

Former Fort Ord Operable Unit 2 Data and Status

HTW BCT Meeting, May 1, 2020

Table 1: March 2020 – OU2 GWTP Statistics

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
March 2020	36,329,040	814	97.6	2.41
Total since October 1995	8.040 billion			883

Table 2: March 2020 – OU2 Analytical Results at TS-OU2-INJ-01

COC	Discharge Limit (µg/L)	Analytical Results (µg/L)	
		3/3/2020	3/31/2020
1,1-dichloroethane (1,1-DCA)	5.0*	0.70	0.56
1,2-dichloroethane (1,2-DCA)	0.5	ND (0.25)	0.19 J
1,2-dichloropropane (1,2-DCP)	0.5	ND (0.25)	ND (0.25)
Benzene	0.5	ND (0.25)	ND (0.25)
Carbon tetrachloride (CT)	0.5	ND (0.25)	ND (0.25)
Chloroform	2.0*	0.39 J	0.34 J
Cis-1,2-dichloroethene (cis-1,2-DCE)	6.0*	0.72	0.84
Methylene Chloride	0.5	ND (0.50)	ND (0.50)
Tetrachloroethene (PCE)	0.5	ND (0.25)	ND (0.25)
Trichloroethene (TCE)	0.5	ND (0.25)	ND (0.25)
Vinyl chloride (VC)	0.1	ND (0.05)	ND (0.05)

Notes:

COC: chemical of concern

µg/L: micrograms per liter

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

NS: not sampled.

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

TS-OU2-INJ: Injection point of compliance, the OU2 effluent pipeline.

*Discharge limits for low carbon affinity compounds were increased to the Aquifer Cleanup Level (ACL).

Results in *italics* are above the discharge limit, and results in **bold** and shaded are concentrations above the ACL

Results in *gray* are ND

March 2020 Key Events for OU2

- March 2-6: First Quarter 2020 Groundwater Monitoring Event.
- March 5: Operated EW-OU2-04-A, EW-OU2-05-A, and EW-OU2-06-A separately for 20 minutes to test pressures and sample.
- March 7: OU2 GWTP shut down for 11 hours due to power interruption.
- March 29: OU2 GWTP shut down for 7 hours due to communications error.

April-May 2020 Key Events for OU2

- Replace failed pump in EW-OU2-12-180 (offline Jan 15).
- JV to repair/replace failed flow meter in EW-OU2-02-180R and -12-180.
- JV setup leak detection system in Western Network.
- Prepare for Western Network and EW-OU2-09-A connection and operation.
- Turnover of new OU2 GWTP to Government.
- Coordinate with Sea Haven adjustment/replacement of 5 MWs: MW-OU2-05-A, -05-180, -07-A, -07-180, and -07-400. Comments on Draft Work Plan submitted Feb 14.
- Coordinate with Kimley-Horn adjustment of infrastructure during Imjin Parkway widening/roundabout construction. Comments on revised Work Plan submitted Feb 24. Scheduled to begin construction in May.
- Troubleshoot and improve communications at OU2 GWTP.

June 2020 Key Events for Sites OU2

- June 1-12: Second Quarter 2020 Groundwater Monitoring Event.



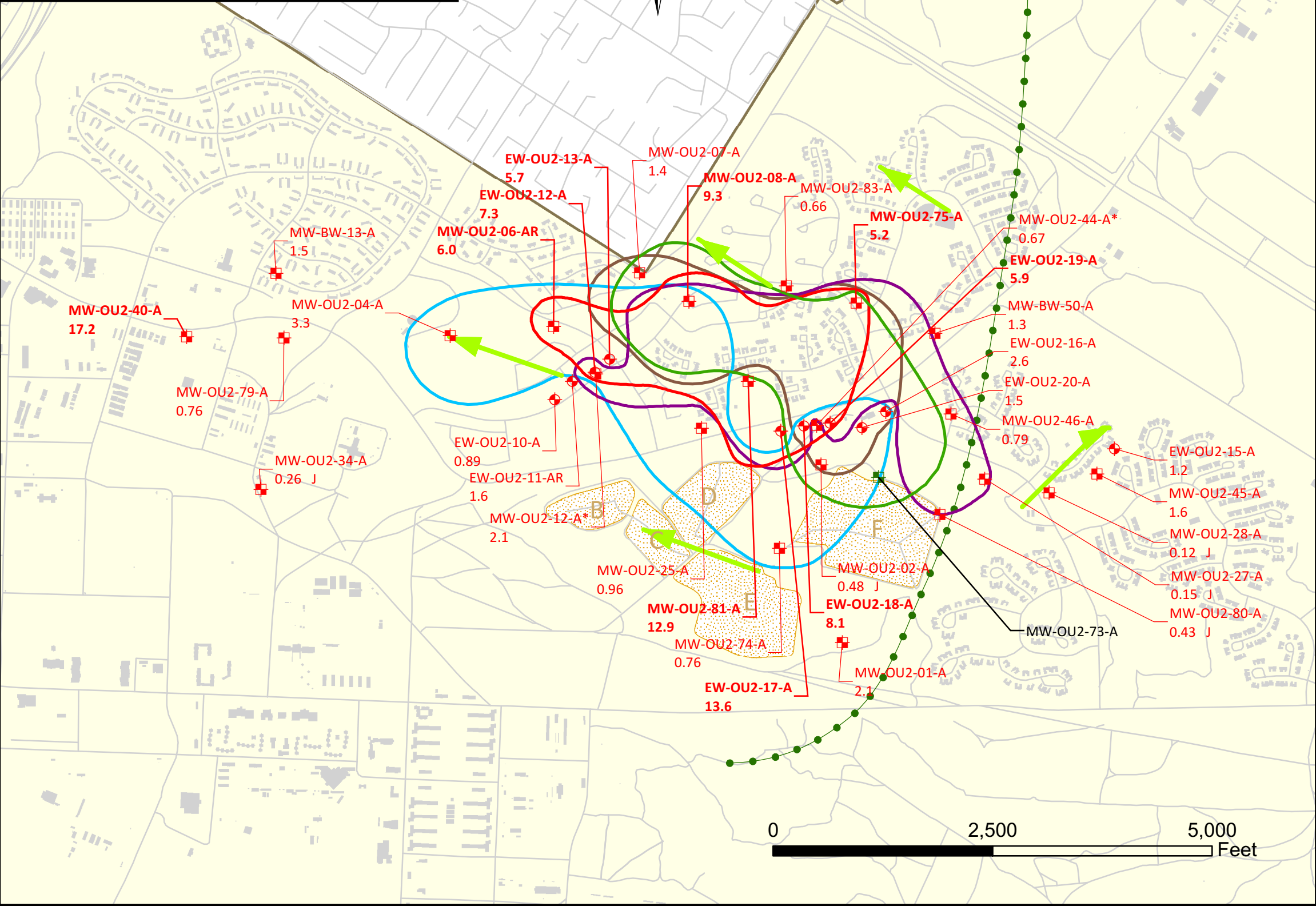
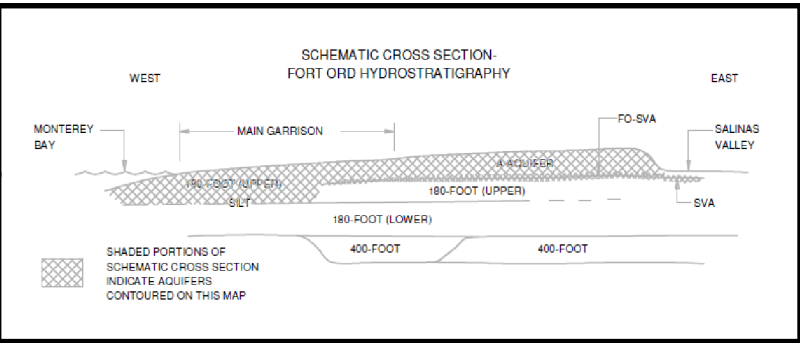
Table 2. OU2 A-Aquifer Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	Select COC Concentrations (µg/L)									
		4Q 2019					1Q 2020*				
		TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC
ACL:		5.0	3.0	5.0	0.5	0.1	5.0	3.0	5.0	0.5	0.1
1	EW-OU2-16-A	1.7	1.7	4.8	2.0	0.34	2.5	2.5	6.0	1.9	0.63
1	EW-OU2-17-A	7.2	5.6	1.8	ND (0.25)	0.055 J	9.4	7.5	2.1	ND (0.25)	0.071 J
1	EW-OU2-18-A	6.1	4.5	6.2	0.95	0.30	9.3	6.4	8.3	1.1	0.47
1	EW-OU2-19-A	6.2	1.3	0.37 J	ND (0.25)	ND (0.05)	6.1	6.3	16.2	2.1	1.3
1	EW-OU2-20-A	0.88	0.69	7.1	1.2	0.28	1.2	1.5	5.5	0.69	0.53
1	MW-OU2-02-A	0.52	2.0	5.0 J-	1.3	7.6 J-	0.57	2.0	4.9	1.0	9.5
1	MW-OU2-44-A	1.8	2.3	5.2	1.3	0.23	3.3	4.0	15.5	3.3	0.91
1	MW-OU2-73-A	ND (0.25)	2.0	2.3	0.27 J	3.5	ND (0.25)	2.2	2.4	0.31 J	5.5
2	EW-OU2-15-A	1.6	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)	0.78	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)
2	MW-OU2-27-A	0.12 J	3.7	0.36 J	ND (0.25)	ND (0.05)	0.10 J	4.4	0.36 J	ND (0.25)	ND (0.05)
3	EW-OU2-09-A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3	EW-OU2-10-A	0.50	0.39 J	0.19 J	0.33 J	ND (0.05)	0.75	0.67	0.26 J	0.50	0.056 J
3	EW-OU2-11-AR	1.4	0.66	1.1	0.28 J	ND (0.05)	1.8	0.87	1.2	0.32 J	ND (0.05)
3	EW-OU2-12-A	6.2	4.0	5.1	2.1	0.088 J	5.2	7.7	6.2	2.2	0.12
3	EW-OU2-13-A	5.0	1.9	1.3	3.5	ND (0.05)	6.0	2.3	1.5	3.8	ND (0.05)
3	MW-OU2-25-A	1.0	0.32 J	0.49 J	0.48 J	0.082 J	1.1	0.39 J	0.61	0.50	0.14
4	EW-OU2-04-A	NS	NS	NS	NS	NS	1.5	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)
4	EW-OU2-05-A	NS	NS	NS	NS	NS	3.0	0.31 J	0.25 J	ND (0.25)	ND (0.05)
4	EW-OU2-06-A	NS	NS	NS	NS	NS	3.7	0.35 J	0.27 J	ND (0.25)	ND (0.05)
4	MW-OU2-40-A	11.1	0.48 J	0.15 J	ND (0.25)	ND (0.05)	11.0	0.49 J	0.16 J	ND (0.25)	ND (0.05)
5	MW-OU2-04-A	2.5 J-	0.71	0.75	0.72	ND (0.05)	2.8	1.2	0.80	0.71	ND (0.05)
5	MW-OU2-06AR	2.8	1.1	0.55	0.82	ND (0.05)	6.7	3.5	2.0	0.98	ND (0.05)
5	MW-OU2-07-A	1.9	0.65	8.7	0.29 J	0.13	0.96	1.6	3.0	ND (0.25)	ND (0.05)
5	MW-OU2-08-A	0.16 J	ND (0.25)	0.97	ND (0.25)	ND (0.05)	7.6	5.8	24.2	1.3	0.37
5	MW-OU2-75-A	6.5	7.4	10.3	0.18 J	0.13	2.8	3.9	5.6	ND (0.25)	0.055 J
5	MW-OU2-81-A	11.9	9.5	2.3	0.32 J	ND (0.05)	7.6	11.4	2.1	0.55	ND (0.05)
5	MW-OU2-83-A	1.4	1.2	5.0	0.20 J	0.096 J	1.2	1.5	5.5	0.17 J	0.11
5	MW-BW-50-A	0.76	4.0	0.83	ND (0.25)	ND (0.05)	1.5	3.2	2.4	ND (0.25)	ND (0.05)

Notes:

ACL: Aquifer Cleanup Level
 COC: chemical of concern
 1,2-DCA: 1,2-dichloroethane
 TCE: trichloroethene
 PCE: tetrachloroethene
 1,1-DCA: 1,1-dichloroethane
 µg/L: micrograms per liter
 NS: not sampled
 ND: The analyte was not detected above the detection limit.
 J: Estimated result with a high (+) or low (-) bias.
¹ Hydraulic zones are identified in the Groundwater QAPP.
² Extraction wells not listed have met the QAPP decision rules to no longer operate.
 Results in **bold** and shaded are concentrations above the ACL
 Results in gray are ND
 Results in brackets from a second deeper passive diffusion bag
 * Preliminary data

Profiled MW-OU2-05-A,
 estimated chloroform, no
 other COCs detected



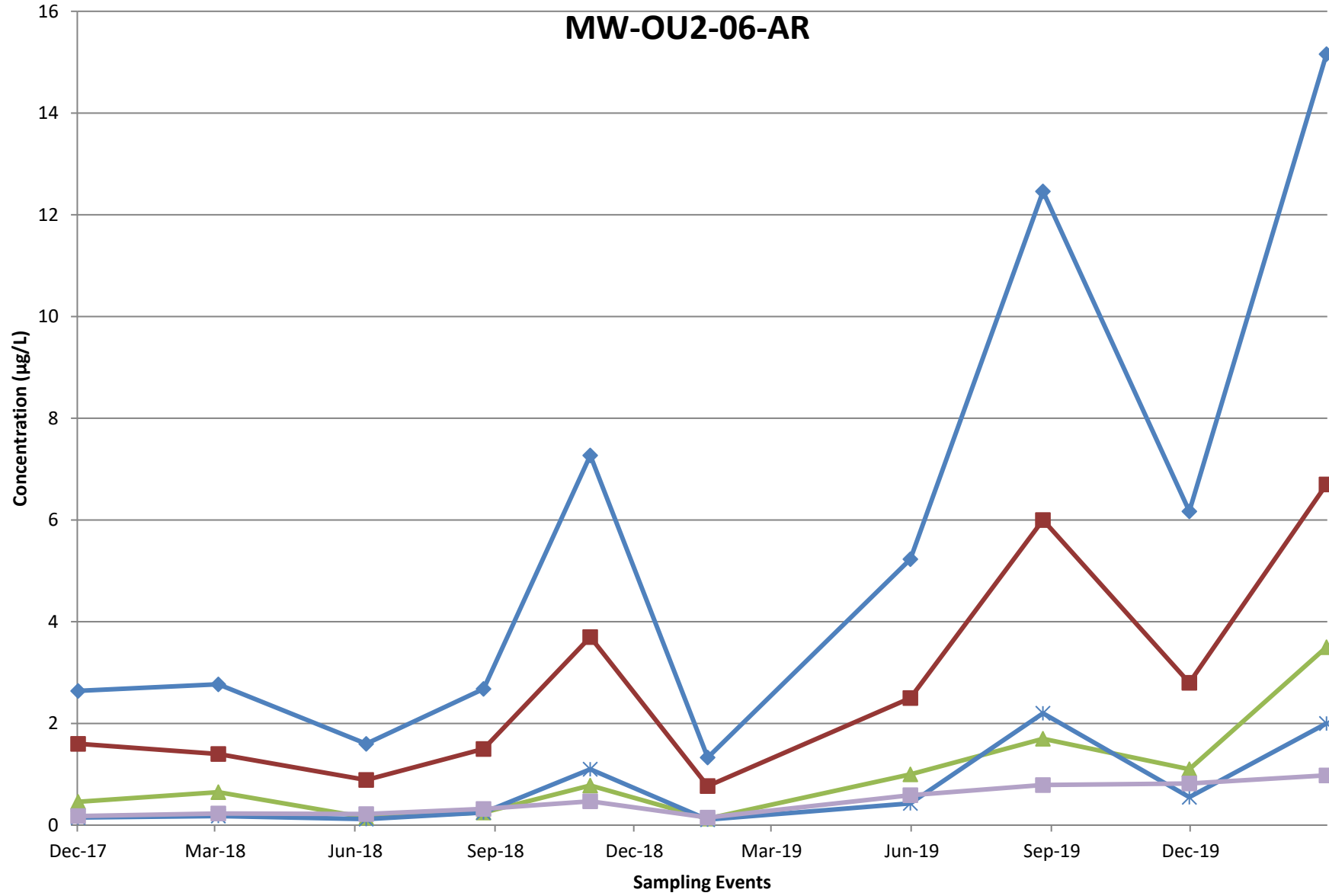
EXPLANATION

- Monitoring Well with TCE Detection
 - ◆ Extraction Well with TCE Detection
 - Well ID - Bold When ACL Exceeded
 - * Well not used for contouring
 - MW-OU2-08-A
9.3
 - TCE Concentration ($\mu\text{g/L}$) and validation/lab qualifier.
 - Monitoring Well with COC ACL Exceedance and TCE Non-Detect
- Chemical of Concern (COC) Aquifer Cleanup Level (ACL) Exceedance Contour in $\mu\text{g/L}$.
- 5 Trichloroethene (TCE)
 - 3 Tetrachloroethene (PCE)
 - 5 1,1-Dichloroethane (1,1-DCA)
 - 0.5 1,2-Dichloroethane (1,2-DCA)
 - 0.1 Vinyl Chloride (VC)
 - ➔ General Groundwater Flow Direction
 - Approximate Location of a Groundwater Divide
 - OU2 Landfill Areas B through F
 - Facilities
 - Former Fort Ord Boundary
 - Roads

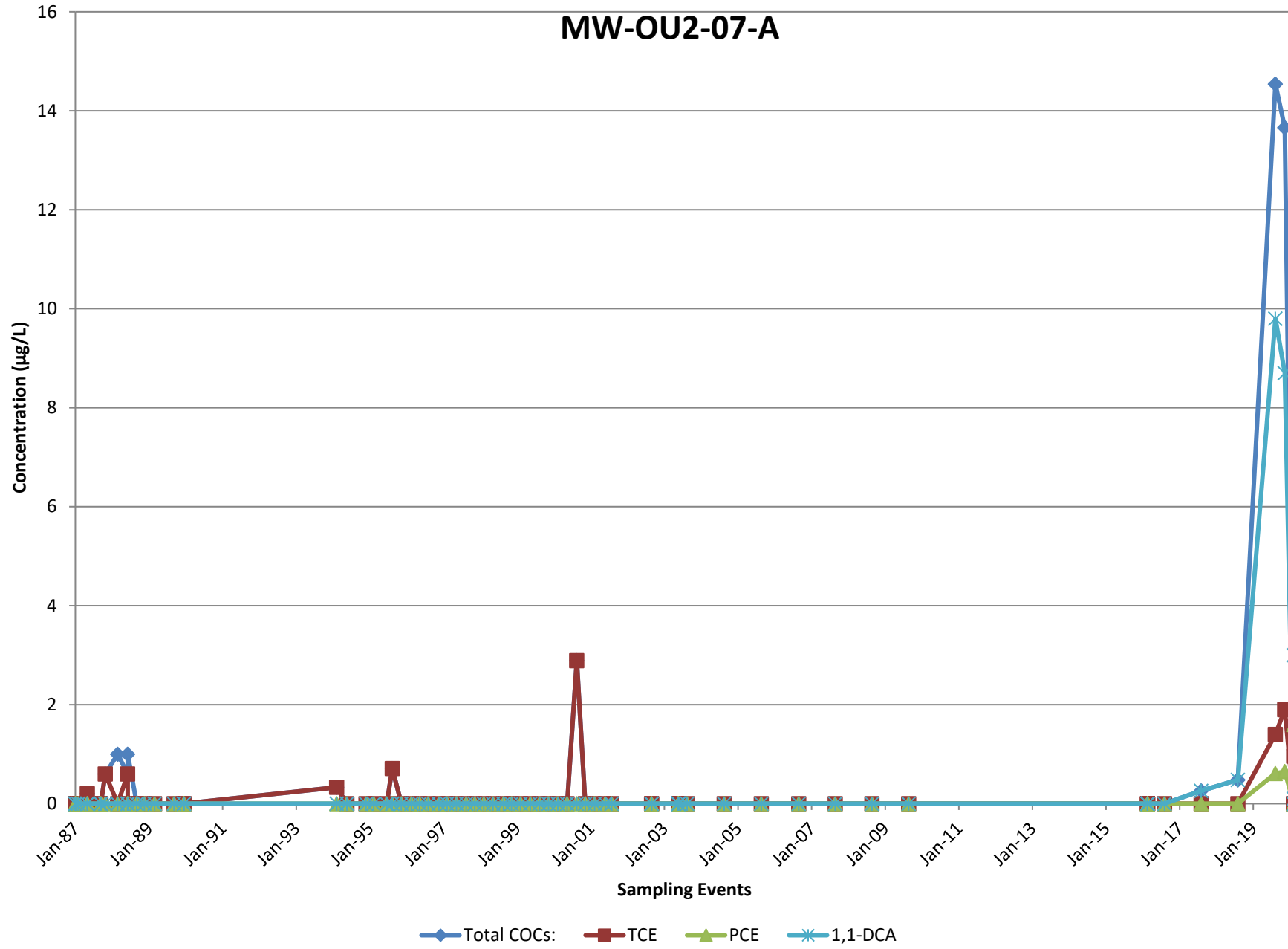
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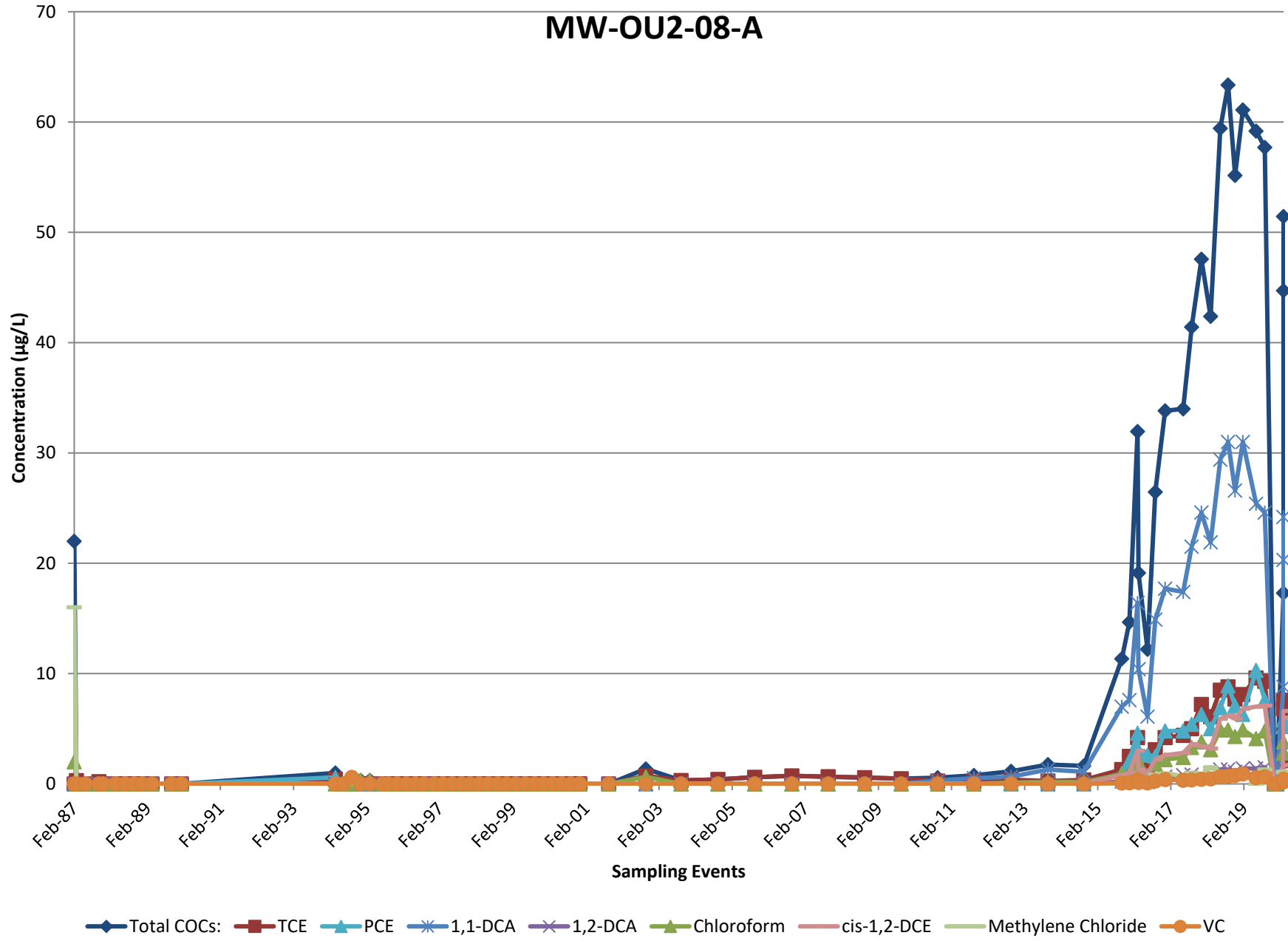
- (1) Samples were collected between August 26, 2019 and September 17, 2019.
- (2) Contours are based on one interpretation of the data that were available at the time this report was prepared; other interpretations may be possible.
- (3) Contours based on highest value obtained from multiple bags where applicable.
- (4) Contours near wells not sampled this quarter are inferred from previous analytical data.

TCE CONCENTRATIONS AND OTHER COC ACL EXCEEDANCES
A-AQUIFER
THIRD QUARTER 2019
Operable Unit 2 Fourth Quarter 2018 - Third Quarter 2019
Groundwater Monitoring and Treatment System Report
Former Fort Ord, California



◆ Total COCs: ■ TCE ▲ PCE * 1,1-DCA ■ 1,2-DCA





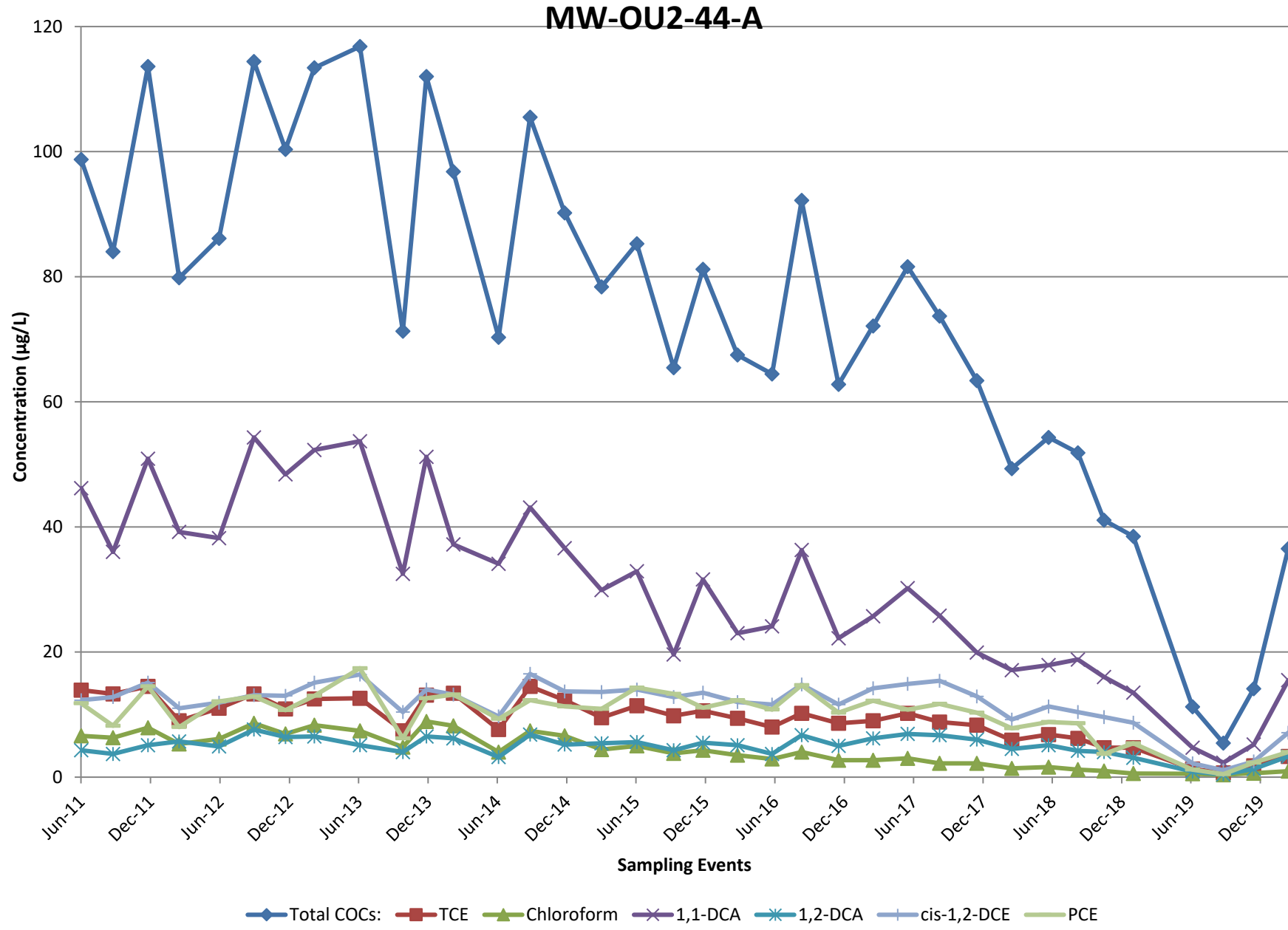


Table 3. OU2 Upper 180-Foot Select
Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	TCE Concentration (µg/L)			
		2Q 2019	3Q 2019	4Q 2019	1Q 2020*
ACL:		5.0			
6	EW-OU2-03-180	9.2	7.8	6.5	8.0
6	MW-OU2-23-180	13.2	13.3	11.7	13.3
6	MW-OU2-50-180	8.9	9.3	5.1	11.8
6	MW-OU2-51-180	0.76	0.25 J	0.65	ND (0.25)
7	EW-OU2-05-180	3.1	2.9	2.9	2.6
7	EW-OU2-06-180	4.1	4.0	3.9 J	3.8
7	EW-OU2-10-180	7.5	8.1	6.3	7.4
7	EW-OU2-11-180	NS	3.9	6.6	5.1
7	EW-OU2-12-180	10.6	7.0	6.1	NS
7	MW-OU2-81-180	5.1	5.7	5.1	4.7
7	MW-OU2-44-180	12.2	12.1	13.6	11.4
7	MW-OU2-56-180	6.5	5.0	6.6	ND (0.25)
8	EW-OU2-08-180	1.3	2.2	2.1	1.7
8	MW-OU2-28-180	3.6	4.7	5.0	4.0
8	MW-OU2-62-180	11.6	4.7	7.5	8.6
9	EW-OU2-01-180	3.6	3.7	0.11 J	3.8
9	EW-OU2-02-180R	6.0	5.5	4.9	5.2
9	MW-OU2-06-180R2	3.0	1.4	1.3	1.1
9	MW-OU2-24-180	10.1	7.5	3.7	8.5
9	MW-OU2-43-180	2.0	1.8	3.7	2.3
N/A	MW-OU2-07-180R	1.6	1.2	2.1	1.6

Notes:

ACL: Aquifer Cleanup Level

COC: chemical of concern

1,2-DCA: 1,2-dichloroethane

TCE: trichloroethene

PCE: tetrachloroethene

1,1-DCA: 1,1-dichloroethane

µg/L: micrograms per liter

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¹ Hydraulic zones are identified in the Groundwater QAPP.

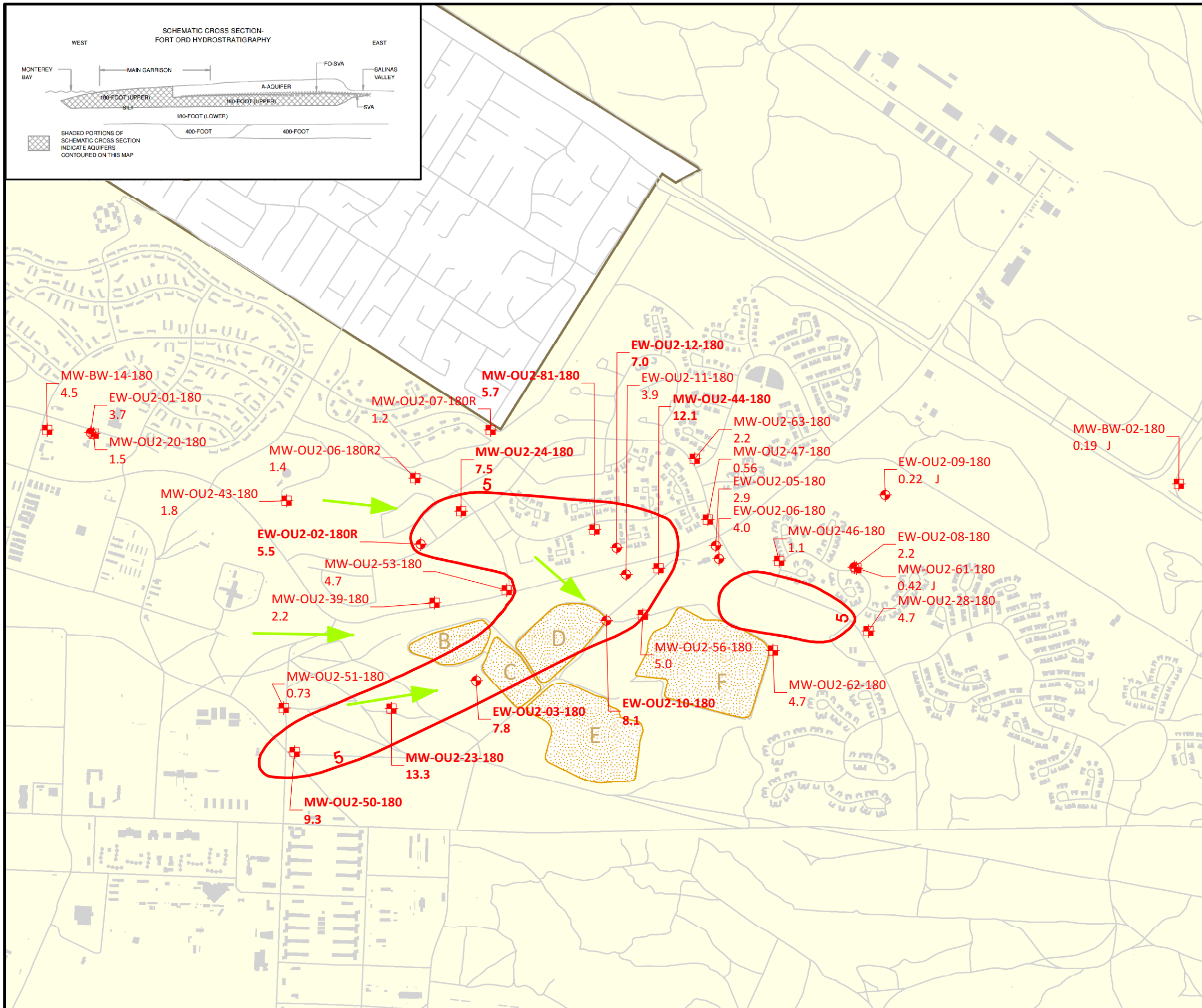
² Extraction wells not listed have met the QAPP decision rules to no longer operate.

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

Results in *gray* are ND

Results in brackets from a second deeper passive diffusion bag

* Preliminary data



EXPLANATION

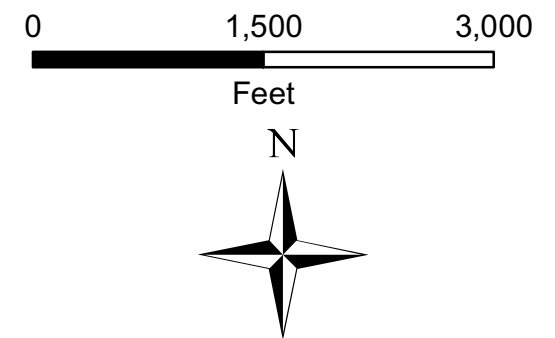
- Extraction Well with TCE Detection
- Monitoring Well with TCE Detection
- Well ID - Bold When ACL Exceeded
(*Indicates: Sample not used for contouring)
- MW-OU2-44-180**
12.1 — TCE concentration (µg/L) and lab qualifier.

Chemical of Concern (COC) Aquifer Cleanup Level (ACL) Exceedance Contour in µg/L.

- 5** — Trichloroethene (TCE)
- General Groundwater Flow Direction

- Approximate Extent of Landfill Areas
- OU2 Landfill Areas B through F
 - Roads
 - Facilities
 - Former Fort Ord Boundary

NOTES:
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