# Appendix K
# Details of Surface water Sampling

**Table K-1: Surface water Sampling Details – RSE Investigation**

| Location ID | Sample ID | Earth Tech ID | Sampling Date | Sample Type | pH | Petroleum Hydrocarbons | VOCs | SVOCs | PAH | Metals | Perchlorate |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UGSW | LK286 | AA 3-UGSWSW-S01-D000 | 02/25/2003 | Regular | √ | √ | √ | √ | √ | √ | √ |
| DGSW | LK297 | AA 3-DGSWSW-S01-D000 | 02/25/2003 | Regular | √ | √ | √ | √ | √ | √ | √ |

**Table K-2: Surface water Analytical Results - RSE Investigation**

| | Sample ID: | LK286 | LK287 |
|---|---|---|---|
| | Location ID: | AA3-UGSW | AA3-DGSW |
| | Sample Date: | 2/25/2003 | 2/25/2003 |
| PARAMETER | SampleType: | Regular | Regular |
| **TPH (EPA Method 8015B DRO)** | Units | | |
| Gasoline | mg/L | 0.1U | 0.1U |
| Motor Oils | mg/L | 0.13U | 0.13U |
| PHC as Diesel Fuel | mg/L | 0.096U | 0.096U |
| **VOCs (EPA Method 8260B)** | | | |
| 1,1,1,2-Tetrachloroethane | ug/L | 0.5UJ | 0.5UJ |
| 1,1,1-Trichloroethane | ug/L | 1U | 1U |
| 1,1,2,2-Tetrachloroethane | ug/L | 1U | 1U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ug/L | 5U | 5U |
| 1,1,2-Trichloroethane | ug/L | 1U | 1U |
| 1,1-Dichloroethane | ug/L | 1U | 1U |
| 1,1-Dichloroethene | ug/L | 1U | 1U |
| 1,2,3-Trichloropropane | ug/L | 0.5U | 0.5U |
| 1,2-Dichloroethane | ug/L | 0.5U | 0.5U |
| 1,2-Dichloropropane | ug/L | 1U | 1U |
| 1,2-Dichlorotetrafluoroethane | ug/L | 5U | 5U |
| 2-Butanone | ug/L | 100UJ | 100UJ |
| 2-Hexanone | ug/L | 50U | 50U |
| 4-Methyl-2-Pentanone | ug/L | 50U | 50U |
| Acetone | ug/L | 100U | 100U |
| Benzene | ug/L | 1U | 1U |
| Bromodichloromethane | ug/L | 0.1U | 0.1U |
| Bromoform | ug/L | 1U | 1U |
| Bromomethane | ug/L | 1U | 1U |
| Butane, 2-Methoxy-2-Methyl- | ug/L | 5U | 5U |
| Carbon Disulfide | ug/L | 1U | 1U |
| Carbon Tetrachloride | ug/L | 0.5U | 0.5U |
| Chlorobenzene | ug/L | 1U | 1U |
| Chlorodibromomethane | ug/L | 0.1U | 0.1U |
| Chloroethane | ug/L | 1U | 1U |
| Chloroform | ug/L | 0.1U | 0.1U |
| Chloromethane | ug/L | 1U | 1U |
| Cis-1,2-Dichloroethene | ug/L | 1U | 1U |
| Cis-1,3-Dichloropropene | ug/L | 0.5U | 0.5U |
| Dichlorodifluoromethane | ug/L | 1UJ | 1UJ |
| Diisopropyl Ether | ug/L | 5U | 5U |
| Ethylbenzene | ug/L | 1U | 1U |
| Methyl Tert-Butyl Ether | ug/L | 3U | 3U |
| Methylene Chloride | ug/L | 5UJ | 5UJ |
| Propane, 2-Ethoxy-2-Methyl- | ug/L | 5U | 5U |
| Styrene | ug/L | 1U | 1U |
| Tert-Butyl Alcohol | ug/L | 2UJ | 2U |
| Tetrachloroethene | ug/L | 1UJ | 1UJ |
| Toluene | ug/L | 1U | 1U |
| Total Xylenes | ug/L | 1U | 1U |
| Trans-1,2-Dichloroethene | ug/L | 1U | 1U |
| Trans-1,3-Dichloropropene | ug/L | 0.5U | 0.5U |

**Table K-2: Surface water Analytical Results - RSE Investigation**

| | Sample ID: | LK286 | LK287 |
|---|---|---|---|
| | Location ID: | AA3-UGSW | AA3-DGSW |
| | Sample Date: | 2/25/2003 | 2/25/2003 |
| PARAMETER | SampleType: | Regular | Regular |
| Trichloroethene | ug/L | 1U | 1U |
| Trichlorofluoromethane | ug/L | 5U | 5U |
| Vinyl Chloride | ug/L | 0.5U | 0.5U |
| **SVOCs (EPA Method 8270C)** | | | |
| 1,2,4-Trichlorobenzene | ug/L | 9.6U | 9.6U |
| 1,2-Dichlorobenzene | ug/L | 9.6U | 9.6U |
| 1,3-Dichlorobenzene | ug/L | 9.6U | 9.6U |
| 1,4-Dichlorobenzene | ug/L | 4.8U | 4.8U |
| 2,4,5-Trichlorophenol | ug/L | 9.6U | 9.6U |
| 2,4,6-Trichlorophenol | ug/L | 4.8U | 4.8U |
| 2,4-Dichlorophenol | ug/L | 9.6U | 9.6U |
| 2,4-Dimethylphenol | ug/L | 9.6U | 9.6U |
| 2,4-Dinitrophenol | ug/L | 48U | 48U |
| 2,4-Dinitrotoluene | ug/L | 9.6U | 9.6U |
| 2,6-Dinitrotoluene | ug/L | 9.6U | 9.6U |
| 2-Chloronaphthalene | ug/L | 9.6U | 9.6U |
| 2-Chlorophenol | ug/L | 9.6U | 9.6U |
| 2-Methylphenol | ug/L | 9.6U | 9.6U |
| 2-Nitroaniline | ug/L | 48U | 48U |
| 2-Nitrophenol | ug/L | 9.6U | 9.6U |
| 3,3'-Dichlorobenzidine | ug/L | 9.6UJ | 9.6UJ |
| 3-Nitroaniline | ug/L | 48UJ | 48UJ |
| 4,6-Dinitro-2-Methylphenol | ug/L | 48U | 48U |
| 4-Bromophenyl Phenyl Ether | ug/L | 9.6U | 9.6U |
| 4-Chloro-3-Methylphenol | ug/L | 9.6U | 9.6U |
| 4-Chloroaniline | ug/L | 19UJ | 19UJ |
| 4-Chlorophenyl Phenyl Ether | ug/L | 9.6U | 9.6U |
| 4-Methylphenol | ug/L | 9.6U | 9.6U |
| 4-Nitroaniline | ug/L | 48U | 48U |
| 4-Nitrophenol | ug/L | 48U | 48U |
| Bis(2-Chloro-1-Methylethyl)Ether | ug/L | 9.6U | 9.6U |
| Bis(2-Chloroethoxy)Methane | ug/L | 9.6U | 9.6U |
| Bis(2-Chloroethyl)Ether | ug/L | 9.6U | 9.6U |
| Bis(2-Ethylhexyl)Phthalate | ug/L | 9.6U | 9.6U |
| Butyl Benzyl Phthalate | ug/L | 9.6U | 9.6U |
| Carbazole | ug/L | 48U | 48U |
| Dibenzofuran | ug/L | 9.6U | 9.6U |
| Diethyl Phthalate | ug/L | 9.6U | 9.6U |
| Dimethyl Phthalate | ug/L | 9.6U | 9.6U |
| Di-N-Butyl Phthalate | ug/L | 9.6U | 9.6U |
| Di-N-Octyl Phthalate | ug/L | 9.6U | 9.6U |
| Hexachlorobenzene | ug/L | 0.96U | 0.96U |
| Hexachlorobutadiene | ug/L | 9.6U | 9.6U |
| Hexachlorocyclopentadiene | ug/L | 48UJ | 48UJ |
| Hexachloroethane | ug/L | 9.6U | 9.6U |
| Isophorone | ug/L | 9.6U | 9.6U |
| Nitrobenzene | ug/L | 4.8U | 4.8U |

**Table K-2: Surface water Analytical Results - RSE Investigation**

| | Sample ID: | LK286 | LK287 |
|---|---|---|---|
| | Location ID: | AA3-UGSW | AA3-DGSW |
| | Sample Date: | 2/25/2003 | 2/25/2003 |
| PARAMETER | SampleType: | Regular | Regular |
| N-Nitroso-Di-N-Propylamine | ug/L | 9.6U | 9.6U |
| N-Nitrosodiphenylamine | ug/L | 9.6U | 9.6U |
| Pentachlorophenol | ug/L | 12U | 12U |
| Phenol | ug/L | 9.6U | 9.6U |
| **PAH Compounds (Method PAH-SIM)** | | | |
| 2-Methylnaphthalene | ug/L | 0.48U | 0.48U |
| Acenaphthene | ug/L | 0.48U | 0.48U |
| Acenaphthylene | ug/L | 0.48U | 0.48U |
| Anthracene | ug/L | 0.48U | 0.48U |
| Benz(A)Anthracene | ug/L | 0.48UJ | 0.48UJ |
| Benzo(A)Pyrene | ug/L | 0.19U | 0.19U |
| Benzo(B)Fluoranthene | ug/L | 0.48U | 0.48U |
| Benzo(G,H,I)Perylene | ug/L | 0.48U | 0.48U |
| Benzo(K)Fluoranthene | ug/L | 0.48U | 0.48U |
| Chrysene | ug/L | 0.48UJ | 0.48UJ |
| Dibenz(A,H)Anthracene | ug/L | 0.48U | 0.48U |
| Fluoranthene | ug/L | 0.48U | 0.48U |
| Fluorene | ug/L | 0.48U | 0.48U |
| Indeno(1,2,3-Cd)Pyrene | ug/L | 0.48U | 0.48U |
| Naphthalene | ug/L | 0.48U | 0.48U |
| Phenanthrene | ug/L | 0.48U | 0.48U |
| Pyrene | ug/L | 0.48U | 0.48U |
| **Metals (EPA Method 6010B)** | | | |
| Aluminum | ug/L | 87500 | 86400 |
| Antimony | ug/L | 60U | 60U |
| Arsenic | ug/L | 33.8 | 34.2 |
| Barium | ug/L | 867 | 871 |
| Beryllium | ug/L | 2.7 | 2.7 |
| Cadmium | ug/L | 6 | 6.4 |
| Calcium | ug/L | 109000 | 115000 |
| Chromium | ug/L | 80.2 | 83.5 |
| Cobalt | ug/L | 30.8 | 31.5 |
| Copper | ug/L | 73UJ | 74.4UJ |
| Iron | ug/L | 70300 | 71900 |
| Lead | ug/L | 26.7 | 28.2 |
| Magnesium | ug/L | 49300 | 50400 |
| Manganese | ug/L | 1070 | 1070 |
| Mercury | ug/L | 0.19UJ | 0.13UJ |
| Nickel | ug/L | 75.5 | 78.5 |
| Potassium | ug/L | 18000 | 19300 |
| Selenium | ug/L | 5U | 5U |
| Silver | ug/L | 10U | 10U |
| Sodium | ug/L | 79700 | 79000 |
| Thallium | ug/L | 2.7UJ | 4UJ |
| Vanadium | ug/L | 222 | 227 |
| Zinc | ug/L | 242 | 286 |
| **Miscellaneous** | | | |

**Table K-2: Surface water Analytical Results - RSE Investigation**

| | Sample ID: | LK286 | LK287 |
|---|---|---|---|
| | Location ID: | AA3-UGSW | AA3-DGSW |
| | Sample Date: | 2/25/2003 | 2/25/2003 |
| PARAMETER | SampleType: | Regular | Regular |
| Perchlorate (EPA Method E314) | ug/L | 3U | 3U |
| pH (EPA Method 9040) | pH | 6.9 | 7.34 |

NOTES:

µg/L = micrograms per liter

mg/L = milligram per liter

TPH = total petroleum hydrocarbons

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

PAHs = polynuclear aromatic hydrocarbons

pH = the negative log of the hydrogen ion concentration

AA3 = Anomaly Area 3

RSE = Removal Site Evaluation

U = indicates the analyte was not detected at or above the stated limit.

UJ = indicates the analyte was not detected at or above the stated limit. The sample detection limit is an estimated value.

J = indicates an estimated value.