

## HTW BCT Meeting, January 31, 2020

**Table 1:** OU2 GWTP Statistics as of December 31, 2019

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
December 2019	40,960,191	918	99.7	2.98
Total since October 1995	7.932 billion			876

**Table 2:** December 2019 – OU2 Analytical Results at TS-OU2-INJ-01

COC	Discharge Limit (µg/L)	Analytical Results (µg/L)
		12/11/2019
1,1-dichloroethane (1,1-DCA)	5.0*	0.53
1,2-dichloroethane (1,2-DCA)	0.5	0.18 J
1,2-dichloropropane (1,2-DCP)	0.5	ND (0.25)
Benzene	0.5	ND (0.25)
Carbon tetrachloride (CT)	0.5	ND (0.25)
Chloroform	2.0*	0.28 J
Cis-1,2-dichloroethene (cis-1,2-DCE)	6.0*	0.45 J
Methylene Chloride	0.5	ND (0.50)
Tetrachloroethene (PCE)	0.5	ND (0.25)
Trichloroethene (TCE)	0.5	ND (0.25)
Vinyl chloride (VC)	0.1	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

**December 2019 Key Events for OU2**

- Dec 2-6: Fourth Quarter 2019 Groundwater Monitoring Event.
- Dec 4: OU2 GWTP shutdown for 0.5 hour due to a comms loss.
- Dec 10: Semi-Annual Optimization meeting.
- Dec 10: Field meeting to discuss Sea Haven contractor grade adjustment of ~20 feet lower near five MWs: MW-OU2-05-A (A), MW-OU2-05-180 (WL), MW-OU2-07-A (Q), MW-OU2-07-180R (Q), and MW-OU2-07-400 (WL).†
- Dec 22: OU2 GWTP shutdown for 1.5 hours due to a power issue.

**January 2020 Key Events for OU2**

- Jan 8: OU2 GWTP shut down for 6 hours due to overcurrent fault in the 180 wells.
- Jan 14-16: EW-OU2-05-A and EW-OU2-06-A video log, redevelopment, and pump replacement.
- Jan 21-22: OU2 GWTP shut down for 10 hours due to a programming issue.

**February 2020 Key Events for OU2**

- JV setup leak detection system in Western Network.
- Prepare for Western Network and EW-OU2-09-A connection and operation.
- JV to repair/replace failed flow meters in EW-OU2-02-180R and EW-OU2-12-180.

**March 2020 Key Events for OU2**

- March 2-6: First Quarter 2020 Groundwater Monitoring Event.
- Turnover of new OU2 GWTP to Government.

**Note:**

† WL: water level, A: annual, Q: quarterly



OU2 Hydraulic Zone <sup>1</sup>	Well Identification <sup>2</sup>	Select COC Concentrations (µg/L)									
		3Q 2019					4Q 2019				
		TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC
<b>ACL:</b>		<b>5.0</b>	<b>3.0</b>	<b>5.0</b>	<b>0.5</b>	<b>0.1</b>	<b>5.0</b>	<b>3.0</b>	<b>5.0</b>	<b>0.5</b>	<b>0.1</b>
1	EW-OU2-16-A	2.6	2.4	<b>5.8</b>	<b>1.9</b>	<b>0.67</b>	1.7	1.7	4.8	<b>2.0</b>	<b>0.34</b>
1	EW-OU2-17-A	<b>13.6</b>	<b>6.4</b>	2.3	ND (0.25)	ND (0.05)	<b>7.2</b>	<b>5.6</b>	1.8	ND (0.25)	0.055 J
1	EW-OU2-18-A	<b>8.1</b>	<b>5.7</b>	<b>8.0</b>	<b>1.1</b>	<b>0.60</b>	<b>6.1</b>	<b>4.5</b>	<b>6.2</b>	<b>0.95</b>	<b>0.30</b>
1	EW-OU2-19-A	<b>5.9</b>	<b>6.3</b>	<b>14.2</b>	<b>2.0</b>	<b>1.2</b>	<b>6.2</b>	1.3	0.37 J	ND (0.25)	ND (0.05)
1	EW-OU2-20-A	1.5	1.6	<b>5.8</b>	<b>0.71</b>	<b>0.59</b>	0.88	0.69	<b>7.1</b>	<b>1.2</b>	<b>0.28</b>
1	MW-OU2-02-A	0.48 J	1.8	<b>5.5</b>	<b>1.3</b>	<b>8.9</b>	0.52	2.0	5.0 J-	<b>1.3</b>	<b>7.6 J-</b>
1	MW-OU2-44-A	0.67	0.47 J	2.6	0.42 J	0.095 J	1.8	2.3	<b>5.2</b>	<b>1.3</b>	<b>0.23</b>
1	MW-OU2-73-A	ND (0.25)	1.6	<b>3.6</b>	<b>0.51</b>	<b>6.1</b>	ND (0.25)	2.0	2.3	0.27 J	<b>3.5</b>
2	EW-OU2-15-A	1.2	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)	1.6	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)
2	MW-OU2-27-A	0.15 J	<b>3.3</b>	0.30 J	ND (0.25)	ND (0.05)	0.12 J	<b>3.7</b>	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	0.89	0.66	0.31 J	0.47 J	ND (0.05)	0.50	0.39 J	0.19 J	0.33 J	ND (0.05)
3	EW-OU2-11-AR	1.6	0.75	1.0	0.24 J	ND (0.05)	1.4	0.66	1.1	0.28 J	ND (0.05)
3	EW-OU2-12-A	<b>7.3</b>	<b>4.4</b>	<b>5.6</b>	<b>1.9</b>	<b>0.11</b>	<b>6.2</b>	<b>4.0</b>	<b>5.1</b>	<b>2.1</b>	0.088 J
3	EW-OU2-13-A	<b>5.7</b>	2.0	1.4	<b>3.1</b>	ND (0.05)	5.0	1.9	1.3	<b>3.5</b>	ND (0.05)
3	MW-OU2-25-A	0.96	0.29 J	0.49 J	<b>0.59</b>	ND (0.05)	1.0	0.32 J	0.49 J	0.48 J	0.082 J
4	EW-OU2-04-A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4	EW-OU2-05-A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4	EW-OU2-06-A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4	MW-OU2-40-A	<b>17.2</b>	0.48 J	0.20 J	ND (0.25)	ND (0.05)	<b>11.1</b>	0.48 J	0.15 J	ND (0.25)	ND (0.05)
5	MW-OU2-04-A	3.3	1.0	0.71	<b>0.75</b>	ND (0.05)					
5	MW-OU2-06AR	<b>6.0</b>	1.7	2.2	<b>0.79</b>	ND (0.05)	2.8	1.1	0.55	<b>0.82</b>	ND (0.05)
5	MW-OU2-07-A	1.4	0.61	<b>9.8</b>	0.33 J	<b>0.12</b>	1.9	0.65	<b>8.7</b>	0.29 J	<b>0.13</b>
5	MW-OU2-08-A†	<b>9.3</b>	<b>7.6</b>	<b>24.6</b>	<b>1.5</b>	<b>0.64</b>	0.16 J	ND (0.25)	0.97	ND (0.25)	ND (0.05)
5	MW-OU2-75-A	<b>5.2</b>	<b>7.4</b>	<b>9.3</b>	0.11 J	<b>0.11</b>	<b>6.5</b>	<b>7.4</b>	<b>10.3</b>	0.18 J	<b>0.13</b>
5	MW-OU2-81-A	<b>12.9</b>	<b>10.8</b>	2.7	0.26 J	ND (0.05)	<b>11.9</b>	<b>9.5</b>	2.3	0.32 J	ND (0.05)
5	MW-OU2-83-A	0.66	0.56	3.4	ND (0.25)	ND (0.05)	1.4	1.2	5.0	0.20 J	0.096 J
5	MW-BW-50-A	1.3	2.8	2.1	ND (0.25)	ND (0.05)	0.76	<b>4.0</b>	0.83	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.  
<sup>1</sup> Hydraulic zones are identified in the Groundwater QAPP.  
<sup>2</sup> 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  
 † MW-OU2-08-A Fourth Quarter 2019 sample collected from shallower depth than historically sampled.

**Table 4.** OU2 Upper 180-Foot Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone <sup>1</sup>	Well Identification <sup>2</sup>	TCE Concentration (µg/L)			
		1Q 2019	2Q 2019	3Q 2019	4Q 2019
<b>ACL:</b>		<b>5.0 µg/L</b>			
6	EW-OU2-03-180	<b>9.0</b>	<b>9.2</b>	<b>7.8</b>	<b>6.5</b>
6	MW-OU2-23-180	<b>14.7</b>	<b>13.2</b>	<b>13.3</b>	<b>11.7</b>
6	MW-OU2-50-180	<b>10.7</b>	<b>8.9</b>	<b>9.3</b>	<b>5.1</b>
6	MW-OU2-51-180	2.4	0.76	0.25 J	0.65
7	EW-OU2-05-180	3.6	3.1	2.9	2.9
7	EW-OU2-06-180	4.8	4.1	4.0	3.9 J
7	EW-OU2-10-180	<b>6.8</b>	<b>7.5</b>	<b>8.1</b>	<b>6.3</b>
7	EW-OU2-11-180	NA	NA	3.9	<b>6.6</b>
7	EW-OU2-12-180	<b>10.3</b>	<b>10.6</b>	<b>7.0</b>	<b>6.1</b>
7	MW-OU2-81-180	<b>6.1 J+</b>	<b>5.1</b>	<b>5.7</b>	<b>5.1</b>
7	MW-OU2-44-180	<b>13.1</b>	<b>12.2</b>	<b>12.1</b>	<b>13.6</b>
8	EW-OU2-08-180	2.4	1.3	2.2	2.1
8	MW-OU2-28-180	3.9	3.6	4.7	5.0
8	MW-OU2-62-180	<b>13.0</b>	<b>11.6</b>	4.7	<b>7.5</b>
9	EW-OU2-01-180	3.5	3.6	3.7	0.11 J
9	EW-OU2-02-180R	<b>6.4 J+</b>	<b>6.0</b>	<b>5.5</b>	4.9
9	MW-OU2-06-180R2	3.2 J+	3.0	1.4	1.3
9	MW-OU2-24-180	<b>8.7</b>	<b>10.1</b>	<b>7.5</b>	3.7
9	MW-OU2-43-180	3.8	2.0	1.8	3.7
N/A	MW-OU2-07-180R	3.3	1.6	1.2	2.1

**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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ND: The analyte was not detected above the detection limit.

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

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Results in brackets from a second deeper passive diffusion bag

\* Preliminary data