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Memorandum

Date: May 28, 2009

To: Piper Peterson Lee – EPA, Region 10 and Rick Thomas – Ecology

From: Roy Kuroiwa – Port of Seattle and Grant Hainsworth – AECOM

Subject: Recommendations for modifications of the groundwater monitoring program at T-117 EAA

Piper and Rick -

After review and statistical analysis of the groundwater sampling data for the Terminal T-117 Early Action Area (T-117 EAA), AECOM, on behalf of the Port of Seattle (Port) and the City of Seattle (City), jointly the Respondents, is proposing to modify the groundwater monitoring program. The Statement of Work (SOW1) specifies that a reduction in analytes and monitoring frequency may be requested after four consecutive quarters of groundwater monitoring is conducted. The Respondents have collected and analyzed five quarters of data and are submitting this memorandum to provide recommendations for the modification of the current groundwater monitoring program, for which we are requesting EPA approval. The second quarter 2009 monitoring event (i.e., the sixth quarterly monitoring event) is scheduled for May 27, 2009 to coincide with Ecology's work at Basin Oil. We would like to apply these recommendations to this upcoming event. The proposed changes are being requested based on a reduction in analytes, not a reduction in monitoring frequency.

This memorandum provides a summary of the rationale for the proposed changes to optimize the groundwater monitoring program. The rationale below is not intended to select T-117 EAA chemicals of concern (COCs), but only to reduce the list of analytes for the groundwater sampling program. Also, this memorandum is intended to guide the discussion on the sampling program and is not intended to provide a full statistical analysis of the groundwater results. Currently, a memorandum is being prepared with a detailed evaluation of the COCs at T-117 EAA. This memorandum will be folded into the revised Engineering Evaluation/Cost Analysis (EE/CA). Tables 1 and 2 present a summary of detections from groundwater samples not only from the last four quarters, but also from available historical results from 2003-2006². The timeframe presented in Tables 1 and 2 is consistent with the tables included in the *Fourth Quarter 2008 Interim Groundwater Monitoring Data Results – Non-Time Critical Removal Action*³. Tables 1 and 2 include only detected analytes and compare various analytes to their associated screening levels. The screening levels used are summarized below:

- TPH/NWTPH screening levels obtained from the MTCA Method A Cleanup Level for groundwater

¹ *Statement of Work, T-117 Early Action Area. Amendment No. 1: Non-Time Critical Removal Action, Lower Duwamish Waterway Superfund Site, Seattle, Washington.* U.S. Environmental Protection Agency, Region 10, Seattle, WA. September 2007.

² No groundwater monitoring data was collected in 2007.

³ *Fourth Quarter 2008 Interim Groundwater Monitoring Data Results Report.* AECOM. Seattle, Washington. April 13, 2009.

- PCB screening levels are obtained from the Surface Water ARAR – Aquatic Life – Marine/Chronic – National Toxics Rule, 40 CFR 131
- Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A – Aquatic Life – Marine/Acute Water Quality Standards for Surface Waters of the State of Washington
- Phenanthrene, naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, 1,1,1-trichloroethane, cis-1,2-dichloroethane, and all xylene screening levels were obtained from the MTCA Method A Cleanup Level for groundwater
- All other groundwater screening levels were obtained from the Surface Water ARAR – Human Health – Marine – Clean Water Act §304.

Table 3 provides a summary of the one-time dioxin and furan sampling event, collected during the fourth quarter groundwater sampling event.

The majority of the T-117 EAA monitoring wells have been sampled and analyzed for at least five quarters; monitoring well locations are presented on attached Figure 1. Some monitoring wells have periodically had insufficient water to allow for groundwater samples to be collected (MW-06, MW-09, MW-10) or were recently installed (MW-11 was installed in the fall of 2008). Although data collected during the first quarter 2009 (i.e. fifth quarterly monitoring event) groundwater sampling event is consistent with previous reports; it is not included in this discussion because the data is still pending data validation. For your reference, Table 4 includes the non validated results from the first quarter 2009 event.

Analysis of Current Groundwater Sampling Program

To evaluate the current groundwater monitoring network, a limited statistical analysis was conducted on available data from 2003 through the fourth quarter of 2008. The statistical analysis included a summary of the maximum and minimum detections of each analyte, the frequency of non-detections, and the frequency of detections. Any detected value was compared to the applicable screening level. The statistical analysis was done for each chemical, evaluated across all the T-117 EAA monitoring wells. Only analytes which have been detected in at least one groundwater sample were included in this analysis. This analysis was done on an analyte by analyte basis (Table 1) and a well by well basis (Table 2).

Current Groundwater Analysis List

Currently, groundwater from all of the T-117 EAA monitoring wells is sampled for the following analyses:

- Polychlorinated biphenyls (PCBs) by Method 8082
- Total petroleum hydrocarbon (TPH - gasoline and diesel) by NWTPH-G and NWTPH-Dx
- Total suspended solids (TSS) by Method 160.2
- Polycyclic aromatic hydrocarbons (PAHs) and semi volatile organic compounds (SVOCs) by 8270/8270D SIM
- Benzene, toluene, ethylbenzene, xylenes (BTEX) by NWTPH-Gx/EPA 8021
- Volatile organic compounds (VOC) by 8260
- Total and dissolved priority pollutant metals by 6010 and 7470.

During the Fourth Quarter 2008 groundwater sampling event select wells were also sampled for:

- Dioxin/furans (3 wells) by Method SW846 /Method 8290.

Rationale for Analyte Reduction

Total and Dissolved Priority Pollutant Metals

Detected metals, above screening levels⁴, include arsenic and silver. Arsenic is detected at low concentrations; the maximum concentration detected is from MW-08R, at 0.86 mg/L (August 2008; Table 1).

Silver has been detected in four shoreline wells: MW-04R, MW-05R, MW-06, and MW-08R. The source of the silver is unclear, but one possible source is the drain field associated with the north building. The maximum result for total silver in groundwater is from MW-04R (detected at a concentration of 0.03 mg/L, Table 1) and the maximum result for dissolved silver in groundwater is from MW-08R (detected at a concentration of 0.03mg/L, Table 1).

Based on the arsenic and silver detections, we recommend the continued sampling of total and dissolved priority pollutant metals at MW-08R and MW-05R. MW-08R represents the maximum groundwater concentrations for dissolved arsenic and silver. MW-5R provides spatial coverage in the southern portion of the shoreline and represents an area of detected silver in groundwater.

Total Petroleum Hydrocarbon and Polychlorinated Biphenyls

TPH and PCB have been detected in groundwater samples collected across the site. On a well by well basis (Table 2), TPH and/or PCBs have been detected in at least one of the groundwater samples, above screening levels, from the following T-117 EAA monitoring wells: MW-01 (PCB), MW-02 (TPH), MW-03 (TPH and PCB), MW-05 (PCB), MW-06 (PCB), and MW-08 (PCB), MW-10 (TPH). PCB was detected in one sample from MW-07 (March 12, 2008), this sample is thought to be an anomaly and not representative of conditions at MW-07. PCB has not been detected in the groundwater from MW-07 in subsequent sampling events.

Because of the wide range of detections, the continued sampling of PCB and TPH is recommended. In the short term, because site conditions are not expected to change, a subset of monitoring wells are proposed for the continued sampling of PCB and TPH. Locations were selected to provide groundwater data on source migration, provide early detection of possible migration from offsite sources, and to represent the entire site. We propose sampling the following subset of wells for both PCB and TPH:

- **MW-01** – to monitor the Basin Oil Recontamination Assessment Area (RAA)
- **MW-02** – to monitor shoreline groundwater quality along the southern portion of T-117 EAA
- **MW-08R** – to monitor shoreline groundwater quality along the northern portion of the site and monitor metal concentrations
- **MW-05R** – to monitor shoreline groundwater quality along the central portion of the site
- **MW-07** – to monitor the South Park Marina RAA and monitor the northeast portion of T-117 EAA
- **MW-11** – to monitor the Basin Oil RAA and the vicinity of monitoring wells MW-09 and MW-10.

⁴ Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A – Aquatic Life – Marine/Acute Water Quality Standards for Surface Waters of the State of Washington. All other metal screening levels were obtained from the Surface Water ARAR - Human Health – Marine – Clean Water Act §304.

Benzene, Toluene, Ethylbenzene and Xylenes.

Xylenes are the only BTEX compounds which have ever been detected in the groundwater. This compound was detected one time at one monitoring well (MW-03, March 2008); detections were just above the laboratory detection limit and well below any applicable screening level. Xylenes, or any other BTEX analytes, have not been detected in subsequent monitoring events. Because of the lack of detections, we recommend that BTEX be eliminated from future groundwater sampling events for all monitoring wells.

Volatile Organic Compounds

VOCs have not been detected above screening levels in the groundwater collected at T-117 EAA. The VOCs detected in more than 5% of the groundwater samples, but below screening levels, include: acetone (detection frequency of 39%); chlorobenzene and tetrachloroethene (detection frequency of 11%); cis-1,2-dichloroethene (detection frequency of 9%); and trichloroethene (detection frequency of 7%). Table 1 includes a summary of this analysis.

On a well-by-well basis (Table 2), the following VOCs have been detected at least once in the T-117 EAA monitoring wells:

- **MW-01, MW-03, MW-05R, MW-07, MW-08R** – acetone only
- **MW-02** – acetone and chlorobenzene
- **MW-09** – tetrachloroethene
- **MW-10** – acetone, tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, 1,1,1-trichloroethane
- **MW-11** – acetone, trichloroethene, cis-1,2-dichloroethene.

All detected VOCs were measured at concentrations well below screening levels. However, VOCs have been detected in the Dallas Avenue wells, these wells have not been sampled for a full four quarters, and there are potential VOC sources upgradient of Dallas Avenue, including the Basin Oil RAA. For these reasons, we are proposing to sample the monitoring wells installed on Dallas Ave, downgradient of Basin Oil RAA, for VOCs. The wells in this area include: MW-01, MW-09, MW-10, and MW-11. Monitoring wells MW-09 and MW-10 periodically go dry during groundwater sampling events. MW-11 is located adjacent to MW-10 and in the vicinity of MW-09. MW-11 is recommended for continued sampling of VOCs and would serve as an early indicator of groundwater migration. MW-01 is the southern most well installed along Dallas Ave. This well has had no detections of VOCs, with the exception of acetone, but because it is the only well installed in the southern portion of Dallas Ave and is downgradient of former Basin Oil activities it is recommended for VOC analysis.

Based on the discussion, above, the following monitoring wells are recommended for VOC sampling on a quarterly basis:

- **MW-01** – to monitor the Basin Oil RAA
- **MW-11** – to monitor the Basin Oil RAA and the vicinity of monitoring wells MW-09 and MW-10.

Semi-Volatile Organic Compounds

The only SVOCs detected above screening levels in groundwater collected from T-117 EAA wells are bis(2-Ethylhexyl)phthalate (BEHP) and cPAHs. On a well by well basis (Table 2), the following SVOCs have been detected at least once in the T-117 EAA monitoring wells:

- **MW-01, MW-04R, MW-06, MW-08R, MW-09, MW-10, MW-11** – BEHP
- **MW-02** – Phenol, cPAH analytes, and BEHP
- **MW-03, MW-05R** – cPAH analytes, and BEHP.

Of the wells listed above, cPAH has been detected above screening levels in the groundwater collected from MW-03 and MW-05R. BEHP has been detected above screening levels in the groundwater collected from monitoring wells MW-04R, MW-05R, MW-06, and MW-11.

We propose the continued groundwater monitoring of BEHP and cPAH in a subset of wells, which provide spatial coverage and represent upgradient and shoreline areas. The proposed subset of wells includes:

- **MW-01** – to monitor the Basin Oil RRA
- **MW-02** – to monitor shoreline groundwater quality along the southern portion of T-117 EAA.
- **MW-08R** – to monitor shoreline groundwater quality along the northern portion of the site and monitor metal concentrations.
- **MW-05R** – to monitor shoreline groundwater quality along the central portion of the site.
- **MW-07** – to monitor the South Park Marina RAA and monitor the north-east portion of T-117 EAA.
- **MW-11** – to monitor the Basin Oil RAA and the vicinity of monitoring wells MW-09 and MW-10.

Dioxin/Furans

Dioxin/furans were sampled once at T-117, during the fourth quarter 2008 sampling event. Groundwater samples were collected from 3 wells (MW-05R, MW-08R, and MW-10). All dioxin/furan congener groundwater sample results were below the laboratory detection limits with the exception of one congener from MW-08R (congener 1,2,3,4,6,7,8,9-octachloro dibenzo-p-dioxin). The total dioxin/furan values were below the applicable screening levels. Because these analytes are not suspected to be in the groundwater, and because only 1 of the 17 congeners were detected, we are not recommending additional rounds of dioxin/furan sampling. Statistical analysis was not conducted on the dioxin/furan results because of the limited data available. Table 3 includes the detailed results from the fourth quarter 2008 dioxin and furan sampling event.

Recommended Groundwater Sampling Program

Based on the analysis above we recommend the following monitoring well network continue to be sampled quarterly:

- MW-01
- MW-02
- MW-05R
- MW-08R
- MW-07
- MW-11.

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The Department of Ecology installed two additional monitoring wells in the vicinity of the Basin Oil RAA upgradient of the T-117 EAA in May 2009. These wells will be included in future T-117 sampling events.

We recommend the following groundwater analysis for each retained well:

- PCBs by Method 8082 (changed to high volume PCB analysis to achieve a lower reporting limit)
- TPH (gasoline and diesel) by NWTPH-G and NWTPH-Dx
- TSS by Method 160.2
- cPAHs and bis(2-ethylhexyl)phthalate by 8270 SIM
- Total and dissolved priority pollutant metals by 6010 and 7470 from MW-08R and MW-05R.

If you concur with the recommendations presented in this memorandum, please provide your approval in accordance with the SOW. If you have any comments or questions, please feel free to call Roy Kuroiwa at 206-728-3814 or Grant Hainsworth at 206-624-9349.

Attachments: Tables/Figures

cc: Kym Takasaki – U.S. Army Corps of Engineers
Marla Steinhof – NOAA
Glen St.Amant – Muckleshoot Tribe
Thea Levkovitz – Duwamish River Cleanup Coalition
Heather Trim – People for Puget Sound
Tom Meyer – City of Seattle
Nick Varnum – Integral
Warren Hansen – Woodward
File 05482-023 – AECOM

Tables

Table 1 T117 Groundwater Detections 2003 – 4th Quarter 2008

				Summary Statistics															
				Samples	Detects	Non-detects	Exceedances	Detection Limit (DL) Exceedances	Max Detected Conc.	ID for Max Conc./Date	Min Detected Conc.	ID for Min Conc./Date	Average Detected Conc.	Min DL for Nondetects	Max DL for (No Suggestions)	% Detects	% Nondetects	% Detects That Exceed the Screening Level	Carry Over?
Chemical Name	Total/Dissolved	Screening Level	Units																
Metals																			
Arsenic	D	.00014	mg/L	46	15	31	15	31	0.86	MW-8/0806	0.002	MW-08R/0608	0.220	0.001	0.2	33	67	100	YES
Arsenic	T	.00014	mg/L	46	14	32	14	32	0.89	MW-8/0806	0.002	MW-100608	0.190	0.001	0.68	30	70	100	
Cadmium	D	0.42	mg/L	46	3	43	0	0	0.55	MW-4 (dup)/0806	0.174	MW-8/0806	0.414	0.002	0.019	7	93	0	NO
Cadmium	T	0.42	mg/L	46	5	41	0	0	0.482	MW-4/0806	0.086	MW-7/0806	0.267	0.002	0.01	11	89	0	
Chromium	D	1.1	mg/L	46	4	42	0	0	0.00304	MW-2/0806	0.00107	MW-4 (dup)/0806	0.002	0.00026	0.02	9	91	0	NO
Chromium	T	1.1	mg/L	46	10	36	0	0	0.013	MW-03/1208	0.00128	MW-4/0806	0.006	0.00034	0.02	22	78	0	
Copper	D	0.48	mg/L	41	15	26	0	0	0.009	MW-10/0608	0.002	MW-11/0908	0.004	0.002	0.01	37	63	0	NO
Copper	T	0.48	mg/L	41	24	17	0	0	0.024	MW-03/0908	0.002	MW-07/0908	0.006	0.002	0.01	59	41	0	
Lead	T	0.21	mg/L	46	3	43	0	0	0.09	MW-8/0806	0.027	MW-2/0806	0.053	0.02	0.1	7	93	0	NO
Nickel	D	4.6	mg/L	41	1	40	0	0	0.01	MW-11/0908	0.01	MW-11/0908	0.010	0.01	0.05	2	98	0	NO
Nickel	T	4.6	mg/L	41	3	38	0	0	0.01	MW-11/1208	0.01	MW-11/1208	0.010	0.01	0.05	7	93	0	
Silver	D	.0019	mg/L	41	7	34	7	34	0.03	MW-08R/0908	0.003	MW-8/0308	0.010	0.003	0.006	17	83	100	YES
Silver	T	.0019	mg/L	41	8	33	8	33	0.03	MW-04R/0908	0.003	MW-6/0308	0.009	0.003	0.006	20	80	100	
Zinc	T	26	mg/L	41	4	37	0	0	0.03	MW-03/1208	0.01	MW-3/0308	0.020	0.01	0.05	10	90	0	NO
TPH (Total Petroleum Hydrocarbon)																			
Diesel Range Hydrocarbons	T	0.5	mg/L	41	12	29	11	0	11	MW-03/1208	0.27	MW-11/1208	2.495	0.25	0.25	29	71	92	YES
Motor Oil Range Hydrocarbons	T	0.5	mg/L	41	5	36	5	36	11	MW-03/1208	0.85	MW-03/0608	4.030	0.5	0.5	12	88	100	YES
PCB (Polychlorinated biphenyls)																			
Aroclor 1254	T	0.03	µg/L	64	2	62	0	18	0.029	MW-08R/0608	0.017	MW-05R/0608	0.023	0.01	1	3	97	0	NO
Aroclor 1260	T	0.03	µg/L	64	20	44	12	15	2	MW-3/0308	0.01	MW-05R/1208	0.266	0.01	1	31	69	60	YES
PCBs (total calc'd)	T	0.03	µg/L	22	4	18	2	15	2	MW-3/0308	0.01	MW-2/0806	0.098	0.01	1	18	82	50	YES
BTEX (Benzene, toluene, ethylbenzene, xylenes)																			
o-Xylene	T	1000	µg/L	41	1	40	0	0	0.3	MW-3/0308	0.3	MW-3/0308	0.300	0.2	0.2	2	98	0	NO
Xylene (meta & para)	T	1000	µg/L	41	1	40	0	0	0.7	MW-3/0308	0.7	MW-3/0308	0.700	0.4	0.4	2	98	0	NO
SVOC (Semi Volatile Organic Compounds)																			
bis(2-Ethylhexyl)phthalate	T	2.2	µg/L	46	14	32	4	0	19	MW-11/0908	1.1	MW-09 (dup)/0308	4.171	1	1	30	70	29	YES
Phenol	T	1700000	µg/L	46	5	41	0	0	20	MW-02/0908	5.8	MW-2/0806	11.880	1	1	11	89	0	NO
VOC (Volatile Organic Compounds)																			
1,1,1-Trichloroethane	T	200	µg/L	46	2	44	0	0	0.4	MW-10/0608	0.2	MW-10/1208	0.300	0.2	1	4	96	0	NO
Acetone	T	800	µg/L	46	18	28	0	0	7.7	MW-3/0308	3.1	MW-08R/1208	4.556	1	5	39	61	0	NO
Chlorobenzene	T	1600	µg/L	46	5	41	0	0	0.6	MW-02 (MW-102)/0908	0.4	MW-02/1208	0.480	0.2	1	11	89	0	NO
cis-1,2-Dichloroethene	T	5	µg/L	46	4	42	0	0	3.5	MW-11/1208	0.7	MW-10/0608	2.075	0.2	1	9	91	0	NO
Trichloroethene	T	30	µg/L	46	3	43	0	0	0.5	MW-10/0308	0.2	MW-11/1208	0.300	0.2	1	7	93	0	NO
Tetrachloroethene	T	3.3	µg/L	46	5	41	0	0	2	MW-10/0308	0.9	MW-09 (dup)/0308	1.32	0.2	1	11	89	0	NO
PAH (Polycyclic Aromatic Hydrocarbons) by SW8270D SIM																			
1-Methylnaphthalene	T	160	µg/L	41	5	36	0	0	0.2	MW-02/1208	0.1	MW-02 (MW-102)/0908	0.146	0.1	0.1	12	88	0	NO
Acenaphthene	T	990	µg/L	40	2	38	0	0	0.31	MW-5/0308	0.14	MW-03 (MW-103)/0608	0.225	0.1	0.1	5	95	0	NO
Anthracene	T	40000	µg/L	41	1	40	0	0	0.13	MW-05R/0608	0.13	MW-05R/0608	0.130	0.1	0.1	2	98	0	NO
Benzo(a)anthracene	T	0.018	µg/L	41	1	40	1	40	0.19	MW-05R/0608	0.19	MW-05R/0608	0.190	0.1	0.1	2	98	100	YES
Benzo(a)pyrene	T	0.018	µg/L	41	1	40	1	40	0.14	MW-05R/0608	0.14	MW-05R/0608	0.140	0.1	0.1	2	98	100	YES
Benzo(b)fluoranthene	T	0.018	µg/L	41	1	40	1	40	0.13	MW-05R/0608	0.13	MW-05R/0608	0.130	0.1	0.1	2	98	100	YES
Benzo(k)fluoranthene	T	0.018	µg/L	41	1	40	1	40	0.13	MW-05R/0608	0.13	MW-05R/0608	0.130	0.1	0.1	2	98	100	YES
Chrysene	T	0.018	µg/L	41	4	37	4	37	0.5	MW-3/0308	0.12	MW-03/1208	0.265	0.1	0.1	10	90	100	YES
Fluoranthene	T	140	µg/L	41	1	40	0	0	0.44	MW-05R/0608	0.44	MW-05R/0608	0.440	0.1	0.1	2	98	0	NO
Fluorene	T	5300	µg/L	41	3	38	0	0	0.35	MW-03/1208	0.1	MW-5/0308	0.193	0.1	0.1	7	93	0	NO
Naphthalene	T	160	µg/L	41	3	38	0	0	0.47	MW-03/0608	0.1	MW-03 (MW-103)/0608	0.253	0.1	0.1	7	93	0	NO
Phenanthrene	T	NV	µg/L	41	1	40	---	---	0.5	MW-05R/0608	0.5	MW-05R/0608	0.500	0.1	0.1	2	98	---	NO
Pyrene	T	4000	µg/L	40	4	36	0	0	0.44	MW-05R/0608	0.1	MW-03/1208	0.260	0.1	0.1	10	90	0	NO

Notes:

Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.

Screening Levels are proposed levels only, for delineation of the groundwater monitoring well network

NV - No applicable screening level is available for Phenanthrene.

TPH/NWTPH screening levels obtained from the MTCA Method A Cleanup Level for groundwater

PCBs screening levels are obtained from the Surface Water ARAR - Aquatic Life - Marine/Chronic - National Toxics Rule, 40 CFR 131

Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A-Aquatic Life - Marine/Acute Water Quality Standards for Surface Waters of the State of Washington

Phenanthrene, naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-Dichloroethane, and all xylene screening levels were obtained from the MTCA Method A Cleanup Level for groundwater

All other groundwater screening levels were obtained from the Surface Water ARAR - Human Health - Marine - Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 2 T117 Groundwater Detections 2003 – Present

Chemical Name	Action Level	Action Level Unit	MW-01									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	5	1	4	1	4	0.002	0.002	0.040	20	20
Arsenic	.00014	mg/L	5	1	4	1	4	0.002	0.002	0.040	20	20
Cadmium	0.42	mg/L	5	0	5	0	0	—	—	0.002	0	0
Cadmium	0.42	mg/L	5	0	5	0	0	—	—	0.002	0	0
Chromium	1.1	mg/L	5	0	5	0	0	—	—	0.005	0	0
Chromium	1.1	mg/L	5	2	3	0	0	0.010	0.005	0.006	40	0
Copper	0.48	mg/L	5	1	4	0	0	0.002	0.002	0.002	20	0
Copper	0.48	mg/L	5	4	1	0	0	0.011	0.002	0.004	80	0
Lead	0.21	mg/L	5	0	5	0	0	—	—	0.020	0	0
Nickel	4.6	mg/L	5	0	5	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	5	1	4	0	0	0.010	0.010	0.010	20	0
Silver	.0019	mg/L	5	0	5	0	5	—	—	0.003	0	0
Silver	.0019	mg/L	5	0	5	0	5	—	—	0.003	0	0
Zinc	26	mg/L	5	1	4	0	0	0.020	0.020	0.012	20	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	4	0	4	0	0	—	—	0.25	0	0
Motor Oil Range Hydrocarbons	0.5	mg/L	4	0	4	0	0	—	—	0.5	0	0
PCB												
Aroclor 1254	0.03	µg/L	7	0	7	0	2	—	—	0.02	0	0
Aroclor 1260	0.03	µg/L	7	1	6	1	2	0.09	0.09	0.03	14	14
BTEX												
o-Xylene	1000	µg/L	5	0	5	0	0	—	—	0.2	0	0
Xylene (meta & para)	1000	µg/L	5	0	5	0	0	—	—	0.4	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	5	1	4	0	0	1.40	1	1.08	20	0
Phenol	1700000	µg/L	5	0	5	0	0	1.00	1	1	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	5	0	5	0	0	—	—	0.2	0	0
Acetone	800	µg/L	5	2	3	0	0	4.50	3.6	3.42	40	0
Chlorobenzene	1600	µg/L	5	0	5	0	0	—	—	0.2	0	0
cis-1,2-Dichloroethene	5	µg/L	5	0	5	0	0	—	—	0.2	0	0
Tetrachloroethene	3.3	µg/L	5	0	5	0	0	—	—	0.2	0	0
Trichloroethene	30	µg/L	5	0	5	0	0	—	—	0.2	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	5	0	5	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	5	0	5	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	5	0	5	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Chrysene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Fluoranthene	140	µg/L	5	0	5	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	5	0	5	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	5	0	5	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	5	0	5	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	5	0	5	0	0	—	—	0.10	0	0

Notes:

Maximum and Minimum concentrations based on detected values
 Average concentrations based on detected values and the full detection limit for values detected below the detection limit.
 Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.
 Screening Levels are proposed levels only, for delineation of the groundwater monitoring well network
 NV - No applicable screening level is available for phenanthrene, based on protection of surface water.
 TPH/NWTPH screening levels obtained from the MTCA Method A Cleanup Level for groundwater
 PCBs screening levels are obtained from the Surface Water ARAR–Aquatic Life–Marine/Chronic–National Toxics Rule, 40 CFR 131
 Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A-Aquatic Life - Marine/Acute Water Quality Standards for Naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-Dichloroethane, and all xylene screening levels were obtained from the MTCA
 All other groundwater screening levels were obtained from the Surface Water ARAR - Human Health – Marine – Clean Water Act §304
 µg/L - micrograms per liter
 mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-02									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	6	5	1	5	1	0.110	0.008	0.067	83	83
Arsenic	.00014	mg/L	6	5	1	5	1	0.100	0.060	0.078	83	83
Cadmium	0.42	mg/L	6	0	6	0	0	—	—	0.004	0	0
Cadmium	0.42	mg/L	6	1	5	0	0	0.123	0.123	0.022	17	0
Chromium	1.1	mg/L	6	1	5	0	0	0.003	0.003	0.005	17	0
Chromium	1.1	mg/L	6	1	5	0	0	0.004	0.004	0.005	17	0
Copper	0.48	mg/L	5	1	4	0	0	0.002	0.002	0.002	20	0
Copper	0.48	mg/L	5	1	4	0	0	0.004	0.004	0.002	20	0
Lead	0.21	mg/L	6	1	5	0	0	0.027	0.027	0.021	17	0
Nickel	4.6	mg/L	5	0	5	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	5	0	5	0	0	—	—	0.010	0	0
Silver	.0019	mg/L	5	0	5	0	5	—	—	0.003	0	0
Silver	.0019	mg/L	5	0	5	0	5	—	—	0.003	0	0
Zinc	26	mg/L	5	0	5	0	0	—	—	0.010	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	5	5	0	5	0	0.84	0.67	0.75	100	100
Motor Oil Range Hydrocarbons	0.5	mg/L	5	0	5	0	5	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	9	0	9	0	3	—	—	0.13	0	0
Aroclor 1260	0.03	µg/L	9	2	7	0	3	0.01	0.01	0.13	22	0
BTEX												
o-Xylene	1000	µg/L	5	0	5	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	5	0	5	0	0	—	—	0.40	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	5	1	4	0	0	2.10	2.10	1.18	20	0
Phenol	1700000	µg/L	5	5	0	0	0	20.00	5.80	10.07	100	0
VOC												
1,1,1-Trichloroethane	200	µg/L	6	0	6	0	0	—	—	0.33	0	0
Acetone	800	µg/L	6	3	3	0	0	4.60	4.00	3.98	50	0
Chlorobenzene	1600	µg/L	6	5	1	0	0	0.60	0.40	0.57	83	0
cis-1,2-Dichloroethene	5	µg/L	6	0	6	0	0	—	—	0.33	0	0
Tetrachloroethene	3.3	µg/L	6	0	6	0	0	—	—	1.00	0	0
Trichloroethene	30	µg/L	6	0	6	0	0	—	—	0.33	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	5	5	0	0	0	0.20	0.10	0.15	100	0
Acenaphthene	990	µg/L	5	0	5	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	5	0	5	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Chrysene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Fluoranthene	140	µg/L	5	0	5	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	5	0	5	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	5	0	5	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	5	0	5	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	5	0	5	0	0	—	—	0.10	0	0

Notes:

Maximum and Minimum concentrations based on detected values only.
 Average concentrations based on detected values and the full detection limit for values detected below the detection limit.
 Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.
 Screening Levels are proposed levels only, for delineation of the groundwater monitoring well network
 NV - No applicable screening level is available for phenanthrene, based on protection of surface water.
 TPH/NWTPH screening levels obtained from the MTCA Method A Cleanup Level for groundwater
 PCBs screening levels are obtained from the Surface Water ARAR–Aquatic Life–Marine/Chronic–National Toxics Rule, 40 CFR 131
 Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A–Aquatic Life - Marine/Acute Water Quality Standards for Naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-Dichloroethane, and all xylene screening levels were obtained from the MTCA
 All other groundwater screening levels were obtained from the Surface Water ARAR - Human Health – Marine – Clean Water Act §304
 µg/L - micrograms per liter
 mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-03									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	6	5	1	5	1	0.024	0.022	0.039	83	83
Arsenic	.00014	mg/L	6	5	1	5	1	0.023	0.021	0.039	83	83
Cadmium	0.42	mg/L	6	0	6	0	0	—	—	0.002	0	0
Cadmium	0.42	mg/L	6	0	6	0	0	—	—	0.002	0	0
Chromium	1.1	mg/L	6	0	6	0	0	—	—	0.005	0	0
Chromium	1.1	mg/L	6	2	4	0	0	0.013	0.006	0.008	33	0
Copper	0.48	mg/L	5	0	5	0	0	—	—	0.002	0	0
Copper	0.48	mg/L	5	3	2	0	0	0.024	0.010	0.010	60	0
Lead	0.21	mg/L	6	0	6	0	0	—	—	0.020	0	0
Nickel	4.6	mg/L	5	0	5	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	5	0	5	0	0	—	—	0.010	0	0
Silver	.0019	mg/L	5	0	5	0	5	—	—	0.003	0	0
Silver	.0019	mg/L	5	0	5	0	5	—	—	0.003	0	0
Zinc	26	mg/L	5	3	2	0	0	0.030	0.010	0.016	60	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	5	5	0	5	0	11.00	3.00	5.08	100	100
Motor Oil Range Hydrocarbons	0.5	mg/L	5	5	0	5	0	11.00	0.85	4.03	100	100
PCB												
Aroclor 1254	0.03	µg/L	7	0	7	0	2	—	—	0.114	0	0
Aroclor 1260	0.03	µg/L	6	1	5	3	1	2.00	0.016	0.63317	17	50
BTEX												
o-Xylene	1000	µg/L	5	1	4	0	0	0.30	0.3	0.22	20	0
Xylene (meta & para)	1000	µg/L	5	1	4	0	0	0.70	0.7	0.46	20	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	5	1	4	0	0	2.00	2	1.2	20	0
Phenol	1700000	µg/L	5	0	5	0	0	—	—	1	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	5	0	5	0	0	—	—	0.2	0	0
Acetone	800	µg/L	5	5	0	0	0	7.70	3.4	6.52	100	0
Chlorobenzene	1600	µg/L	5	0	5	0	0	—	—	0.2	0	0
cis-1,2-Dichloroethene	5	µg/L	5	0	5	0	0	—	—	0.2	0	0
Tetrachloroethene	3.3	µg/L	5	0	5	0	0	—	—	0.2	0	0
Trichloroethene	30	µg/L	5	0	5	0	0	—	—	0.2	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	5	0	5	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	5	1	4	0	0	0.14	0.14	0.11	20	0
Anthracene	40000	µg/L	5	0	5	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	5	0	5	0	5	—	—	0.10	0	0
Chrysene	0.018	µg/L	5	3	2	3	2	0.50	0.12	0.21	60	60
Fluoranthene	140	µg/L	5	0	5	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	5	2	3	0	0	0.35	0.13	0.16	40	0
Naphthalene	160	µg/L	5	3	2	0	0	0.47	0.10	0.19	60	0
Phenanthrene	—	µg/L	5	0	5	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	5	3	2	0	0	0.33	0.10	0.16	60	0

Notes:

Maximum and Minimum concentrations based on detected values only.

Average concentrations based on detected values and the full detection limit for values detected below the detection limit.

Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.

Screening Levels are proposed levels only, for delineation of the groundwater monitoring well network

NV - No applicable screening level is available for phenanthrene, based on protection of surface water.

TPH/NWTPH screening levels obtained from the MTCA Method A Cleanup Level for groundwater

PCBs screening levels are obtained from the Surface Water

ARAR–Aquatic Life–Marine/Chronic–National Toxics Rule, 40 CFR 131

Cadmium, copper, lead, and silver screening levels obtained from the

WAC Chapter 173-201A-Aquatic Life - Marine/Acute Water Quality

Naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-

Dichloroethane, and all xylene screening levels were obtained from the

All other groundwater screening levels were obtained from the Surface

Water ARAR - Human Health – Marine – Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-04R									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	6	3	3	3	3	0.660	0.002	0.343	50	50
Arsenic	.00014	mg/L	6	5	1	5	1	0.650	0.065	0.338	83	83
Cadmium	0.42	mg/L	6	2	4	0	0	0.550	0.518	0.268	33	0
Cadmium	0.42	mg/L	6	1	5	0	0	0.482	0.453	0.235	17	0
Chromium	1.1	mg/L	6	1	5	0	0	0.001	0.001	0.003	17	0
Chromium	1.1	mg/L	6	1	5	0	0	0.006	0.001	0.003	17	0
Copper	0.48	mg/L	4	1	3	2	0	0.005	0.003	0.003	25	50
Copper	0.48	mg/L	4	1	3	2	0	0.004	0.004	0.003	25	50
Lead	0.21	mg/L	6	0	6	0	0	—	—	0.027	0	0
Nickel	4.6	mg/L	4	0	4	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	4	0	4	0	0	—	—	0.010	0	0
Silver	.0019	mg/L	4	3	1	3	1	0.020	0.004	0.004	75	75
Silver	.0019	mg/L	4	2	2	2	2	0.030	0.003	0.003	50	50
Zinc	26	mg/L	4	0	4	0	0	—	—	0.010	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	4	0	4	0	0	—	—	0.25	0	0
Motor Oil Range Hydrocarbons	0.5	mg/L	4	0	4	0	4	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	9	0	9	0	3	—	—	0.16	0	0
Aroclor 1260	0.03	µg/L	9	0	9	0	3	—	—	0.16	0	0
BTEX												
o-Xylene	1000	µg/L	4	0	4	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	4	0	4	0	0	—	—	0.40	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	6	1	5	1	0	16.00	16.00	3.50	17	17
Phenol	1700000	µg/L	6	0	6	0	0	—	—	1.00	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	5	0	5	0	0	—	—	0.47	0	0
Acetone	800	µg/L	5	0	5	0	0	—	—	3.67	0	0
Chlorobenzene	1600	µg/L	5	0	5	0	0	—	—	0.47	0	0
cis-1,2-Dichloroethene	5	µg/L	5	0	5	0	0	—	—	0.47	0	0
Tetrachloroethene	3.3	µg/L	5	0	5	0	0	—	—	1.00	0	0
Trichloroethene	30	µg/L	5	0	5	0	0	—	—	0.47	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	4	0	4	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	4	0	4	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	4	0	4	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Chrysene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Fluoranthene	140	µg/L	4	0	4	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	4	0	4	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	4	0	4	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	4	0	4	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	4	0	4	0	0	—	—	0.10	0	0

Notes:

Maximum and Minimum concentrations based on detected values only.

Average concentrations based on detected values and the full detection limit for values detected below the detection limit.

Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.

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PCBs screening levels are obtained from the Surface Water ARAR—Aquatic Life—Marine/Chronic—National Toxics Rule, 40 CFR 131

Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A-Aquatic Life - Marine/Acute Water Quality

Naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-Dichloroethane, and all xylene screening levels were obtained from the

All other groundwater screening levels were obtained from the Surface Water ARAR - Human Health – Marine – Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-05R									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	4	1	3	1	3	0.004	0.004	0.039	25	25
Arsenic	.00014	mg/L	4	1	3	1	3	0.005	0.005	0.039	25	25
Cadmium	0.42	mg/L	4	0	4	0	0	—	—	0.002	0	0
Cadmium	0.42	mg/L	4	0	4	0	0	—	—	0.002	0	0
Chromium	1.1	mg/L	4	0	4	0	0	—	—	0.005	0	0
Chromium	1.1	mg/L	4	0	4	0	0	—	—	0.005	0	0
Copper	0.48	mg/L	4	1	3	0	0	0.004	0.004	0.003	25	0
Copper	0.48	mg/L	4	2	2	0	0	0.004	0.002	0.003	50	0
Lead	0.21	mg/L	4	0	4	0	0	—	—	0.020	0	0
Nickel	4.6	mg/L	4	0	4	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	4	0	4	0	0	—	—	0.010	0	0
Silver	.0019	mg/L	4	1	3	1	3	0.004	0.004	0.003	25	25
Silver	.0019	mg/L	4	1	3	1	3	0.005	0.005	0.004	25	25
Zinc	26	mg/L	4	0	4	0	0	—	—	0.010	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	4	0	4	0	0	—	—	0.25	0	0
Motor Oil Range Hydrocarbons	0.5	mg/L	4	0	4	0	4	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	7	1	6	0	3	0.017	0.017	0.16	14	0
Aroclor 1260	0.03	µg/L	7	4	3	4	1	0.32	0.01	0.21	57	57
BTEX												
o-Xylene	1000	µg/L	4	0	4	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	5	0	5	0	0	—	—	0.40	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	4	1	3	1	0	4.80	4.80	1.95	25	25
Phenol	1700000	µg/L	4	0	4	0	0	1.00	1	1.00	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	5	0	5	0	0	—	—	0.36	0	0
Acetone	800	µg/L	5	2	3	0	0	3.50	3.5	3.60	40	0
Chlorobenzene	1600	µg/L	5	0	5	0	0	—	—	0.36	0	0
cis-1,2-Dichloroethene	5	µg/L	5	0	5	0	0	—	—	0.36	0	0
Tetrachloroethene	3.3	µg/L	5	0	5	0	0	—	—	1.00	0	0
Trichloroethene	30	µg/L	5	0	5	0	0	—	—	0.36	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	4	0	4	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	3	1	2	0	0	0.31	0.31	0.17	33	0
Anthracene	40000	µg/L	4	1	3	0	0	0.13	0.13	0.11	25	0
Benzo(a)anthracene	0.018	µg/L	4	1	3	1	3	0.19	0.19	0.12	25	25
Benzo(a)pyrene	0.018	µg/L	4	1	3	1	3	0.14	0.14	0.11	25	25
Benzo(b)fluoranthene	0.018	µg/L	4	1	3	1	3	0.13	0.13	0.11	25	25
Benzo(k)fluoranthene	0.018	µg/L	4	1	3	1	3	0.13	0.13	0.11	25	25
Chrysene	0.018	µg/L	4	1	3	1	3	0.19	0.19	0.12	25	25
Fluoranthene	140	µg/L	4	1	3	0	0	0.44	0.44	0.19	25	0
Fluorene	5300	µg/L	4	1	3	0	0	0.10	0.10	0.10	25	0
Naphthalene	160	µg/L	4	0	4	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	4	1	3	—	—	0.50	0.50	0.20	25	—
Pyrene	4000	µg/L	4	1	3	0	0	0.44	0.44	0.19	25	0

Notes:

Maximum and Minimum concentrations based on detected values only.

Average concentrations based on detected values and the full detection limit for values detected below the detection limit.

Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.

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Cadmium, copper, lead, and silver screening levels obtained from the

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Naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-

Dichloroethane, and all xylene screening levels were obtained from the

All other groundwater screening levels were obtained from the Surface

Water ARAR - Human Health – Marine – Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-06									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	3	0	3	0	3	—	—	0.034	0	0
Arsenic	.00014	mg/L	3	0	3	0	3	—	—	0.034	0	0
Cadmium	0.42	mg/L	3	0	3	0	0	—	—	0.002	0	0
Cadmium	0.42	mg/L	3	0	3	0	0	—	—	0.002	0	0
Chromium	1.1	mg/L	3	0	3	0	0	—	—	0.005	0	0
Chromium	1.1	mg/L	3	0	3	0	0	—	—	0.005	0	0
Copper	0.48	mg/L	3	3	0	0	0	0.006	0.003	0.005	100	0
Copper	0.48	mg/L	3	3	0	0	0	0.010	0.007	0.008	100	0
Lead	0.21	mg/L	3	0	3	0	0	—	—	0.020	0	0
Nickel	4.6	mg/L	3	0	3	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	3	0	3	0	0	—	—	0.010	0	0
Silver	.0019	mg/L	3	1	2	1	2	0.003	0.003	0.003	33	33
Silver	.0019	mg/L	3	2	1	2	1	0.005	0.003	0.004	67	67
Zinc	26	mg/L	3	0	3	0	0	—	—	0.010	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	3	0	3	0	0	—	—	0.25	0	0
Motor Oil Range Hydrocarbons	0.5	mg/L	3	0	3	0	3	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	6	0	6	0	3	—	—	0.35	0	0
Aroclor 1260	0.03	µg/L	6	3	3	2	2	0.76	0.026	0.49	50	33
BTEX												
o-Xylene	1000	µg/L	3	0	3	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	5	0	5	0	0	—	—	0.40	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	3	3	0	1	0	3.70	1.5	2.23	100	33
Phenol	1700000	µg/L	3	0	3	0	0	—	—	1.00	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	5	0	5	0	0	—	—	0.52	0	0
Acetone	800	µg/L	5	0	5	0	0	—	—	3.40	0	0
Chlorobenzene	1600	µg/L	5	0	5	0	0	—	—	0.52	0	0
cis-1,2-Dichloroethene	5	µg/L	5	0	5	0	0	—	—	0.52	0	0
Tetrachloroethene	3.3	µg/L	3	0	3	0	0	—	—	1.00	0	0
Trichloroethene	30	µg/L	5	0	5	0	0	—	—	0.52	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	3	0	3	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	3	0	3	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	3	0	3	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Chrysene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Fluoranthene	140	µg/L	3	0	3	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	3	0	3	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	3	0	3	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	3	0	3	0	0	—	—	0.10	0	—
Pyrene	4000	µg/L	3	0	3	0	0	—	—	0.10	0	0

Notes:

Maximum and Minimum concentrations based on detected values only.

Average concentrations based on detected values and the full detection limit for values detected below the detection limit.

Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.

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Cadmium, copper, lead, and silver screening levels obtained from the

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Naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-

Dichloroethane, and all xylene screening levels were obtained from the

All other groundwater screening levels were obtained from the Surface

Water ARAR - Human Health – Marine – Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-07									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	5	1	4	1	4	0.720	0.720	0.174	20	20
Arsenic	.00014	mg/L	5	0	5	0	5	—	—	0.166	0	0
Cadmium	0.42	mg/L	5	0	5	0	0	—	—	0.005	0	0
Cadmium	0.42	mg/L	5	1	4	0	0	0.086	0.086	0.019	20	0
Chromium	1.1	mg/L	5	0	5	0	0	—	—	0.004	0	0
Chromium	1.1	mg/L	5	0	5	0	0	—	—	0.004	0	0
Copper	0.48	mg/L	4	1	3	0	0	0.002	0.002	0.002	25	0
Copper	0.48	mg/L	4	1	3	0	0	0.002	0.002	0.002	25	0
Lead	0.21	mg/L	5	1	4	0	0	0.043	0.043	0.025	20	0
Nickel	4.6	mg/L	4	0	4	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	4	0	4	0	0	—	—	0.010	0	0
Silver	.0019	mg/L	4	0	4	0	4	—	—	0.003	0	0
Silver	.0019	mg/L	4	0	4	0	4	—	—	0.003	0	0
Zinc	26	mg/L	4	0	4	0	0	—	—	0.010	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	4	0	4	0	0	—	—	0.25	0	0
Motor Oil Range Hydrocarbons	0.5	mg/L	4	0	4	0	4	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	7	0	7	0	1	—	—	0.02	0	0
Aroclor 1260	0.03	µg/L	7	1	6	1	1	0.036	0.036	0.02	14	14
BTEX												
o-Xylene	1000	µg/L	4	0	4	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	4	0	4	0	0	—	—	0.40	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	5	0	5	0	0	—	—	1.00	0	0
Phenol	1700000	µg/L	5	0	5	0	0	—	—	1.00	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	4	0	4	0	0	—	—	0.20	0	0
Acetone	800	µg/L	4	2	2	0	0	4.40	3.8	3.55	50	0
Chlorobenzene	1600	µg/L	4	0	4	0	0	—	—	0.20	0	0
cis-1,2-Dichloroethene	5	µg/L	4	0	4	0	0	—	—	0.20	0	0
Tetrachloroethene	3.3	µg/L	4	0	4	0	0	—	—	0.20	0	0
Trichloroethene	30	µg/L	4	0	4	0	0	—	—	0.20	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	4	0	4	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	4	0	4	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	4	0	4	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Chrysene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Fluoranthene	140	µg/L	4	0	4	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	4	0	4	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	4	0	4	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	4	0	4	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	4	0	4	0	0	—	—	0.10	0	0

Notes:

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Water ARAR - Human Health – Marine – Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-08R									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	5	2	3	2	3	0.860	0.002	0.242	40	40
Arsenic	.00014	mg/L	5	2	3	2	3	0.890	0.002	0.238	40	40
Cadmium	0.42	mg/L	5	1	4	0	0	0.174	0.174	0.038	20	0
Cadmium	0.42	mg/L	5	1	4	0	0	0.189	0.189	0.041	20	0
Chromium	1.1	mg/L	5	1	4	0	0	0.002	0.002	0.008	20	0
Chromium	1.1	mg/L	5	1	4	0	0	0.002	0.002	0.007	20	0
Copper	0.48	mg/L	4	1	3	0	0	0.002	0.002	0.005	25	0
Copper	0.48	mg/L	4	2	2	0	0	0.004	0.003	0.005	50	0
Lead	0.21	mg/L	5	1	4	0	0	0.090	0.090	0.050	20	0
Nickel	4.6	mg/L	4	0	4	0	0	—	—	0.023	0	0
Nickel	4.6	mg/L	4	0	4	0	0	—	—	0.020	0	0
Silver	.0019	mg/L	4	2	2	2	2	0.030	0.003	0.011	50	50
Silver	.0019	mg/L	4	3	1	3	1	0.020	0.004	0.008	75	75
Zinc	26	mg/L	4	0	4	0	0	—	—	0.020	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	4	0	4	0	0	—	—	0.25	0	0
Motor Oil Range Hydrocarbons	0.5	mg/L	4	0	4	0	4	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	6	1	5	0	1	0.03	0.03	0.02	17	0
Aroclor 1260	0.03	µg/L	6	2	4	1	1	0.05	0.02	0.02	33	17
BTEX												
o-Xylene	1000	µg/L	4	0	4	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	4	0	4	0	0	—	—	0.40	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	5	3	2	0	0	1.80	1.80	1.22	60	0
Phenol	1700000	µg/L	5	0	5	0	0	—	—	1.00	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	4	0	4	0	0	—	—	0.20	0	0
Acetone	800	µg/L	4	1	3	0	0	3.10	3.10	3.02	25	0
Chlorobenzene	1600	µg/L	4	0	4	0	0	—	—	0.20	0	0
cis-1,2-Dichloroethene	5	µg/L	4	0	4	0	0	—	—	0.20	0	0
Tetrachloroethene	3.3	µg/L	4	0	4	0	0	—	—	0.20	0	0
Trichloroethene	30	µg/L	4	0	4	0	0	—	—	0.20	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	4	0	4	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	4	0	4	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	4	0	4	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Chrysene	0.018	µg/L	4	0	4	0	4	—	—	0.10	0	0
Fluoranthene	140	µg/L	4	0	4	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	4	0	4	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	4	0	4	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	4	0	4	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	4	0	4	0	0	—	—	0.10	0	0

Notes:

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Chemical Name	Action Level	Action Level Unit	MW-09									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	2	0	2	0	2	—	—	0.050	0	0
Arsenic	.00014	mg/L	2	0	2	0	2	—	—	0.050	0	0
Cadmium	0.42	mg/L	2	0	2	0	0	—	—	0.002	0	0
Cadmium	0.42	mg/L	2	0	2	0	0	—	—	0.002	0	0
Chromium	1.1	mg/L	2	0	2	0	0	—	—	0.005	0	0
Chromium	1.1	mg/L	2	0	2	0	0	—	—	0.005	0	0
Copper	0.48	mg/L	2	1	1	0	0	0.003	0.003	0.003	50	0
Copper	0.48	mg/L	2	2	0	0	0	0.003	0.003	0.003	100	0
Lead	0.21	mg/L	2	0	2	0	0	—	—	0.020	0	0
Nickel	4.6	mg/L	2	0	2	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	2	0	2	0	0	—	—	0.010	0	0
Silver	.0019	mg/L	2	0	2	0	2	—	—	0.003	0	0
Silver	.0019	mg/L	2	0	2	0	2	—	—	0.003	0	0
Zinc	26	mg/L	2	0	2	0	0	—	—	0.010	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	2	0	2	0	0	—	—	0.25	0	0
Motor Oil Range Hydrocarbons	0.5	mg/L	2	0	2	0	0	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	2	0	2	0	0	—	—	0.01	0	0
Aroclor 1260	0.03	µg/L	2	0	2	0	0	—	—	0.01	0	0
BTEX												
o-Xylene	1000	µg/L	2	0	2	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	2	0	2	0	0	—	—	0.20	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	2	1	1	0	0	1.10	1.10	1.05	50	0
Phenol	1700000	µg/L	2	0	2	0	0	—	—	1.00	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	2	0	2	0	0	—	—	0.20	0	0
Acetone	800	µg/L	2	0	2	0	0	—	—	3.00	0	0
Chlorobenzene	1600	µg/L	2	0	2	0	0	—	—	0.20	0	0
cis-1,2-Dichloroethene	5	µg/L	2	0	2	0	0	—	—	0.20	0	0
Tetrachloroethene	3.3	µg/L	2	2	0	0	0	0.95	0.90	1.40	100	0
Trichloroethene	30	µg/L	2	0	2	0	0	—	—	0.20	0	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	2	0	2	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	2	0	2	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	2	0	2	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	2	0	2	0	3	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	2	0	2	0	3	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	2	0	2	0	3	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	2	0	2	0	3	—	—	0.10	0	0
Chrysene	0.018	µg/L	2	0	2	0	3	—	—	0.10	0	0
Fluoranthene	140	µg/L	2	0	2	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	2	0	2	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	2	0	2	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	2	0	2	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	2	0	2	0	0	—	—	0.10	0	0

Notes:

Maximum and Minimum concentrations based on detected values only.
Average concentrations based on detected values and the full detection limit for values detected below the detection limit.

Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.

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PCBs screening levels are obtained from the Surface Water ARAR–Aquatic Life–Marine/Chronic–National Toxics Rule, 40 CFR 131

Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A-Aquatic Life - Marine/Acute Water Quality Naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-Dichloroethane, and all xylene screening levels were obtained from the All other groundwater screening levels were obtained from the Surface Water ARAR - Human Health – Marine – Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-10									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	3	0	3	0	3	—	—	0.034	0	0
Arsenic	.00014	mg/L	3	1	2	1	2	0.002	0.002	0.034	33	33
Cadmium	0.42	mg/L	3	0	3	0	0	—	—	0.002	0	0
Cadmium	0.42	mg/L	3	0	3	0	0	—	—	0.002	0	0
Chromium	1.1	mg/L	3	0	3	0	0	—	—	0.005	0	0
Chromium	1.1	mg/L	3	0	3	0	0	—	—	0.005	0	0
Copper	0.48	mg/L	3	3	0	0	0	0.009	0.003	0.005	100	0
Copper	0.48	mg/L	3	3	0	0	0	0.010	0.005	0.007	100	0
Lead	0.21	mg/L	3	0	3	0	0	—	—	0.020	0	0
Nickel	4.6	mg/L	3	0	3	0	0	—	—	0.010	0	0
Nickel	4.6	mg/L	3	0	3	0	0	—	—	0.010	0	0
Silver	.0019	mg/L	3	0	3	0	3	—	—	0.003	0	0
Silver	.0019	mg/L	3	0	3	0	3	—	—	0.003	0	0
Zinc	26	mg/L	3	0	3	0	0	—	—	0.010	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	3	1	2	1	0	0.53	0.53	0.34	33	33
Motor Oil Range Hydrocarbons	0.5	mg/L	3	0	3	0	3	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	3	0	3	0	0	—	—	0.01	0	0
Aroclor 1260	0.03	µg/L	3	0	3	0	0	—	—	0.01	0	0
BTEX												
o-Xylene	1000	µg/L	3	0	3	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	3	0	3	0	0	—	—	0.40	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	3	1	2	0	0	1.20	1.20	1.07	33	0
Phenol	1700000	µg/L	3	0	3	0	0	—	—	1.00	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	3	2	1	0	0	0.40	0.20	0.27	67	0
Acetone	800	µg/L	3	2	1	0	0	3.40	3.30	3.23	67	0
Chlorobenzene	1600	µg/L	3	0	3	0	0	—	—	0.20	0	0
cis-1,2-Dichloroethene	5	µg/L	3	2	1	0	0	1.20	0.70	0.70	67	0
Tetrachloroethene	3.3	µg/L	3	3	0	0	0	2.00	1.30	1.57	100	0
Trichloroethene	30	µg/L	3	2	1	0	0	0.50	0.20	0.30	67	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	3	0	3	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	3	0	3	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	3	0	3	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Chrysene	0.018	µg/L	3	0	3	0	3	—	—	0.10	0	0
Fluoranthene	140	µg/L	3	0	3	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	3	0	3	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	3	0	3	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	3	0	3	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	3	0	3	0	0	—	—	0.10	0	0

Notes:

Maximum and Minimum concentrations based on detected values only.
Average concentrations based on detected values and the full detection limit for values detected below the detection limit.

Historic samples were analyzed for TPH Diesel and Lube Oil Range, these laboratory methods are no longer used. Historic detections of these methods are not shown on this table.

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TPH/NWTPH screening levels obtained from the MTCA Method A Cleanup Level for groundwater

PCBs screening levels are obtained from the Surface Water ARAR–Aquatic Life–Marine/Chronic–National Toxics Rule, 40 CFR 131 Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A-Aquatic Life - Marine/Acute Water Quality Naphthalene, 1-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-Dichloroethane, and all xylene screening levels were obtained from the All other groundwater screening levels were obtained from the Surface Water ARAR - Human Health – Marine – Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 2 T117 Groundwater Detectic

Chemical Name	Action Level	Action Level Unit	MW-11									
			Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	Min Detected Concentration	Average Concentration	Detection Frequency (%)	Exceedance Frequency (%)
Metals												
Arsenic	.00014	mg/L	2	0	2	0	2	—	—	0.050	0	0
Arsenic	.00014	mg/L	2	0	2	0	2	—	—	0.050	0	0
Cadmium	0.42	mg/L	2	0	2	0	0	—	—	0.002	0	0
Cadmium	0.42	mg/L	2	0	2	0	0	—	—	0.002	0	0
Chromium	1.1	mg/L	2	0	2	0	0	—	—	0.005	0	0
Chromium	1.1	mg/L	2	0	2	0	0	—	—	0.005	0	0
Copper	0.48	mg/L	2	1	1	0	0	0.002	0.002	0.002	50	0
Copper	0.48	mg/L	2	1	1	0	0	0.004	0.004	0.003	50	0
Lead	0.21	mg/L	2	0	2	0	0	—	—	0.020	0	0
Nickel	4.6	mg/L	2	1	1	0	0	0.010	0.010	0.010	50	0
Nickel	4.6	mg/L	2	1	1	0	0	0.010	0.010	0.010	50	0
Silver	.0019	mg/L	2	0	2	0	2	—	—	0.003	0	0
Silver	.0019	mg/L	2	0	2	0	2	—	—	0.003	0	0
Zinc	26	mg/L	2	0	2	0	0	—	—	0.010	0	0
TPH												
Diesel Range Hydrocarbons	0.5	mg/L	2	1	1	0	0	0.27	0.25	0.26	50	0
Motor Oil Range Hydrocarbons	0.5	mg/L	2	0	2	0	2	—	—	0.50	0	0
PCB												
Aroclor 1254	0.03	µg/L	2	0	2	0	0	—	—	0.01	0	0
Aroclor 1260	0.03	µg/L	2	0	2	2	2	—	—	0.01	0	100
BTEX												
o-Xylene	1000	µg/L	2	0	2	0	0	—	—	0.20	0	0
Xylene (meta & para)	1000	µg/L	2	0	2	0	0	—	—	0.40	0	0
SVOC												
bis(2-Ethylhexyl)phthalate	2.2	µg/L	2	1	1	1	0	19.00	1.00	10.00	50	50
Phenol	1700000	µg/L	2	0	2	0	0	—	—	1.00	0	0
VOC												
1,1,1-Trichloroethane	200	µg/L	2	0	2	0	0	—	—	0.20	0	0
Acetone	800	µg/L	2	1	1	0	0	3.40	3.40	3.20	50	0
Chlorobenzene	1600	µg/L	2	0	2	0	0	—	—	0.20	0	0
cis-1,2-Dichloroethene	5	µg/L	2	2	0	0	0	3.50	2.90	3.20	100	0
Tetrachloroethene	3.3	µg/L	2	0	2	0	0	—	—	0.20	0	0
Trichloroethene	30	µg/L	2	1	1	0	0	0.20	0.20	0.20	50	0
PAH by SW8270D SIM												
1-Methylnaphthalene	160	µg/L	2	0	2	0	0	—	—	0.10	0	0
Acenaphthene	990	µg/L	2	0	2	0	0	—	—	0.10	0	0
Anthracene	40000	µg/L	2	0	2	0	0	—	—	0.10	0	0
Benzo(a)anthracene	0.018	µg/L	2	0	2	0	2	—	—	0.10	0	0
Benzo(a)pyrene	0.018	µg/L	2	0	2	0	2	—	—	0.10	0	0
Benzo(b)fluoranthene	0.018	µg/L	2	0	2	0	2	—	—	0.10	0	0
Benzo(k)fluoranthene	0.018	µg/L	2	0	2	0	2	—	—	0.10	0	0
Chrysene	0.018	µg/L	2	0	2	0	2	—	—	0.10	0	0
Fluoranthene	140	µg/L	2	0	2	0	0	—	—	0.10	0	0
Fluorene	5300	µg/L	2	0	2	0	0	—	—	0.10	0	0
Naphthalene	160	µg/L	2	0	2	0	0	—	—	0.10	0	0
Phenanthrene	—	µg/L	2	0	2	—	—	—	—	0.10	0	—
Pyrene	4000	µg/L	2	0	2	0	0	—	—	0.10	0	0

Notes:

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All other groundwater screening levels were obtained from the Surface Water ARAR - Human Health – Marine – Clean Water Act §304

µg/L - micrograms per liter

mg/L - milligrams per liter

Table 3 Summary of Groundwater Dioxin and Furan Congeners Screening for T117 Uplands

Chemical Name	TEF (unit less)*	Total/ Dissolved	Unit	Original Results			TEF Modified Results		
				MW-05R MW-05R-1208 12/9/2008 N	MW-08R MW-08R-1208 12/9/2008 N	MW-10 MW-10-1208 12/10/2008 N	MW-05R MW-05R-1208 12/9/2008 N	MW-08R MW-08R-1208 12/9/2008 N	MW-10 MW-10-1208 12/10/2008 N
Dioxin Congeners									
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	0.01	T	pg/L	< 4.08	< 4.01	< 1.94	0.0204	0.0201	0.0097
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	0.1	T	pg/L	< 1.77	< 1.92	< 1.66	0.0885	0.096	0.083
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	0.1	T	pg/L	< 2.62	< 2.83	< 2.34	0.131	0.1415	0.117
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	0.1	T	pg/L	< 2.4	< 2.64	< 2.17	0.12	0.132	0.1085
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	1	T	pg/L	< 2.1	< 1.8	< 1.77	1.05	0.9	0.885
2,3,7,8-TETRACHLORO DIBENZO-P-DIOXIN	1	T	pg/L	< 1.08	< 1.2	< 1.22	0.54	0.6	0.61
1,2,3,4,6,7,8,9-OCTACHLORO DIBENZO-P-DIOXIN	0.0003	T	pg/L	< 6.85	11.1	< 4.42	0.001	0.0033	0.0013
						Subtotal	1.9509	1.8929	1.8145
Furan Congeners									
2,3,7,8-TETRACHLORODIBENZOFURAN	0.1	T	pg/L	< 1.87	< 1.36	< 1.54	0.0935	0.068	0.077
1,2,3,7,8-PENTACHLORODIBENZOFURAN	0.03	T	pg/L	< 1.88	< 1.73	< 1.7	0.0282	0.026	0.0255
1,2,3,4,6,7,8-HPCDF	0.01	T	pg/L	< 1.13	< 0.989	< 0.842	0.0057	0.0049	0.0042
1,2,3,4,7,8,9-HPCDF	0.01	T	pg/L	< 1.27	< 1.23	< 0.969	0.0064	0.0062	0.0048
1,2,3,4,7,8-HXCDF	0.1	T	pg/L	< 0.958	< 0.557	< 0.815	0.0479	0.0279	0.0408
1,2,3,6,7,8-HXCDF	0.1	T	pg/L	< 1.07	< 0.583	< 0.922	0.0535	0.0292	0.0461
1,2,3,7,8,9-HxCDF	0.1	T	pg/L	< 1.48	< 0.815	< 1.18	0.074	0.0408	0.059
2,3,4,6,7,8-HXCDF	0.1	T	pg/L	< 0.922	< 0.538	< 0.778	0.0461	0.0269	0.0389
2,3,4,7,8-PECDF	0.3	T	pg/L	< 2.47	< 2.33	< 2.31	0.3705	0.3495	0.3465
OCDF	0.0003	T	pg/L	< 2.86	< 3.68	< 4.62	0.0004	0.0006	0.0007
						Subtotal	0.7261	0.5797	0.6435
						Total (pg/L)	2.6771	2.4726	2.458
						Total (µg/L)	3E-06	2E-06	2E-06
						Adjusted MCL Converted (µg/L)**	5.8E-06	5.8E-06	5.8E-06
Is the Maximum Detection above the Screening Level?							NO	NO	NO

Notes:

TEF (Toxicity Equivalent Factor) is from WA DOE: "Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures using TEF"

*TEF is based on the 2,3,7,8-TCDD congener

**Dioxin and furan results were compared to the Safe Drinking Water Act published maximum containment level (MCL) for 2,3,7,8-TCDD of 3e-05 µg/L, adjusted to a value of 5.8e-06 µg/L in compliance with MTCA equation 720-2.

For the TEF calculation, one-half of the reporting limit is used for detections below the reporting limit.

Bold - Detected Original results

pg/L - picograms per liter

µg/L - micrograms per liter

COC - Chemical of Concern

Table 4 T-117 First Quarter 2009 Groundwater Results

Chemical Name	Unit	Action Level	Action Level Unit	Location ID	FieldQC	MW-01	MW-02	MW-04R	MW-05R	MW-06	MW-06	MW-06	MW-07	MW-08R	MW-09	MW-09	MW-10	MW-11
				Sample ID	TB-0309	MW-01-0309	MW-02-0309	MW-04R-0309	MW-05R-0309	MW-06-0309	MW-06-040109	MW-06-040809	MW-07-0309	MW-08R-0309	DUP-1-0309	MW-09-0309	MW-10-0309	MW-11-0309
Sample Date	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG
Sample Matrix	TB	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Type	WB	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
E160.2																		
Total Suspended Solids	mg/L			NA	< 1.0 U	28.0	1.3	< 1.0 U	NA	NA	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	
Metals																		
Antimony	mg/L	.64	mg/L	NA	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Antimony	mg/L	.64	mg/L	NA	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Arsenic	mg/L	.00014	mg/L	NA	0.003	0.055	< 0.005 U	0.002	NA	NA	.002	< 0.001 U	< 0.002 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Arsenic	mg/L	.00014	mg/L	NA	0.002	0.047	< 0.005 U	0.002	NA	NA	.002	< 0.001 U	< 0.002 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Beryllium	mg/L	NV		NA	< 0.001 U	< 0.001 U	< 0.002 U	< 0.001 U	NA	NA	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Beryllium	mg/L	NV		NA	< 0.001 U	< 0.001 U	< 0.002 U	< 0.001 U	NA	NA	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Cadmium	mg/L	0.42	mg/L	NA	< 0.002 U	< 0.002 U	< 0.004 U	< 0.002 U	NA	NA	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Cadmium	mg/L	0.42	mg/L	NA	< 0.002 U	< 0.002 U	< 0.004 U	< 0.002 U	NA	NA	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Chromium	mg/L	1.1	mg/L	NA	< 0.005 U	< 0.005 U	< 0.01 U	< 0.005 U	NA	NA	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U
Chromium	mg/L	1.1	mg/L	NA	< 0.005 U	< 0.005 U	< 0.01 U	< 0.005 U	NA	NA	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U
Copper	mg/L	0.48	mg/L	NA	< 0.002 U	< 0.002 U	< 0.004 U	< 0.002 U	NA	NA	.009	< 0.002 U	< 0.002 U	0.003	0.003	0.003	0.003	< 0.002 U
Copper	mg/L	0.48	mg/L	NA	< 0.002 U	< 0.002 U	< 0.004 U	< 0.002 U	NA	NA	0.01	< 0.002 U	< 0.002 U	0.003	0.003	0.007	0.007	< 0.002 U
Lead	mg/L	0.21	mg/L	NA	< 0.02 U	< 0.02 U	< 0.04 U	< 0.02 U	NA	NA	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U
Lead	mg/L	0.21	mg/L	NA	< 0.02 U	< 0.02 U	< 0.04 U	< 0.02 U	NA	NA	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U
Mercury	mg/L	.0003	mg/L	NA	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	NA	NA	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U
Mercury	mg/L	.0003	mg/L	NA	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	NA	NA	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U	< 0.0001 U
Nickel	mg/L	4.6	mg/L	NA	< 0.01 U	< 0.01 U	< 0.02 U	< 0.01 U	NA	NA	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U
Nickel	mg/L	4.6	mg/L	NA	< 0.01 U	< 0.01 U	< 0.02 U	< 0.01 U	NA	NA	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	0.01
Selenium	mg/L	4.2	mg/L	NA	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Selenium	mg/L	4.2	mg/L	NA	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Silver	mg/L	.0019	mg/L	NA	< 0.003 U	< 0.003 U	< 0.006 U	< 0.003 U	NA	NA	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U
Silver	mg/L	.0019	mg/L	NA	< 0.003 U	< 0.003 U	< 0.006 U	< 0.003 U	NA	NA	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U	< 0.003 U
Thallium	mg/L	.00047	mg/L	NA	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Thallium	mg/L	.00047	mg/L	NA	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Zinc	mg/L	26	mg/L	NA	< 0.01 U	< 0.01 U	< 0.02 U	< 0.01 U	NA	NA	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U
Zinc	mg/L	26	mg/L	NA	< 0.01 U	< 0.01 U	< 0.02 U	< 0.01 U	NA	NA	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U
NWTPH																		
Diesel Range Hydrocarbons	mg/L	0.5		NA	< 0.25 U	0.69	< 0.25 U	< 0.25 U	NA	< 0.25 U	NA	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U
Gasoline Range Hydrocarbons	mg/L	0.5		< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	NA	NA	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U
Motor Oil Range Hydrocarbons	mg/L	0.5		NA	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	NA	< 0.50 U	NA	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
SW8021BMod																		
Benzene	µg/L	51	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	2100	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	µg/L	NV		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	15000	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (meta & para)	µg/L	NV		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8082																		
Aroclor 1016	µg/L	0.03	µg/L	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	NA	< 0.010 U	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Aroclor 1221	µg/L	NV		NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	NA	< 0.010 U	NA	< 0.025 Y	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Aroclor 1232	µg/L	NV		NA	< 0.010 U	< 0.015 Y	< 0.010 U	< 0.010 U	NA	< 0.012 Y	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Aroclor 1254	µg/L	0.03	µg/L	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	NA	< 0.025 Y	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Aroclor 1260	µg/L	0.03	µg/L	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	NA	0.068	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Aroclor-1242	µg/L	NV		NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	NA	< 0.010 U	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Aroclor-1248	µg/L	NV		NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	NA	< 0.010 U	NA	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
SW8260B																		
1,1,1,2-Tetrachloroethane	µg/L	NV		< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,1-Trichloroethane	µg/L	NV		< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,2,2-Tetrachloroethane	µg/L	4	µg/L	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,2-Trichloroethane	µg/L	16	µg/L	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1,2-Trichlorotrifluoroethane	µg/L	NV		< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1-Dichloroethane	µg/L	NV		< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
1,1-Dichloroethene	µg/L	7100	µg/L	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U					

Table 4 T-117 First Quarter 2009 Groundwater Results

Chemical Name	Unit	Action Level	Action Level Unit	Location ID	FieldQC	MW-01	MW-02	MW-04R	MW-05R	MW-06	MW-06	MW-06	MW-07	MW-08R	MW-09	MW-09	MW-10	MW-11
				Sample ID	TB-0309	MW-01-0309	MW-02-0309	MW-04R-0309	MW-05R-0309	MW-06-0309	MW-06-040109	MW-06-040809	MW-07-0309	MW-08R-0309	DUP-1-0309	MW-09-0309	MW-10-0309	MW-11-0309
				Sample Date	WG TB	WG N	WG N	WG N	WG N	WG N	WG N	WG N	WG N	WG N	WG N	WG N	WG N	WG N
				Sample Matrix														
				Sample Type														
trans-1,3-Dichloropropene	µg/L	NV			< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
trans-1,4-Dichloro-2-butene	µg/L	NV			< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	30	µg/L		< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.6
Trichlorofluoromethane	µg/L	NV			< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Vinyl Acetate	µg/L	NV			< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl Chloride	µg/L	2.4	µg/L		< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Xylene (meta & para)	µg/L	NV			< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	NA	NA	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U	< 0.4 U
SW8270D																		
1,2,4-Trichlorobenzene	µg/L	70	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/L	1300	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/L	960	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/L	190	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1-Methylnaphthalene	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2,2'-Oxybis(1-Chloropropane)	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2,4,5-Trichlorophenol	µg/L	3600	µg/L		NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4,6-Trichlorophenol	µg/L	2.4	µg/L		NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4-Dichlorophenol	µg/L	290	µg/L		NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4-Dimethylphenol	µg/L	850	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2,4-Dinitrophenol	µg/L	5300	µg/L		NA	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrotoluene	µg/L	3.4	µg/L		NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,6-Dinitrotoluene	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chloronaphthalene	µg/L	1600	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Chlorophenol	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Methylnaphthalene	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Methylphenol	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Nitroaniline	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Nitrophenol	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
3,3'-Dichlorobenzidine	µg/L	0.03	µg/L		NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
3-Nitroaniline	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4,6-Dinitro-o-cresol	µg/L	NV			NA	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Bromophenyl phenyl ether	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Chloro-3-methylphenol	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Chloroaniline	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Chlorophenyl phenyl ether	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Methylphenol	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
4-Nitroaniline	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-NITROPHENOL	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acenaphthene	µg/L	990	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Acenaphthylene	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Anthracene	µg/L	40000	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzo(a)anthracene	µg/L	0.018	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzo(a)pyrene	µg/L	0.018	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzo(b)fluoranthene	µg/L	0.018	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzo(g,h,i)perylene	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzo(k)fluoranthene	µg/L	0.018	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzoic Acid	µg/L	NV			NA	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzyl Alcohol	µg/L	NV			NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
bis(2-chloroethoxy)methane	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
bis(2-chloroethyl)ether	µg/L	0.53	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
bis(2-Ethylhexyl)phthalate	µg/L	2.2	µg/L		NA	< 1.0 U	< 1.0 U	1.0	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	4.7	< 1.0 U	3	1.2
Butyl benzyl phthalate	µg/L	1900	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbazole	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chrysene	µg/L	0.018	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0		

Table 4 T-117 First Quarter 2009 Groundwater Results

Chemical Name	Unit	Action Level	Action Level Unit	Location ID	FieldQC	MW-01	MW-02	MW-04R	MW-05R	MW-06	MW-06	MW-06	MW-07	MW-08R	MW-09	MW-09	MW-10	MW-11
				Sample ID	TB-0309	MW-01-0309	MW-02-0309	MW-04R-0309	MW-05R-0309	MW-06-0309	MW-06-040109	MW-06-040809	MW-07-0309	MW-08R-0309	DUP-1-0309	MW-09-0309	MW-10-0309	MW-11-0309
				Sample Date	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG
				Sample Matrix	TB	N	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Type											FD			
Dimethyl phthalate	µg/L	1100000	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Di-n-butyl phthalate	µg/L	4500	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Di-n-Octyl phthalate	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Fluoranthene	µg/L	140	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Fluorene	µg/L	5300	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Hexachlorobenzene	µg/L	0.00029	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Hexachlorobutadiene	µg/L	18	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Hexachlorocyclopentadiene	µg/L	1100	µg/L		NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachloroethane	µg/L	3.3	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Indeno(1,2,3-cd)pyrene	µg/L	0.018	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isophorone	µg/L	960	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Naphthalene	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Nitrobenzene	µg/L	690	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
N-Nitroso-Di-N-Propylamine	µg/L	0.51	µg/L		NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
N-Nitrosodiphenylamine	µg/L	6	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Pentachlorophenol	µg/L	3	µg/L		NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	NA	< 5.0 U	NA	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Phenanthrene	µg/L	NV			NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Phenol	µg/L	1700000	µg/L		NA	< 1.0 U	11	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Pyrene	µg/L	4000	µg/L		NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8270D SIM																		
1-Methylnaphthalene	µg/L	NV			NA	< 0.10 U	0.30	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
2-Methylnaphthalene	µg/L	NV			NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Acenaphthene	µg/L	990	µg/L		NA	< 0.10 U	0.18	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Acenaphthylene	µg/L	NV			NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Anthracene	µg/L	40000	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Benzo(a)anthracene	µg/L	0.018	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Benzo(a)pyrene	µg/L	0.018	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Benzo(b)fluoranthene	µg/L	0.018	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Benzo(g,h,i)perylene	µg/L	NV			NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Benzo(k)fluoranthene	µg/L	0.018	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Chrysene	µg/L	0.018	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Dibenzo(a,h)anthracene	µg/L	0.018	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Dibenzofuran	µg/L	NV			NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Fluoranthene	µg/L	140	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Fluorene	µg/L	5300	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Indeno(1,2,3-cd)pyrene	µg/L	0.018	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Naphthalene	µg/L	NV			NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Phenanthrene	µg/L	NV			NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Pyrene	µg/L	4000	µg/L		NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	NA	< 0.10 U	NA	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U

Notes

Red - Detected value that exceeds screening level

Bold - Detected Result

Blue - Non-detected value that exceeds the screening level

< - Non Detect at the reporting limit shown.

FD - Field Duplicate

A Reported result is likely a combination of both Aroclor 1254 and Aroclor 1260 although accurate identification of Aroclor 1254 cannot be achieved (AECOM qualifier).

J Estimated concentration.

Screening Levels are proposed levels only, for delineation of the groundwater monitoring well network

TPH/NWTPH screening levels obtained from the MTCA Method A Cleanup Level for groundwater

PCB screening levels are obtained from the Surface Water ARAR - Aquatic Life - Marine/Chronic - National Toxics Rule, 40 CFR 131

Cadmium, copper, lead, and silver screening levels obtained from the WAC Chapter 173-201A-Aquatic Life - Marine/Acute Water Quality Standards for Surface Waters of the State of Washington

Phenanthrene, Naphthalene, 1-Methylnaphthalene, 2-Methylnaphthalene, 1,1,1-Trichloroethane, cis-1,2-Dichloroethane, and all Xylene screening levels were obtained from the MTCA Method A Cleanup Level for groundwater

All other groundwater screening levels were obtained from the Surface Water ARAR - Human Health - Marine - Clean Water Act §304

Y Reporting limit was raised due to the presence of interference (AECOM qualifier).

R - Rejected by AECOM data validator

NA- Not Analyzed

NV - No established value

Figures



Figure 1. Site map

