NC | mg/l | 0.45 [m] | 0.35 [m] | 0.55 [m] | 0.48 [m] | 0.37 [m] | 0.34 [m] | 0.33 [m] | 0.30 [m] | 0.11 [m] |
| Nitrogen, Nitrate + Nitrite | NC | NC | NC | NC | mg/l | 0.5 | 0.39 | 0.6 | 0.5 | 0.41 | 0.38 | 0.37 | 0.35 | 0.16 |
| Nitrogen, Nitrite | NC | NC | NC | NC | mg/l | 0.051 | 0.039 | 0.052 | 0.021 | 0.045 | 0.04 | 0.044 | 0.048 | 0.055 |
| Solids, Total Dissolved | NC | NC | NC | NC | mg/l | 19000 | 19000 | 18900 | 14400 | 16000 | 16300 | 15800 | 16500 | 16900 |

Table 6b(R)
Smith Creek and Smith Creek Pond Surface Water - Ecological Evaluation
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

| | |
|---|---|
| NC: | No Criteria |
| BLUE: | Compound Detected, No Criteria |
| GREEN: | Compound Detected, Non-Toxic |
| ORANGE: | Exceedance, Result > Criteria |

**Results Key:**
**a** Associated CCV outside of control limits high, sample was ND.
**b** This compound in BS is outside in house QC limits bias low.
**c** Associated CCV outside of control limits low.
**d** Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house control limits bias low.
**e** Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house control limits bias low.
**f** Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house control limits bias low.
**g** This compound in BS is outside in house QC limits bias high.
**h** Associated CCV outside of control limits high.
**i** Elevated detection limit due to dilution required for high interfering element.
**j** Elevated detection limit due to dilution required for matrix interference.
**k** Sample was titrated to a final pH of 4.5.
**l** Sample was titrated to a final pH of 4.2.
**m** Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
**n** Associated CCV and BS outside of control limits high, sample was ND.
**o** Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).
**p** Elevated sample detection limit due to difficult sample matrix.
**q** Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
**r** Analysis performed at SGS Orlando, FL.
**s** Associated CCV and BS/BSD outside of control limits high, sample was ND.
**t** Associated CCV and BS/BSD outside of control limits high, sample was ND.
**u** Multiple injections indicate possible sample non-homogeneity.
**v** Analysis done out of holding time.

**Criteria Key:**
(a) Criteria as listed at (f)3 below as formula
(b) Criteria as listed at (f)4 below as formula
(d) Criterion is expressed as a function of the Water Effect Ratio (WER). For criterion in the table, WER equates to the default value of 1.0.
(fc) Criteria expressed as free cyanide (as CN)/L
(h) Human health noncarcinogen
(hc) Human health carcinogen
(s) Dissolved criterion
(T) Total recoverable criterion
1Calculated based on measured calcium and magnesium concentrations
[2]USEPA National Recommended Water Quality Criterion

1 Lowest Effects Levels (LELs) indicate concentrations at which adverse benthic impact may begin to occur (level tolerated by most benthic organisms). Water column species and wildlife are at potential risk via bio-magnification (food chain toxicity) if site-related sediment concentrations of PCBs, organochlorine pesticides, or mercury are at or above the LEL. Other known biomagnifiers without ESC warrant case-by-case evaluation.

2. Severe Effects Levels (SELs) are also provided, but the SEL is not a BEE screening value. Contamination at this level indicates severe impacts to the benthic community in most cases studied. For non-polar organics (PAHs, organochlorine pesticides, PCBs), the SEL is calculated from a site-specific TOC level. Since the table SEL is based on 100% organic carbon, the calculated site-specific number is lower.

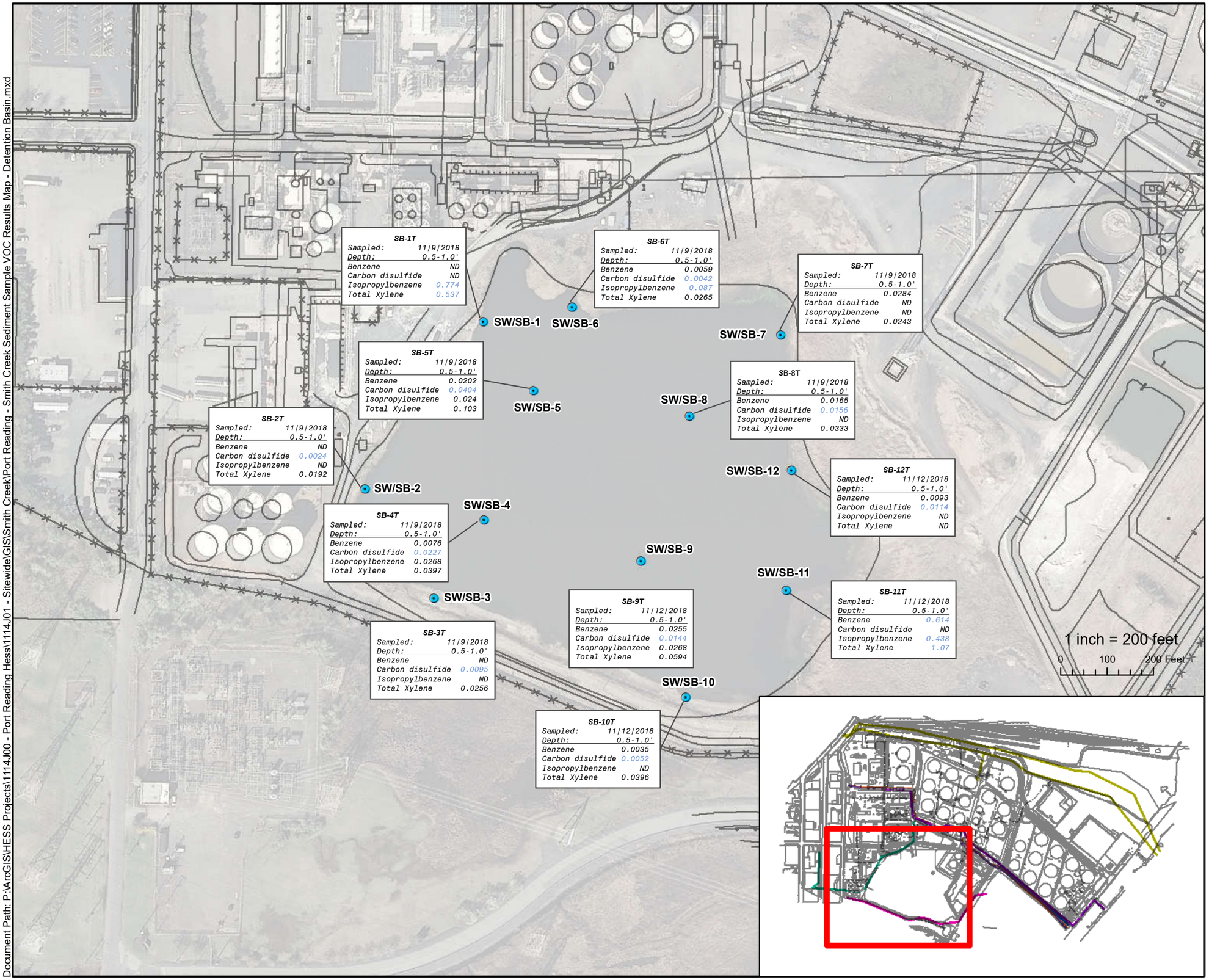
To calculate a site-specific SEL, TOC is multiplied by the table SEL. For TOC at 1% (10,000 ppm) the SEL is multiplied by 0.01. If the table SEL is 360 ppm, 360 x 0.01 = a 3.6 ppm SEL. A default value of 1% is used when a TOC value is not available. 10% TOC is upper limit for SEL calculation. 1% and 10% TOC represents the average range over which this approach has been examined (USEPA, 1988).

3. Refer to Estuarine/Marine Screening Criteria when a freshwater parameter has no corresponding value. Since the biological activity of non-polar organics is not expected to differ greatly in the estuarine/marine environment, these screens can be used as surrogates. While uncertainty associated with the use of estuarine/marine metal screens as freshwater surrogates is greater than with non-polar organics, one surrogate metal (silver) is provided.

4. Effects Range-Low (ER-L) represents a concentration at which adverse benthic impacts are found in approximately 10% of studies. Water column species and wildlife are at potential risk via biomagnification (food chain toxicity) if site-related sediment concentrations of PCBs, organochlorine pesticides, or mercury are at or above the ER-L. Other known biomagnifiers without NOAA screening numbers (dioxins, furans, other chlorinated organics, and selenium) warrant case-by-case evaluation.

5. The Effects Range-Median (ER-M) is also provided. The ER-M is not a BEE screening value. Contamination greater than the ER-M value indicates adverse benthic impacts in more than 50% of cases studied.
6. Refer to Freshwater Sediment Screening Criteria when a Estuarine/Marine parameter has no corresponding value and for individual Aroclor values. Since the biological activity of non-polar organics is not expected to differ greatly in the fresh water environment, freshwater screens can be used as surrogates.
7. Screening values were developed for the protection of marine receptors; however, for the purpose of this document they are considered surrogates for freshwater systems.
8. USEPA Region 5, RCRA Ecological Screening Levels (ESLs) represent a protective benchmark (e.g., water quality criteria, sediment quality guidelines/ criteria, and chronic no adverse effect levels) for 223 contaminants and are not intended to serve as cleanup levels, but are intended to function as screening levels.
9. Wildlife Preliminary Remediation Goal based on plant study.
10. Wildlife Preliminary Remediation Goal based on shrew study.
11. Wildlife Preliminary Remediation Goal based on woodcock study.
12. Wildlife Preliminary Remediation Goal based on earthworm study.
13. Wildlife Preliminary Remediation Goal based on mouse study.
14. Wildlife Preliminary Remediation Goal based on hawk study.
15. Sediment value from NOAA Screening Quick Reference Tables (SQuiRTs).
16. Westhollow Technical Center Levels were developed by Shell Oil for surface water and were approved for use by NJDEP with the following conditions: 1) the source area is removed, 2) these levels are on the fringe of the contamination area, and 3) active remediation is occurring. These levels are applicable to surface water and wetland areas.
17. USEPA Ambient Water Quality Criteria Update for Methyl Tertiary-Butyl Ether (MTBE) http://www.epa.gov/waterscience/criteria/mtbe-fs.html
18. Low Molecular Weight PAHs are defined as compounds composed of fewer than four rings.
19. High Molecular Weight PAHs are defined as compounds composed of four or more rings.
20. Guidance for Developing Ecological Soil Screening Levels, OSWER Directive 9285.7-55, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460, November 2003, Revised February 2005, http://www.epa.gov/ecotox/ecossl/pdf/ecossl_guidance_chapters.pdf
21. Value applies to DDT and metabolites.

# FIGURES




## LEGEND

Sediment and Surface Water Location

| NJDEP Ecological Sediment - Saline Water Screening Criterion (ER-L or LEL) | |
|---|---|
| Benzene | 0.34 |
| Carbon disulfide[1] | 0.000851 |
| Isopropylbenzene[1] | 0.086 |
| Xylene (total) | 0.12 |

NOTE:
1. All results were measured in mg/kg

**AOC 12 DETENTION BASIN SEDIMENT RESULTS - VOCs**

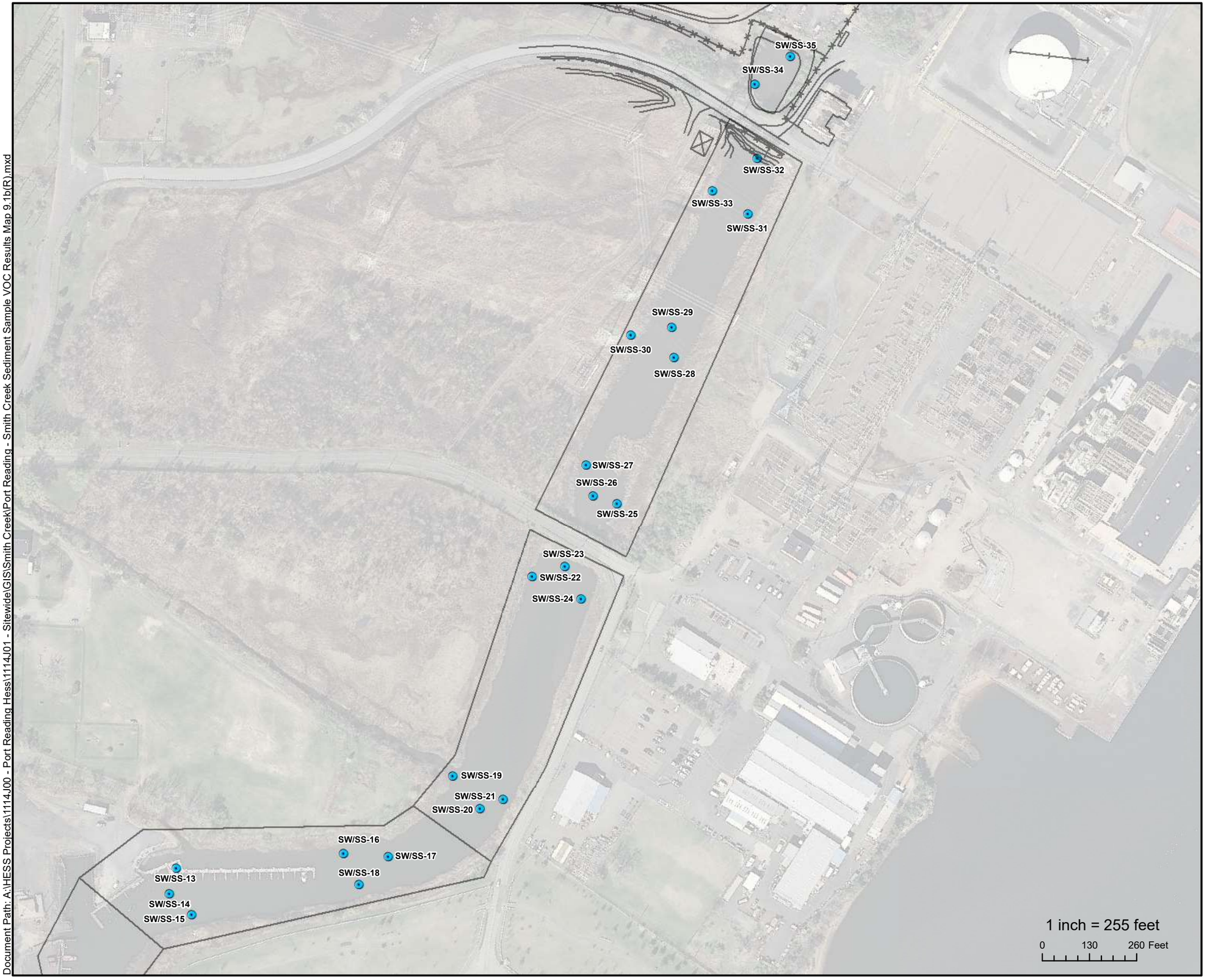
Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

**FIGURE: 9.1a (R)**

**Drawn By:** KJ **Date :** 01/17/2020

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Smith Creek\Port Reading - Smith Creek Sediment Sample VOC Results Map - Detention Basin.mxd




## LEGEND

Sediment and Surface Water Location

NOTE:
1. All VOC analysis for sediment samples are under sediment - saline screening criterion

**AOC 12 SMITH CREEK AND POND SEDIMENT RESULTS - VOCs**

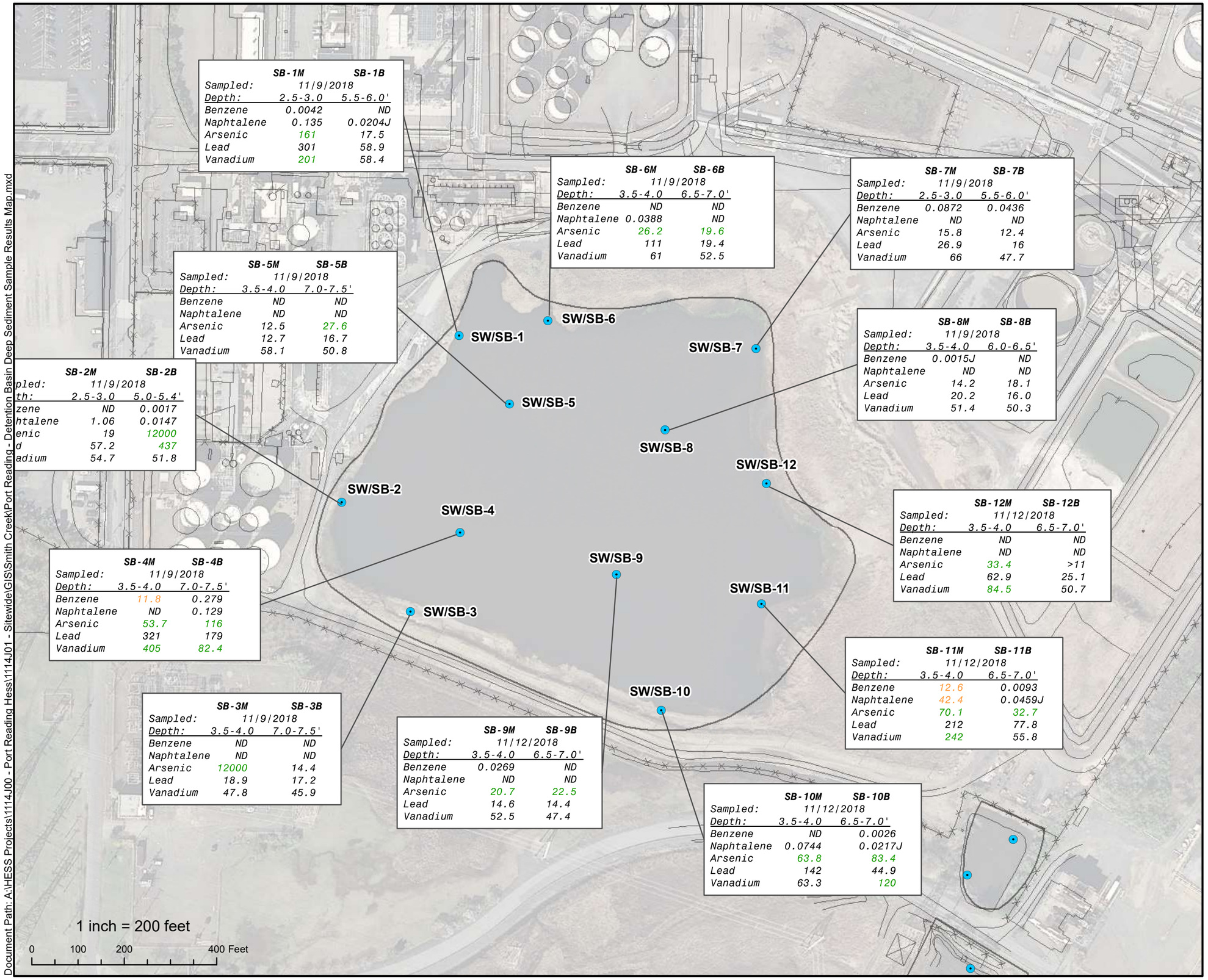
Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

**FIGURE: 9.1b(R)**

| **Drawn By:** KJ | **Date :** 01/17/2020 |
|---|---|

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Document Path: A:\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Smith Creek\Port Reading - Smith Creek Sediment Sample VOC Results Map 9.1b(R).mxd




| | SB-1M | SB-1B |
|---|---|---|
| Sampled: | 11/9/2018 | |
| Depth: | 2.5-3.0 | 5.5-6.0' |
| Benzene | 0.0042 | ND |
| Naphtalene | 0.135 | 0.0204J |
| Arsenic | 161 | 17.5 |
| Lead | 301 | 58.9 |
| Vanadium | 201 | 58.4 |

| | SB-6M | SB-6B |
|---|---|---|
| Sampled: | 11/9/2018 | |
| Depth: | 3.5-4.0 | 6.5-7.0' |
| Benzene | ND | ND |
| Naphtalene | 0.0388 | ND |
| Arsenic | 26.2 | 19.6 |
| Lead | 111 | 19.4 |
| Vanadium | 61 | 52.5 |

| | SB-7M | SB-7B |
|---|---|---|
| Sampled: | 11/9/2018 | |
| Depth: | 2.5-3.0 | 5.5-6.0' |
| Benzene | 0.0872 | 0.0436 |
| Naphtalene | ND | ND |
| Arsenic | 15.8 | 12.4 |
| Lead | 26.9 | 16 |
| Vanadium | 66 | 47.7 |

| | SB-5M | SB-5B |
|---|---|---|
| Sampled: | 11/9/2018 | |
| Depth: | 3.5-4.0 | 7.0-7.5' |
| Benzene | ND | ND |
| Naphtalene | ND | ND |
| Arsenic | 12.5 | 27.6 |
| Lead | 12.7 | 16.7 |
| Vanadium | 58.1 | 50.8 |

| | SB-8M | SB-8B |
|---|---|---|
| Sampled: | 11/9/2018 | |
| Depth: | 3.5-4.0 | 6.0-6.5' |
| Benzene | 0.0015J | ND |
| Naphtalene | ND | ND |
| Arsenic | 14.2 | 18.1 |
| Lead | 20.2 | 16.0 |
| Vanadium | 51.4 | 50.3 |

| | SB-2M | SB-2B |
|---|---|---|
| pled: | 11/9/2018 | |
| th: | 2.5-3.0 | 5.0-5.4' |
| zene | ND | 0.0017 |
| htalene | 1.06 | 0.0147 |
| enic | 19 | 12000 |
| d | 57.2 | 437 |
| adium | 54.7 | 51.8 |

| | SB-12M | SB-12B |
|---|---|---|
| Sampled: | 11/12/2018 | |
| Depth: | 3.5-4.0 | 6.5-7.0' |
| Benzene | ND | ND |
| Naphtalene | ND | ND |
| Arsenic | 33.4 | >11 |
| Lead | 62.9 | 25.1 |
| Vanadium | 84.5 | 50.7 |

| | SB-4M | SB-4B |
|---|---|---|
| Sampled: | 11/9/2018 | |
| Depth: | 3.5-4.0 | 7.0-7.5' |
| Benzene | 11.8 | 0.279 |
| Naphtalene | ND | 0.129 |
| Arsenic | 53.7 | 116 |
| Lead | 321 | 179 |
| Vanadium | 405 | 82.4 |

| | SB-11M | SB-11B |
|---|---|---|
| Sampled: | 11/12/2018 | |
| Depth: | 3.5-4.0 | 6.5-7.0' |
| Benzene | 12.6 | 0.0093 |
| Naphtalene | 42.4 | 0.0459J |
| Arsenic | 70.1 | 32.7 |
| Lead | 212 | 77.8 |
| Vanadium | 242 | 55.8 |

| | SB-3M | SB-3B |
|---|---|---|
| Sampled: | 11/9/2018 | |
| Depth: | 3.5-4.0 | 7.0-7.5' |
| Benzene | ND | ND |
| Naphtalene | ND | ND |
| Arsenic | 12000 | 14.4 |
| Lead | 18.9 | 17.2 |
| Vanadium | 47.8 | 45.9 |

| | SB-9M | SB-9B |
|---|---|---|
| Sampled: | 11/12/2018 | |
| Depth: | 3.5-4.0 | 6.5-7.0' |
| Benzene | 0.0269 | ND |
| Naphtalene | ND | ND |
| Arsenic | 20.7 | 22.5 |
| Lead | 14.6 | 14.4 |
| Vanadium | 52.5 | 47.4 |

| | SB-10M | SB-10B |
|---|---|---|
| Sampled: | 11/12/2018 | |
| Depth: | 3.5-4.0 | 6.5-7.0' |
| Benzene | ND | 0.0026 |
| Naphtalene | 0.0744 | 0.0217J |
| Arsenic | 63.8 | 83.4 |
| Lead | 142 | 44.9 |
| Vanadium | 63.3 | 120 |

## LEGEND

Sediment and Surface Water Location

| | NJ Non-Residential Direct Contact Soil | NJ Residential Direct Contact Soil |
|---|---|---|
| Benzene | 5 | 2 |
| Naphthalene | 17 | 6 |
| Arsenic | 19 | 19 |
| Lead | 800 | 400 |
| Vanadium | 1100 | 78 |

NOTE:
1. All results were measured in mg/kg
2. Orange: Exceedance, Over NRSRS Standard
3. Green: Exceedance, Over RSRS Standard

**AOC 12 DETENTION BASIN DEEP SEDIMENT ANALYTICAL RESULTS**

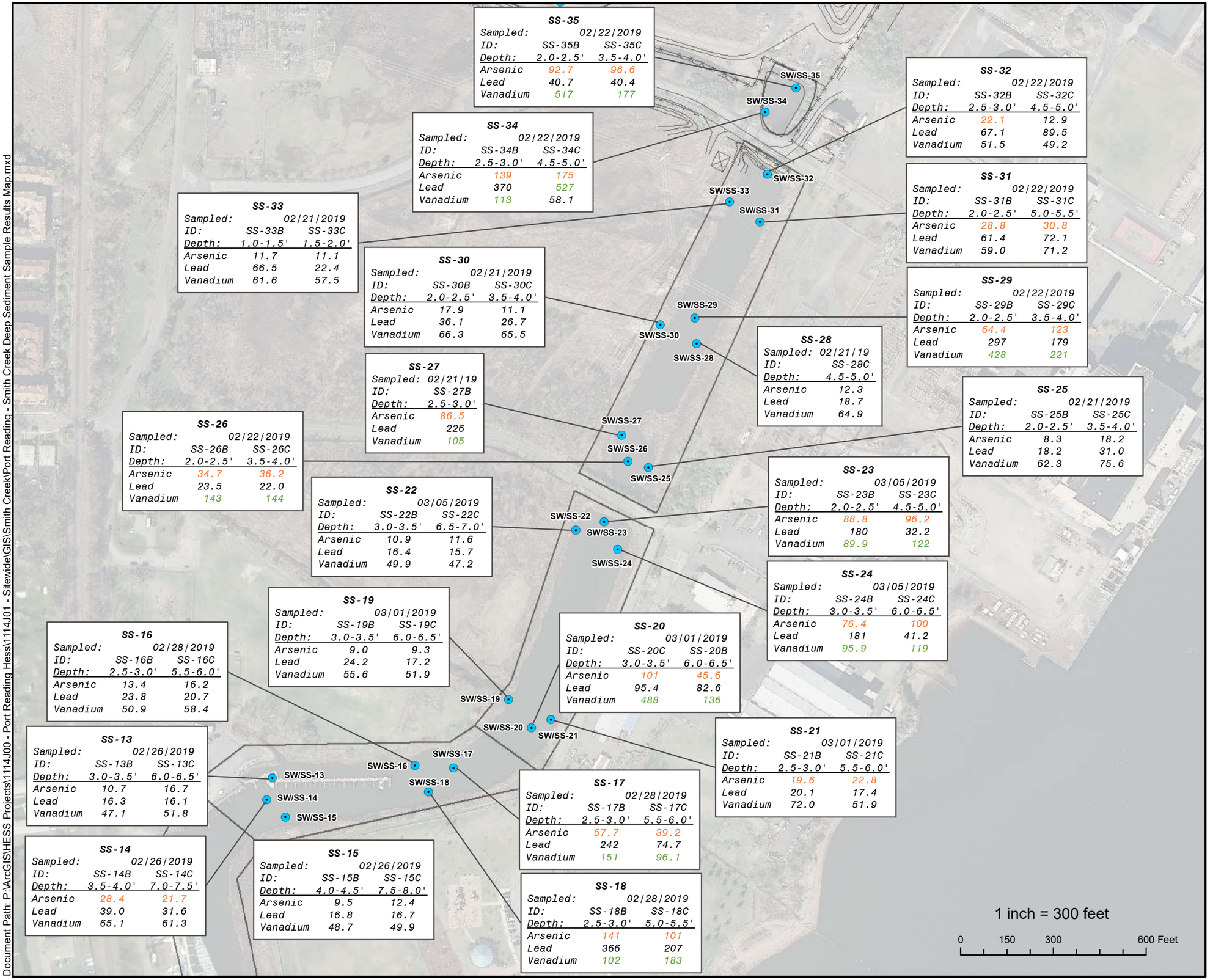
Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

**FIGURE: 9.1c**

**Drawn By:** AE **Date :** 01/20/220

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Document Path: A:\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Smith Creek\Port Reading - Detention Basin Deep Sediment Sample Results Map.mxd




**SS-35**

| | | |
|---|---|---|
| Sampled: | 02/22/2019 | |
| ID: | SS-35B | SS-35C |
| Depth: | 2.0-2.5' | 3.5-4.0' |
| Arsenic | 92.7 | 96.6 |
| Lead | 40.7 | 40.4 |
| Vanadium | 517 | 177 |

**SS-34**

| | | |
|---|---|---|
| Sampled: | 02/22/2019 | |
| ID: | SS-34B | SS-34C |
| Depth: | 2.5-3.0' | 4.5-5.0' |
| Arsenic | 139 | 175 |
| Lead | 370 | 527 |
| Vanadium | 113 | 58.1 |

**SS-32**

| | | |
|---|---|---|
| Sampled: | 02/22/2019 | |
| ID: | SS-32B | SS-32C |
| Depth: | 2.5-3.0' | 4.5-5.0' |
| Arsenic | 22.1 | 12.9 |
| Lead | 67.1 | 89.5 |
| Vanadium | 51.5 | 49.2 |

**SS-31**

| | | |
|---|---|---|
| Sampled: | 02/22/2019 | |
| ID: | SS-31B | SS-31C |
| Depth: | 2.0-2.5' | 5.0-5.5' |
| Arsenic | 28.8 | 30.8 |
| Lead | 61.4 | 72.1 |
| Vanadium | 59.0 | 71.2 |

**SS-33**

| | | |
|---|---|---|
| Sampled: | 02/21/2019 | |
| ID: | SS-33B | SS-33C |
| Depth: | 1.0-1.5' | 1.5-2.0' |
| Arsenic | 11.7 | 11.1 |
| Lead | 66.5 | 22.4 |
| Vanadium | 61.6 | 57.5 |

**SS-30**

| | | |
|---|---|---|
| Sampled: | 02/21/2019 | |
| ID: | SS-30B | SS-30C |
| Depth: | 2.0-2.5' | 3.5-4.0' |
| Arsenic | 17.9 | 11.1 |
| Lead | 36.1 | 26.7 |
| Vanadium | 66.3 | 65.5 |

**SS-29**

| | | |
|---|---|---|
| Sampled: | 02/22/2019 | |
| ID: | SS-29B | SS-29C |
| Depth: | 2.0-2.5' | 3.5-4.0' |
| Arsenic | 64.4 | 123 |
| Lead | 297 | 179 |
| Vanadium | 428 | 221 |

**SS-28**

| | | |
|---|---|---|
| Sampled: | 02/21/19 | |
| ID: | SS-28C | |
| Depth: | 4.5-5.0' | |
| Arsenic | 12.3 | |
| Lead | 18.7 | |
| Vanadium | 64.9 | |

**SS-27**

| | | |
|---|---|---|
| Sampled: | 02/21/19 | |
| ID: | SS-27B | |
| Depth: | 2.5-3.0' | |
| Arsenic | 86.5 | |
| Lead | 226 | |
| Vanadium | 105 | |

**SS-25**

| | | |
|---|---|---|
| Sampled: | 02/21/2019 | |
| ID: | SS-25B | SS-25C |
| Depth: | 2.0-2.5' | 3.5-4.0' |
| Arsenic | 8.3 | 18.2 |
| Lead | 18.2 | 31.0 |
| Vanadium | 62.3 | 75.6 |

**SS-26**

| | | |
|---|---|---|
| Sampled: | 02/22/2019 | |
| ID: | SS-26B | SS-26C |
| Depth: | 2.0-2.5' | 3.5-4.0' |
| Arsenic | 34.7 | 36.2 |
| Lead | 23.5 | 22.0 |
| Vanadium | 143 | 144 |

**SS-23**

| | | |
|---|---|---|
| Sampled: | 03/05/2019 | |
| ID: | SS-23B | SS-23C |
| Depth: | 2.0-2.5' | 4.5-5.0' |
| Arsenic | 88.8 | 96.2 |
| Lead | 180 | 32.2 |
| Vanadium | 89.9 | 122 |

**SS-22**

| | | |
|---|---|---|
| Sampled: | 03/05/2019 | |
| ID: | SS-22B | SS-22C |
| Depth: | 3.0-3.5' | 6.5-7.0' |
| Arsenic | 10.9 | 11.6 |
| Lead | 16.4 | 15.7 |
| Vanadium | 49.9 | 47.2 |

**SS-24**

| | | |
|---|---|---|
| Sampled: | 03/05/2019 | |
| ID: | SS-24B | SS-24C |
| Depth: | 3.0-3.5' | 6.0-6.5' |
| Arsenic | 76.4 | 100 |
| Lead | 181 | 41.2 |
| Vanadium | 95.9 | 119 |

**SS-19**

| | | |
|---|---|---|
| Sampled: | 03/01/2019 | |
| ID: | SS-19B | SS-19C |
| Depth: | 3.0-3.5' | 6.0-6.5' |
| Arsenic | 9.0 | 9.3 |
| Lead | 24.2 | 17.2 |
| Vanadium | 55.6 | 51.9 |

**SS-20**

| | | |
|---|---|---|
| Sampled: | 03/01/2019 | |
| ID: | SS-20C | SS-20B |
| Depth: | 3.0-3.5' | 6.0-6.5' |
| Arsenic | 101 | 45.6 |
| Lead | 95.4 | 82.6 |
| Vanadium | 488 | 136 |

**SS-16**

| | | |
|---|---|---|
| Sampled: | 02/28/2019 | |
| ID: | SS-16B | SS-16C |
| Depth: | 2.5-3.0' | 5.5-6.0' |
| Arsenic | 13.4 | 16.2 |
| Lead | 23.8 | 20.7 |
| Vanadium | 50.9 | 58.4 |

**SS-21**

| | | |
|---|---|---|
| Sampled: | 03/01/2019 | |
| ID: | SS-21B | SS-21C |
| Depth: | 2.5-3.0' | 5.5-6.0' |
| Arsenic | 19.6 | 22.8 |
| Lead | 20.1 | 17.4 |
| Vanadium | 72.0 | 51.9 |

**SS-13**

| | | |
|---|---|---|
| Sampled: | 02/26/2019 | |
| ID: | SS-13B | SS-13C |
| Depth: | 3.0-3.5' | 6.0-6.5' |
| Arsenic | 10.7 | 16.7 |
| Lead | 16.3 | 16.1 |
| Vanadium | 47.1 | 51.8 |

**SS-17**

| | | |
|---|---|---|
| Sampled: | 02/28/2019 | |
| ID: | SS-17B | SS-17C |
| Depth: | 2.5-3.0' | 5.5-6.0' |
| Arsenic | 57.7 | 39.2 |
| Lead | 242 | 74.7 |
| Vanadium | 151 | 96.1 |

**SS-14**

| | | |
|---|---|---|
| Sampled: | 02/26/2019 | |
| ID: | SS-14B | SS-14C |
| Depth: | 3.5-4.0' | 7.0-7.5' |
| Arsenic | 28.4 | 21.7 |
| Lead | 39.0 | 31.6 |
| Vanadium | 65.1 | 61.3 |

**SS-15**

| | | |
|---|---|---|
| Sampled: | 02/26/2019 | |
| ID: | SS-15B | SS-15C |
| Depth: | 4.0-4.5' | 7.5-8.0' |
| Arsenic | 9.5 | 12.4 |
| Lead | 16.8 | 16.7 |
| Vanadium | 48.7 | 49.9 |

**SS-18**

| | | |
|---|---|---|
| Sampled: | 02/28/2019 | |
| ID: | SS-18B | SS-18C |
| Depth: | 2.5-3.0' | 5.0-5.5' |
| Arsenic | 141 | 101 |
| Lead | 366 | 207 |
| Vanadium | 102 | 183 |

## LEGEND

Sediment and Surface Water Location

| | NJDEP RSRS | NJDEP NRSRS |
|---|---|---|
| Arsenic | 19 | 19 |
| Lead | 800 | 400 |
| Vanadium | 1100 | 78 |

NOTE:
1. All results were measured in mg/kg

**AOC 12 SMITH CREEK AND POND DEEP SEDIMENT RESULTS**

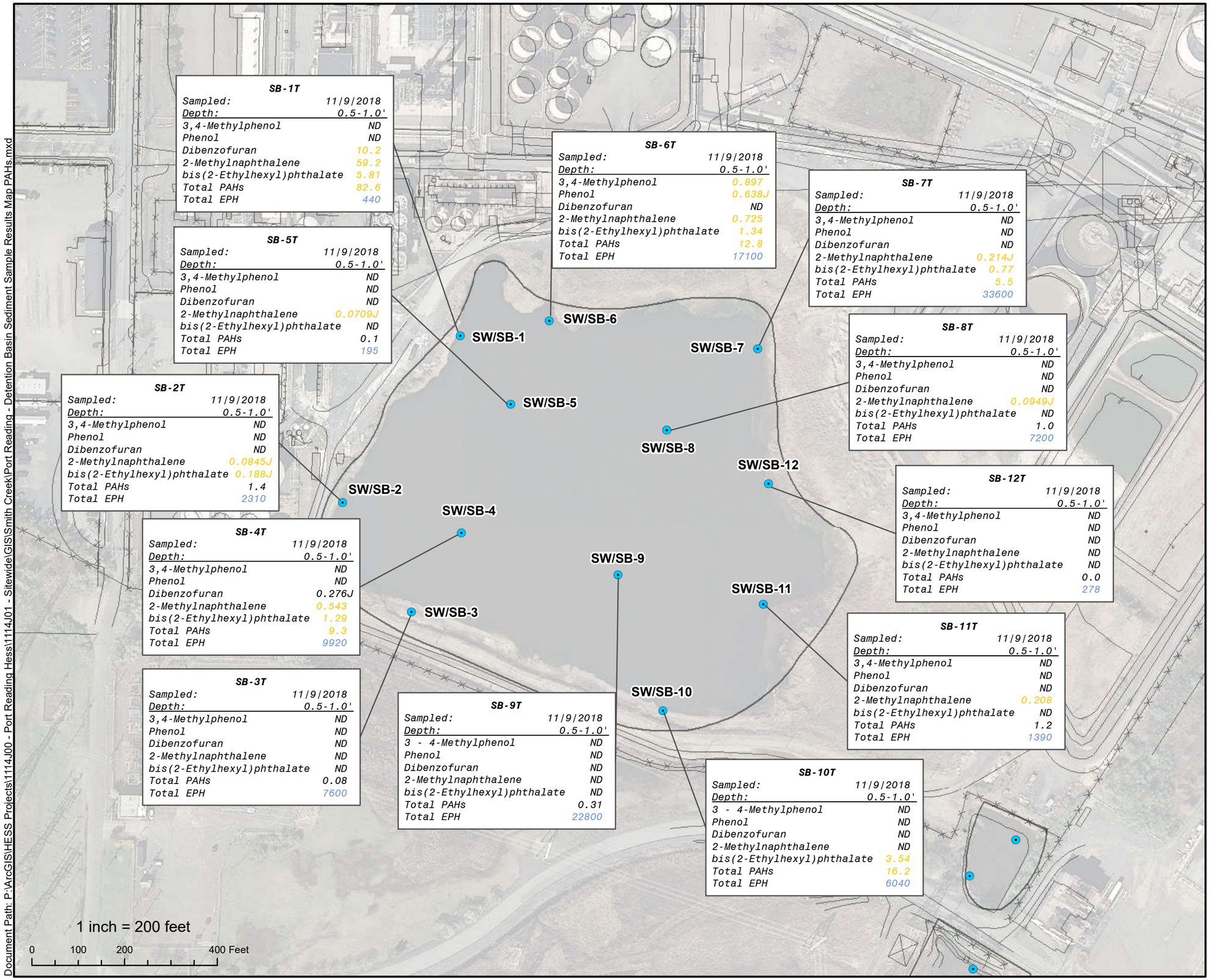
Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

**FIGURE: 9.1d**

**Drawn By:** KJ **Date :** 01/20/220

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Smith Creek\Port Reading - Smith Creek Deep Sediment Sample Results Map.mxd




**SB-1T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | 10.2 |
| 2-Methylnaphthalene | 59.2 |
| bis(2-Ethylhexyl)phthalate | 5.81 |
| Total PAHs | 82.6 |
| Total EPH | 440 |

**SB-5T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | 0.0709J |
| bis(2-Ethylhexyl)phthalate | ND |
| Total PAHs | 0.1 |
| Total EPH | 195 |

**SB-2T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | 0.0845J |
| bis(2-Ethylhexyl)phthalate | 0.188J |
| Total PAHs | 1.4 |
| Total EPH | 2310 |

**SB-4T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | 0.276J |
| 2-Methylnaphthalene | 0.543 |
| bis(2-Ethylhexyl)phthalate | 1.29 |
| Total PAHs | 9.3 |
| Total EPH | 9920 |

**SB-3T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | ND |
| bis(2-Ethylhexyl)phthalate | ND |
| Total PAHs | 0.08 |
| Total EPH | 7600 |

**SB-6T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | 0.897 |
| Phenol | 0.638J |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | 0.725 |
| bis(2-Ethylhexyl)phthalate | 1.34 |
| Total PAHs | 12.8 |
| Total EPH | 17100 |

**SB-7T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | 0.214J |
| bis(2-Ethylhexyl)phthalate | 0.77 |
| Total PAHs | 5.5 |
| Total EPH | 33600 |

**SB-8T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | 0.0949J |
| bis(2-Ethylhexyl)phthalate | ND |
| Total PAHs | 1.0 |
| Total EPH | 7200 |

**SB-12T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | ND |
| bis(2-Ethylhexyl)phthalate | ND |
| Total PAHs | 0.0 |
| Total EPH | 278 |

**SB-11T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3,4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | 0.208 |
| bis(2-Ethylhexyl)phthalate | ND |
| Total PAHs | 1.2 |
| Total EPH | 1390 |

**SB-9T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3 - 4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | ND |
| bis(2-Ethylhexyl)phthalate | ND |
| Total PAHs | 0.31 |
| Total EPH | 22800 |

**SB-10T**

| | |
|---|---|
| Sampled: | 11/9/2018 |
| Depth: | 0.5-1.0' |
| 3 - 4-Methylphenol | ND |
| Phenol | ND |
| Dibenzofuran | ND |
| 2-Methylnaphthalene | ND |
| bis(2-Ethylhexyl)phthalate | 3.54 |
| Total PAHs | 16.2 |
| Total EPH | 6040 |

## LEGEND

Sediment and Surface Water Location

| NJDEP Ecological Sediment - FreshWater Screening Criterion (ER-L or LEL) | |
|---|---|
| 3,4-Methylphenol | 0.67 |
| Phenol | 0.0491 |
| Dibenzofuran | 0.415 |
| 2-Methylnaphthalene | 0.0202 |
| bis(2-Ethylhexyl)phthalate | 0.182 |
| Total PAHs | 4 |
| Total EPH | NC |

NOTE:
1. All results were measured in mg/kg
2. NC: No Criteria
3. Blue: Compound Detected, No Criteria
4. Orange: Exceedance, Result > Criteria

**AOC 12 DETENTION BASIN SEDIMENT RESULTS - SVOC/EPH**

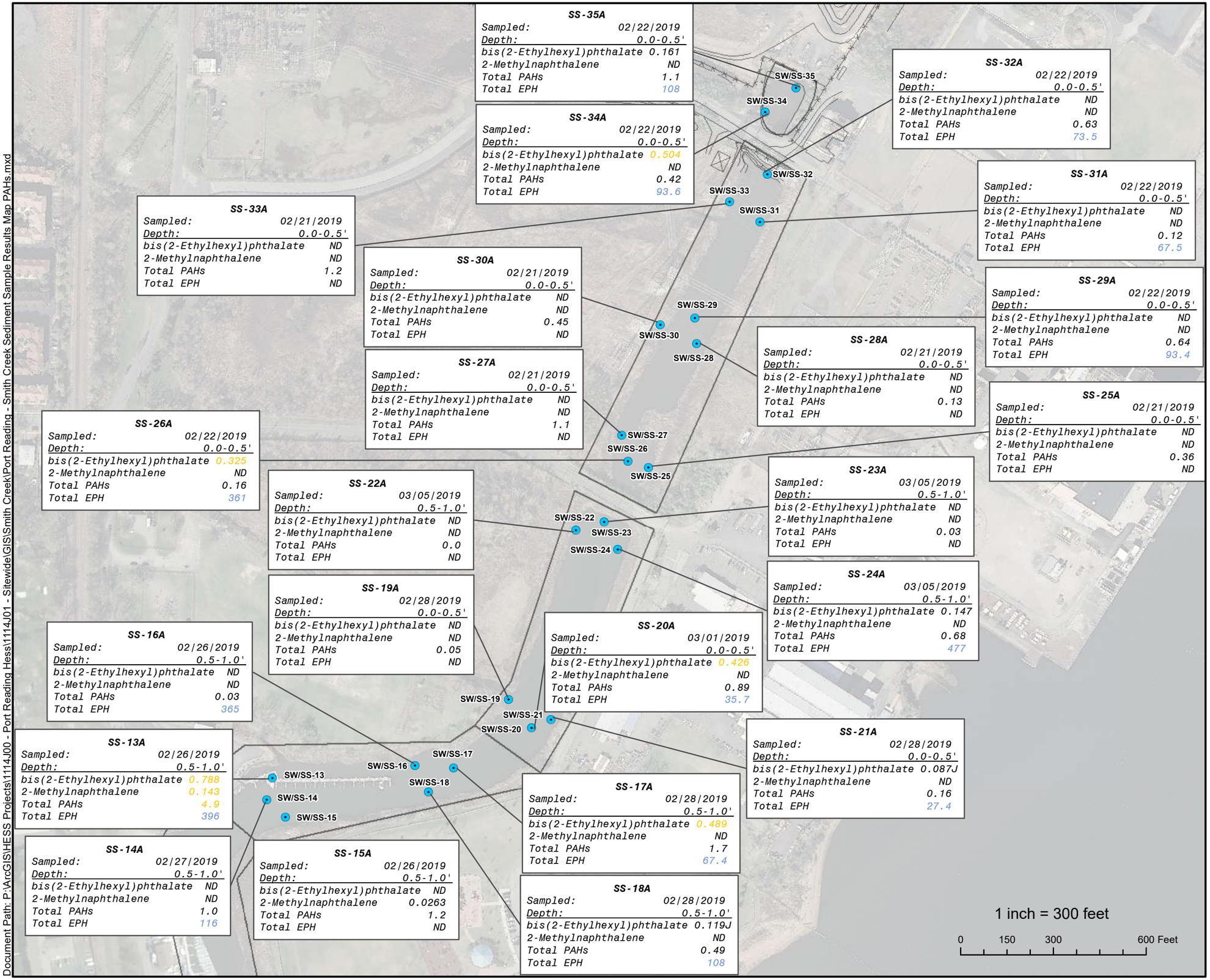
Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

**FIGURE: 9.2a(R)**

**Drawn By:** KJ **Date :** 01/20/220

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Smith Creek\Port Reading - Detention Basin Sediment Sample Results Map PAHs.mxd




## LEGEND

Sediment and Surface Water Location

| NJDEP Ecological Sediment - Saline Water Screening Criterion (ER-L or LEL) | |
|---|---|
| bis(2-Ethylhexyl)phthalate | 0.182 |
| 2-Methylnaphthalene | 0.07 |
| Total PAHs | 4 |
| Total EPH | NC |

NOTE:
1. All results were measured in mg/kg
2. NC: No Criteria
3. Blue: Compound Detected, No Criteria
4. Orange: Exceedance, Result > Criteria

# AOC 12 SMITH CREEK AND POND SEDIMENT RESULTS - SVOC/EPH

Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

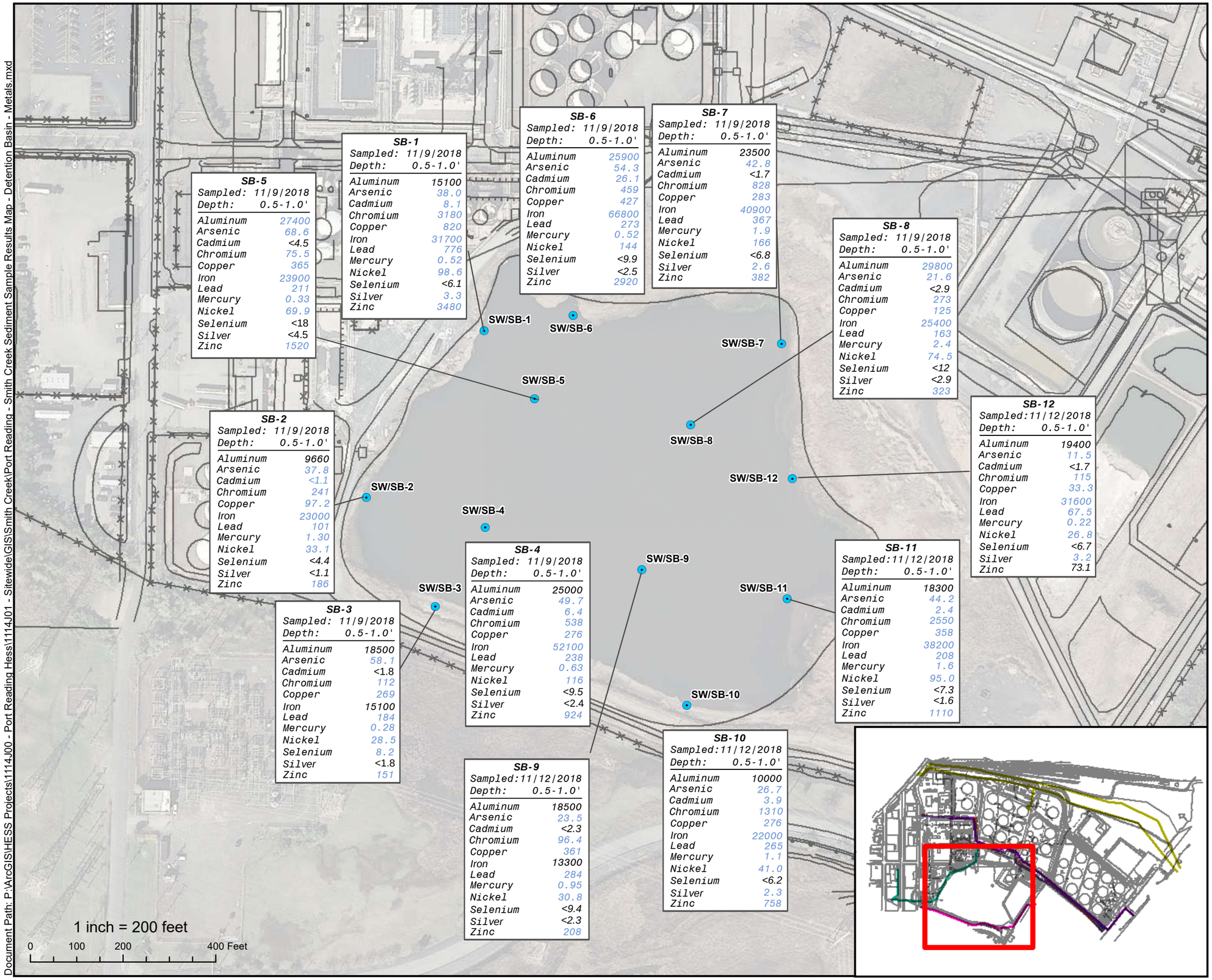
**FIGURE: 9.2b(R)**

**Drawn By:** KJ **Date :** 01/20/220

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Smith Creek\Port Reading - Smith Creek Sediment Sample Results Map PAHs.mxd

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Smith Creek\Port Reading - Smith Creek Sediment Sample Results Map - Detention Basin - Metals.mxd




## LEGEND

- Sediment and Surface Water Location

NOTES:
- All results provided in parts per million (mg/L)

- SS-1 thru SS-12: Detention Basin - NJDEP Ecological Aquatic Life Freshwater Chronic Criterion

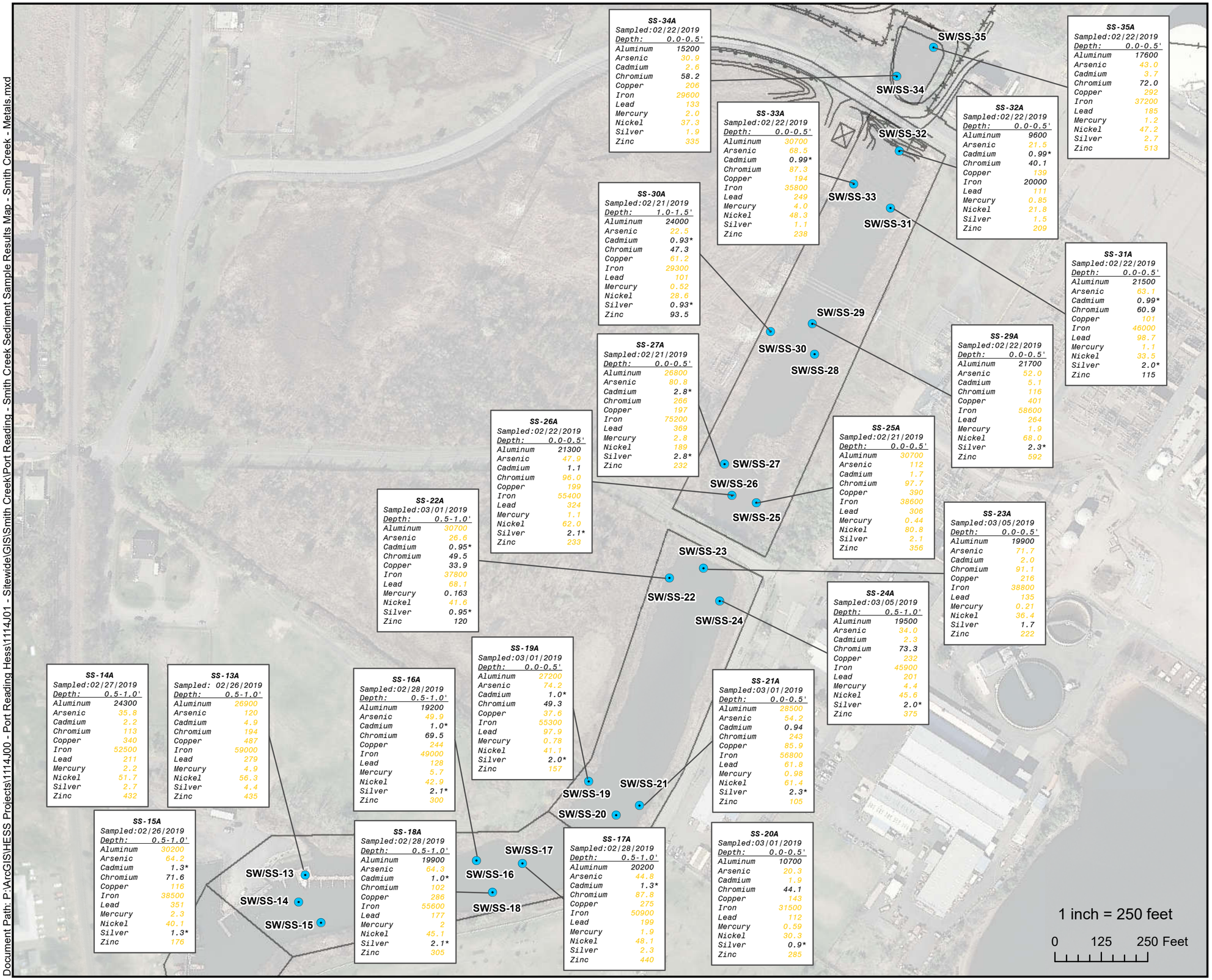
## AOC 12 - DETENTION BASIN SEDIMENT RESULTS - METALS

Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

**FIGURE: 9.3a(R)**

| **Drawn By:** RC | **Date :** 01/17/2020 |
|---|---|


Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451




**SS-34A**
Sampled:02/22/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 15200 |
| Arsenic | 30.9 |
| Cadmium | 2.6 |
| Chromium | 58.2 |
| Copper | 206 |
| Iron | 29600 |
| Lead | 133 |
| Mercury | 2.0 |
| Nickel | 37.3 |
| Silver | 1.9 |
| Zinc | 335 |

**SS-35A**
Sampled:02/22/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 17600 |
| Arsenic | 43.0 |
| Cadmium | 3.7 |
| Chromium | 72.0 |
| Copper | 292 |
| Iron | 37200 |
| Lead | 185 |
| Mercury | 1.2 |
| Nickel | 47.2 |
| Silver | 2.7 |
| Zinc | 513 |

**SS-33A**
Sampled:02/22/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 30700 |
| Arsenic | 68.5 |
| Cadmium | 0.99* |
| Chromium | 87.3 |
| Copper | 194 |
| Iron | 35800 |
| Lead | 249 |
| Mercury | 4.0 |
| Nickel | 48.3 |
| Silver | 1.1 |
| Zinc | 238 |

**SS-32A**
Sampled:02/22/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 9600 |
| Arsenic | 21.5 |
| Cadmium | 0.99* |
| Chromium | 40.1 |
| Copper | 139 |
| Iron | 20000 |
| Lead | 111 |
| Mercury | 0.85 |
| Nickel | 21.8 |
| Silver | 1.5 |
| Zinc | 209 |

**SS-30A**
Sampled:02/21/2019

| Depth: | 1.0-1.5' |
|---|---|
| Aluminum | 24000 |
| Arsenic | 22.5 |
| Cadmium | 0.93* |
| Chromium | 47.3 |
| Copper | 61.2 |
| Iron | 29300 |
| Lead | 101 |
| Mercury | 0.52 |
| Nickel | 28.6 |
| Silver | 0.93* |
| Zinc | 93.5 |

**SS-31A**
Sampled:02/22/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 21500 |
| Arsenic | 63.1 |
| Cadmium | 0.99* |
| Chromium | 60.9 |
| Copper | 101 |
| Iron | 46000 |
| Lead | 98.7 |
| Mercury | 1.1 |
| Nickel | 33.5 |
| Silver | 2.0* |
| Zinc | 115 |

**SS-29A**
Sampled:02/22/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 21700 |
| Arsenic | 52.0 |
| Cadmium | 5.1 |
| Chromium | 116 |
| Copper | 401 |
| Iron | 58600 |
| Lead | 264 |
| Mercury | 1.9 |
| Nickel | 68.0 |
| Silver | 2.3* |
| Zinc | 592 |

**SS-27A**
Sampled:02/21/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 26800 |
| Arsenic | 80.8 |
| Cadmium | 2.8* |
| Chromium | 266 |
| Copper | 197 |
| Iron | 75200 |
| Lead | 369 |
| Mercury | 2.8 |
| Nickel | 189 |
| Silver | 2.8* |
| Zinc | 232 |

**SS-26A**
Sampled:02/22/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 21300 |
| Arsenic | 47.9 |
| Cadmium | 1.1 |
| Chromium | 96.0 |
| Copper | 199 |
| Iron | 55400 |
| Lead | 324 |
| Mercury | 1.1 |
| Nickel | 62.0 |
| Silver | 2.1* |
| Zinc | 233 |

**SS-25A**
Sampled:02/21/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 30700 |
| Arsenic | 112 |
| Cadmium | 1.7 |
| Chromium | 97.7 |
| Copper | 390 |
| Iron | 38600 |
| Lead | 306 |
| Mercury | 0.44 |
| Nickel | 80.8 |
| Silver | 2.1 |
| Zinc | 356 |

**SS-23A**
Sampled:03/05/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 19900 |
| Arsenic | 71.7 |
| Cadmium | 2.0 |
| Chromium | 91.1 |
| Copper | 216 |
| Iron | 38800 |
| Lead | 135 |
| Mercury | 0.21 |
| Nickel | 36.4 |
| Silver | 1.7 |
| Zinc | 222 |

**SS-22A**
Sampled:03/01/2019

| Depth: | 0.5-1.0' |
|---|---|
| Aluminum | 30700 |
| Arsenic | 26.6 |
| Cadmium | 0.95* |
| Chromium | 49.5 |
| Copper | 33.9 |
| Iron | 37800 |
| Lead | 68.1 |
| Mercury | 0.163 |
| Nickel | 41.6 |
| Silver | 0.95* |
| Zinc | 120 |

**SS-24A**
Sampled:03/05/2019

| Depth: | 0.5-1.0' |
|---|---|
| Aluminum | 19500 |
| Arsenic | 34.0 |
| Cadmium | 2.3 |
| Chromium | 73.3 |
| Copper | 232 |
| Iron | 45900 |
| Lead | 201 |
| Mercury | 4.4 |
| Nickel | 45.6 |
| Silver | 2.0* |
| Zinc | 375 |

**SS-19A**
Sampled:03/01/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 27200 |
| Arsenic | 74.2 |
| Cadmium | 1.0* |
| Chromium | 49.3 |
| Copper | 37.6 |
| Iron | 55300 |
| Lead | 97.9 |
| Mercury | 0.78 |
| Nickel | 41.1 |
| Silver | 2.0* |
| Zinc | 157 |

**SS-14A**
Sampled:02/27/2019

| Depth: | 0.5-1.0' |
|---|---|
| Aluminum | 24300 |
| Arsenic | 35.8 |
| Cadmium | 2.2 |
| Chromium | 113 |
| Copper | 340 |
| Iron | 52500 |
| Lead | 211 |
| Mercury | 2.2 |
| Nickel | 51.7 |
| Silver | 2.7 |
| Zinc | 432 |

**SS-13A**
Sampled: 02/26/2019

| Depth: | 0.5-1.0' |
|---|---|
| Aluminum | 26900 |
| Arsenic | 120 |
| Cadmium | 4.9 |
| Chromium | 194 |
| Copper | 487 |
| Iron | 59000 |
| Lead | 279 |
| Mercury | 4.9 |
| Nickel | 56.3 |
| Silver | 4.4 |
| Zinc | 435 |

**SS-16A**
Sampled:02/28/2019

| Depth: | 0.5-1.0' |
|---|---|
| Aluminum | 19200 |
| Arsenic | 49.9 |
| Cadmium | 1.0* |
| Chromium | 69.5 |
| Copper | 244 |
| Iron | 49000 |
| Lead | 128 |
| Mercury | 5.7 |
| Nickel | 42.9 |
| Silver | 2.1* |
| Zinc | 300 |

**SS-21A**
Sampled:03/01/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 28500 |
| Arsenic | 54.2 |
| Cadmium | 0.94 |
| Chromium | 243 |
| Copper | 85.9 |
| Iron | 56800 |
| Lead | 61.8 |
| Mercury | 0.98 |
| Nickel | 61.4 |
| Silver | 2.3* |
| Zinc | 105 |

**SS-15A**
Sampled:02/26/2019

| Depth: | 0.5-1.0' |
|---|---|
| Aluminum | 30200 |
| Arsenic | 64.2 |
| Cadmium | 1.3* |
| Chromium | 71.6 |
| Copper | 116 |
| Iron | 38500 |
| Lead | 351 |
| Mercury | 2.3 |
| Nickel | 40.1 |
| Silver | 1.3* |
| Zinc | 176 |

**SS-18A**
Sampled:02/28/2019

| Depth: | 0.5-1.0' |
|---|---|
| Aluminum | 19900 |
| Arsenic | 64.3 |
| Cadmium | 1.0* |
| Chromium | 102 |
| Copper | 286 |
| Iron | 55600 |
| Lead | 177 |
| Mercury | 2 |
| Nickel | 45.1 |
| Silver | 2.1* |
| Zinc | 305 |

**SS-17A**
Sampled:02/28/2019

| Depth: | 0.5-1.0' |
|---|---|
| Aluminum | 20200 |
| Arsenic | 44.8 |
| Cadmium | 1.3* |
| Chromium | 87.8 |
| Copper | 275 |
| Iron | 50900 |
| Lead | 199 |
| Mercury | 1.9 |
| Nickel | 48.1 |
| Silver | 2.3 |
| Zinc | 440 |

**SS-20A**
Sampled:03/01/2019

| Depth: | 0.0-0.5' |
|---|---|
| Aluminum | 10700 |
| Arsenic | 20.3 |
| Cadmium | 1.9 |
| Chromium | 44.1 |
| Copper | 143 |
| Iron | 31500 |
| Lead | 112 |
| Mercury | 0.59 |
| Nickel | 30.3 |
| Silver | 0.9* |
| Zinc | 285 |

## LEGEND

- Sediment and Surface Water Location

| NJDEP Ecological Sediment - Saline Water Screening Criterion (ER-L or LEL) | |
|---|---|
| Aluminum | 25500 |
| Arsenic | 8.2 |
| Cadmium | 1.2 |
| Chromium | 81 |
| Copper | 34 |
| Iron | 20000 |
| Lead | 47 |
| Mercury | 0.15 |
| Nickel | 21 |
| Silver | 1 |
| Zinc | 150 |

NOTES:
- All results provided in parts per million (mg/kg)

# AOC 12 - SMITH CREEK AND POND SEDIMENT RESULTS - METALS

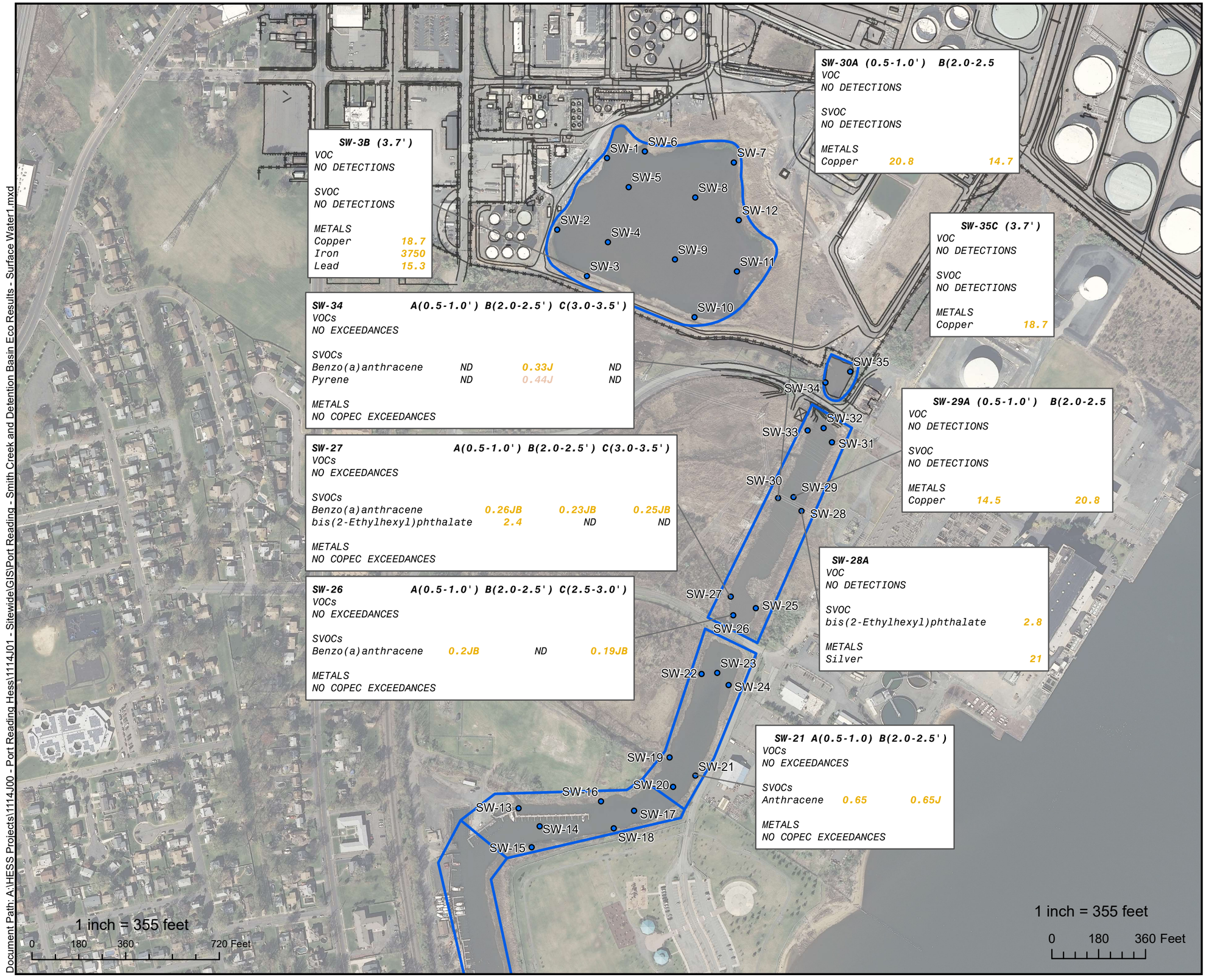
Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

**FIGURE: 9.3b**

**Drawn By:** RC **Date :** 01/17/2020

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Smith Creek\Port Reading - Smith Creek Sediment Sample Results Map - Smith Creek - Metals.mxd




## LEGEND

- Surface Water Sample Location
- Smith Creek and Detention Basin

NOTES:

Over Criteria = ORANGE
- All results provided in parts per billion (ug/L)
[1]Expressed as a function of water hardness; an average water hardness of 108.9 mg/L was calculated and applied to the screening value calculation
[2] USEPA National Recommended Water Quality Criterion
[3]USEPA Region 3 BTAG marine or freshwater screening benchmark (USEPA 2015)
J - Estimated Value
B - Found in Blank
ND - Non Detect
SW-1 thru SW-12: Detention Basin - NJDEP Ecological Aquatic Life Freshwater Chronic Criterion
SW-13 thru SW-33: Smith's Creek - NJDEP Ecological Saline Aquatic Life Chronic Criterion
SW-33 thru SW-35: Smith's Creek Pond - NJDEP Ecological Saline Aquatic Life Chronic Criterion

**SURFACE WATER ANALYTICAL EXCEEDANCES VOC, SVOC, METALS**

Hess Former Port Reading Complex
750 Cliff Road
Port Reading, New Jersey

**FIGURE: 10(R)**

**Drawn By:** AE **Date :** 01/17/2020

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Document Path: A:\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Port Reading - Smith Creek and Detention Basin Eco Results - Surface Water1.mxd