

Former Fort Ord Sites 2 and 12 Data and Status

HTW BCT, June 13, 2018

Table 1: Sites 2/12 GWTP and SVTU Statistics as of May 30, 2018

Monthly Statistics	Volume Treated	Average Flow	Percent of Time Online	COC Mass Removed (pounds)
May 2018 GWTP	5,892,605 gal	132 gpm	99.7	0.27
Total since April 1999	2.028 billion gal			484
May 2018 SVTU	23,250,279 scf	528 scfm	100	0.06
Total since Sept 2015	1.143 billion scf			9.3

Table 2: May 2018 – Sites 2/12 Treated Water Analytical Results at TS-212-INJ

COC	Discharge Limit (µg/L) ²	Sample Date / Analytical Results	
		05/07/2018	05/22/2018
1,1-Dichloroethene (1,1-DCE)	6.0	ND (0.25)	ND (0.25)
1,2-Dichloroethane (1,2-DCA)	0.50	0.13 J	0.12 J
1,3-dichloropropene (1,3-DCP) ¹	0.50	ND (0.25)	ND (0.25)
Chloroform	2.0	0.25 J	0.25 J
cis-1,2-dichloroethene (cis-1,2-DCE)	6.0	0.96	0.99
Tetrachloroethene (PCE)	5.0	ND (0.25)	ND (0.25)
Trichloroethene (TCE)	5.0	0.17 J	0.34 J
Vinyl Chloride (VC)	0.10	ND (0.05)	ND (0.05)

Notes:

¹ The reported value is the sum of both cis- and trans-isomers.

² Discharge limits are the ACLs for injection over the plume.

J: Estimated results below the limit of quantitation (LOQ).

ND: The analyte was not detected at or above the limit of detection (LOD).

gpm: gallon(s) per minute

gal: gallon(s)

COC: chemical of concern

NS: Not sampled

scf: standard cubic foot or feet

scfm: standard cubic feet per minute

µg/L: micrograms per liter

Results in gray are ND

May 2018 Key Events for Sites 2/12

- May 9: Sites 2/12 GWTP shutdown for two hours for maintenance.
- May 14: EW-12-05-180M malfunctioning flow meter replaced.
- May 21 to 22: Second Quarter 2018 Soil Gas Monitoring Program event.

June 2018 Key Events for Sites 2/12

- June 11 to 15: Second Quarter 2018 Groundwater Monitoring event.
- County inspection of Sites 2/12 to confirm removal of sulfuric acid.
- Prepare for 2018 decommissioning of one Sites 2/12 monitoring well.



Table 3. Sites 2/12 Northern SVE Well Field Monitoring Results

Sample Date	North SVE Field									
	VE-12-06		VE-12-07		VE-12-08		VE-12-09		VE-12-10	
	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE	PCE	TCE
9/16/2015	1,700	ND	1,200	ND	2,100	ND	1,500	48	460	ND
9/22/2015	1,100	ND	750	ND	1,200	ND	1,100	86	230	ND
9/29/2015	940	ND	860	ND	970	ND	1,100	90	220	ND
10/6/2015	680	ND	560	ND	670	ND	870	53	180	ND
11/12/2015	260	ND	180	84	310	ND	410	ND	97	ND
12/8/2015	230	ND	130	180	260	ND	350	ND	ND	ND
3/1/2016	66	ND	ND	ND	130	ND	190	ND	44	ND
6/6/2016	130	ND	55	ND	120	ND	190	ND	48	ND
9/30/2016^	54	ND	130	ND	190	ND	310	ND	92	ND
11/16/2016	77 J	ND	NS	NS	NS	NS	220	ND	92	ND
3/1/2017	ND	ND	NS	NS	NS	NS	160	ND	46 J	ND
5/23/2017	ND	ND	NS	NS	NS	NS	110	ND	ND	ND
8/8/2017	ND	ND	NS	NS	120	ND	170	ND	ND	ND
11/15/2017	ND	ND	NS	NS	NS	NS	66 J	ND	ND	ND
2/20/2018	ND	ND	NS	NS	NS	NS	74 J	ND	ND	ND
5/22/2018*	ND	ND	NS	NS	NS	NS	64 J	ND	ND	ND

Notes:

ND = not detected above the limit of detection (LOD)

NS = not sampled

Concentrations in **bold** exceed the SGCL

Concentrations in *italics* exceed the SG-SL

Results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

^SVE Northern well field offline mid-July to Sept 23, 2016 (approx. 10 weeks), and online for one week prior to sampling for rebound study.

*Preliminary results

Table 4. Sites 2/12 SVTU Monitoring Results

Sample Date	PCE		TCE	
	SVE-12-INF	SVE-12-EFF	SVE-12-INF	SVE-12-EFF
9/16/2015	1,500	ND	38	ND
9/22/2015	1,100	ND	61	ND
9/29/2015	710	ND	57	ND
10/6/2015	370	1.3 J	43	ND
11/12/2015	240	0.80 J	92	ND
12/8/2015	160	ND	100	ND
3/1/2016	65 J+	ND	49 J+	ND
6/7/2016	50	ND	31	ND
9/14/2016	1.3 J+	ND	9.7 J+	ND
9/30/2016	130	NS	6.0	NS
11/16/2016	29	ND	16	2.7
3/1/2017	27 J+	ND	12 J	4.5 J
5/23/2017	30	ND	19	14
8/8/2017	34	ND	17	11
11/15/2017	49	ND	4.8	7.4
2/20/2018	34	0.72 J	6.9	28
5/22/2018*	37	5.9	6.1	38

Notes:

J = estimated result below the limit of quantitation (LOQ) with a potential low (-) or high (+) bias

ND = not detected above the limit of detection (LOD)

NS = not sampled

Concentrations in **bold** exceed the SGCL

Concentrations in *italics* exceed the SG-SL

Results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

*Preliminary results

SVTU Effluent emission AERSCREEN Modeling discharge compliance calculation results are:

Rule 207 Emission: 0.002 pounds VOCs per day (less than limit of 25 pounds per day)

Rule 1000 Hazard Index: 0.00002 (less than limit of 1.0)

Rule 1000 Excess Cancer Risk: 0.0096×10^{-5} (less than limit of 1×10^{-5})



Table 5. Sites 2/12 Soil Gas Monitoring Results - North

Soil Gas Probe ID	4Q 2017	1Q 2018	2Q 2018*	4Q 2017	1Q 2018	2Q 2018*	Schedule
	PCE			TCE			
SG-12-01-65	ND	ND	ND	ND	ND	ND	Q ²
SG-12-02-10	<i>1,400</i>	<i>1,000</i>	<i>1,100</i>	ND	ND	ND	Q ¹
SG-12-04-10	ND	ND	ND	ND	ND	ND	Q ¹
SG-12-04-65	ND	ND	ND	ND	ND	ND	Q ²
SG-12-06-10	ND	ND	ND	ND	ND	ND	Q ¹
SG-12-06-60	ND	ND	ND	ND	ND	ND	Q ²
SG-12-07-65	ND	ND	ND	ND	ND	ND	Q ²

	SGCL (µg/m ³)	SG-SL (µg/m ³)
PCE	1,800	<i>603</i>
TCE	1,000	<i>888</i>

Notes:

A = Annual

B = sampled for 4Q17 and 1Q18 for rebound study

J = estimated result below the limit of quantitation (LOQ)

ND = not detected above the limit of detection (LOD)

NS = not sampled

Q = Quarterly

R = Removed

Concentrations in **bold** exceed the SGCL

Concentrations in *italics* exceed the SG-SL

Results reported in micrograms per cubic meter (µg/m³)

*Preliminary Results






¹ Quarterly probe due to proximity of store front in an area of historic soil gas concentrations above the SGCL.

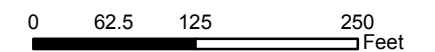
² Will continue to sample probe quarterly if it is within the vicinity of the current groundwater plume above the ACL (probe vertically adjacent to deepest probe will be sampled if deepest probe is in saturated zone).





Legend

-  Soil Vapor Extraction Pipeline
-  Soil Gas Probe Cluster
-  Soil Vapor Extraction Well
-  Buildings
-  Soil Vapor Treatment Unit



Site Vicinity, Soil Gas Probe, and SVE Well Locations

Sites 2 and 12
 First Quarter 2018
 Groundwater and Soil Gas
 Monitoring and Treatment System Report
 Former Fort Ord, California