

Former Fort Ord Operable Unit Carbon Tetrachloride Plume Data and Status

HTW BCT, October 10, 2018

September 2018 Key Events for OUCTP

- September 4: Completed installation of MW-BW-57-180.
- September 18: Third Quarter 2018 EISB Deployment Area 3A sampling.
 - Three of the four monitoring wells were not sampled (MW-BW-57-A, MW-BW-87-A, and MW-BW-91-A) due to a failed non-dedicated sampling pump; a new replacement pump was ordered.
 - Two of the ten extraction wells were not sampled (EW-BW-162-A and EW-BW-167-A) due to failed dedicated pumps. It is recommended the pumps not be replaced because:
 - There will be only one more long-term performance monitoring event (in Fourth Quarter 2018).
 - These two wells have consistently exhibited CT concentrations below the ACL.
 - The EISB treatment system will be decommissioned in early 2019, including removal of all extraction well pumps.
- September 21: Completed installation of MW-BW-59-180.
- September 19-24: Completed installation of MW-BW-93-A, MW-BW-94-A, and MW-BW-95-A.
- September 26: Begin development of 6 new OUCTP monitoring wells.

October 2018 Key Events for OUCTP

- Complete Third Quarter 2018 EISB Deployment Area 3A sampling at MW-BW-57-A, MW-BW-87-A, and MW-BW-91-A.
- Complete development of 6 new OUCTP monitoring wells.
- Prepare for 2019 EISB Deployment Area 3A decommissioning (last long-term performance monitoring event will be 2018-4Q in December).
- Prepare for 2019 decommissioning of:
 - 24 soil gas probes in EISB Deployment Area 1A.
 - 1 soil gas probe, 4 extraction wells, 1 injection well, and 3 monitoring wells in EISB Deployment Area 1B.

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Table 1. OUCTP EISB 3A VOC Results

Analyte:	Carbon Tetrachloride											
ACL:	0.5 µg/L											
Well Identification	Baseline	Month 1	Month 2	Month 3	Month 5	Month 6	Month 7	3Q 2017	4Q 2017	1Q 2018	2Q 2018	3Q 2018*
EW-BW-160-A	1.1 J+	0.86	0.66	0.60	1.3	1.0	1.0	0.64	0.83	0.91	1.2	
EW-BW-161-A	0.84 J+	0.67	0.51	0.48 J	0.69	0.47 J	0.47 J	0.38 J	0.19 J	0.15 J	0.15 J	
EW-BW-162-A	1.0 J+	0.72	0.59	0.56	0.41 J	0.28 J	0.18 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	NS^
EW-BW-163-A	1.2 J+	1.2	0.94	0.89	0.31 J	0.25 J	0.25 J	0.16 J	0.13 J	ND (0.25)	ND (0.25)	
EW-BW-164-A	0.92 J+	0.73	0.61 J-	0.59	0.78	0.71	0.89	0.64	0.47 J	0.32 J	0.47 J	
EW-BW-165-A	1.2 J+	1.1	0.83	0.82	0.13 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	
EW-BW-166-A	1.7 J+	1.4	1.2	1.2	1.4	1.1	1.3	1.5	0.35 J	1.4	1.3	
EW-BW-167-A	1.7 J+	1.4	1.1	1.4	1.1	0.71	0.66	0.43 J	0.22 J	0.16 J	0.16 J	NS^
EW-BW-168-A	1.3 J+	1.1	0.82	0.77	0.84	0.72	0.80	0.55	0.53	0.48 J	0.46 J	
EW-BW-169-A	1.0 J+	0.68	0.63	0.67	0.73	0.42 J	0.80	0.51	0.38 J	0.23 J	0.25 J	
MW-BW-16-A	0.60 J+	0.75	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	
MW-BW-57-A	0.45 J+	ND (0.25)	0.26 J	0.32 J	0.26 J	0.24 J	0.31 J	0.17 J	ND (0.25)	ND (0.25)	ND (0.25)	
MW-BW-87-A	0.17 J+	ND (0.25)	0.29 J	0.65	0.61	0.34 J	1.6	0.16 J	0.42 J	0.13 J	0.10 J	
MW-BW-91-A	ND (0.25)	1.3	0.84	2.3	0.50	0.28 J	0.55	0.59	4.3	3.4	3.3	

Notes:

There were no detections for either methylene chloride or trichloroethene

ACL: Aquifer Cleanup Level

ND: The analyte was not detected at or above the detection limit

µg/L: micrograms per liter

J: Estimated result with a possible low (-) or high bias (+)

Results in **bold** and shaded are concentrations above the ACL

Results in gray are ND

^ Pump failure, sample not collected

* Analytical results pending



Table 2. OUCTP A-Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone ¹	EISB Deployment Area	Well Identification	COC Concentrations (µg/L)	
			2Q 2018	3Q 2018*
			CT	
ACL:			0.5	
1	1C	EW-BW-109-A	1.7	1.6
1	N/A	MW-BW-24-A	4.5	3.8
2	3A	MW-BW-58-A	0.46 J	0.31 J
2	3A	MW-BW-87-A	0.21 J	0.57
2	3A	MW-BW-91-A	3.3	2.8
N/A	3A	MW-BW-90-A	1.3	1.2
3	3A	MW-BW-16-A	ND (0.25)	ND (0.25)
3	3A	MW-BW-57-A	ND (0.25)	ND (0.25)
3	N/A	MW-BW-88-A	1.4	1.4
4	2A	EW-BW-124-A	1.1	0.90
4	N/A	MW-B-12-A	0.48 J	0.23 J
4	2B	MW-B-14-A	2.4	1.8
4	2B	EW-BW-155-A	1.4	1.1
4	2A	MW-BW-26-A^	6.9	5.8
4	N/A	MW-BW-31-A	ND (0.25)	ND (0.25)
4	N/A	MW-BW-32-A	2.3	2.3
4	N/A	MW-BW-36-A	ND (0.25)	0.59
4	N/A	MW-BW-42-A	0.18 J	0.15 J
4	N/A	MW-BW-89-A	1.4	1.1
4	N/A	MW-BW-92-A	1.6	1.4
5	Pilot	EISB-EW-01	0.69	0.67
5	Pilot	EISB-EW-09	2.7	2.6
5	N/A	MW-BW-65-A	0.12 J	0.21 J
5	Pilot	MW-BW-66-A	1.6	1.4
5	N/A	MW-BW-74-A	ND (0.25) [ND (0.25)]	ND (0.25) [ND (0.25)]
5	N/A	MW-BW-49-A	0.85	1.2
5	N/A	MW-BW-78-A	0.35 J [0.38 J]	0.59 [0.50]
5	N/A	MW-BW-80-A	0.56	0.89

Notes:

CT: carbon tetrachloride

µg/L: micrograms per liter

ND: The analyte was not detected above the detection limit

NS: not sampled

J: Estimated result with a low (-) or high (+) bias

¹ Hydraulic zones are identified in the Groundwater QAPP.

Results in **bold** and shaded are concentrations above the ACL

Results in *gray* are ND

COC: chemical of concern

[Results in brackets are from a second deeper passive diffusion bag]

^ Downgradient monitoring well MW-BW-30-A sampled annually: ND.

* Preliminary data



Table 3. OUCTP Upper 180-Foot Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone ¹	Well Identification	CT Concentration (µg/L) ²	
		2Q 2018	3Q 2018*
ACL:		0.5	
6	EW-OU2-09-180 ³	ND (0.25)	ND (0.25)
6	MP-BW-41-231	0.10 J	0.15 J
6	MP-BW-46-170	4.5	5.7
6	MW-BW-52-180	0.97	0.90
6	MW-OU2-64-180	5.2	7.4
6	MW-OU2-67-180 ⁵	0.56	ND (0.25)

Notes:

ACL: aquifer cleanup level

COC: chemical of concern

CT: carbon tetrachloride

MCL: maximum contaminant level

ND: The analyte was not detected at or above the detection limit

NS: not sampled

TCE: trichloroethene

µg/L: micrograms per liter

J: Estimated result with a low (-) or high (+) bias

¹ Hydraulic zones are identified in the Groundwater QAPP.

² Concentration in **bold** and shaded cell exceeds the Aquifer Cleanup Level (ACL) for CT and the Maximum Contaminant Level (MCL) for TCE. Results in gray are ND.

³ EW-OU2-09-180 is operated as part of the remedy for the OUCTP Upper 180-Foot Aquifer and is connected to the OU2 GWTP. cis-1,2-DCE was detected in this well at 8.4 µg/L in 2Q17 and 5.3 µg/L in 2Q18.

⁴ TCE is not a COC in the OUCTP Lower 180-Foot Aquifer (reported for Lower 180-Foot Aquifer with respect to protection of supply wells)

⁵ Downgradient well MW-OU2-70-180 sampled annually: ND.

* Preliminary data

Table 4. OUCTP Lower 180-Foot Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone ¹	Well Identification	Select COC Concentrations (µg/L) ²			
		2Q 2018	3Q 2018*	2Q 2018	3Q 2018*
		CT		TCE ⁴	
Limit:		ACL 0.5		MCL 5.0	
7	MP-BW-49-316	2.0	1.2	ND (0.25)	ND (0.25)
7	MP-BW-49-400	ND (0.25)	ND (0.25)	4.0	4.2
7	MP-BW-50-339	0.85	0.89	ND (0.25)	ND (0.25)
7	MP-BW-50-384	0.13 J	0.12 J	1.8	2.2
7	MP-BW-51-405	0.22 J	0.16 J	2.1	1.6
7	MW-OU2-69-180	0.92	0.55	0.13 J	0.13 J
8	MINI-STORAGE	NS	0.46 J	NS	ND (0.25)
8	AIRFIELD	0.63	0.59	ND (0.25)	ND (0.25)
N/A	EW-OU2-07-180	ND (0.25)	ND (0.25)	2.4	2.8
N/A	FO-29	0.15 J	0.12 J	1.8	2.1
N/A	FO-30	0.18 J	0.20 J	0.58	0.48 J
N/A	FO-31	0.11 J	ND (0.25)	0.94	ND (0.25)
N/A	MP-BW-41-353	ND (0.25)	ND (0.25)	1.6	1.3
N/A	MW-BW-04-180	NS	0.45 J	NS	ND (0.25)
N/A	MW-OU2-72-180	ND (0.25)	ND (0.25)	1.4	1.4
N/A	MW-OU2-78-180	ND (0.25)	ND (0.25)	2.5	2.2
N/A	MW-OU2-82-180	ND (0.25)	ND (0.25)	6.2	6.3