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Memorandum

To: Sean Sheldrake, USEPA and Ken Fellows, Parametrix

From: Ben Hung and John Verduin, PE – Anchor Environmental, L.L.C.

CC: Anne Summers, Krista Koehl and Jim McKenna – Port of Portland; Tom Schadt and Elizabeth Appy – Anchor Environmental, L.L.C.

Date: December 3, 2007

Re: Response to Specific Comment #1 from the Abatement Measures Proposal Review

This memorandum presents the response to General Comment #2 and Specific Comment #1 from the EPA Team's comment set on the Port of Portland's (Port) Abatement Measures Proposal (AMP) related to the B410/411 maintenance dredging area. In the AMP, the Port proposed an area for dredging as part of Phase I of the Removal Action, based on the assumption that this dredging could be combined with a necessary B410/411 maintenance dredging project. In General Comment #2, EPA proposed that both areas be dredged pursuant to EPA CERCLA authority, and requested additional information regarding the maintenance dredge area. The two comments are provided below for convenience:

General Comment #2:
"While EPA agrees that there are potentially substantial public benefits to combining the operational and contractual components, there are authority issues between the Corps of Engineers' maintenance dredging permit program and EPA's CERCLA program for remediation which complicate the Proposal. EPA proposes that the proposed maintenance dredging and abatement measure be performed under EPA CERCLA authority rather than the Corps of Engineers' authority. Coordination by the Port and EPA with the Corps will be required to implement the project in this manner. Additional coordination with NMFS will also be required."

Specific Comment #1:
"*Please provide the dredging area and proposed dredging elevations and sediment chemistry data for the T4 maintenance dredging scheduled in 2008 for the entire proposed maintenance dredge prism including the area beyond the harbor line. Please note any overlap/coordination between the maintenance dredging*

area and abatement measures area. Please clarify the extent to which the maintenance dredging will encounter contaminated sediments and explain how these sediments will be handled, and how (generally) the maintenance dredging impacts the Slip 3 Phase I and Phase II dredging proposed for the T4 early action."

Based on the original schedule for the Removal Action, dredging in Slip 3 was planned for 2008. Due to project schedule changes and navigation issues, the Port needs to perform maintenance dredging in Slip 3 in 2008. This maintenance dredge area is directly adjacent to the area the Port proposed for Phase I Removal Action dredging in the AMP. As indicated in the Port's AMP, the Port planned to complete the maintenance dredging and Phase I dredging at the same time using the same contractor to reduce impacts to operations and ensure that Phase I of the Removal Action is feasible and cost effective to complete. The material removed from the two areas will be handled the same, including all dredging and disposal methods, monitoring activities, and implementation of BMPs.

The maintenance dredge area is shown on Figure 1, an area of approximately 75′ by 950′. All of the area is within the Site as defined under the Administrative Order, and the majority is within Slip 3 and designated for dredging by EPA in the Action Memorandum. A small portion of the maintenance dredge area that is contiguous with the Removal Action Area (RAA) extends out beyond the harbor line--an area approximately 50′ by 60′ feet. Dredging is proposed to a design depth of -40.3 feet NGVD (-42 feet CRD), plus a 2-foot overdredge allowance, for a total maximum depth of -42.3 feet NGVD (-44 feet CRD). Dredging to these depths will result in removing between 5,200 and 9,000 cubic yards of material. The Port agrees with EPA that the maintenance dredge area should be incorporated into Phase I of the Removal Action given its location within the Site and RAA. The Port also proposes to include the small area just beyond the harbor line, but contiguous to Slip 3 and the RAA as part of Phase I dredging. If the area is left in place, it would create a small hump in front of Slip 3 that would become a dangerous obstruction to navigation and would likely result in sloughing back into the RAA after dredging is complete. Therefore, if the small hump is left in place, dredging would likely be necessary prior to implementation of Phase II of the Removal Action, which is inconsistent with the goal of minimizing the overall environmental impacts to the aquatic environment in Slip 3.

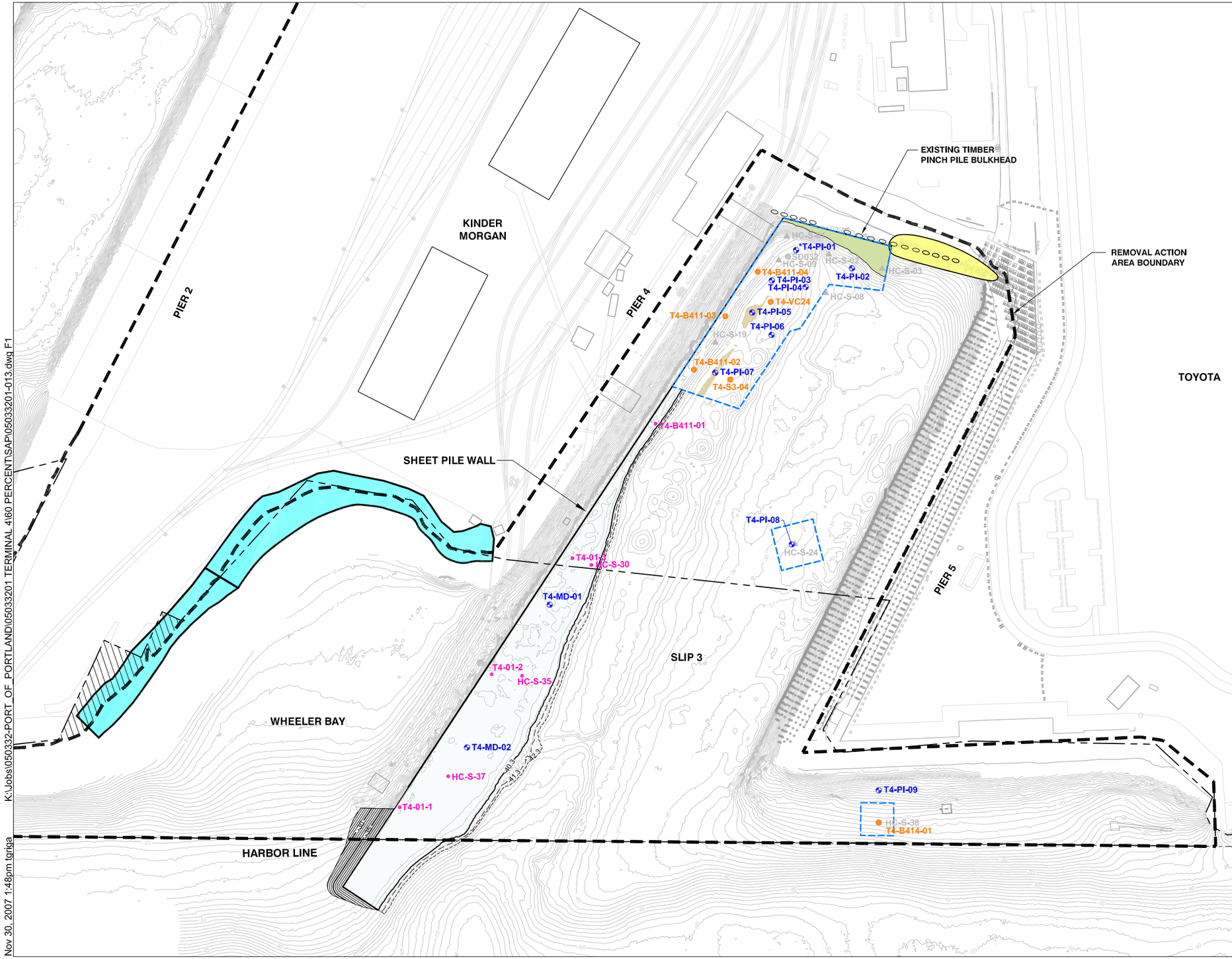
Figure 1 also shows the locations of the sediment samples within the maintenance dredging footprint that have been used to characterize the proposed maintenance dredging area. Additional samples will be collected to confirm the characterization. Table 1 provides the sediment chemistry data and is screened against the PEC for each sediment sample location shown on Figure 1.

As described above, the dredging within the maintenance area will be completed to a specific elevation with a 2-foot overdredge allowance. Based on the existing data, the final dredge surface within the maintenance dredging area will contain concentrations of chemicals less than 10 times the PEC, which is consistent with the Phase I dredging. This is based on the results from past sampling events that show projected surfaces with chemical concentrations less than 10 times the PEC between the proposed dredge depths (-40.3 and -42.3 feet NGVD) (Table 1). This sample density is greater than what is typically used to characterize a maintenance dredge area based on the Sediment Evaluation Framework (SEF) guidelines which recommends one sample location for every 5,000 cy proposed for removal of heterogeneous material in a high risk area. Despite having adequate sample density, additional cores are proposed in the maintenance dredging area to be consistent with recency requirements recommended by the SEF guidelines, to confirm the sediment quality characteristics within the area, and to support additional disposal characteristics testing, if needed.

The maintenance dredging activities are not expected to impact the Phase I or Phase II dredging activities in Slip 3, and in fact it is consistent with EPA's Action Memorandum. There is overlap of the maintenance dredging area with dredging proposed in the 60% design of the Early Action. This overlap area will be re-evaluated prior to completing the final design for Phase II of the Removal Action to determine if additional dredging needs to occur.

Attachments

Table 1 – Existing Sediment Chemistry Data in Proposed B410/411 Maintenance Dredging Area
Figure 1 – Sample Location Plan



T4-PI-04 — PROPOSED SAMPLE LOCATION AND DESIGNATION (* COLLECT SAMPLES AS CLOSE TO RIPRAP SLOPE AS POSSIBLE)

PROPOSED PHASE I DREDGE AREAS

POTENTIAL NO-DREDGE AREA (BELOW ELEVATION -46 FEET NGVD AND WITHIN 50 FEET OF THE SHEET PILE WALL)

T4-B411-04 — PREVIOUS SURFACE AND SUBSURFACE SAMPLE LOCATION WITHIN THE PROPOSED PHASE I DREDGE AREAS WHERE DEPTH OF CONTAMINATION IS CONSTRAINED

HC-S-03 — PREVIOUS SURFACE SAMPLE LOCATION WITHIN THE PHASE I DREDGE AREAS WHERE DEPTH IF CONTAMINATION IS UNCONSTRAINED

T4-01-2 — EXISTING SURFACE AND SUBSURFACE SAMPLE LOCATION WITHIN THE B410/411 MAINTENANCE DREDGE AREA

HEAD OF SLIP 3 CAP

AREA OF EXPECTED RIPRAP MATERIAL

WHEELER BAY SHORELINE STABILIZATION

CITY OF PORTLAND PROPERTY

DSL PROPERTY LINE

BERTH 410/411 MAINTENANCE DREDGE AREA

NOTES:
1. HORIZONTAL DATUM: PORT OF PORTLAND LOCAL PROJECTION (INTERNATIONAL FEET)
   VERTICAL DATUM: NGVD 29-47
   CONTOUR INTERVAL = 1FT
2. BATHYMETRIC SURVEY BY PORT OF PORTLAND DATED MAY, 2007

0 80 160
SCALE IN FEET

DRAFT DOCUMENT: DO NOT QUOTE OR CITE THIS DOCUMENT HAS NOT BEEN REVIEWED OR APPROVED BY USEPA AND ITS FEDERAL, STATE, AND TRIBAL PARTNERS AND IS SUBJECT TO CHANGE IN WHOLE OR IN PART.

ANCHOR ENVIRONMENTAL, L.L.C.

Figure 1
Proposed Maintenance Dredge and Phase I Removal Action Design Core Locations
Terminal 4 Removal Action
Portland, Oregon

Table 1. Existing Sediment Chemistry Data within the Maintenance Dredge Prism

Sample ID	Top Depth	Bottom Depth	Depth Unit	Chemical	Unit	Detected?	Result	PEC ER
HC-S-30	**-45.1**	**-45.4**	CRD					
ELEVATION	**-43.4**	**-43.7**	NGVD					
HC-S-30	0.0	0.3	ft	Arsenic	mg/kg	Y	4	0.1
HC-S-30	0.0	0.3	ft	Cadmium	mg/kg	Y	0.6	0.1
HC-S-30	0.0	0.3	ft	Chromium	mg/kg	Y	21.1	0.2
HC-S-30	0.0	0.3	ft	Copper	mg/kg	Y	62	0.4
HC-S-30	0.0	0.3	ft	Lead	mg/kg	Y	80.7	0.6
HC-S-30	0.0	0.3	ft	Mercury	mg/kg	Y	0.06	0.1
HC-S-30	0.0	0.3	ft	Nickel	mg/kg	Y	22	0.4
HC-S-30	0.0	0.3	ft	Silver	mg/kg	Y	0.3	
HC-S-30	0.0	0.3	ft	Zinc	mg/kg	Y	167	0.4
HC-S-30	0.0	0.3	ft	Dibenzofuran	ug/kg	Y	52	
HC-S-30	0.0	0.3	ft	bis(2-Ethylhexyl)phthalate	ug/kg	Y	300	
HC-S-30	0.0	0.3	ft	Butylbenzylphthalate	ug/kg	N	20	
HC-S-30	0.0	0.3	ft	Dimethylphthalate	ug/kg	N	20	
HC-S-30	0.0	0.3	ft	Di-n-octylphthalate	ug/kg	N	20	
HC-S-30	0.0	0.3	ft	Acenaphthene	ug/kg	Y	260	
HC-S-30	0.0	0.3	ft	Acenaphthylene	ug/kg	Y	44	
HC-S-30	0.0	0.3	ft	Anthracene	ug/kg	Y	370	0.4
HC-S-30	0.0	0.3	ft	Benzo(a)anthracene	ug/kg	Y	2700	2.6
HC-S-30	0.0	0.3	ft	Benzo(a)pyrene	ug/kg	Y	3300	2.3
HC-S-30	0.0	0.3	ft	Benzo(b)fluoranthene	ug/kg	Y	2400	
HC-S-30	0.0	0.3	ft	Benzo(g,h,i)perylene	ug/kg	Y	2500	
HC-S-30	0.0	0.3	ft	Benzo(k)fluoranthene	ug/kg	Y	2400	
HC-S-30	0.0	0.3	ft	Chrysene	ug/kg	Y	3000	2.3
HC-S-30	0.0	0.3	ft	Dibenzo(a,h)anthracene	ug/kg	Y	540	
HC-S-30	0.0	0.3	ft	Fluoranthene	ug/kg	Y	5200	2.3
HC-S-30	0.0	0.3	ft	Fluorene	ug/kg	Y	160	0.3
HC-S-30	0.0	0.3	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	4600	
HC-S-30	0.0	0.3	ft	Naphthalene	ug/kg	Y	64	0.1
HC-S-30	0.0	0.3	ft	Phenanthrene	ug/kg	Y	1600	1.4
HC-S-30	0.0	0.3	ft	Pyrene	ug/kg	Y	5000	3.3
HC-S-30	0.0	0.3	ft	Total Benzofluoranthenes	ug/kg	Y	4800	
HC-S-30	0.0	0.3	ft	Total HPAH (SMS)	ug/kg	Y	31640	
HC-S-30	0.0	0.3	ft	Total LPAH (SMS)	ug/kg	Y	2498	
HC-S-30	0.0	0.3	ft	Total PAH (SMS)	ug/kg	Y	34138	1.5
HC-S-35	**-40.9**	**-41.2**	CRD					
ELEVATION	**-39.2**	**-39.5**	NGVD					
HC-S-35	0.0	0.3	ft	Arsenic	mg/kg	Y	4	0.1
HC-S-35	0.0	0.3	ft	Cadmium	mg/kg	Y	0.4	0.1
HC-S-35	0.0	0.3	ft	Chromium	mg/kg	Y	23.3	0.2
HC-S-35	0.0	0.3	ft	Copper	mg/kg	Y	35.5	0.2
HC-S-35	0.0	0.3	ft	Lead	mg/kg	Y	39	0.3
HC-S-35	0.0	0.3	ft	Mercury	mg/kg	Y	0.08	0.1
HC-S-35	0.0	0.3	ft	Nickel	mg/kg	Y	21	0.4
HC-S-35	0.0	0.3	ft	Silver	mg/kg	Y	0.2	
HC-S-35	0.0	0.3	ft	Zinc	mg/kg	Y	122	0.3
HC-S-35	0.0	0.3	ft	Dibenzofuran	ug/kg	Y	31	
HC-S-35	0.0	0.3	ft	bis(2-Ethylhexyl)phthalate	ug/kg	Y	260	
HC-S-35	0.0	0.3	ft	Butylbenzylphthalate	ug/kg	N	20	
HC-S-35	0.0	0.3	ft	Dimethylphthalate	ug/kg	N	20	
HC-S-35	0.0	0.3	ft	Di-n-octylphthalate	ug/kg	N	20	
HC-S-35	0.0	0.3	ft	Acenaphthene	ug/kg	Y	120	
HC-S-35	0.0	0.3	ft	Acenaphthylene	ug/kg	Y	30	
HC-S-35	0.0	0.3	ft	Anthracene	ug/kg	Y	220	0.3
HC-S-35	0.0	0.3	ft	Benzo(a)anthracene	ug/kg	Y	1500	1.4
HC-S-35	0.0	0.3	ft	Benzo(a)pyrene	ug/kg	Y	1800	1.2
HC-S-35	0.0	0.3	ft	Benzo(b)fluoranthene	ug/kg	Y	1500	
HC-S-35	0.0	0.3	ft	Benzo(g,h,i)perylene	ug/kg	Y	1200	
HC-S-35	0.0	0.3	ft	Benzo(k)fluoranthene	ug/kg	Y	1300	
HC-S-35	0.0	0.3	ft	Chrysene	ug/kg	Y	1500	1.2
HC-S-35	0.0	0.3	ft	Dibenzo(a,h)anthracene	ug/kg	Y	280	
HC-S-35	0.0	0.3	ft	Fluoranthene	ug/kg	Y	2700	1.2
HC-S-35	0.0	0.3	ft	Fluorene	ug/kg	Y	85	0.2
HC-S-35	0.0	0.3	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	2300	
HC-S-35	0.0	0.3	ft	Naphthalene	ug/kg	Y	40	0.1
HC-S-35	0.0	0.3	ft	Phenanthrene	ug/kg	Y	730	0.6
HC-S-35	0.0	0.3	ft	Pyrene	ug/kg	Y	2700	1.8
HC-S-35	0.0	0.3	ft	Total Benzofluoranthenes	ug/kg	Y	2800	
HC-S-35	0.0	0.3	ft	Total HPAH (SMS)	ug/kg	Y	16780	
HC-S-35	0.0	0.3	ft	Total LPAH (SMS)	ug/kg	Y	1225	
HC-S-35	0.0	0.3	ft	Total PAH (SMS)	ug/kg	Y	18005	0.8

Sample ID	Top Depth	Bottom Depth	Depth Unit	Chemical	Unit	Detected?	Result	PEC ER
HC-S-37	**-41.5**	**-41.8**	CRD					
ELEVATION	**-39.8**	**-40.1**	NGVD					
HC-S-37	0.0	0.3	ft	Arsenic	mg/kg	Y	4	0.1
HC-S-37	0.0	0.3	ft	Cadmium	mg/kg	Y	0.3	0.1
HC-S-37	0.0	0.3	ft	Chromium	mg/kg	Y	24.4	0.2
HC-S-37	0.0	0.3	ft	Copper	mg/kg	Y	37	0.2
HC-S-37	0.0	0.3	ft	Lead	mg/kg	Y	28.3	0.2
HC-S-37	0.0	0.3	ft	Mercury	mg/kg	Y	0.08	0.1
HC-S-37	0.0	0.3	ft	Nickel	mg/kg	Y	22	0.4
HC-S-37	0.0	0.3	ft	Silver	mg/kg	Y	0.2	
HC-S-37	0.0	0.3	ft	Zinc	mg/kg	Y	116	0.3
HC-S-37	0.0	0.3	ft	Dibenzofuran	ug/kg	Y	30	
HC-S-37	0.0	0.3	ft	bis(2-Ethylhexyl)phthalate	ug/kg	Y	290	
HC-S-37	0.0	0.3	ft	Butylbenzylphthalate	ug/kg	N	20	
HC-S-37	0.0	0.3	ft	Dimethylphthalate	ug/kg	N	20	
HC-S-37	0.0	0.3	ft	Di-n-octylphthalate	ug/kg	N	20	
HC-S-37	0.0	0.3	ft	Acenaphthene	ug/kg	Y	88	
HC-S-37	0.0	0.3	ft	Acenaphthylene	ug/kg	Y	20	
HC-S-37	0.0	0.3	ft	Anthracene	ug/kg	Y	140	0.2
HC-S-37	0.0	0.3	ft	Benzo(a)anthracene	ug/kg	Y	800	0.8
HC-S-37	0.0	0.3	ft	Benzo(a)pyrene	ug/kg	Y	1100	0.8
HC-S-37	0.0	0.3	ft	Benzo(b)fluoranthene	ug/kg	Y	1000	
HC-S-37	0.0	0.3	ft	Benzo(g,h,i)perylene	ug/kg	Y	610	
HC-S-37	0.0	0.3	ft	Benzo(k)fluoranthene	ug/kg	Y	510	
HC-S-37	0.0	0.3	ft	Chrysene	ug/kg	Y	900	0.7
HC-S-37	0.0	0.3	ft	Dibenzo(a,h)anthracene	ug/kg	Y	170	
HC-S-37	0.0	0.3	ft	Fluoranthene	ug/kg	Y	1500	0.7
HC-S-37	0.0	0.3	ft	Fluorene	ug/kg	Y	75	0.1
HC-S-37	0.0	0.3	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	900	
HC-S-37	0.0	0.3	ft	Naphthalene	ug/kg	Y	27	0.0
HC-S-37	0.0	0.3	ft	Phenanthrene	ug/kg	Y	580	0.5
HC-S-37	0.0	0.3	ft	Pyrene	ug/kg	Y	1300	0.9
HC-S-37	0.0	0.3	ft	Total Benzofluoranthenes	ug/kg	Y	1510	
HC-S-37	0.0	0.3	ft	Total HPAH (SMS)	ug/kg	Y	8790	
HC-S-37	0.0	0.3	ft	Total LPAH (SMS)	ug/kg	Y	930	
HC-S-37	0.0	0.3	ft	Total PAH (SMS)	ug/kg	Y	9720	0.4
T4-01-1A	**-42.0**	**-43.0**	CRD					
ELEVATION	**-40.3**	**-41.3**	NGVD					
T4-01-1A	4.0	5.0	ft	Arsenic	mg/kg	Y	3.87	0.1
T4-01-1A	4.0	5.0	ft	Cadmium	mg/kg	Y	0.403	0.1
T4-01-1A	4.0	5.0	ft	Chromium	mg/kg	Y	20.8	0.2
T4-01-1A	4.0	5.0	ft	Copper	mg/kg	Y	32.6	0.2
T4-01-1A	4.0	5.0	ft	Lead	mg/kg	Y	41	0.3
T4-01-1A	4.0	5.0	ft	Mercury	mg/kg	Y	0.13	0.1
T4-01-1A	4.0	5.0	ft	Nickel	mg/kg	Y	19.9	0.4
T4-01-1A	4.0	5.0	ft	Silver	mg/kg	Y	0.562	
T4-01-1A	4.0	5.0	ft	Zinc	mg/kg	Y	129	0.3
T4-01-1A	4.0	5.0	ft	Dibenzofuran	ug/kg	Y	74	
T4-01-1A	4.0	5.0	ft	4,4'-DDD	ug/kg	Y	5.7	0.2
T4-01-1A	4.0	5.0	ft	4,4'-DDE	ug/kg	Y	4.7	0.2
T4-01-1A	4.0	5.0	ft	4,4'-DDT	ug/kg	N	2	0.0
T4-01-1A	4.0	5.0	ft	Dieldrin	ug/kg	N	1.8	0.0
T4-01-1A	4.0	5.0	ft	Endrin	ug/kg	N	2.3	0.0
T4-01-1A	4.0	5.0	ft	gamma-BHC (Lindane)	ug/kg	N	1.8	0.4
T4-01-1A	4.0	5.0	ft	Heptachlor Epoxide	ug/kg	N	1.8	0.1
T4-01-1A	4.0	5.0	ft	Total DDT (SMS)	ug/kg	Y	10.4	0.0
T4-01-1A	4.0	5.0	ft	bis(2-Ethylhexyl)phthalate	ug/kg	N	1800	
T4-01-1A	4.0	5.0	ft	Butylbenzylphthalate	ug/kg	N	87	
T4-01-1A	4.0	5.0	ft	Dimethylphthalate	ug/kg	N	87	
T4-01-1A	4.0	5.0	ft	Di-n-octylphthalate	ug/kg	N	87	
T4-01-1A	4.0	5.0	ft	Total PCB (SMS)	ug/kg	Y	190	0.3
T4-01-1A	4.0	5.0	ft	2-Methylnaphthalene	ug/kg	Y	100	
T4-01-1A	4.0	5.0	ft	Acenaphthene	ug/kg	Y	150	
T4-01-1A	4.0	5.0	ft	Acenaphthylene	ug/kg	Y	36	
T4-01-1A	4.0	5.0	ft	Anthracene	ug/kg	Y	130	0.2
T4-01-1A	4.0	5.0	ft	Benzo(a)anthracene	ug/kg	Y	360	0.3
T4-01-1A	4.0	5.0	ft	Benzo(a)pyrene	ug/kg	Y	410	0.3
T4-01-1A	4.0	5.0	ft	Benzo(b)fluoranthene	ug/kg	Y	500	
T4-01-1A	4.0	5.0	ft	Benzo(g,h,i)perylene	ug/kg	Y	400	
T4-01-1A	4.0	5.0	ft	Benzo(k)fluoranthene	ug/kg	Y	160	
T4-01-1A	4.0	5.0	ft	Chrysene	ug/kg	Y	470	0.4
T4-01-1A	4.0	5.0	ft	Dibenzo(a,h)anthracene	ug/kg	Y	87	
T4-01-1A	4.0	5.0	ft	Fluoranthene	ug/kg	Y	710	0.3
T4-01-1A	4.0	5.0	ft	Fluorene	ug/kg	Y	110	0.2
T4-01-1A	4.0	5.0	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	400	
T4-01-1A	4.0	5.0	ft	Naphthalene	ug/kg	Y	200	0.4
T4-01-1A	4.0	5.0	ft	Phenanthrene	ug/kg	Y	520	0.4
T4-01-1A	4.0	5.0	ft	Pyrene	ug/kg	Y	800	0.5
T4-01-1A	4.0	5.0	ft	Total Benzofluoranthenes	ug/kg	Y	660	
T4-01-1A	4.0	5.0	ft	Total HPAH (SMS)	ug/kg	Y	4297	
T4-01-1A	4.0	5.0	ft	Total LPAH (SMS)	ug/kg	Y	1146	
T4-01-1A	4.0	5.0	ft	Total PAH (SMS)	ug/kg	Y	5443	0.2
T4-01-1B	**-43.0**	**-44.0**	CRD					
ELEVATION	**-41.3**	**-42.3**	NGVD					
T4-01-1B	5.0	6.0	ft	4,4'-DDD	ug/kg	Y	6.1	0.2
T4-01-1B	5.0	6.0	ft	4,4'-DDE	ug/kg	Y	5.6	0.2
T4-01-1B	5.0	6.0	ft	4,4'-DDT	ug/kg	Y	10	0.2
T4-01-1B	5.0	6.0	ft	Dieldrin	ug/kg	N	5.5	0.1
T4-01-1B	5.0	6.0	ft	Endrin	ug/kg	N	5.5	0.0
T4-01-1B	5.0	6.0	ft	gamma-BHC (Lindane)	ug/kg	N	2.8	0.6
T4-01-1B	5.0	6.0	ft	Heptachlor Epoxide	ug/kg	N	2.8	0.2
T4-01-1B	5.0	6.0	ft	Total DDT (SMS)	ug/kg	Y	21.7	0.0
T4-01-1B	5.0	6.0	ft	Total PCB (SMS)	ug/kg	Y	150	0.2
T4-01-1C	**-44.0**	**-45.0**	CRD					
ELEVATION	**-42.3**	**-43.3**	NGVD					
T4-01-1C	6.0	7.0	ft	4,4'-DDD	ug/kg	Y	9.4	0.3
T4-01-1C	6.0	7.0	ft	4,4'-DDE	ug/kg	Y	4.2	0.1
T4-01-1C	6.0	7.0	ft	4,4'-DDT	ug/kg	Y	5.4	0.1
T4-01-1C	6.0	7.0	ft	Dieldrin	ug/kg	N	1.6	0.0
T4-01-1C	6.0	7.0	ft	gamma-BHC (Lindane)	ug/kg	N	1.6	0.3
T4-01-1C	6.0	7.0	ft	Total DDT (SMS)	ug/kg	Y	19	0.0
T4-01-1C	6.0	7.0	ft	Total PCB (SMS)	ug/kg	Y	129	0.2

Sample ID	Top Depth	Bottom Depth	Depth Unit	Chemical	Unit	Detected?	Result	PEC ER
T4-01-2A	**-42.0**	**-43.0**	CRD					
ELEVATION	**-40.3**	**-41.3**	NGVD					
T4-01-2A	2.0	3.0	ft	Arsenic	mg/kg	Y	6.39	0.2
T4-01-2A	2.0	3.0	ft	Cadmium	mg/kg	Y	0.711	0.1
T4-01-2A	2.0	3.0	ft	Chromium	mg/kg	Y	24.4	0.2
T4-01-2A	2.0	3.0	ft	Copper	mg/kg	Y	52.1	0.3
T4-01-2A	2.0	3.0	ft	Lead	mg/kg	Y	85.9	0.7
T4-01-2A	2.0	3.0	ft	Mercury	mg/kg	Y	0.1	0.1
T4-01-2A	2.0	3.0	ft	Nickel	mg/kg	Y	21.3	0.4
T4-01-2A	2.0	3.0	ft	Silver	mg/kg	Y	0.857	
T4-01-2A	2.0	3.0	ft	Zinc	mg/kg	Y	171	0.4
T4-01-2A	2.0	3.0	ft	Dibenzofuran	ug/kg	Y	290	
T4-01-2A	2.0	3.0	ft	4,4'-DDD	ug/kg	Y	4.8	0.2
T4-01-2A	2.0	3.0	ft	4,4'-DDE	ug/kg	N	4.4	0.1
T4-01-2A	2.0	3.0	ft	4,4'-DDT	ug/kg	N	18	0.3
T4-01-2A	2.0	3.0	ft	Dieldrin	ug/kg	N	5.5	0.1
T4-01-2A	2.0	3.0	ft	Endrin	ug/kg	N	18	0.1
T4-01-2A	2.0	3.0	ft	gamma-BHC (Lindane)	ug/kg	N	4.4	0.9
T4-01-2A	2.0	3.0	ft	Heptachlor Epoxide	ug/kg	N	18	1.1
T4-01-2A	2.0	3.0	ft	Total DDT (SMS)	ug/kg	Y	4.8	0.0
T4-01-2A	2.0	3.0	ft	bis(2-Ethylhexyl)phthalate	ug/kg	N	3600	
T4-01-2A	2.0	3.0	ft	Butylbenzylphthalate	ug/kg	N	180	
T4-01-2A	2.0	3.0	ft	Dimethylphthalate	ug/kg	N	180	
T4-01-2A	2.0	3.0	ft	Di-n-octylphthalate	ug/kg	N	180	
T4-01-2A	2.0	3.0	ft	Total PCB (SMS)	ug/kg	Y	97	0.1
T4-01-2A	2.0	3.0	ft	2-Methylnaphthalene	ug/kg	Y	170	
T4-01-2A	2.0	3.0	ft	Acenaphthene	ug/kg	Y	1800	
T4-01-2A	2.0	3.0	ft	Acenaphthylene	ug/kg	Y	70	
T4-01-2A	2.0	3.0	ft	Anthracene	ug/kg	Y	1700	2.0
T4-01-2A	2.0	3.0	ft	Benzo(a)anthracene	ug/kg	Y	8800	8.4
T4-01-2A	2.0	3.0	ft	Benzo(a)pyrene	ug/kg	Y	11000	7.6
T4-01-2A	2.0	3.0	ft	Benzo(b)fluoranthene	ug/kg	Y	13000	
T4-01-2A	2.0	3.0	ft	Benzo(g,h,i)perylene	ug/kg	Y	7700	
T4-01-2A	2.0	3.0	ft	Benzo(k)fluoranthene	ug/kg	Y	4300	
T4-01-2A	2.0	3.0	ft	Chrysene	ug/kg	Y	9300	7.2
T4-01-2A	2.0	3.0	ft	Dibenzo(a,h)anthracene	ug/kg	Y	2100	
T4-01-2A	2.0	3.0	ft	Fluoranthene	ug/kg	Y	12000	5.4
T4-01-2A	2.0	3.0	ft	Fluorene	ug/kg	Y	670	1.3
T4-01-2A	2.0	3.0	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	8900	
T4-01-2A	2.0	3.0	ft	Naphthalene	ug/kg	Y	390	0.7
T4-01-2A	2.0	3.0	ft	Phenanthrene	ug/kg	Y	6300	5.4
T4-01-2A	2.0	3.0	ft	Pyrene	ug/kg	Y	8500	5.6
T4-01-2A	2.0	3.0	ft	Total Benzofluoranthenes	ug/kg	Y	17300	
T4-01-2A	2.0	3.0	ft	Total HPAH (SMS)	ug/kg	Y	85600	
T4-01-2A	2.0	3.0	ft	Total LPAH (SMS)	ug/kg	Y	10930	
T4-01-2A	2.0	3.0	ft	Total PAH (SMS)	ug/kg	Y	96530	4.2
T4-01-2B	**-43.0**	**-44.0**	CRD					
ELEVATION	**-41.3**	**-42.3**	NGVD					
T4-01-2B	3.0	4.0	ft	Dibenzofuran	ug/kg	Y	85	
T4-01-2B	3.0	4.0	ft	4,4'-DDD	ug/kg	Y	6.1	0.2
T4-01-2B	3.0	4.0	ft	4,4'-DDE	ug/kg	N	5.3	0.2
T4-01-2B	3.0	4.0	ft	4,4'-DDT	ug/kg	N	5.3	0.1
T4-01-2B	3.0	4.0	ft	Dieldrin	ug/kg	N	5.3	0.1
T4-01-2B	3.0	4.0	ft	Endrin	ug/kg	N	5.3	0.0
T4-01-2B	3.0	4.0	ft	gamma-BHC (Lindane)	ug/kg	N	2.7	0.5
T4-01-2B	3.0	4.0	ft	Heptachlor Epoxide	ug/kg	N	2.7	0.2
T4-01-2B	3.0	4.0	ft	Total DDT (SMS)	ug/kg	Y	6.1	0.0
T4-01-2B	3.0	4.0	ft	bis(2-Ethylhexyl)phthalate	ug/kg	N	1700	
T4-01-2B	3.0	4.0	ft	Butylbenzylphthalate	ug/kg	N	84	
T4-01-2B	3.0	4.0	ft	Dimethylphthalate	ug/kg	N	84	
T4-01-2B	3.0	4.0	ft	Di-n-octylphthalate	ug/kg	N	84	
T4-01-2B	3.0	4.0	ft	Total PCB (SMS)	ug/kg	Y	69	0.1
T4-01-2B	3.0	4.0	ft	2-Methylnaphthalene	ug/kg	Y	57	
T4-01-2B	3.0	4.0	ft	Acenaphthene	ug/kg	Y	270	
T4-01-2B	3.0	4.0	ft	Acenaphthylene	ug/kg	Y	32	
T4-01-2B	3.0	4.0	ft	Anthracene	ug/kg	Y	260	0.3
T4-01-2B	3.0	4.0	ft	Benzo(a)anthracene	ug/kg	Y	1400	1.3
T4-01-2B	3.0	4.0	ft	Benzo(a)pyrene	ug/kg	Y	1600	1.1
T4-01-2B	3.0	4.0	ft	Benzo(b)fluoranthene	ug/kg	Y	2100	
T4-01-2B	3.0	4.0	ft	Benzo(g,h,i)perylene	ug/kg	Y	1000	
T4-01-2B	3.0	4.0	ft	Benzo(k)fluoranthene	ug/kg	Y	740	
T4-01-2B	3.0	4.0	ft	Chrysene	ug/kg	Y	1700	1.3
T4-01-2B	3.0	4.0	ft	Dibenzo(a,h)anthracene	ug/kg	Y	280	
T4-01-2B	3.0	4.0	ft	Fluoranthene	ug/kg	Y	3200	1.4
T4-01-2B	3.0	4.0	ft	Fluorene	ug/kg	Y	190	0.4
T4-01-2B	3.0	4.0	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	1100	
T4-01-2B	3.0	4.0	ft	Naphthalene	ug/kg	Y	120	0.2
T4-01-2B	3.0	4.0	ft	Phenanthrene	ug/kg	Y	1300	1.1
T4-01-2B	3.0	4.0	ft	Pyrene	ug/kg	Y	2600	1.7
T4-01-2B	3.0	4.0	ft	Total Benzofluoranthenes	ug/kg	Y	2840	
T4-01-2B	3.0	4.0	ft	Total HPAH (SMS)	ug/kg	Y	15720	
T4-01-2B	3.0	4.0	ft	Total LPAH (SMS)	ug/kg	Y	2172	
T4-01-2B	3.0	4.0	ft	Total PAH (SMS)	ug/kg	Y	17892	0.8
T4-01-2C	**-44.0**	**-45.0**	CRD					
ELEVATION	**-42.3**	**-43.3**	NGVD					
T4-01-2C	4.0	5.0	ft	Dibenzofuran	ug/kg	Y	60	
T4-01-2C	4.0	5.0	ft	bis(2-Ethylhexyl)phthalate	ug/kg	N	1500	
T4-01-2C	4.0	5.0	ft	Butylbenzylphthalate	ug/kg	N	72	
T4-01-2C	4.0	5.0	ft	Dimethylphthalate	ug/kg	N	72	
T4-01-2C	4.0	5.0	ft	Di-n-octylphthalate	ug/kg	N	72	
T4-01-2C	4.0	5.0	ft	2-Methylnaphthalene	ug/kg	Y	74	
T4-01-2C	4.0	5.0	ft	Acenaphthene	ug/kg	Y	280	
T4-01-2C	4.0	5.0	ft	Acenaphthylene	ug/kg	Y	37	
T4-01-2C	4.0	5.0	ft	Anthracene	ug/kg	Y	150	0.2
T4-01-2C	4.0	5.0	ft	Benzo(a)anthracene	ug/kg	Y	550	0.5
T4-01-2C	4.0	5.0	ft	Benzo(a)pyrene	ug/kg	Y	570	0.4
T4-01-2C	4.0	5.0	ft	Benzo(b)fluoranthene	ug/kg	Y	770	
T4-01-2C	4.0	5.0	ft	Benzo(g,h,i)perylene	ug/kg	Y	400	
T4-01-2C	4.0	5.0	ft	Benzo(k)fluoranthene	ug/kg	Y	250	
T4-01-2C	4.0	5.0	ft	Chrysene	ug/kg	Y	680	0.5
T4-01-2C	4.0	5.0	ft	Dibenzo(a,h)anthracene	ug/kg	Y	110	
T4-01-2C	4.0	5.0	ft	Fluoranthene	ug/kg	Y	1500	0.7
T4-01-2C	4.0	5.0	ft	Fluorene	ug/kg	Y	110	0.2
T4-01-2C	4.0	5.0	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	420	
T4-01-2C	4.0	5.0	ft	Naphthalene	ug/kg	Y	150	0.3
T4-01-2C	4.0	5.0	ft	Phenanthrene	ug/kg	Y	820	0.7
T4-01-2C	4.0	5.0	ft	Pyrene	ug/kg	Y	1300	0.9
T4-01-2C	4.0	5.0	ft	Total Benzofluoranthenes	ug/kg	Y	1020	
T4-01-2C	4.0	5.0	ft	Total HPAH (SMS)	ug/kg	Y	6550	
T4-01-2C	4.0	5.0	ft	Total LPAH (SMS)	ug/kg	Y	1547	

Sample ID	Top Depth	Bottom Depth	Depth Unit	Chemical	Unit	Detected?	Result	PEC ER
T4-01-2C	4.0	5.0	ft	Total PAH (SMS)	ug/kg	Y	8097	0.4
T4-01-3A	**-42.0**	**-42.5**	CRD					
ELEVATION	**-40.3**	**-40.8**	NGVD					
T4-01-3A	2.0	2.5	ft	Arsenic	mg/kg	Y	11.6	0.4
T4-01-3A	2.0	2.5	ft	Cadmium	mg/kg	Y	5.72	1.1
T4-01-3A	2.0	2.5	ft	Chromium	mg/kg	Y	24.7	0.2
T4-01-3A	2.0	2.5	ft	Copper	mg/kg	Y	72.3	0.5
T4-01-3A	2.0	2.5	ft	Lead	mg/kg	Y	1090	8.5
T4-01-3A	2.0	2.5	ft	Mercury	mg/kg	Y	0.25	0.2
T4-01-3A	2.0	2.5	ft	Nickel	mg/kg	Y	22	0.4
T4-01-3A	2.0	2.5	ft	Silver	mg/kg	Y	2.35	
T4-01-3A	2.0	2.5	ft	Zinc	mg/kg	Y	1010	2.2
T4-01-3A	2.0	2.5	ft	Dibenzofuran	ug/kg	Y	73	
T4-01-3A	2.0	2.5	ft	4,4'-DDD	ug/kg	Y	13	0.5
T4-01-3A	2.0	2.5	ft	4,4'-DDE	ug/kg	Y	17	0.5
T4-01-3A	2.0	2.5	ft	4,4'-DDT	ug/kg	Y	4.5	0.1
T4-01-3A	2.0	2.5	ft	Dieldrin	ug/kg	N	1.8	0.0
T4-01-3A	2.0	2.5	ft	Endrin	ug/kg	N	5.5	0.0
T4-01-3A	2.0	2.5	ft	gamma-BHC (Lindane)	ug/kg	N	1.8	0.4
T4-01-3A	2.0	2.5	ft	Heptachlor Epoxide	ug/kg	N	1.8	0.1
T4-01-3A	2.0	2.5	ft	Total DDT (SMS)	ug/kg	Y	34.5	0.1
T4-01-3A	2.0	2.5	ft	bis(2-Ethylhexyl)phthalate	ug/kg	N	1800	
T4-01-3A	2.0	2.5	ft	Butylbenzylphthalate	ug/kg	N	88	
T4-01-3A	2.0	2.5	ft	Dimethylphthalate	ug/kg	N	88	
T4-01-3A	2.0	2.5	ft	Di-n-octylphthalate	ug/kg	N	88	
T4-01-3A	2.0	2.5	ft	Total PCB (SMS)	ug/kg	Y	456	0.7
T4-01-3A	2.0	2.5	ft	2-Methylnaphthalene	ug/kg	Y	67	
T4-01-3A	2.0	2.5	ft	Acenaphthene	ug/kg	Y	200	
T4-01-3A	2.0	2.5	ft	Acenaphthylene	ug/kg	Y	35	
T4-01-3A	2.0	2.5	ft	Anthracene	ug/kg	Y	170	0.2
T4-01-3A	2.0	2.5	ft	Benzo(a)anthracene	ug/kg	Y	580	0.6
T4-01-3A	2.0	2.5	ft	Benzo(a)pyrene	ug/kg	Y	640	0.4
T4-01-3A	2.0	2.5	ft	Benzo(b)fluoranthene	ug/kg	Y	870	
T4-01-3A	2.0	2.5	ft	Benzo(g,h,i)perylene	ug/kg	Y	540	
T4-01-3A	2.0	2.5	ft	Benzo(k)fluoranthene	ug/kg	Y	240	
T4-01-3A	2.0	2.5	ft	Chrysene	ug/kg	Y	700	0.5
T4-01-3A	2.0	2.5	ft	Dibenzo(a,h)anthracene	ug/kg	Y	160	
T4-01-3A	2.0	2.5	ft	Fluoranthene	ug/kg	Y	1200	0.5
T4-01-3A	2.0	2.5	ft	Fluorene	ug/kg	Y	180	0.3
T4-01-3A	2.0	2.5	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	570	
T4-01-3A	2.0	2.5	ft	Naphthalene	ug/kg	Y	130	0.2
T4-01-3A	2.0	2.5	ft	Phenanthrene	ug/kg	Y	760	0.6
T4-01-3A	2.0	2.5	ft	Pyrene	ug/kg	Y	1200	0.8
T4-01-3A	2.0	2.5	ft	Total Benzofluoranthenes	ug/kg	Y	1110	
T4-01-3A	2.0	2.5	ft	Total HPAH (SMS)	ug/kg	Y	6700	
T4-01-3A	2.0	2.5	ft	Total LPAH (SMS)	ug/kg	Y	1475	
T4-01-3A	2.0	2.5	ft	Total PAH (SMS)	ug/kg	Y	8175	0.4
T4-B411-01(-43 to -44)	**-44.7**	**-45.7**	CRD					
ELEVATION	**-43.0**	**-44.0**	NGVD					
T4-B411-01(-43 to -44)	0.0	1.0	ft	Arsenic	mg/kg	Y	7	0.2
T4-B411-01(-43 to -44)	0.0	1.0	ft	Cadmium	mg/kg	Y	1.6	0.3
T4-B411-01(-43 to -44)	0.0	1.0	ft	Copper	mg/kg	Y	29.7	0.2
T4-B411-01(-43 to -44)	0.0	1.0	ft	Lead	mg/kg	Y	551	4.3
T4-B411-01(-43 to -44)	0.0	1.0	ft	Mercury	mg/kg	N	0.06	0.1
T4-B411-01(-43 to -44)	0.0	1.0	ft	Nickel	mg/kg	Y	19	0.4
T4-B411-01(-43 to -44)	0.0	1.0	ft	Zinc	mg/kg	Y	300	0.7
T4-B411-01(-43 to -44)	0.0	1.0	ft	Dibenzofuran	ug/kg	Y	70	
T4-B411-01(-43 to -44)	0.0	1.0	ft	4,4'-DDD	ug/kg	N	2.0	0.1
T4-B411-01(-43 to -44)	0.0	1.0	ft	4,4'-DDE	ug/kg	N	2.0	0.1
T4-B411-01(-43 to -44)	0.0	1.0	ft	4,4'-DDT	ug/kg	N	2.0	0.0
T4-B411-01(-43 to -44)	0.0	1.0	ft	Total DDT (SMS)	ug/kg	N	2	0.0
T4-B411-01(-43 to -44)	0.0	1.0	ft	bis(2-Ethylhexyl)phthalate	ug/kg	N	59	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Butylbenzylphthalate	ug/kg	N	59	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Dimethylphthalate	ug/kg	N	59	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Di-n-octylphthalate	ug/kg	N	59	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Total PCB (SMS)	ug/kg	N	19	0.0
T4-B411-01(-43 to -44)	0.0	1.0	ft	2-Methylnaphthalene	ug/kg	N	59	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Acenaphthene	ug/kg	Y	580	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Acenaphthylene	ug/kg	N	59	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Anthracene	ug/kg	Y	480	0.6
T4-B411-01(-43 to -44)	0.0	1.0	ft	Benzo(a)anthracene	ug/kg	Y	2900	2.8
T4-B411-01(-43 to -44)	0.0	1.0	ft	Benzo(a)pyrene	ug/kg	Y	3400	2.3
T4-B411-01(-43 to -44)	0.0	1.0	ft	Benzo(b)fluoranthene	ug/kg	Y	3600	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Benzo(g,h,i)perylene	ug/kg	Y	2200	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Benzo(k)fluoranthene	ug/kg	Y	2700	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Chrysene	ug/kg	Y	2800	2.2
T4-B411-01(-43 to -44)	0.0	1.0	ft	Dibenzo(a,h)anthracene	ug/kg	Y	1100	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Fluoranthene	ug/kg	Y	3700	1.7
T4-B411-01(-43 to -44)	0.0	1.0	ft	Fluorene	ug/kg	Y	180	0.3
T4-B411-01(-43 to -44)	0.0	1.0	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	2200	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Naphthalene	ug/kg	Y	58	0.1
T4-B411-01(-43 to -44)	0.0	1.0	ft	Phenanthrene	ug/kg	Y	1800	1.5
T4-B411-01(-43 to -44)	0.0	1.0	ft	Pyrene	ug/kg	Y	3400	2.2
T4-B411-01(-43 to -44)	0.0	1.0	ft	Total Benzofluoranthenes	ug/kg	Y	6300	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Total HPAH (SMS)	ug/kg	Y	28000	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Total LPAH (SMS)	ug/kg	Y	3098	
T4-B411-01(-43 to -44)	0.0	1.0	ft	Total PAH (SMS)	ug/kg	Y	31098	1.4
T4-B411-01(-44 to -45)	**-45.7**	**-46.4**	CRD					
ELEVATION	**-44.0**	**-44.7**	NGVD					
T4-B411-01(-44 to -45)	1.0	1.7	ft	Arsenic	mg/kg	N	6	0.2
T4-B411-01(-44 to -45)	1.0	1.7	ft	Cadmium	mg/kg	Y	1.2	0.2
T4-B411-01(-44 to -45)	1.0	1.7	ft	Copper	mg/kg	Y	23.3	0.2
T4-B411-01(-44 to -45)	1.0	1.7	ft	Lead	mg/kg	Y	440	3.4
T4-B411-01(-44 to -45)	1.0	1.7	ft	Mercury	mg/kg	N	0.05	0.0
T4-B411-01(-44 to -45)	1.0	1.7	ft	Nickel	mg/kg	Y	20	0.4
T4-B411-01(-44 to -45)	1.0	1.7	ft	Zinc	mg/kg	Y	225	0.5
T4-B411-01(-44 to -45)	1.0	1.7	ft	Dibenzofuran	ug/kg	Y	260	
T4-B411-01(-44 to -45)	1.0	1.7	ft	4,4'-DDD	ug/kg	N	1.9	0.1
T4-B411-01(-44 to -45)	1.0	1.7	ft	4,4'-DDE	ug/kg	N	1.9	0.1
T4-B411-01(-44 to -45)	1.0	1.7	ft	4,4'-DDT	ug/kg	N	4.1	0.1
T4-B411-01(-44 to -45)	1.0	1.7	ft	Total DDT (SMS)	ug/kg	N	4.1	0.0
T4-B411-01(-44 to -45)	1.0	1.7	ft	bis(2-Ethylhexyl)phthalate	ug/kg	N	59	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Butylbenzylphthalate	ug/kg	N	59	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Dimethylphthalate	ug/kg	N	59	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Di-n-octylphthalate	ug/kg	N	59	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Total PCB (SMS)	ug/kg	N	19	0.0
T4-B411-01(-44 to -45)	1.0	1.7	ft	2-Methylnaphthalene	ug/kg	Y	230	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Acenaphthene	ug/kg	Y	2700	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Acenaphthylene	ug/kg	N	59	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Anthracene	ug/kg	Y	1300	1.5

Sample ID	Top Depth	Bottom Depth	Depth Unit	Chemical	Unit	Detected?	Result	PEC ER
T4-B411-01(-44 to -45)	1.0	1.7	ft	Benzo(a)anthracene	ug/kg	Y	8700	8.3
T4-B411-01(-44 to -45)	1.0	1.7	ft	Benzo(a)pyrene	ug/kg	Y	11000	7.6
T4-B411-01(-44 to -45)	1.0	1.7	ft	Benzo(b)fluoranthene	ug/kg	Y	11000	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Benzo(g,h,i)perylene	ug/kg	Y	7400	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Benzo(k)fluoranthene	ug/kg	Y	3800	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Chrysene	ug/kg	Y	8000	6.2
T4-B411-01(-44 to -45)	1.0	1.7	ft	Dibenzo(a,h)anthracene	ug/kg	Y	2700	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Fluoranthene	ug/kg	Y	10000	4.5
T4-B411-01(-44 to -45)	1.0	1.7	ft	Fluorene	ug/kg	Y	650	1.2
T4-B411-01(-44 to -45)	1.0	1.7	ft	Indeno(1,2,3-cd)pyrene	ug/kg	Y	7100	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Naphthalene	ug/kg	Y	470	0.8
T4-B411-01(-44 to -45)	1.0	1.7	ft	Phenanthrene	ug/kg	Y	4500	3.8
T4-B411-01(-44 to -45)	1.0	1.7	ft	Pyrene	ug/kg	Y	9800	6.4
T4-B411-01(-44 to -45)	1.0	1.7	ft	Total Benzofluoranthenes	ug/kg	Y	14800	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Total HPAH (SMS)	ug/kg	Y	79500	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Total LPAH (SMS)	ug/kg	Y	9620	
T4-B411-01(-44 to -45)	1.0	1.7	ft	Total PAH (SMS)	ug/kg	Y	89120	3.9