

**Final Meeting Minutes**  
**(Prepared by HydroGeoLogic, Inc.)**  
**Fort Ord Operable Unit (OU) – 1 On-Post Groundwater Remediation**  
**Marina, California**  
**10:00 a.m., 14 March 2013**

**1. Groundwater Remediation System Update**

On 19 February 2013, HydroGeoLogic, Inc. (HGL) visited the site to collect groundwater samples and conduct routine maintenance. We discovered that the system was down. The automated notification system failed to notify HGL of the shutdown. The notification failure was investigated and the probable cause was a loose wire but the cause of the original shutdown is unknown. Attempts to restart the operation on 19 February 2013 were unsuccessful but the system was restored the following day. Total system pumping at the Northwest Treatment System (NWTS) from 29 January 2013 through 19 February 2013 averaged only 1.7 gallons per minute (gpm) because of the long shutdown period. Normal pumping rates (approximately 16 gpm total) from wells EW-OU1-60-A, EW-OU1-66-A, and MW-OU1-87-A were resumed on 20 February 2013. Since system startup in 2006, the NWTS has pumped approximately 196 million gallons of groundwater and removed approximately 5.9 pounds (0.49 gallon) of total volatile organic compounds, primarily trichloroethene (TCE). An estimated 0.05 pound of TCE has been removed since the NWTS last sampling event on 25 September 2012.

On 22 February 2013, two leaks were discovered in the treatment system pipe network. The connection upstream from the sample port for inactive well EW-OU1-63-A (westernmost well along the NW boundary road) was leaking through a break in the pipe. This well has been offline for several years and was disconnected from the remediation system in September 2010. However, it is connected to the water transmission line that links operating wells EW-OU1-60-A and EW-OU1-66-A to the treatment plant. Backpressure from the treatment plant was forcing untreated water through the pipe break at EW-OU1-66-A. The well was inspected on 19 February and it was not leaking at that time, thus the duration of the leak was no more than approximately 3 days. Based on the most recent sample results, the untreated, leaking water has a TCE concentration of less than 0.2 J micrograms per liter ( $\mu\text{g/L}$ ). Wells EW-OU1-60-A and EW-OU1-66-A were shut down during the afternoon of 22 February 2013 to stop the leak. Pumping from MW-OU1-87-A was unaffected. Repairs were made on the morning of 24 February 2013 and pumping resumed. The total pumping rate measured on 24 February 2013 was 18 gpm.

**2. Long Term Monitoring (LTM) Update**

Groundwater analytical results from the September 2012 sampling event showed significant improvements in OU-1 groundwater. On 08 January 2013, HGL collected samples from the three monitoring wells and one extraction well that exceeded the TCE aquifer cleanup level (ACL) of 5  $\mu\text{g/L}$  in September 2012. A sample also was collected from EW-OU1-60-A because this well had been inoperable from September 2011 through 10 December 2012. These results showed further decreases in TCE concentration and HGL conducted additional sampling on 19 February 2013 to confirm the January analytical results at monitoring wells MW-OU1-26-A, MW-OU1-61-A, and MW-OU1-88-A.

The preliminary analytical results from the February sampling confirmed the January results at wells MW-OU1-26-A and MW-OU1-88-A but the TCE concentration at well MW-OU1-61-A on the northwest boundary rose to 15  $\mu\text{g/L}$ . As shown in the summary table below, this concentration value is less than that observed in September 2012 but contradicts the nondetect result from January 2013. It is

unknown if the January nondetect result represents short-term variation in groundwater quality or if errors in the sample collection or laboratory analyses processes led to a false negative result.

Well ID	TCE in micrograms/liter			
	12-Mar	12-Sep	13-Jan	19-Feb*
MW-OU1-61-A	31	19	not detected	15
MW-OU1-88-A	9.8	9.3	7.9	7.8
MW-OU1-26-A	7.5	5.2	4.5	4.6
MW-OU1-87-A	5.5	5.3	5.4	not sampled

\*unvalidated results

Although the TCE concentration at MW-OU1-61-A rose significantly in February 2013, the data still shows a generally downward trend since September 2012. Consequently, HGL recommends that the March sampling schedule be modified to meet the following objectives:

- Focus the LTM sampling effort on those areas where TCE remains above the ACL or has dropped below the ACL since September 2012, and
- Identify more quickly when the groundwater cleanup targets are met at all wells in OU-1.

HGL proposed that selected locations where TCE concentrations have been well below the ACL since 2009 be omitted from the March sampling event. Additional samples from locations where TCE has been detected at concentrations above the ACL since March 2012 would be collected in a new sampling event in June 2013. HGL also proposed that the September 2013 sampling schedule be determined after reviewing the June analytical results. The proposed sampling modifications are described in more detail in Attachment 2. After discussion, the regulatory agencies (U.S. Environmental Protection Agency [EPA], California Department of Toxic Substances Control [DTSC], and Central Coast California Regional Water Quality Control Board [RWQCB]) approved the sampling schedule as defined in Attachment 2.

To document the approval of the sampling program changes, HGL will submit a Memorandum to File (MTF) to the Army. The Army will sign the MTF and forward it to EPA, DTSC, and RWQCB.

Validated analytical results from the January 2013 sampling event are presented in attached Tables 1A and 1B for the sampled extraction wells (MW-OU1-87-A and EW-OU1-60-A). Figure 1 shows the TCE concentration contours based on the unvalidated February 2013 data. The attached TCE concentration figure will be updated after the March analytical results are received and reviewed.

### **3. Report Submittals**

The status of previously submitted reports and outstanding and scheduled reports for 2011, 2012, and 2013 is summarized in Table 2. EPA and RWQCB stated that the Draft 2012 Annual and 3<sup>rd</sup> Quarter Groundwater Monitoring Report is accepted as final with no change. DTSC approved the draft submittal with no comment in a letter dated 22 February 2013. HGL will submit the final document next week. EPA and DTSC stated that they preferred electronic copies on disc to hard copies for the final submittal.

The preliminary draft OU-1 2012 Rare Plant Survey and Impact Assessment was submitted to the US Fish and Wildlife Service by the Army on 05 March 2013.

#### **4. Discussion Agenda**

##### **(A) Weed Control**

HGL is coordinating with University of California at Santa Cruz (UCSC) to initiate weed control actions for 2013 within the OU-1 portion of the FONR.

##### **(B) Groundwater Sampling**

As noted in Section 2, the regulatory agencies approved the proposed modifications to the groundwater monitoring schedule as described in Attachment 2. The EPA suggested and HGL agreed that the duplicate sample in future monitoring events will be collected from well MW-OU1-61-A.

##### **(C) Rare Plant Monitoring**

HGL recommended in the 2012 Annual FONR Impact Report that rare plant monitoring be discontinued. The Army will follow up with the US Fish and Wildlife Service to determine if that recommendation was accepted.

##### **(D) Other**

The Army reported that 110 people signed the attendance sheet at the Community Involvement Workshop held on 23 February 2013. The Army estimated the total attendance at approximately 140 people.

#### **Action Items:**

Ongoing:

- Submit draft minutes for February Base Closure Team (BCT) meeting(s)—submitted on 14 March 2013.
- Submit final minutes for previous BCT meeting(s) (January 2013)—submitted on 27 February 2013.
- Submit draft minutes for current BCT meeting.

**Fort Ord HTW BCT Meeting  
Marina, California  
14 March 2013**

**ATTACHMENT 1**

**Reference Tables and Figures**

**Table 1A**  
**TCE in OU-1 FONR Groundwater Remediation System – Performance Monitoring**  
**BCT Meeting for Former Fort Ord – 14 March 2013**

Began:	FONR Extraction Well (listed from south to north)					Boundary Extraction Well (from west to east)				NWTS							
	Nov-10	Oct-07				Jul-06				INFLUENT	MIDPOINT	EFFLUENT					
Date	IW-10	MW-87	EW-71	MW-85	MW-46AD	EW-63	EW-60	EW-66	EW-62								
TCE (µg/L)																	
11/9/07	Used as monitoring well until pump installed in October 2010. Pumping began 03 November 2010.	<b>16</b>	<b>13</b>	<b>19</b>	<b>14</b>	ND	ND	1.7	ND	<b>11</b>	ND	ND					
1/18/08		<b>11</b>	<b>11</b>	<b>8.9</b>	<b>8.2</b>	ND	ND	1.2	ND	<b>6.0</b>	ND	ND					
3/18/08		<b>11</b>	<b>14</b>	<b>6.7</b>	<b>5.8</b>	ND	0.29	1.5	ND	<b>5.6</b>	ND	ND					
5/27/08		<b>9.7</b>	<b>18</b>	2.5	<b>6.1</b>	ND	ND	1.8	ND	3.9	ND	ND					
7/21/08		<b>9.1</b>	<b>14</b>	4.4	3.4	ND	0.78	1.4	ND	3.6	ND	ND					
9/29/08		<b>9.3</b>	<b>15</b>	4.3	2.9	J	ND	0.90	J	1.7	J	ND	3.8	J	0.19	J	ND
12/1/08		<b>5.8</b>	<b>11</b>	2.6	1.6	ND	0.82	0.91	ND	2.7	0.35	J	ND				
1/26/09		<b>5.9</b>	<b>10</b>	2.2	1.2	ND	0.48	J	0.78	ND	2.4	ND	ND				
3/9/09		<b>5.8</b>	<b>9.9</b>	2.1	1.2	ND	0.95	0.86	ND	2.7	ND	ND					
6/11/09		<b>6.9</b>	<b>11</b>	2.4	1.5	ND	0.88	1.7	ND	2.6	0.14	J	ND				
9/15/09		<b>6.8</b>	<b>9.4</b>	1.7	0.78	ND	inactive	1.1	0.036	J	2.3	0.35	J	ND			
12/14/09		<b>6.9</b>	<b>7.5</b>	0.84	not sampled	not sampled	inactive	0.94	not sampled	2.3	0.65	J	ND				
3/22/10		<b>7.2</b>	<b>8.5</b>	0.62	0.55	inactive	ND	0.90	inactive	2.3	ND	ND					
6/21/10		<b>7.4</b>	<b>6.5</b>	0.90	0.40	J	inactive	0.86	0.58	inactive	2.1	ND	ND				
9/20/10		<b>7.7</b>	<b>6.6</b>	0.83	0.35	J	discontinued	0.63	0.49	J	inactive	2.3	not sampled	ND			
12/16/10		<b>5.2</b>	<b>6.9</b>	<b>5.2</b>	0.58	0.28	J	discontinued	0.72	0.42	J	inactive	2.6	0.18	J	ND	
3/7/11		<b>5.1</b>	<b>6.0</b>	4.6	0.55	0.60	discontinued	0.87	0.42	J	inactive	2.5	0.59	ND			
6/7/11		4.2	<b>6.1</b>	4.0	0.78	0.63	discontinued	0.76	0.36	J	inactive	2.6	1.0	ND			
9/20/11		4.5	<b>6.2</b>	4.2	1.10	0.38	J	discontinued	0.57	0.36	J	inactive	2.5	1.7	ND		
12/7/11	3.8	<b>5.1</b>	3.7	not sampled		discontinued	inactive	0.27	J	inactive	1.8	2.1	0.13	J			
3/15/12	3.7	<b>5.5</b>	3.8	0.70	0.23	J	discontinued	inactive	0.38	J	inactive	0.81	0.32	J	ND		
9/25/12	--	<b>5.3</b>	4.4	--	--	discontinued	inactive	0.19	J	inactive	1.8	0.72	J	ND			
1/8/13	--	<b>5.4</b>	--	--	--	discontinued	ND	0.19	J	inactive	--	--	ND				
		<b>Italics (if used) indicate data not yet validated</b>					<b>Bold font indicates concentration &gt; ACL</b>										
Notes:																	
µg/L - micrograms per liter						TCE - trichloroethene											
J - Data qualified as estimated						FONR - Fort Ord Natural Reserve											
ND - nondetect						NWTS - Northwest Treatment System											
-- - Not sampled						ACL - aquifer cleanup level											

**Table 1B**  
**cis-1,2-DCE in OU-1 FONR Groundwater Remediation System – Performance Monitoring**  
**BCT Meeting for Former Fort Ord – 14 March 2013**

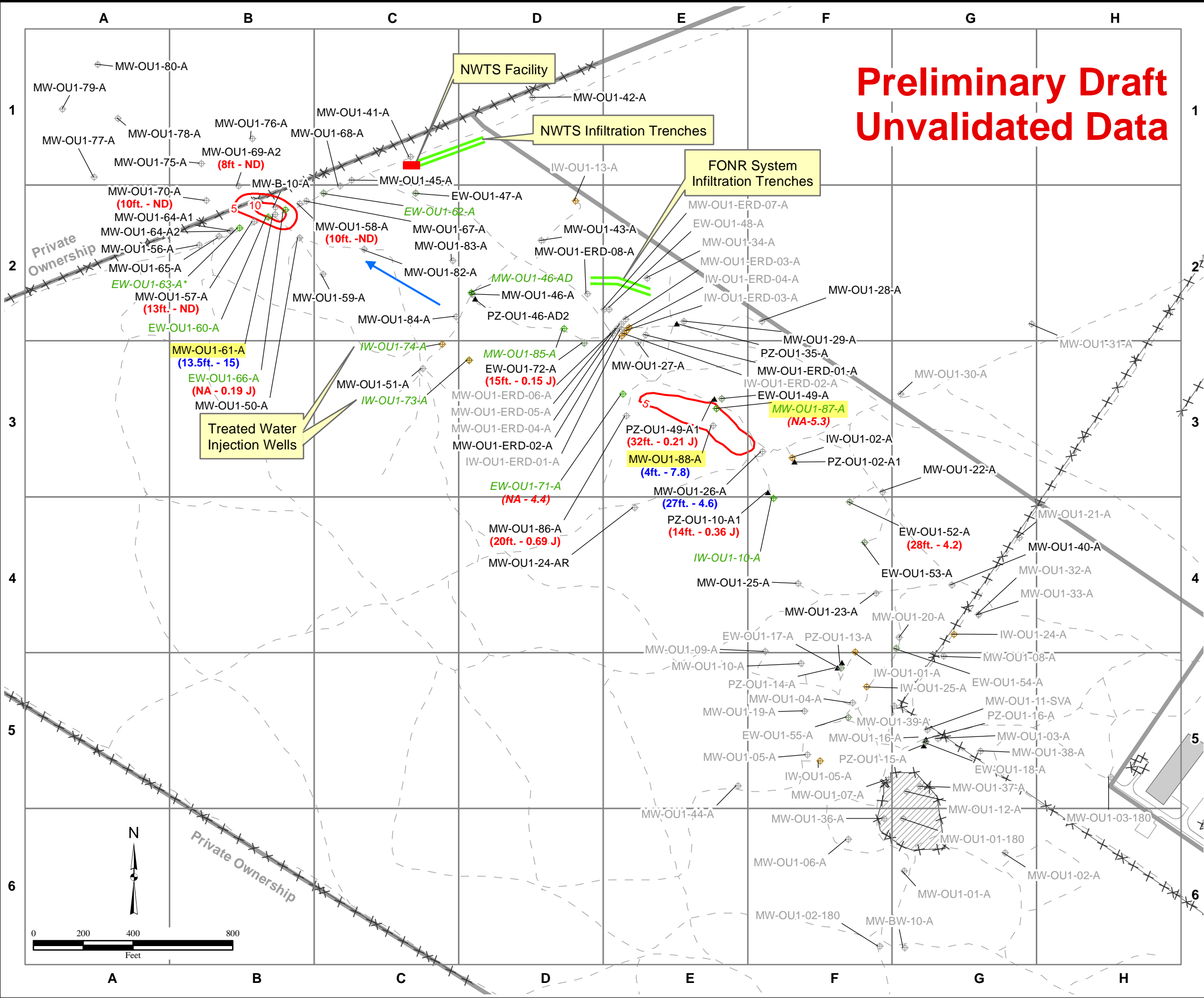
Began:	FONR Extraction Well (listed from south to north)					Boundary Extraction Well (from west to east)				NWTS								
	Nov-10	Oct-07				Jul-06				INFLUENT	MIDPOINT	EFFLUENT						
	Date	IW-10	MW-87	EW-71	MW-85	MW-46AD	EW-63	EW-60	EW-66				EW-62					
<b>cis-1,2-DCE (µg/L)</b>																		
11/09/07	Used as monitoring well until pump installed in October 2010. Pumping began 03 November 2010.	1.9	1.6	2.3	1.70	ND	ND	ND	ND	1.3	ND	ND						
01/18/08		1.20	1.40	1.00	1.20	ND	ND	0.11	ND	0.66	ND	ND						
03/18/08		1.20	1.50	0.74	0.63	ND	ND	ND	ND	0.59	0.11	ND						
05/27/08		0.88	2.10	0.26	0.74	ND	ND	ND	ND	0.36	0.21	ND						
07/21/08		0.80	1.50	0.52	0.37	ND	ND	ND	ND	0.41	0.34	ND						
09/29/08		0.99	1.60	0.54	0.30	ND	ND	0.13	ND	0.42	0.42	0.12						
12/01/08		0.67	1.30	0.33	0.21	J	ND	ND	ND	ND	0.27	J	0.37	J	0.19	J		
01/26/09		0.63	1.20	0.29	J	0.12	J	ND	ND	ND	ND	0.26	J	0.24	J	ND		
03/09/09		0.62	1.20	0.29	J	0.13	J	ND	ND	ND	ND	0.23	J	0.26	J	ND		
06/11/09		0.71	1.10	0.30	J	0.13	J	ND	ND	0.14	J	ND	0.24	J	0.28	J	ND	
09/15/09		0.80	1.00	0.22	J	0.08	J	ND	inactive	0.03	J	ND	0.22	J	0.37	J	0.03	J
12/14/09		0.67	0.65	0.10	J	not sampled	not sampled	inactive	ND	J	not sampled	0.21	J	0.30	J	0.11	J	
03/22/10		0.67	0.79	ND	ND	inactive	ND	ND	inactive	0.20	J	0.11	J	0.13	J	ND		
06/21/10		0.67	0.53	0.14	J	ND	inactive	ND	ND	inactive	0.20	J	0.23	J	ND			
9/20/10		0.66	0.46	J	ND	ND	discontinued	ND	ND	inactive	0.23	J	not sampled	ND				
12/16/10		0.55	0.66	0.35	J	ND	J	ND	discontinued	ND	ND	inactive	0.27	J	0.28	J	ND	
3/7/11	0.37	J	0.52	0.28	J	0.11	J	ND	discontinued	ND	ND	inactive	0.23	J	0.30	J	ND	
6/7/11	0.35	J	0.55	0.29	J	ND	ND	discontinued	ND	ND	inactive	0.18	J	0.31	J	0.15	J	
9/20/11	0.25	J	0.46	J	0.21	J	ND	ND	discontinued	ND	ND	inactive	0.17	J	0.19	J	0.30	J
12/7/11	0.27	J	0.48	J	0.19	J	not sampled	discontinued	inactive	ND	inactive	0.16	J	0.17	J	0.23	J	
3/15/12	0.15	J	0.40	J	0.22	J	0.15	J	ND	discontinued	inactive	ND	inactive	ND	0.24	J	ND	
9/25/12	--	0.39	J	0.23	J	--	--	discontinued	inactive	ND	inactive	ND	0.24	J	ND			
1/8/13	--	0.35	J	--	--	--	--	discontinued	ND	--	inactive	--	--	--				
<p align="center"><b>Italics (if used) indicate data not yet validated</b></p>													<p align="center"><b>Bold font indicates concentration &gt; ACL</b></p>					
Notes:																		
µg/L - micrograms per liter						TCE - trichloroethene												
J - Data qualified as estimated						FONR - Fort Ord Natural Reserve												
ND - nondetect						NWTS - Northwest Treatment System												
-- - Not sampled						ACL - aquifer cleanup level												

**Table 2**  
**Current Deliverable Schedule**  
**BCT Meeting for Former Fort Ord, Marina, California – 14 March 2013**

<b>Deliverable Title</b>	<b>Submittal Due</b>	<b>Review Comments Due</b>	<b>Status/Remarks</b>
<i>Primary Deliverables</i>			
None scheduled			
<i>Secondary Deliverables</i>			
None scheduled			
<i>Completed Recent Submittals</i>			
<b>Final Rebound Evaluation Report</b>	<b>September 2011</b>	<b>NA</b>	<b>Submitted 15 September 2011. Accepted as final.</b>
<b>2011 First Quarter Groundwater Monitoring Report</b>	<b>September 2011</b>	<b>NA</b>	<b>No agency comments. Public comments to be addressed in Draft 2011 Annual Groundwater Report.</b>
<b>Final 2010 Annual and Third Quarter Groundwater Monitoring Report</b>	<b>November 2011</b>	<b>NA</b>	<b>Submitted 15 November 2011. No agency comments.</b>
<b>2011 FONR Impact Report</b>	<b>March 2012</b>	<b>May 2012</b>	<b>Submitted 01 March 2012.</b>
<b>Final Memorandum for Record for Optimizing Remediation Pumping</b>	<b>March 2012</b>	<b>February 2012</b>	<b>Accepted as final during July 2012 BCT meeting.</b>
<b>Final IW-OU1-10-A Construction Report</b>	<b>March 2012</b>	<b>NA</b>	<b>Submitted 30 March 2012.</b>
<b>Final Operable Unit 1 Well Destruction Report</b>	<b>March 2012</b>	<b>NA</b>	<b>Submitted 30 March 2012.</b>
<b>Draft Five Year Review Report</b>	<b>March 2012</b>	<b>May 2012</b>	<b>Army submitted 30 March 2012.</b>
<b>Draft 2011 Annual and Third Quarter Groundwater Monitoring Report</b>	<b>May 2012</b>	<b>July 2012</b>	<b>Submitted 17 May 2012.</b>
<b>2012 First Quarter Groundwater Monitoring Report</b>	<b>May 2012</b>	<b>August 2012</b>	<b>Submitted 29 May 2012.</b>
<b>Draft 2007 Annual &amp; Fourth Quarter Groundwater Monitoring Report</b>	<b>June 2012</b>	<b>August 2012</b>	<b>Submitted 13 June 2012.</b>
<b>Draft Final Five Year Review Report</b>	<b>July 2012</b>	<b>September 2012</b>	<b>Submitted to Army 26 June 2012.</b>
<b>Final 2011 Annual and Third Quarter Groundwater Monitoring Report</b>	<b>July 2012</b>	<b>NA</b>	<b>Submitted 25 July 2012. No agency comments.</b>
<b>IW-OU1-74-A Vandalism Report</b>	<b>July 2012</b>	<b>NA</b>	<b>Submitted 25 July 2012.</b>
<b>Final 2007 Annual and 4<sup>th</sup> Quarter Groundwater Monitoring Report</b>	<b>September 2012</b>	<b>NA</b>	<b>Submitted 26 September 2012. No comments.</b>
<b>Final Five Year Review Report</b>	<b>September 2012</b>	<b>NA</b>	<b>Text for final version sent to Army on 08 August 2012</b>
<b>Draft 2012 Annual and 3<sup>rd</sup> Quarter Groundwater Monitoring Report</b>	<b>December 2012</b>	<b>March 2013</b>	<b>Submitted 31 December 2012. Waiting for agency comments.</b>

# Preliminary Draft Unvalidated Data

**Figure 1**  
**OU-1 FONR**  
**TCE Concentration in Groundwater**  
**February 2013**  
**Former Fort Ord, CA**

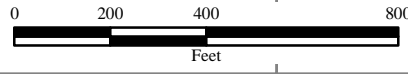


**Legend**

- Well
- Extraction Well
- Injection Well
- Piezometer or 2-Inch Well
- Groundwater Flow Direction
- Well Destroyed
- MW-OU1-88-A Location with February 2013 TCE Concentrations at or above ACL (5 µg/L)
- MW-OU1-45-A Well ID
- (NA - 0.19J) September 2012 TCE Result (µg/L)
- (13ft. - ND) February 2013 TCE Result (µg/L)
- 5 TCE contour based on February 2013 Data
- Trail/Unimproved Road
- Fence
- Treated Water Infiltration Trench
- Property Boundary
- Buildings
- Former Fire Drill Area

**Notes:**  
 Units of TCE concentration are in micrograms per liter  
 FONR = Fort Ord Natural Reserve  
 NWTS = Northwest Treatment System  
 ACL = Aquifer Cleanup Level  
 ND = nondetect  
 NA = Depth is not applicable - sample is from pumping well  
 µg/L = micrograms per liter  
 Wells shown with an asterisk were not used to develop contour boundaries.  
 Wells for which no data are posted were not sampled  
 J = Estimated value  
 Green font indicates extraction or injection well.  
 Italicized font shows pumping suspended in March 2012.  
 \* = Disconnected extraction well. No longer operable.

\\gst-srv-01\hglgis\Ft\_Ord\_Miscellaneous\_Figures\  
 (1)TCE\_GW\_Feb 2013.mxd  
 3/12/2013 CNL  
 Source: HGL





**Fort Ord HTW BCT Meeting  
Marina, California  
14 March 2013**

**ATTACHMENT 2**

**Proposed Groundwater Long Term Monitoring Modifications for March Through September  
2013**

PRELIMINARY DRAFT MEMORANDUM FOR RECORD

SUBJECT: Proposed Modification to 2013 Operable Unit 1 Groundwater Long Term Monitoring at Former Fort Ord, California

1) References

U.S. Army, 2012. Memorandum for Record—Record of Decision Remedy Optimization for Operable Unit 1 Groundwater Fritzsche Army Airfield, Former Fort Ord, California. 27 March. Administrative Record Series Number OU-060\*.

HydroGeoLogic, Inc. (HGL), 2012. Draft 2012 Annual and Fourth Quarter Groundwater Monitoring Report, Operable Unit 1, Fritzsche Army Airfield Fire Drill Area, Former Fort Ord, California. December. Administrative Record Series Number OU-599\*.

2) Status of Operable Unit 1 (OU-1) Groundwater Remediation Effort

In 2011, HGL performed a remedy optimization evaluation for the OU-1 groundwater remediation system. The regulatory agencies (U.S. Environmental Protection Agency, California Department of Toxic Substances Control, and Central Coast California Regional Water Quality Control Board) concurred with the recommendations based on that evaluation (U.S. Army, 2012). In March 2012, those recommendations were implemented as follows:

- Groundwater extraction continued from well EW-OU1-66-A
- All other active extraction wells were taken off-line
- The groundwater long term monitoring (LTM) schedule was revised to semiannual sampling from selected wells and the northwest treatment system (NWTS)

The March 2012 groundwater LTM samples showed that trichloroethene (TCE) exceeded the aquifer cleanup level (ACL) of 5 micrograms per liter ( $\mu\text{g/L}$ ) at three monitoring wells with TCE concentrations ranging between 31  $\mu\text{g/L}$  and 7.5  $\mu\text{g/L}$ . The TCE concentration also exceeded the ACL at one extraction well (MW-OU1-87-A at 5.3  $\mu\text{g/L}$ ). Three of the four wells with ACL exceedences are located within the plume in the central part of the Fort Ord Natural Reserve. The fourth well (MW-OU1-61-A) is located near the northwest boundary of the former Fort Ord and since March 2009 has been the only well in that area to show TCE concentration greater than the ACLs.

Analytical results from the September 2012 LTM event showed that TCE concentrations at these monitoring wells decreased and ranged between 19  $\mu\text{g/L}$  and 5.2  $\mu\text{g/L}$ . The TCE concentration was stable at extraction well MW-OU1-87-A. Consequently, HGL resumed pumping from extraction well MW-OU1-87-A in October 2012 in an effort to accelerate the cleanup. In December 2012, HGL restored pumping at extraction well EW-OU1-60-A and replaced the pump in extraction well EW-OU1-66-A.

In January 2013, samples were collected from those wells where TCE exceeded the ACL in September 2012 and from extraction wells EW-OU1-60-A and EW-OU1-66-A. The January 2013 sampling results showed that TCE exceeded the ACL only in the central portion of the Fort Ord Natural Reserve at one monitoring well and extraction well MW-OU1-87-A:

Well ID	TCE in micrograms/liter		
	Mar-12	Sept-12	Jan-13
MW-OU1-61-A	31	19	Not detected
MW-OU1-88-A	9.8	9.3	7.9
MW-OU1-26-A	7.5	5.2	4.5
MW-OU1-87-A	5.5	5.3	5.4

### 3) Proposed 2013 LTM Sampling Schedule

The current groundwater LTM schedule specifies semiannual sampling at selected monitoring and extraction wells and at three locations within the groundwater treatment facility. Figure 1 illustrates the boundary of TCE concentration greater than the ACL based on the January 2013 sampling results. Given the significant decreases in TCE concentration observed over the last 4 months, HGL proposes to revise the sampling schedule to meet the following objectives:

- Focus the LTM sampling effort on those areas where TCE remains above the ACL or has dropped below the ACL since September 2012, and
- Identify more quickly when the groundwater cleanup targets are met at all wells in OU-1.

Table 1 presents the current LTM schedule and the proposed schedule. Overall, the proposed schedule reduces the number of wells and locations to be sampled in March 2013 but adds an additional sampling event in June 2013. If accepted by all the regulatory agencies and the Army, HGL will implement the proposed LTM schedule with the March 2013 sampling event.

The rationale for omitting the proposed wells and treatment plant locations from the March 2013 sampling event are discussed below.

- NWTS-Influent. Three extraction wells are currently operating and all will be sampled in March. The influent concentration can be estimated accurately by calculating the total TCE mass and flow rate for each of the operating wells and combining the results. The influent TCE concentration has not exceeded 1.8 µg/L since September 2011.
- NWTS-Midpoint. Based on the remaining carbon adsorption capacity of the lead treatment vessels, TCE breakthrough will not occur until March 2014. This date is conservatively based on a constant influent concentration of 1.8 µg/L through March 2014.

The following wells were included in the LTM program to verify the boundaries of the TCE exceedance zone. Given the decrease in peak TCE concentrations observed since March 2011 and the sampling history at these locations, it is not necessary to sample these wells in March.

- EW-OU1-72-A. TCE at this well has been decreasing and has not exceeded 0.25 J µg/L since March 2009.
- MW-OU1-86-A. TCE at this well has been decreasing and has been less than 1 µg/L since September 2010.
- PZ-OU1-49-A1. TCE at this well has been decreasing and has been less than 1 µg/L since September 2010.

HGL proposes that the specific wells to be included in the September 2013 LTM event be determined after reviewing the June 2013 sampling results.

#### 4) Conclusion

HGL proposes to modify the current OU-1 groundwater LTM sampling schedule to more closely monitor TCE concentrations. Fourteen samples are scheduled to be collected in March 2013 followed by 19 samples in September 2013. HGL proposes that selected locations where TCE concentrations have been well below the ACL since 2009 be omitted from the March sampling event. Additional samples from locations where TCE has been detected at concentrations above the ACL since March 2012 would be collected in June 2013. HGL also proposes that the September 2013 sampling schedule be determined after reviewing the June analytical results.