

SUBJECT: HTW – BCT Meeting
May 15, 2008
8:30 a.m.

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Check (✓)	Name	Organization	Phone	E-mail address
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on phone

HTW BCT Meeting

May 15, 2008

Item	Action	Comment
OU1 Groundwater Remediation	Status Update	HGL
OU1 Off-Site	Status Update	
OU2 and 2/12 Treatment Systems	Status Update	
Other Groundwater Issues	Status Update	Quarterly sampling, Groundwater Summit Meeting, Marina Heights, University Village
OUCTP Pilot Study	Status Update	
Groundwater Treatment System Optimization	Status Update	
OU2 Landfill Gas	Status Update	
Basewide Range Assessment	Status Update	Seaside Risk Assessment, No Action Approval Memos
Site 39 Proposed Plan and ROD	Status Update	
Site 3 Post Remediation Monitoring	Status Update	
Five Year Review	Status Update	Responses to Comments
FFA Schedule	Status Update	
FOST/FOSET Issues	Status Update	
Calendar Update	Update	

Former Fort Ord Groundwater Treatment Systems Operational Data and Status BCT Meeting May 15, 2008

Table 1: OU2 and Sites 2/12 GWTP Treatment Statistics.

	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (lbs)
OU2				
April 2008	30,992,950	717	99	2.51
Total since October 1995	4.181 billion			592.47
Sites 2/12				
April 2008	5,917,900	137	95	1.13
Total since May 1999	1.108 billion			398.79

Table 2: OU2 and Sites 2/12 GWTP Calendar of Key Events.

Key Events for OU2 and Sites 2/12 for April 2008						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
*20 USAN Notices in April. None of these alerts required the personal attention of the Senior GWTP Operator.						
6	7	8	9	10	11 GWTP offline intermittently due to communication problems	12 GWTP offline intermittently due to communication problems
13 GWTP communication problems fixed and back on line	14	15	16 Pump in EW-12-05-180 replaced	17	18	19
20	21	22	23	24	25	26 Touch panel installed at Sites 2/12
27	28 Level transducer for EW-OU2-03-180 replaced.	29	30			

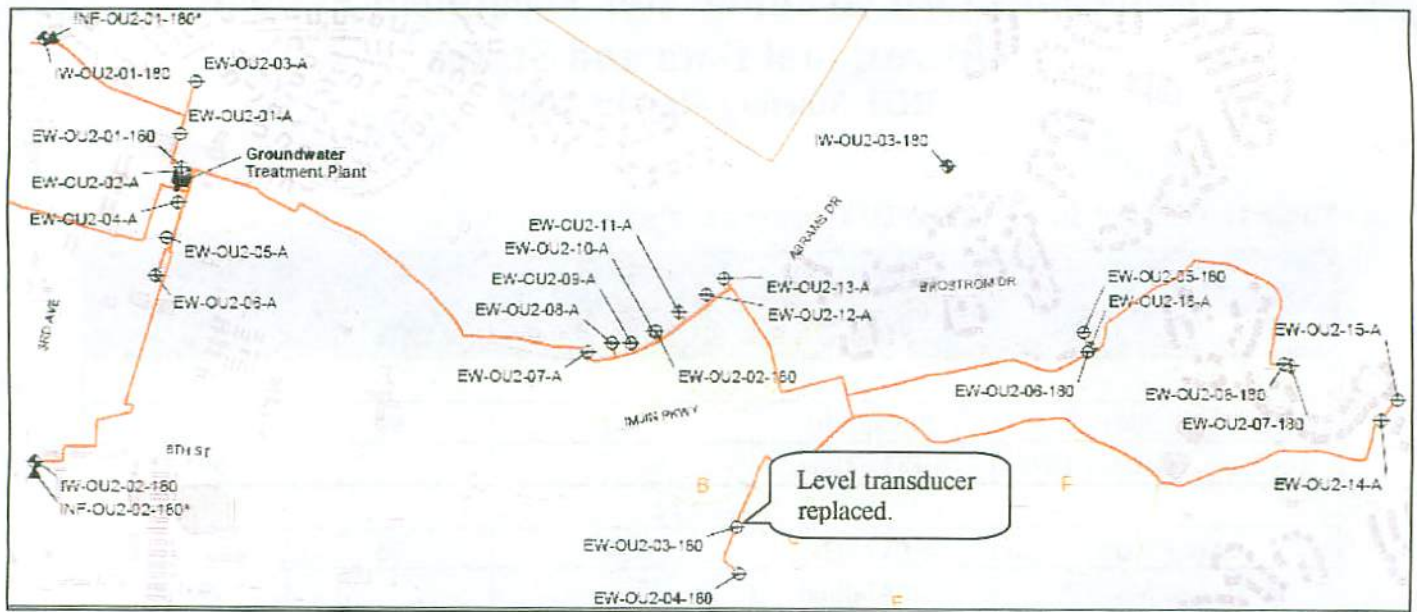


Figure 1: OU2 Groundwater Extraction and Treatment System.

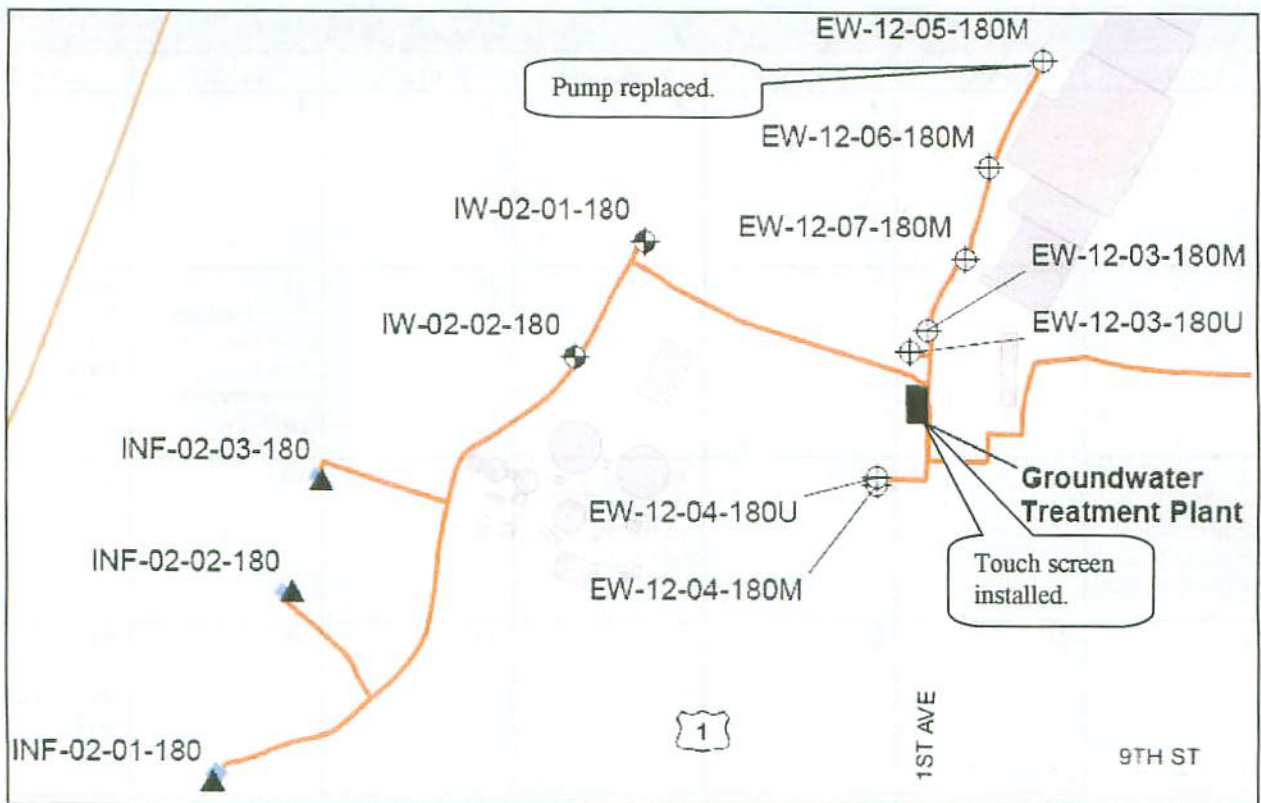


Figure 2: Sites 2/12 Groundwater Extraction and Treatment System.

Table 3: OU2 Analytical Results at TS-OU2-INJ.

COC	Discharge Limit (µg/L)‡	Sample Date / Analytical Results	
		04/03/2008**	04/30/2008**
1,1-DCA	5.0*	ND	0.42 J
1,2-DCA	0.5	ND	ND
1,2-DCP †	0.5	ND	ND
Benzene	0.5	ND	ND
Carbon Tetrachloride	0.5	ND	ND
Chloroform	2.0*	ND	ND
Cis-1,2-DCE	6.0*	ND	ND
Methylene Chloride	0.5	ND	ND
PCE	0.5	ND	ND
TCE	0.5	ND	ND
Vinyl Chloride	0.5	ND	ND

Table 4: Sites 2/12 Analytical Results at TS-212-INJ

COC	Discharge Limit (µg/L)‡	Sample Date / Analytical Results				
		04/03/08**	04/10/08**	04/16/08**	04/24/08**	04/30/08**
1,1-DCE	6	ND	ND	ND	ND	ND
1,2-DCA	0.5	ND	ND	ND	ND	0.12 J
1,3-DCP †	0.5	ND	ND	ND	ND	ND
Chloroform	2	ND	ND	ND	ND	ND
Cis-1,2 DCE	6	1.5	0.30 J	2.5	2.6	2.5
PCE	3	ND	ND	ND	ND	ND
TCE	5	ND	ND	ND	ND	ND
Vinyl Chloride	0.1	ND	ND	ND	ND	ND

NOTES:

- J The analyte was positively identified, but the associated numerical value is an approximate concentration greater than the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).
- ND The analyte was not detected above MDL.
- * Discharge limits for low carbon affinity compounds were increased to the Aquifer Cleanup Level (ACL).
- ‡ Discharge limits are the ACLs for injection over the plume.
- † The reported value is the sum of both cis- and trans-isomers.
- ** Preliminary data; validation has not been completed.
- J± Data are qualified as estimated, with a high (+) or low (-) bias likely to have occurred. False positives or false negatives are unlikely to have been reported.

Table 5: April 2008 OU2 and Sites 2/12 Extraction Well Status.

Well Identification	% On	Avg. gpm	Total Gallons	% of Total	Comments
Site 12 Extraction Wells					
EW-12-05-180M	48.6	38.8	1,676,500	28.3	
EW-12-06-180M	95.6	78.4	3,388,200	57.3	
EW-12-07-180M	26.7	19.8	853,200	14.4	
EW-12-03-180U	0	0	0	0.0	Well offline due to low concentrations.
EW-12-03-180M	0	0	0	0.0	Well offline due to low concentrations.
EW-12-04-180U	0	0	0	0.0	Well offline due to low concentrations.
EW-12-04-180M	0	0	0	0.0	Ceased operating on 11/21/2005. No power.
Total 2/12 gallons treated:			5,917,900	100	
OU2 Extraction Wells					
Western Network					
EW-OU2-01-A	0	0	0	0.0	Well offline due to low concentrations.
EW-OU2-02-A	97.7	49.8	2,150,290	6.9	
EW-OU2-03-A	0	0	0	0.0	Well offline due to low concentrations.
EW-OU2-04-A	97.7	45.7	1,974,860	6.4	
EW-OU2-05-A	97.7	45.1	1,947,500	6.3	
EW-OU2-06-A	97.7	32.9	1,421,470	4.6	
EW-OU2-01-180	0	0	0	0.0	Well offline due to low concentrations.
Total gallons extracted:			7,494,120	24.2	
Eastern Network					
EW-OU2-07-A	0	0	0	0.0	Well offline due to low concentrations.
EW-OU2-08-A	13.6	3.8	165,090	0.5	
EW-OU2-09-A	93.3	26.3	1,137,600	3.7	
EW-OU2-10-A	80.4	21.9	948,160	3.1	
EW-OU2-11-A	0	0	0	0.0	Well offline due to area construction.
EW-OU2-12-A	0	0	0	0.0	Well offline due to area construction.
EW-OU2-13-A	93.3	28.0	1,210,780	3.9	
EW-OU2-02-180	0	0	0	0.0	Well offline pending installation of VFD.
Total gallons extracted:			3,461,630	11.2	
Shoppette					
EW-OU2-05-180	96.1	122.4	5,286,700	17.1	
EW-OU2-06-180	96.3	141.3	6,104,900	19.7	
EW-OU2-16-A	93.5	19.9	861,300	2.8	
Total gallons extracted:			12,252,900	39.5	
CSUMB					
EW-OU2-14-A	81.7	20.4	880,300	2.8	
EW-OU2-15-A	0	0	0	0.0	Well offline due to low concentrations.
Total gallons extracted:			880,300	2.8	
Landfill					
EW-OU2-03-180	76.5	105.6	4,560,000	14.7	
EW-OU2-04-180	0	0	0	0.0	Well offline due to low concentrations.
Total gallons extracted:			4,560,000	14.7	
Bunker Hill					
EW-OU2-08-180	90.8	54.3	2,344,000	7.6	
Total gallons extracted:			2,344,000	7.6	
Total OU2 gallons treated:			30,992,950	100	

Table 6: OU2 Extraction Well Organic Data.

Well Identification	Analytical Results (µg/L)		
	Chloroform (2.0)	Cis-1,2-DCE (6.0)	TCE (5.0)
<i>Western Network</i>			
EW-OU2-01-A	0.18 J	ND	1
EW-OU2-02-A	0.18 J	ND	1.3
EW-OU2-03-A	<i>Not Sampled</i>		
EW-OU2-04-A	0.30 J	0.12 J	2.3
EW-OU2-05-A	0.43 J	1.4	5.2
EW-OU2-06-A	0.59 J	2.8	5.0
EW-OU2-01-180	<i>Not Sampled</i>		
<i>Eastern Network</i>			
EW-OU2-07-A	ND	ND	ND
EW-OU2-08-A	ND	ND	0.19
EW-OU2-09-A	0.31 J	7.7	7.7
EW-OU2-10-A	0.61	4.4	6.8
EW-OU2-11-A	0.27 J	1.1	3.6
EW-OU2-12-A	<i>Not sampled</i>		
EW-OU2-13-A	2.2	1.8	18
EW-OU2-02-180	0.40 J	4.7	9.2
<i>Shoppette</i>			
EW-OU2-05-180	0.28 J	0.61	8.0
EW-OU2-06-180	0.34 J	1.3	6.2
EW-OU2-16-A	4.7	13	16
<i>CSUMB</i>			
EW-OU2-14-A	0.51	ND	1.5
EW-OU2-15-A	<i>Not sampled</i>		
<i>Landfill</i>			
EW-OU2-03-180	0.21 J	3.8	35
EW-OU2-04-180	ND	ND	0.46
<i>Bunker Hill</i>			
EW-OU2-08-180	ND	0.36 J	1.2

NOTES:

J The analyte was positively identified, but the associated numerical value is an approximate concentration greater than the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).

ND The analyte was not detected above the reported limit of quantitation.

Table 7: Site 12 Extraction Well Organic Data.

Well Identification	Analytical Results (µg/L)			
	Cis-1,2-DCE (6.0)	PCE (3.0)	TCE (5.0)	Vinyl Chloride (0.1)
EW-12-03-180M	Not Sampled			
EW-12-03-180U	ND	0.22 J	0.94	ND
EW-12-04-180M	Not Sampled			
EW-12-04-180U	ND	0.13 J	0.31 J	ND
EW-12-05-180M	Not Sampled			
EW-12-06-180M	8.0	2.3	19	0.08 J
EW-12-07-180M	3.2	1.8	5.1	ND

NOTES:

J The analyte was positively identified, but the associated numerical value is an approximate concentration greater than the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).

ND The analyte was not detected above the reported limit of quantitation.

Fort Ord No Action Process

No Action sites at Fort Ord are sites that already in a protective state and pose no current or potential threat to human health or the environment. The level of contamination that exists at a site must be below the levels required for protection of human health and the environment. Examples could include sites where concentrations in soil are below basewide background levels or Preliminary Remedial Goals (PRGs)

Human Health Risk

The overall screening criterion for a No Action Site is an acceptable level of protection for human health and the environment. Sites would require documentation that concentrations of contaminants at the site are below PRGs which were developed in accordance with the procedures described in the *Draft Final Technical Memorandum, Preliminary Remediation Goals, Fort California* dated June 24, 1994.

Protection of Groundwater

No Action sites will be evaluated for potential impact to groundwater. The PRGs for chemicals based on human health will be evaluated to determine that State and Federal Maximum Contaminant Levels in groundwater not be exceeded. As discussed in the *Technical Memorandum: Approach to Evaluating Potential Groundwater Quality Impacts*, dated July 29, 1993, organic compounds in the soil within the saturated zone will be evaluated using an US EPA developed partitioning mass transport model (VLEACH).

Pesticide- and metal-contaminated soil will be assessed qualitatively to determine potential impacts to groundwater quality. Concentrations of chemicals below PRGs, are not expected to have an impact on groundwater quality.

Ecological Considerations

Preliminary Hazard Assessments for ecological risk will be evaluated. The results of the ecological risk assessment will be included in the Approval Memorandum for each site to verify that these sites do not pose a risk to the environment.

Approval Process for No Action

An Approval Memorandum will be prepared for each proposed No Action site to demonstrate that the area meets appropriate requirements. Each Approval Memorandum will be made available by the Army to the

public, local and county agencies, U.S. EPA, DTSC and RWQCB for review.

The Approval Memorandum will include:

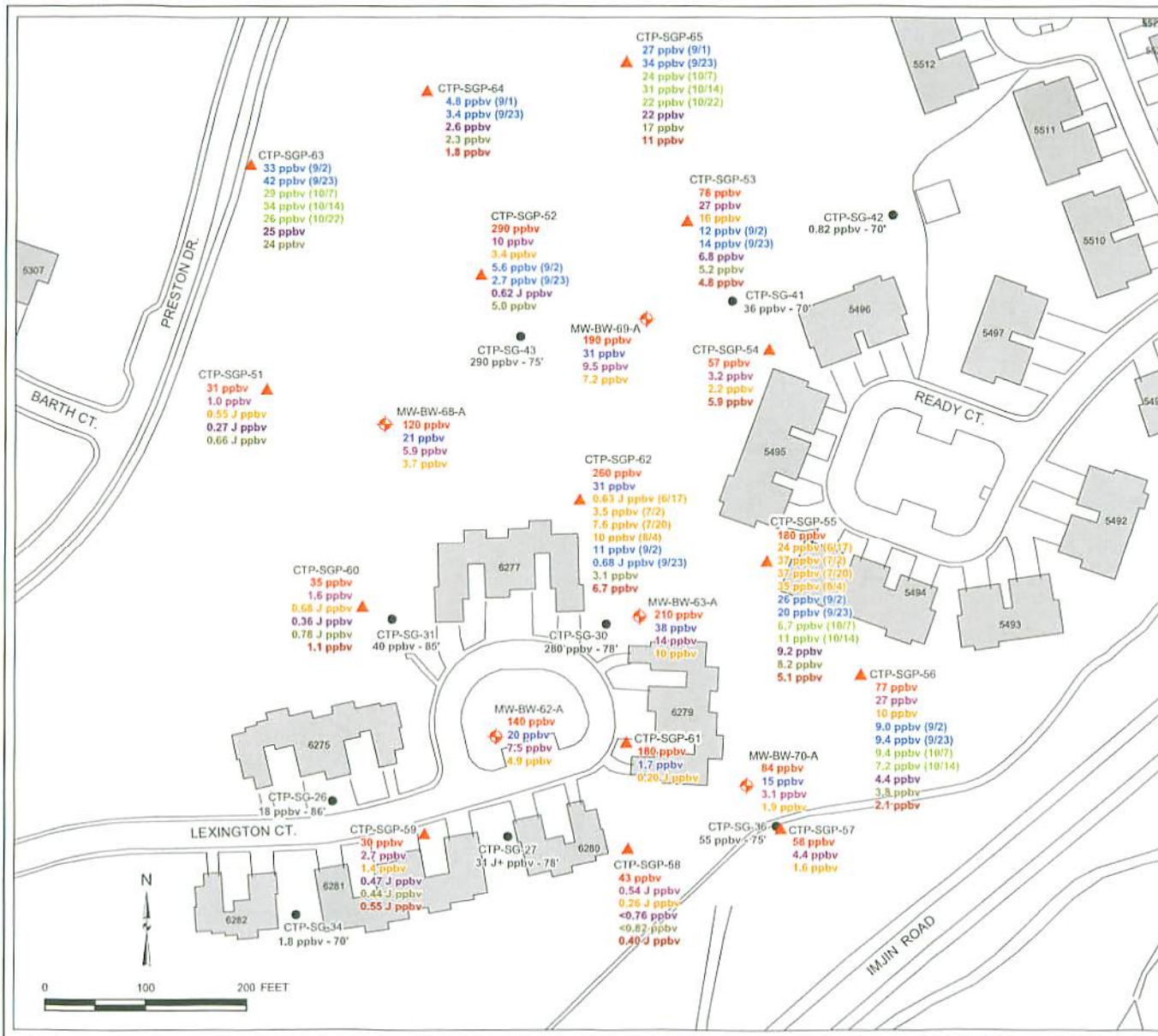
- 1) A description of the site and its geologic conditions.
- 2) A map of the site detailing location and any posted chemical or other pertinent available data.
- 3) A table of site-related chemical concentrations and their respective PRGs.
- 4) An evaluation of potential impacts to groundwater.
- 5) Results of the ecological risk assessment.

Following a 30-day public review and comment period, the Army will forward the Approval Memorandum, public comments, and response to comments to the agencies for final review and approval. Agency review of the Approval Memorandum will be completed within 10 working days of its submittal unless extended pursuant to the FFA. Agency approvals will be confirmed in subsequent written correspondence from the agencies. Agency denial of a No Action Approval Memorandum may be disputed pursuant to Section 12 (Dispute Resolution) of the FFA. When the Army receives approval of a No Action site determination, a notice will be placed in a major local newspaper. Completed and planned No Action site activities will also be described in newsletters, prepared for local residents by the Presidio of Monterey.

The Approval Memorandum will serve as a decision document for the transfer of property.



SVE Sampling Results
Presented To BCT
5/15/08



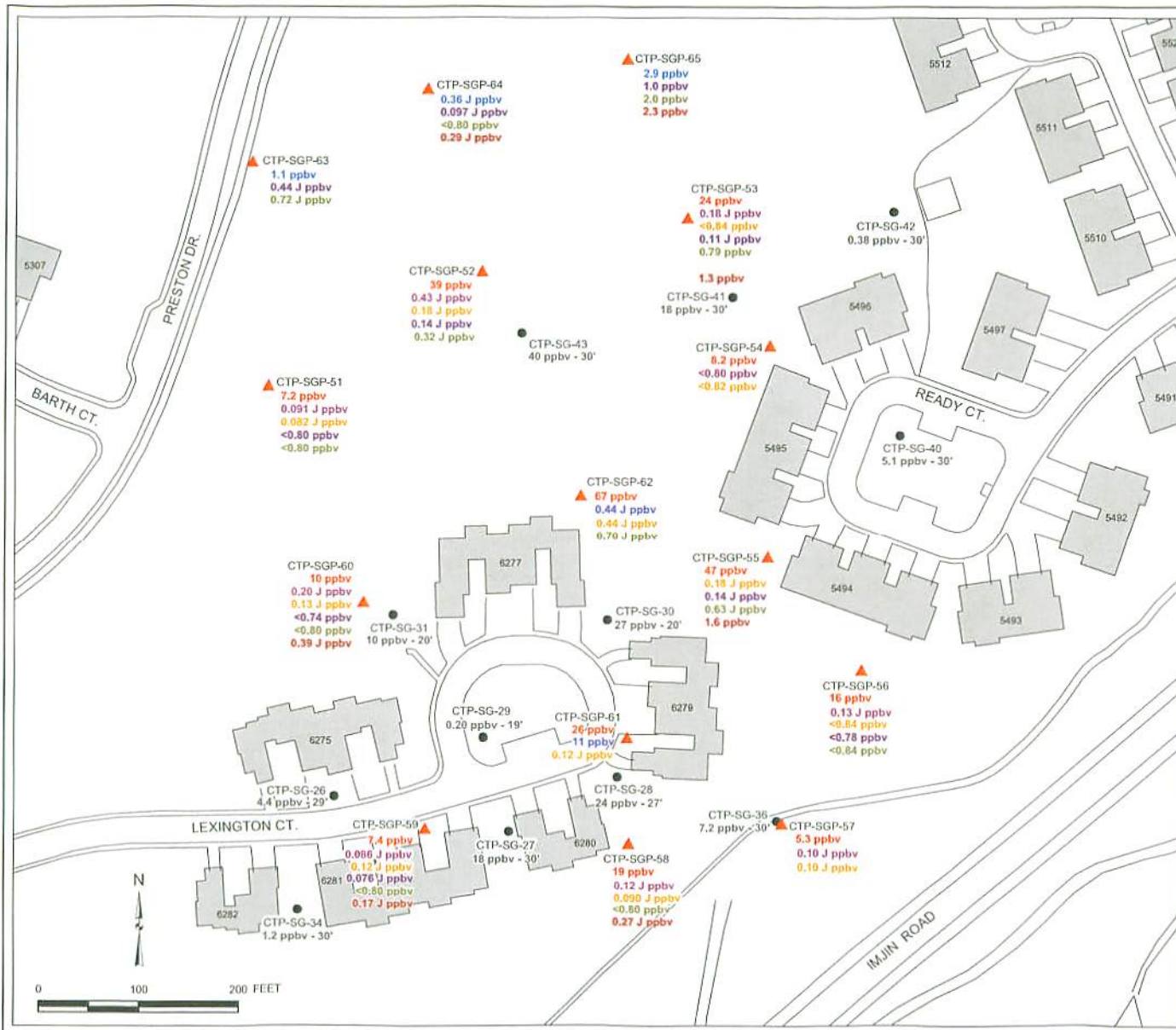
LEGEND

- SOIL VAPOR EXTRACTION WELL
- DEEP (80-85 FT.) MONITORING PROBE
- TEMPORARY SOIL GAS MONITORING PROBE SAMPLED MARCH TO JUNE 2003
- 280 ppbv - 78'** CARBON TETRACHLORIDE CONCENTRATION MARCH-JUNE 2003, DEPTH OF PROBE SHOWN
- 210 ppbv** CARBON TETRACHLORIDE CONCENTRATION - MARCH 2004
- 38 ppbv** CARBON TETRACHLORIDE CONCENTRATION - APRIL 2004
- 14 ppbv** CARBON TETRACHLORIDE CONCENTRATION - MAY 2004
- 14 ppbv** CARBON TETRACHLORIDE CONCENTRATION - JUNE-AUGUST 2004
- 5.6 ppbv** CARBON TETRACHLORIDE CONCENTRATION - SEPTEMBER 2004
- 6.7 ppbv** CARBON TETRACHLORIDE CONCENTRATION - OCTOBER 2004
- 2.6 ppbv** CARBON TETRACHLORIDE CONCENTRATION - NOVEMBER 2004
- 2.3 ppbv** CARBON TETRACHLORIDE CONCENTRATION - MAY 2005
- 4.8 ppbv** CARBON TETRACHLORIDE CONCENTRATION - APRIL 2008
- BUILDING

NOTES

1. March 2004 Carbon Tetrachloride concentrations measured between 3/25/04 and 4/1/04, before SVE operation.
2. April 2004 Carbon Tetrachloride concentrations measured 4/28/04
3. May 2004 Carbon Tetrachloride concentrations measured 5/18/04.
4. June-August 2004 Carbon Tetrachloride concentrations measured 6/14, 6/17, 7/2, 7/20, and 8/4/04.
5. September 2004 Carbon Tetrachloride concentrations measured 9/2/04 and 9/23/04.
6. October 2004 Carbon Tetrachloride concentrations measured 10/7/04, 10/14/04, and 10/22/04.
7. November 2004 Carbon Tetrachloride concentrations measured 11/17/04, 11/18/04, and 11/22/04.
8. May 2005 Carbon Tetrachloride concentrations measured 5/24/05 and 5/25/05.
9. April 2008 Carbon Tetrachloride concentrations measured 4/1/08 and 4/2/08.
10. J is a laboratory qualifier (estimated value).
11. Phase I SVE operation April 6 to June 14, 2004; Phase II Sept. 9 to Nov 8, 2004.

REVISION	DATE	DESCRIPTION	CHG	APPR
		Department of the Army Sacramento District, Corps of Engineers Sacramento, California		
DESIGNED	J. MOSER	FIGURE 5-5 CARBON TETRACHLORIDE CONCENTRATIONS DEEP MONITORING PROBES OPERABLE UNIT CARBON TETRACHLORIDE FORMER FORT ORD, CALIFORNIA		
DRAWN	K. BLACK			
CHECKED				
SUBMITTED				
		SCALE	FILE No.	
		SHEET 1	CTdeep_April2008.mxd	



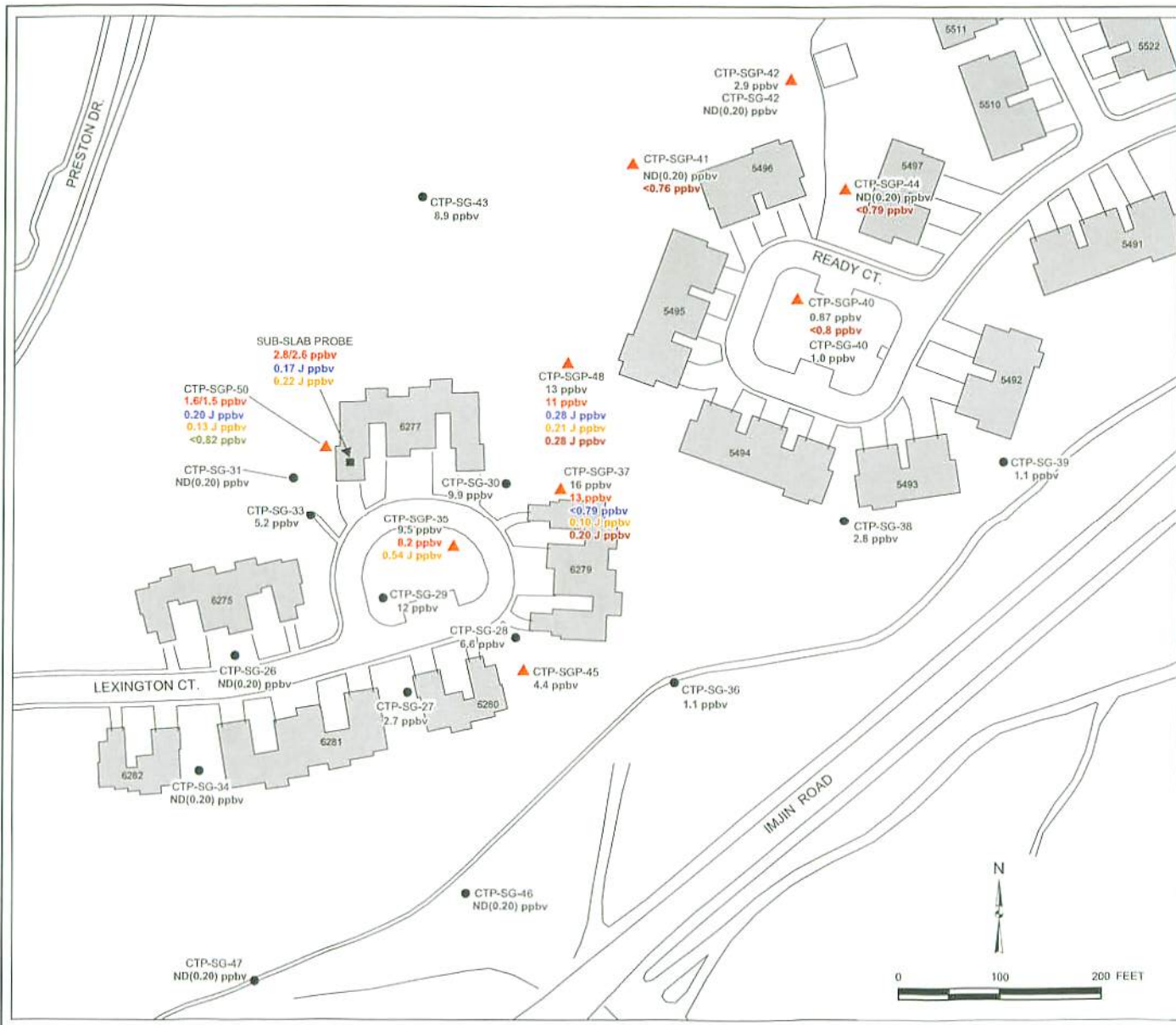
LEGEND

- ▲ SHALLOW (25-30 FT.) MONITORING PROBE
- TEMPORARY SOIL GAS MONITORING PROBE SAMPLED MARCH TO JUNE 2003
- 18 ppbv - 30' CARBON TETRACHLORIDE CONCENTRATION MARCH-JUNE 2003; PROBE DEPTH SHOWN
- 26 ppbv CARBON TETRACHLORIDE CONCENTRATION - MARCH 2004
- 11 ppbv CARBON TETRACHLORIDE CONCENTRATION - APRIL 2004
- <0.80 ppbv CARBON TETRACHLORIDE CONCENTRATION - MAY 2004
- 0.12 J ppbv CARBON TETRACHLORIDE CONCENTRATION - JUNE 2004
- 2.9 ppbv CARBON TETRACHLORIDE CONCENTRATION - SEPTEMBER 2004
- 1.0 ppbv CARBON TETRACHLORIDE CONCENTRATION - NOVEMBER 2004
- 1.0 ppbv CARBON TETRACHLORIDE CONCENTRATION - MAY 2005
- 1.3 ppbv CARBON TETRACHLORIDE CONCENTRATION - APRIL 2008
- BUILDING

NOTES

1. March 2004 Carbon Tetrachloride concentrations measured between 3/25/04 and 3/31/04, before SVE operation.
2. April 2004 Carbon Tetrachloride concentrations measured 4/28/04.
3. May 2004 Carbon Tetrachloride concentrations measured 5/18/04 and 5/19/04.
4. June 2004 Carbon Tetrachloride concentrations measured between 6/15/04 and 6/17/04.
5. September 2004 Carbon Tetrachloride concentrations measured 9/1/04 and 9/2/04.
6. November 2004 Carbon Tetrachloride concentrations measured 11/17/04, 11/18/04 and 11/22/04.
7. May 2005 Carbon Tetrachloride concentrations measured 5/24/05 and 5/25/05.
8. April 2008 Carbon Tetrachloride concentrations measured 4/1/08 and 4/2/08.
9. J is a laboratory qualifier (estimated value).
10. Phase I SVE operation April 6 to June 14, 2004; Phase II Sept. 9 to Nov 8, 2004.

REVISION	DATE	DESCRIPTION	CHKD	APPR
		Department of the Army Sacramento District, Corps of Engineers Sacramento, California		
DESSAULO J. MOSER		FIGURE 5-7 CARBON TETRACHLORIDE CONCENTRATIONS SHALLOW MONITORING PROBES OPERABLE UNIT CARBON TETRACHLORIDE FORMER FORT ORD, CALIFORNIA		
DRAWN K. BLACK				
CHECKED				
SUBMITTED	DATE	SCALE	SHEET	SPEC. No.
			FILE No.	
			CTHallow_April2008.mxd	



LEGEND

- ▲ NEAR SURFACE (6 FT.) MONITORING PROBE
- TEMPORARY SOIL GAS MONITORING PROBE
SAMPLED MARCH TO JUNE 2003
- 13 ppbv CARBON TETRACHLORIDE CONCENTRATION - MARCH-JUNE 2003
- 11 ppbv CARBON TETRACHLORIDE CONCENTRATION - MARCH 2004
- 0.28 J ppbv CARBON TETRACHLORIDE CONCENTRATION - APRIL 2004
- 0.21 J ppbv CARBON TETRACHLORIDE CONCENTRATION - JUNE 2004
- <0.82 ppbv CARBON TETRACHLORIDE CONCENTRATION - MAY 2005
- <0.76 ppbv CARBON TETRACHLORIDE CONCENTRATION - APRIL 2008
- BUILDING

NOTES:

1. March 2004 Carbon Tetrachloride concentrations measured between 3/25/04 and 3/31/04, except CTP-SGP-50 and Sub-Slab Probe measured 3/8/04 and 3/15/04, before SVE operation.
2. April 2004 Carbon Tetrachloride concentrations measured 4/28/04.
3. June 2004 Carbon Tetrachloride concentrations measured 6/18/04.
4. May 2005 Carbon Tetrachloride concentrations measured 5/25/05.
5. April 2008 Carbon Tetrachloride concentrations measured 4/1/08 and 4/2/08.
6. J is a laboratory qualifier (estimated value).
7. Phase I SVE operation April 5 to June 14, 2004;
Phase II Sept. 9 to Nov. 8, 2004.

REVISION	DATE	DESCRIPTION	CH'D	APP'D
		Department of the Army Sacramento District, Corps of Engineers Sacramento, California		
DESIGNED	J. MOSER	FIGURE 5-8 CARBON TETRACHLORIDE CONCENTRATIONS NEAR-SURFACE MONITORING PROBES OPERABLE UNIT CARBON TETRACHLORIDE FORMER FORT ORD, CALIFORNIA		
DRAWN	K. BLACK	SCALE	SHEET	FIGURE NO.
CHECKED	P. KELSALL			
SUBMITTED		DATE	FILE No.	
			CTsurface_April2008.mxd	

Table 5-3

**Comparison Carbon Tetrachloride Concentrations
April 2008 and Previous Sampling Events**

PROBE ID	PROBE TYPE	DEPTH (ft)	Carbon Tetrachloride Concentration (ug/m3)						Difference since last sampled (ug/m3)
			Sampling Events						
			Mar-04	Jun-04	Sep-04	Nov-04	May-05	Apr-08	
CTP-SGP-37	SURFACE	6	81	0.63J				1.3J	0.67
CTP-SGP-40	SURFACE	6				<4.7		<5.1	NC
CTP-SGP-41	SURFACE	6				<5		<4.8	NC
CTP-SGP-44	SURFACE	6				<4.9		<5	NC
CTP-SGP-48	SURFACE	6	69	1.3J				1.8J	0.5
CTP-SGP-53	SHALLOW	30		<5.3		0.69J	<5	8.5	3.5
CTP-SGP-55	SHALLOW	30	296	<5.4		0.88J	4J	9.9	5.9
CTP-SGP-58	SHALLOW	30	120	0.57J			<5	1.7J	NC
CTP-SGP-59	SHALLOW	30	47	0.76J		0.48J	<5	1.1J	NC
CTP-SGP-60	SHALLOW	30	63	0.82J		<4.7	<5	2.4J	NC
CTP-SGP-64	SHALLOW	30			2.3J	0.61J	<5	1.8J	NC
CTP-SGP-65	SHALLOW	30			18	6.3	12	14	2
CTP-SGP-53	DEEP	85	491	101	75	43	33	30	-3
CTP-SGP-54	DEEP	85	359	14				37	23
CTP-SGP-55	DEEP	85	1134	151	164	58	52	32	-20
CTP-SGP-56	DEEP	85	485	63	59	28	24	13	-11
CTP-SGP-58	DEEP	85	271	1.6J		<4.8	<5	2.5J	NC
CTP-SGP-59	DEEP	85	189	8.8		2.9J	2.7J	3.4J	0.7
CTP-SGP-60	DEEP	85	220	4.3J		2.3J	4.9J	7.1	2.2
CTP-SGP-62	DEEP	85	1638	4.0J	4.3J		19	42	23
CTP-SGP-64	DEEP	85			30	16	14	11	-3
CTP-SGP-65	DEEP	85			214	139	107	68	-39

Notes:

Phase 1 SVE Operations from April 6 to June 14, 2004.

Phase 2 SVE Operations from September 9 to November 8, 2004.

NC: Difference not calculated for not-detected data

Shallow Soil Gas Human Health Screening Levels (Vapor Intrusion) based on soil gas data collected < 1.5 meters (5 feet) below building foundation or ground surface:

residential	25.1	ug/m3
commercial	84.6	ug/m3

Source:

Table 2 from *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties* (Cal EPA, 200

Table 5-3

**Comparison Carbon Tetrachloride Concentrations
April 2008 and Previous Sampling Events**

PROBE ID	PROBE TYPE	DEPTH (ft)	Carbon Tetrachloride Concentration (ppbv)						Difference since last sampled (ppbv)
			Sampling Events						
			Mar-04	Jun-04	Sep-04	Nov-04	May-05	Apr-08	
CTP-SGP-37	SURFACE	6	13	0.10J				0.20J	0.10
CTP-SGP-40	SURFACE	6				<0.74		<0.8	NC
CTP-SGP-41	SURFACE	6				<0.79		<0.76	NC
CTP-SGP-44	SURFACE	6				<0.78		<0.79	NC
CTP-SGP-48	SURFACE	6	11	0.21J				0.28J	0.07
CTP-SGP-53	SHALLOW	30		<0.84		0.11J	0.79	1.3	0.51
CTP-SGP-55	SHALLOW	30	47	<0.86		0.14J	0.63J	1.6	0.97
CTP-SGP-58	SHALLOW	30	19	0.09J			<0.8	0.27J	NC
CTP-SGP-59	SHALLOW	30	7.4	0.12J		0.076J	<0.8	0.17J	NC
CTP-SGP-60	SHALLOW	30	10	0.13J		<0.74	<0.8	0.39J	NC
CTP-SGP-64	SHALLOW	30			0.36J	0.097J	<0.8	0.29J	NC
CTP-SGP-65	SHALLOW	30			2.9	1	2	2.3	0.30
CTP-SGP-53	DEEP	85	78	16	12	6.8	5.2	4.8	-0.40
CTP-SGP-54	DEEP	85	57	2.2				5.9	3.70
CTP-SGP-55	DEEP	85	180	24	26	9.2	8.2	5.1	-3.10
CTP-SGP-56	DEEP	85	77	10	9.4	4.4	3.8	2.1	-1.70
CTP-SGP-58	DEEP	85	43	0.26J		<0.76	<0.82	0.40J	NC
CTP-SGP-59	DEEP	85	30	1.4		0.47J	0.44J	0.55J	0.11
CTP-SGP-60	DEEP	85	35	0.68J		0.36J	0.78J	1.1	0.32
CTP-SGP-62	DEEP	85	260	0.63J	0.68J		3.1	6.7	3.60
CTP-SGP-64	DEEP	85			4.8	2.6	2.2	1.8	-0.40
CTP-SGP-65	DEEP	85			34	22	17	11	-6.00

Notes:

Phase 1 SVE Operations from April 6 to June 14, 2004.

Phase 2 SVE Operations from September 9 to November 8, 2004.

NC: Difference not calculated for not-detected data

Shallow Soil Gas Human Health Screening Levels (Vapor Intrusion) based on soil gas data collected < 1.5 meters (5 feet) below building foundation or ground surface:

residential 4 ppbv (25.1 ug/m³)commercial 13.4 ppbv (84.6 ug/m³)

Source:

Table 2 from *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties* (Cal EPA, 2005)

OPERABLE UNIT 1 OFF-SITE GROUNDWATER EXTRACTION PILOT STUDY

STATUS – May 15, 2008

FIELD WORK

- Well construction complete – December 21
 - 2 extraction wells
 - 3 monitoring wells
- Well development complete – January 3
- Wells surveyed – January 15
- Marina Coast Water District (MCWD) Meeting – February 13
- Draft Final OU1 Pilot Study Work Plan distributed – April 22

SCHEDULE

- System construction – May 23
- Baseline sampling and analysis – February 27
- System Startup – May 28
- Monitoring Well Installation (City of Marina) – June 27

DATA (Preliminary)

- Pilot Study Well Location Map

PROBLEMS/CHANGES

- Treated groundwater will be discharged to a discharge basin within the MCWD property. An injection well was not installed.
- Building permit required for canopy installation but not for concrete pad installation.
- Coordinating system power with MCWD. Planning to start system with temporary (generator) power.
- One monitoring well will be installed in the City of Marina to determine the downgradient extent of the plume. Well number and location is based on the decision criteria in the Draft Work Plan.



Legend

- Proposed Monitoring Well
- New Monitoring Well
- New Extraction Well
- Monitoring Well
- PG&E Easement
- Boundary of Former Fort Ord

REVISION	DATE	DESCRIPTION	CHGD	APPR

Shaw Environmental, Inc. Department of the Army
 Sacramento District, Corps of Engineers
 Sacramento, California

FIGURE 2
OPERABLE UNIT 1
OFF-SITE GROUNDWATER EXTRACTION
PILOT STUDY WELL LOCATION MAP
 Former Fort Ord, California

DESIGNED: D. KELLY
 DRAWN: K. BLACK
 CHECKED:
 SUBMITTED:
 DATE:
 SCALE:
 SHEET:
 FILE No:
 SPEC. No:
 OU1_Pilot.mxd

NOTE: Lines not specifically identified in the legend were provided by Ruggieri-Jensen-Azar & Associates (November 2007) as the Creekbridge Homes Preliminary Master Plan.

Former Fort Ord

OPERABLE UNIT CARBON TETRACHLORIDE PLUME ENHANCED IN SITU BIOREMEDIATION PILOT STUDY AND REMEDIAL ACTION

STATUS – May 15, 2008

FIELD WORK

- Well construction complete – August 14
- Slug testing complete – August 17
- System construction complete – October 25
- Tracer testing completed – December 5
- Baseline sampling and analysis completed – January 3
- Substrate injection initiated - January 29
- 7000 gallons substrate injected – March 27
- System shut off – April 11

SCHEDULE

- Monitoring monthly through July.
- May sampling scheduled for week of May 19.
- Conceptual Remedial Action Design – Groundwater Summit – June 11.
- Preliminary Draft Remedial Action Work Plan (USACE review) - June 30.

DATA (Preliminary)

- none

PROBLEMS/CHANGES

- Increased backpressure (due to biofouling) noted in all injection wells after 13 days of operation. Backpressure has resulted in even lower extraction/injection rates, lower substrate metering rates, and system shutdowns. Cleaned wells with hydrogen peroxide to increase substrate metering rates to optimize system operation. Wells EISB-IW-01 (2x), EISB-IW-02 (2x), EISB-EW-03, and EISB-EW-07 cleaned.
- EISB-IW-04 well failed (3/2/2008) injected groundwater percolating to ground surface). Stopped injection at that well.
- EISB-IW-03 failed (3/13/2008) after cleaning. Restarted and operating at a lower injection rate.
- Low concentrations of dissolved methane in wells EISB-MW-03 (0.61J ug/L) and EISB-EW-06 (0.85J ug/L).
- Theft/vandalism on site over the weekend of April 18 through 20. Conduit/wire cut and removed, container broken into, but no serious damage. Additional damage over the weekend of May 2 though 4. Piping, conduit, and wellhead fittings demobed from wells EISB-EW-02, EISB-EW-04, EISB-EW-06, EISB-EW-08, and EISB-EW-09 (along the access road) to minimize further damage. Additional piping cannot be removed until mid-June due to sensitive plant species. Monthly sampling to be conducted with existing operable equipment in most wells and new dedicated sample pumps in effected wells.

HGL AGENDA

Fort Ord HTW BCT Meeting
8:30 AM, 15 May 2008
San Luis Obispo, California

1. Groundwater Remediation Project Update
 - Northwest Treatment System operation update (summary attached).
 - Slight breakthrough of Cis-1,2-DCE into midpoint (0.11J $\mu\text{g/L}$), ND in effluent. Raked carbon beds. Will collect treatment system samples next week.
2. Quarterly LTM
 - Received final analytical results for March sampling event.
3. Other Issues
 - Conducted rare plant survey activities during the week of April 28, 2008.

Total Gallons of Groundwater and Pounds of TCE Extracted OU-1 Northwest Treatment System

