

From: [Sarah Snyder](#)
To: [Winslow, Frank \(ECY\)](#); [Peter Kingston](#)
Subject: RE: XS0005 - Lakeside Industries Centralia (former concrete batch plant)
Date: Tuesday, May 2, 2023 9:20:54 AM
Attachments: [Table 3 Soil VOCs.pdf](#)
[Table 8 Soil cPAHs.pdf](#)

Hi Frank,

Farallon has prepared this email in response to your April 27, 2023 request. Specifically, you requested table revisions to include constituents of potential concern (COPCs) in accordance with Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Table 830-1 and a statement detailing the nature of the release and COPCs for the Former Concrete Batch Plant. Below includes a summary of our responses and the requested table revisions are attached to this email.

Per your request, the attached tables summarize the soil analytical results for volatile organic compounds (VOCs) and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) in accordance with MTCA Table 830-1. The attached Table 3 was updated to include soil analytical results for target VOCs in accordance with Table 830-1, as well as COPCs with detectable concentrations. The attached Table 8 is new and includes a summary of soil analytical results for cPAHs.

The source of contamination is confirmed to be from prior releases during historical operations at the Former Concrete Batch Plant. Former operations included diesel and propane aboveground storage tanks, admixture aboveground storage tanks, cement silos, and a wastewater settling pond. Subsurface investigations were conducted at the Former Concrete Batch Plant in June 2018, April 2019, and June 2022 to evaluate COPCs in soil from suspected releases related to historical operations at the Former Concrete Batch Plant. The subsurface investigations included collection of soil samples that were analyzed for total petroleum hydrocarbons as gasoline-range organics (GRO), diesel-range organics (DRO), and as oil-range organics (ORO); VOCs; cPAHs; metals; and alkalinity. DRO and ORO were the only COPCs detected at concentrations exceeding applicable MTCA cleanup levels. Therefore, DRO and ORO were retained as the only constituents of concern for the Former Concrete Batch Plant.

Please let us know if we should revise the Cleanup Action Report to include the attached tables. Reach out with any questions.

Thanks,
Sarah

Sarah Snyder, L.G.
Senior Geologist

From: Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>
Sent: Thursday, April 27, 2023 11:53 AM
To: Sarah Snyder <ssnyder@farallonconsulting.com>; Peter Kingston <pkingston@farallonconsulting.com>

Subject: RE: XS0005 - Lakeside Industries Centralia (former concrete batch plant)

Thanks!

From: Sarah Snyder <ssnyder@farallonconsulting.com>

Sent: Thursday, April 27, 2023 11:51 AM

To: Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>; Peter Kingston
<pkingston@farallonconsulting.com>

Subject: RE: XS0005 - Lakeside Industries Centralia (former concrete batch plant)

Thanks for the follow up, Frank! No worries at all.

I'm working with our data group to prepare the requested table updates and we will provide these as soon as possible, likely early next week given current data workload. We will provide the requested email summary of the nature of the release with the tables.

Thanks,
Sarah

Sarah Snyder, L.G.
Senior Geologist

From: Winslow, Frank (ECY) <fwin461@ECY.WA.GOV>

Sent: Thursday, April 27, 2023 11:45 AM

To: Peter Kingston <pkingston@farallonconsulting.com>; Sarah Snyder
<ssnyder@farallonconsulting.com>

Subject: RE: XS0005 - Lakeside Industries Centralia (former concrete batch plant)

I just saw I accidentally said Hi Pete instead of Hi Peter and Sarah – did not mean to leave you out, Sarah.

If you could get me the below information as soon as possible, I would appreciate it – it would be nice to set a record on our opinion letter turnaround!

Thanks, Frank

From: Winslow, Frank (ECY)

Sent: Thursday, April 27, 2023 10:01 AM

To: Peter Kingston <pkingston@farallonconsulting.com>; Sarah Snyder
<ssnyder@farallonconsulting.com>

Subject: XS0005 - Lakeside Industries Centralia (former concrete batch plant)

Hi Pete,

I have received feedback from my peer review on Ecology's draft opinion letter for this Site.

They asked about adherence to MTCA Table 830-1, and in particular results for CPAHs, EDB, and EDC. I believe that discussion specific to EDB and EDC is not warranted since gasoline was not detected above cleanup levels. However, it appears that only four soil samples taken from two locations were analyzed for GRO in Cleanup Action Report (CAR) Table 2, so inclusion of all gasoline-related compounds in a VOCs in soil table would be appropriate.

I see from the CAR text that some samples were ran for CPAHs; however, no CPAH table was included in the Cleanup Action Report (CAR). Can you provide the table or a document that includes the CPAHs table? Currently the only document Ecology has is the CAR. If there are other reports available, Ecology should include those with our record.

Table 3 in the CAR had results for VOCs in soil for four samples. Can you verify that these samples were analyzed for the entire Method 8260 suite, and no analytes were detected. If analytes were detected, please include them in a table. Inclusion of BTEX compounds, naphthalene, and common chlorinated VOCs would be appropriate in such a table.

A brief discussion on the nature of the contamination release and why DRO and ORO are (and would be expected to be) the sole Site contaminants of concern would be helpful. This discussion can be provided as an email.

Thanks, Frank

Frank P. Winslow, LHG

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Table 3
Soil Analytical Results for Detected VOCs and Formaldehyde
Former Concrete Batch Plant
Centralia, Washington
Farallon PN: 525-032

Sample Location	Sample Identification	Sample Depth (feet) ¹	Sample Date	Analytical Results (milligrams per kilogram)																		
				Benzene ²	Toluene ²	Ethylbenzene ²	Xylenes ²	Naphthalene ²	Methyl Tertiary Butyl Ether (MTBE) ²	1,2-Dibromoethane (EDB) ²	1,2-Dichloroethane (EDC) ²	1,2,4-Trimethylbenzene ²	Carbon Disulfide ²	n-Butylbenzene ²	n-Propylbenzene ²	sec-Butylbenzene ²	Tetrachloroethene ²	Trichloroethene ²	cis-1,2-Dichloroethene ²	trans-1,2-Dichloroethene ²	Vinyl Chloride ²	Formaldehyde ³
FTP-21	FTP-21-4.0	4.0	6/20/2018	< 0.0012	< 0.0059	< 0.0012	< 0.0036	0.0019	< 0.0012	< 0.0012	< 0.0012	0.0015	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 2.5
FTP-23	FTP-23-2.0	2.0	6/20/2018	< 0.0012	< 0.0061	< 0.0012	< 0.0036	< 0.070	< 0.0012	< 0.0012	< 0.0012	< 0.070	0.0084	< 0.070	< 0.070	< 0.070	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 2.5
	FTP-23-8.0	8.0	6/20/2018	< 0.069	< 0.35	< 0.069	< 0.209	1.2	< 0.069	< 0.069	< 0.069	< 0.069	< 0.069	0.24	< 0.069	0.082	< 0.069	< 0.069	< 0.069	< 0.069	< 0.069	< 2.5
	FTP-23-17.0	17.0	6/20/2018	< 0.0012	< 0.0059	< 0.0012	< 0.0036	0.044	< 0.0012	< 0.0012	< 0.0012	0.0059	< 0.0012	0.0073	0.0018	0.0028	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 2.5
FTP-34	FTP-34-3.0	3.0	6/1/2022	< 0.0219	< 0.0328	< 0.0274	< 0.0821	< 0.0223 ⁴	---	< 0.0109	< 0.0252	---	---	---	---	---	---	---	---	---	---	---
	FTP-34-12.0	12.0	6/1/2022	< 0.0150	< 0.0225	< 0.0188	< 0.0564	< 0.0191 ⁴	---	< 0.00751	< 0.0173	---	---	---	---	---	---	---	---	---	---	---
MTCA Cleanup Levels for Soil				0.03 ⁵	7 ⁵	6 ⁵	9 ⁵	5 ⁵	0.1 ⁵	0.005 ⁵	11 ⁶	800 ⁶	8,000 ⁶	4,000 ⁶	8,000 ⁶	8,000 ⁶	0.05 ⁵	0.03 ⁵	160 ⁶	1,600 ⁶	0.67 ⁶	16,000 ⁶

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed.

¹Depth in feet below ground surface.

²Analyzed by U.S. Environmental Protection Agency Method 8260C, unless otherwise noted. Only detected and select VOCs shown in table; see lab report for full list of analytes.

³Analyzed by National Institute for Occupational Safety and Health (NIOSH) Method 3500.

⁴Analyzed by U.S. Environmental Protection Agency Method 8270E/SIM.

⁵Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

⁶Washington State Cleanup Levels and Risk Calculations under the Washington State Model Toxics Control Act Cleanup Regulation, Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway, <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC>

J = result is an estimate

NE = not established

VOC = volatile organic compound

Table 8
Soil Analytical Results for cPAHs
Former Concrete Batch Plant
Centralia, Washington
Farallon PN: 525-032

Sample Location	Sample Identification	Sample Depth (feet) ¹	Sample Date	Analytical Results (milligrams per kilogram) ²							Total cPAHs TEC ^{3,4}
				Benzo(a) Pyrene	Benzo(a) Anthracene	Benzo(b) Fluoranthene	Benzo(k) Fluoranthene	Chrysene	Dibenz(a,h) Anthracene	Indeno(1,2,3-cd) Pyrene	
FTP-34	FTP-34-3.0	3.0	6/1/2022	< 0.0223	< 0.0223	< 0.0223	< 0.0223	< 0.0446	< 0.0446	< 0.0446	< 0.019
	FTP-34-12.0	12.0	6/1/2022	< 0.0191	< 0.0191	< 0.0191	< 0.0191	< 0.0383	< 0.0383	< 0.0383	< 0.016
MTCA Method A Cleanup Level for Soil ⁵											0.1

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

¹Depth in feet below ground surface.

²Analyzed by U.S. Environmental Protection Agency Method 8270E/SIM.

³Total carcinogenic polycyclic aromatic hydrocarbons derived using the total toxicity equivalency method in Section 708(8) of Chapter 173-340 of the Washington Administrative Code.

⁴For concentrations reported at less than the laboratory reporting limit, half the reporting limit was used to calculate the TEC.

⁵Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

cPAHs = carcinogenic polycyclic aromatic hydrocarbons

TEC = toxic equivalent concentration