FINAL

June 2009

Off-Post **Quarterly Groundwater Monitoring Report**



Prepared For

Department of the Army Camp Stanley Storage Activity Boerne, Texas

November 2009

GEOSCIENTIST CERTIFICATION

June 2009 Off-post Quarterly Groundwater Monitoring Report

For

Department of the Army
Camp Stanley Storage Activity
Boerne, Texas

I, Julie Burdey, P.G., hereby certify that the June 2009 Off-post Quarterly Groundwater Monitoring Report for the Camp Stanley Storage Activity installation in Boerne, Texas accurately represents the site conditions of the subject area. This certification is limited only to geoscientific products contained in the subject report and is made on the basis of written and oral information provided by the CSSA Environmental Office, laboratory data provided by APPL, and field data obtained during groundwater monitoring conducted at the site in June 2009, and is true and accurate to the best of my knowledge and belief.

Julie Burdey, P.G. State of Texas

Geology License No. 1913

Julia Brudery

11/02/2009

Date

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EXECUTIVE SUMMARY

- A total of 28 off-post groundwater well samples were collected during the June 2009 monitoring event.
- Analyses indicated off-post wells OFR-3, RFR-10, and I10-4 exceeded the maximum contaminant level (MCL) for tetrachloroethene (PCE). Wells OFR-3 and RFR-10 were previously equipped with a granular activated carbon (GAC) treatment system. Well I10-4 sits in a vacant lot, is not currently being used, and there is no pump in the well.
- Post-GAC samples collected in March 2009 were all non-detect indicating that the GAC filtration systems are functioning properly. Post-GAC samples will be collected again during the September 2009 event.
- Semi-annual GAC maintenance was performed in May 2009. This involved replacing one carbon canister and other routine maintenance in each GAC. During this maintenance visit the GAC structures were also replaced with new metal buildings. The next GAC maintenance visit will be conducted in November 2009.

JUNE 2009 OFF-POST GROUNDWATER MONITORING REPORT CAMP STANLEY STORAGE ACTIVITY

1.0 **INTRODUCTION**

This report presents results from the off-post quarterly sampling performed at Camp Stanley Storage Activity (CSSA) in June 2009 as required by the Administrative Order on Consent dated May 5, 1999. The purpose of this report is to present a summary of the sampling results. Results from all four 2009 quarterly monitoring events (March, June, September, and December) will be described in detail in an Annual Report to be submitted after December 2009. The Annual Report will also provide an interpretation of all analytical results and an evaluation of any temporal or spatial trends observed in the groundwater contaminant plume during investigations.

Groundwater monitoring scoped under the U.S. Army Corps of Engineers (USACE) Fort Worth District (CESWF), Contract W9126G-07-D-0028, Task Order DO11, was performed June The quarterly off-post groundwater monitoring program was initiated in September 2001 in accordance with the Off-Post Monitoring Program and Response Plan (CSSA, 2002, herein referred to as the "Plan"). Action levels for detection of volatile organic compounds (VOCs) and the rationale for sampling off-post wells are located in the Plan.

The CSSA groundwater monitoring program also follows the provisions of the groundwater monitoring program DQOs as well as the recommendations of all applicable project-specific work plans. Appendix A provides an evaluation of the Data Quality Objective Attainment for this sampling event.

Current objectives of the off-post groundwater monitoring program include determining whether concentrations of chlorinated VOCs detected in off-post public and private drinking water wells exceed safe drinking water standards. Other objectives are to determine the lateral and vertical extent of the contaminant plumes and identify trends (decreasing or increasing) in contaminant levels over time in the sampled wells.

2.0 **JUNE 2009 ANALYTICAL RESULTS**

In June 2009, a groundwater sample was collected from each of 28 off-post wells shown in Figure 2-1. Well DOM-2 was not sampled this quarter due to the lack of electricity at the property. Post-GAC (granular activated carbon) samples were not collected during this event. Post-GAC samples (LS-6, LS-7, RFR-10, RFR-11, and OFR-3) are collected semi-annually and will be sampled again during the September 2009 monitoring event. Table 2-1 includes the rationale for selection of the wells sampled in June 2009, and Figure 2-1 provides well locations for the following sampled wells:

- Two public supply well in the Fair Oaks area (FO-J1 and FO-17);
- Three public supply wells in the Hidden Springs Estates subdivision (HS-1, HS-2 and
- One public well (I10-7) and one privately owned unused well (I10-4), in the Interstate-10 area;

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- Nine privately owned wells in the Jackson Woods subdivision (JW-6, JW-7, JW-8, JW-12, JW-13, JW-14, JW-28, JW-29, and JW-30);
- Five wells in the Leon Springs Villa area (one public well: LS-6; two privately-owned wells: LS-5 and LS-7; and two wells: LS-1 and LS-4 that were taken out of service but will remain in the sampling program for data collection purposes);
- Two privately owned wells on Old Fredericksburg Road (OFR-1 and OFR-3); and
- Five privately owned wells in the Ralph Fair Road area (RFR-8, RFR-10, RFR-11, RFR-13, and RFR-14).

All wells were sampled from a tap located as close to the wellhead as possible. Most taps were previously installed by CSSA to obtain a representative groundwater sample before pressurization or storage of groundwater in the water supply distribution system. Water was purged to engage the well pump prior to sample collection. Conductivity, pH, and temperature readings were recorded to confirm adequate purging while the well was pumping. Generally, this required an average of 20 gallons to be purged prior to sample collection.

A total of 28 groundwater samples, two field duplicate samples, two matrix spike/matrix spike duplicate (MS/MSD) pairs, and three trip blanks were submitted to Agriculture & Priority Pollutant Laboratory (APPL) in Fresno, California for analysis. Groundwater samples were analyzed for the short list of VOCs using SW-846 Method 8260B. The approved short list of VOCs includes *cis*-1,2-dichloroethene (*cis*-1,2-DCE), *trans*-1,2-DCE, 1,1-DCE, tetrachlorethene (PCE), trichloroethene (TCE), and vinyl chloride.

The data packages (Parsons internal reference DO11 #50, #51, #53 and #54) contain the analytical results for this sampling event. Laboratory results were reviewed and verified according to the guidelines outlined in the CSSA Quality Assurance Project Plan (QAPP), Version 1.0. Parsons received data packages June 23 through June 30, 2009.

Concentrations of the VOCs detected in June 2009 are presented in **Table 2-2**. Full analytical results from the June 2009 sampling event are presented in **Appendix B**. As shown in **Table 2-1**, 29 samples were scheduled for collection in June 2009, but one well (DOM-2) was not sampled due to the lack of electricity at the well.

On May 18, 2009 routine semi-annual maintenance was performed on the GAC treatment systems installed at LS-6, LS-7, OFR-3, RFR-10, and RFR-11. The carbon canisters were exchanged, new metal GAC shelters were installed, and other routine maintenance was performed. Post-GAC samples were not collected this quarter but will be collected again in September 2009.

Based on historical detections, the lateral extent of VOC contamination extends approximately 0.5 mile beyond the south and west boundaries of CSSA. Detections of VOCs have extended south to well HS-1 and HS-2 and west to OFR-1 (Figure 2-1).

Table 2-1 Sampling Rationale for June 2009

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June 2009.

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samples can no &A or declined

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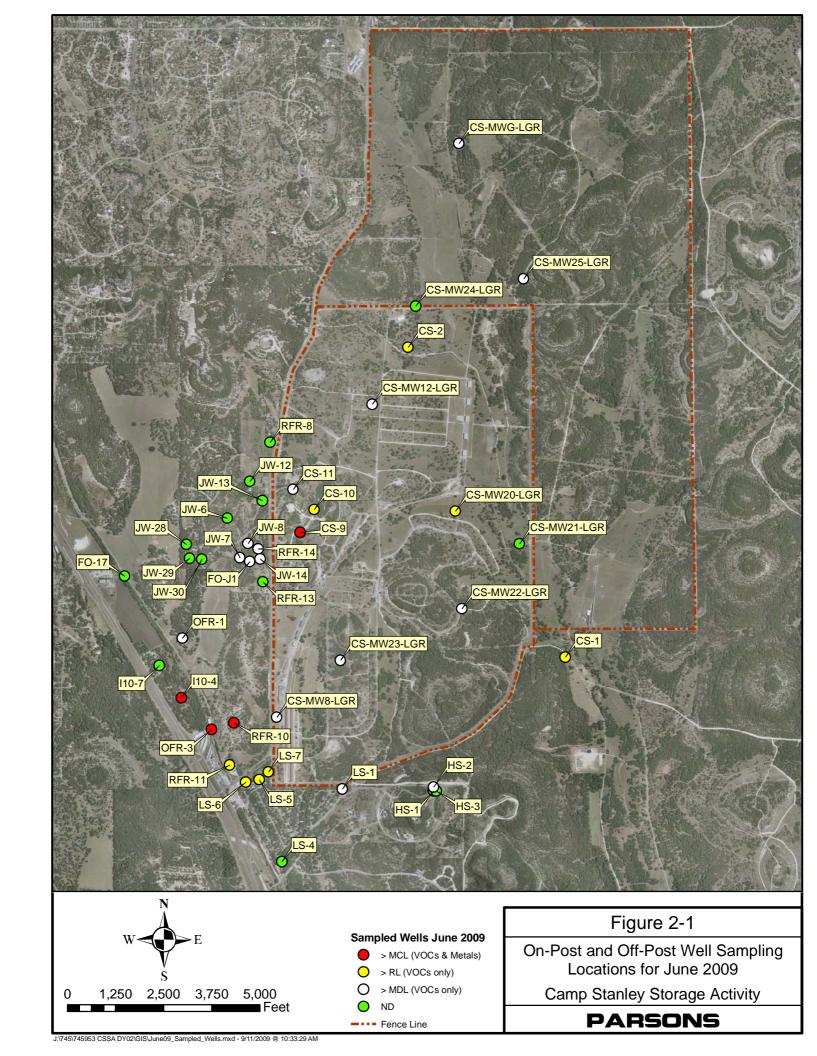


Table 2-2 June 2009 Off-Post Groundwater Results, Detected Analytes Only

Subdivision	Well ID	Sample Date	1,1-DCE	cis-1,2- DCE	trans-1,2- DCE	PCE	TCE	Vinyl Chloride	Comments
F 1 0 1	FO-17	6/2/2009							no historical PCE/TCE detections
Fair Oaks	FO-J1	6/3/2009				0.57F			sporadic F flagged results since 2002
	HS-1	6/3/2009		-					
Hidden Springs	HS-2	6/3/2009				0.23F			
	HS-3	6/3/2009		-					no historical PCE/TCE detections
IH-10	I10-4 I10-7 I10-7 FD	6/1/2009 6/2/2009 6/2/2009	 	 		6.48	2.7 	 	PCE first detected above the MCL in Dec. 2008 furthest clean well to the west along IH-
	JW-6	6/2/2009							
	JW-7	6/2/2009				0.48F			consistent F flagged PCE detections
	JW-8	6/3/2009				0.37F			
	JW-12	6/5/2009							one PCE detection in 09/07
Jackson Woods	JW-13	6/5/2009							no historical PCE/TCE detections
Subdivision	JW-14	6/3/2009				0.19F			
	JW-28	6/2/2009							no historical PCE/TCE detections
	JW-29	6/10/2009							
	JW-29 FD	6/10/2009							
	JW-30	6/2/2009							
	LS-1	6/4/2009				0.85F			sampled with QED bladder pump, well
	LS-1 FD	6/4/2009				0.76F	0.20F		not in use
Leon Springs Villas	LS-4	6/4/2009		-					sampled with QED bladder pump, well not in use
v mas	LS-5	6/1/2009				0.80F	2.64		
	LS-6	6/1/2009				0.93F	1.33		GAC unit on well
	LS-7	6/1/2009				1.87	0.72F		GAC unit on well
Old	OFR-1	6/3/2009				0.33F			
Fredericksburg	OFR-3	6/1/2009				5.98	3.21		GAC unit on well
	RFR-8	6/3/2009							no historical PCE/TCE detections
	RFR-10	6/1/2009	-	-		8.78	2.65		GAC unit on well
Ralph Fair Road	RFR-11	6/1/2009				0.49F	1.45		GAC unit on well
	RFR-13	6/3/2009							
	RFR-14	6/3/2009				0.24F			consistent F flagged PCE results

Laboratory Detection Limits & Maximum Contaminant Level							
Method Detection Limit (MDL)	0.12	0.07	0.08	0.06	0.05	0.08	
Reporting Limit (RL)	1.2	1.2	0.6	1.4	1	1.1	
Max. Contaminant Level (MCL)	7	70	100	5	5	2	

BOLD	= Above the MDL
BOLD	= Above the RL
BOLD	= Above the MCL

All samples were	all samples were analyzed by APPL, Inc.							
VOC data report	/OC data reported in ug/L.							
Abbreviations/N	otes:							
FD	Field Duplicate							
TCE PCE	Trichloroethene							
PCE	Tetrachloroethene							
DCE	Dichloroethene							

Data Qualifiers
--The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
F-The analyte was positively identified but the associated numerical value is below the RL.

3.0 SUMMARY AND RECOMMENDATIONS

Results of the June 2009 sampling are summarized as follows:

- PCE exceeded the MCL in wells OFR-3, RFR-10, and I10-4 in June 2009. Wells OFR-3 and RFR-10 are equipped with GAC treatment systems. Well I10-4 is a privately owned well that is not currently being used. The pump has been removed and the well owner has been asked to contact Camp Stanley if the status of the well changes.
- PCE/TCE was detected above the RL in drinking water wells LS-5, LS-6, LS-7, and RFR-11. Three of these wells (LS-6, LS-7, RFR-11) have GAC treatment systems in place, and well LS-5 is monitored quarterly (and has never exceeded the MCL)?
- Low levels (below the RL) of PCE/TCE were also detected in wells FO-J1, HS-2, JW-7, JW-8, JW-14, LS-1, OFR-1, and RFR-14.
- 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, and vinyl chloride were not detected in any off-post wells in June 2009.
- No VOCs were detected in wells FO-17, HS-1, HS-3, I10-7, JW-6, JW-12, JW-13, JW-28, JW-29, JW-30, LS-4, RFR-8, and RFR-13.
- Post-GAC samples were collected in March 2009. All post-GAC samples were nondetect indicating the GAC units are functioning properly. The next post-GAC samples will be collected in September 2009.
- Semi-annual GAC maintenance was performed in May 2009; the next semi-annual GAC maintenance will be due in November 2009. New metal GAC shelters were installed in May 2009.
- In the event additional wells are located to the west and southwest of CSSA, they may be added to future sampling events.
- In accordance with project DQOs, the rationale for the selection of 23 wells and 6 post-GAC sampled to be collected in September 2009 is provided in **Table 3-1**.

Table 3-1 Sampling Rationale for September 2009

		_																	, ivatio	naic 10	•		.007										
	2001		200				2003				004			2005			20					07				008			2009		Sampling		
Well ID	Sept Dec	Mar	June	Sept	Dec N			Sept D	ec Mar			Dec M		_	Dec	Mar		Sept	Dec	Mar	June	Sept		Mar					June	Sept	Frequency:		
DOM-2	NS		NS	NS	NS				NS S	NS		NS	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	NA	main electricity has been disconnected		VOCs detected are greater than
FO-8	NS NS			NS	NS		NS	NS N		NS	NS	NS	NS	S NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually		90% of the MCL. Sample
FO-17	NS NS		NS	NS	NS			NS N			NS		IS S	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually	1	monthly; quarterly after GAC
FO-22	NS	NS	NS	NS	1	NS :	NS	NS	NS	NS	NS	N	IS NS	S NS		NS	NS	NS		NS	NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually	i	nstallation.
FO-J1										NS					NS															Yes	Qtrly, 1 year thru June 10		
HS-1	NS NS	NS	NS	NS	NS 1	NS :	NS	NS N	IS NS	NS	NS	NS N	IS NS	S NS	NS	NS	NS													Yes	Qtrly, 1 year thru Sept 09	V	VOCs detected are greater than
HS-2	NS																													Yes	Qtrly, 1 year thru June 10	8	80% of the MCL. The well will be
HS-3	NS	NS		NS	NS 1	NS		NS N	IS NS		NS	NS N	IS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually	r	placed on a monthly sampling
I10-2																	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually	S	schedule until GAC installation
I10-4	NS							N	NS												NA	NA	NA	NA	NA	NA				Yes	Quarterly	t	hen quarterly sampling after
I10-5	NS NS	NS	NS	NS]	NS :	NS	NS	NS	NS	NS	N	IS NS	S NS		NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	As needed, once annually		GAC installation.
I10-7	NS NS		NS	NS	NS			NS N	IS NS		NS																			Yes	Otrly, for delineation		
I10-8	NS NS	NS	NS	NS	NS]	NS :		NS N			NS	NS N	IS NS	S NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	As needed, once annually		
JW-5	NS NS		NS	NS				NS N		_	NS		IS			- 12		NS	NS	- 1.0	3.2	3.2			- 12	- 1.2		- 1.0	NS	NS	As needed, once annually	V	VOCs detected are less than 80%
JW-6	NS		110	NS		NS		NS N					IS	NS	NS	NS	110	NS	NS	NS		NS	NS	NS		NS	NS	NS	110	NS	As needed, once annually		of the MCL (<4.0 ppb and >0.06
JW-7		NS	NS	NS			NS	145 1	10 110		140	140 1	15	110	110	110		110	110	110		110	110	110		145	110	145			Otrly, 1 year thru June 10		opb for PCE & <4.0 ppb >0.05
JW-8	NS NS			NS		NS	110		_				_																		Qtrly, 1 year thru June 10		opb for TCE). After four quarters
JW-8 JW-9	113 113	110	140	149	IND I	IND				_			NIC	S NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS		As needed, once annually		of stable results the well can be
	NG NG	NIC	NIC	NIC		NIC :	NIC	NIC N	IC NG	NIC	NIC	NG N				NIC				NIC				NIC				NC		Ns			removed from quarterly sampling.
JW-9-A2*	NS NS			NS				NS N					IS NS		NS			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	As needed	1	emoved from quarterry sampling.
JW-12		NS	NS	NS				NS N		NS	NS	NS	NS			NS	NS	2.70	NS	NS	NS	210	210	NS		NS	NS	210		Yes	Qtrly, 1 year thru Dec 09	L	
JW-13	NS	NS	NS	NS		NS		NS N	NS NS		NS	NS N	IS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually		
JW-14																Tol															Qtrly, due to location		This well has a GAC filtration
JW-15	NS NS		NS	NS	NS 1	NS :	NS :	NS N	IS NS	NS	NS		IS					NS	NS		NS	NS	NS			NS	NS		NS	NS	As needed, once annually		init installed by CSSA. Post GAC
JW-26	NS NS	11111111111111111111111111111111111111	NS										IS NS			NS	NS	NS		NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	Wellowner declined access.	S	samples are collected every six
JW-27						NS		NS N	NS NS		NS	NS N	NS	NS									NS						NS	NS	As needed, once annually	1	months.
JW-28	NS NS	NS	NS	NS	NS 1	NS :	NS															NS	NS	NS						Yes	Qtrly, due to location	1	A1 - after GAC canister #1
JW-29	NS NS	NS	NS	NS	NS 1	NS																								Yes	Qtrly, due to location	1	A2 - after GAC canister #2
JW-30	NS NS	NS	NS	NS	NS																									Yes	Qtrly, due to location	*	JW-9-A2 is the well owner's
LS-1											NS	NS N	IS NS	S NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						Yes	QED low flow pump installed	S	system, not a CSSA GAC.
LS-2															NS			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline	_	
LS-2/LS-3-A1	NS NS	NS	NS		NS		NS	N	NS .	NS		NS	NS	3	NS		NS		NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline	Yes	Γo be sampled in September
LS-3																					NS	NS	NS	NS		NS	NS	NS	NS	NS	Well is offline		2009.
LS-2/LS-3-A2	NS NS		NS		NS	_	NS	N	NS S	NS		NS	NS	3	NS		NS		NS		NS	NS	NS	NS		NS			NS	NS	Well is offline	L	
LS-4	118 118		140		110		110	1	15	110		140	146	2	110		110		110		NS	NS	NS	NS	110	145	110	145	110		QED low flow pump installed	FT	
LS-5		+				_	_		_				_								145	145	110	145							Qtrly, 1 year thru Mar 10		First event for sampling by CSSA.
LS-6		_																													Qtrly, 1 year thru Mar 10	L	hist event for sampling by CSSA.
LS-6-A2			NS		NS		NS		NS .	NS		NS	NS	1	NS		NS		NS		NS		NS		NS		NS		NS		Biannually (Mar & Sept)	NS 1	Not sampled for that event.
			No		NS		IND	ľ	NO.	NS		INS	INC	,	IND		105		No		INS		IND		NS		INS		INS		Qtrly, 1 year thru Mar 10	103 1	Not sampled for that event.
LS-7			NS		NIC		NIC		IC	NS		NC	NIC	1	NIC		NIC		NIC		NC		NG		NIC		NIC		NIC				T MOC 14 4 1 C 1
LS-7-A2	NC		NS		NS		NS	ľ	NS S	NS		NS	NS	,	NS		NS		NS		NS		NS		NS		NS		NS		Biannually (Mar & Sept)	_	No VOCs detected. Sample on an
OFR-1	NS NG																27.1	27.1	27.1	27.1	271	27.1	27.1	27.1	27.1	27.1	27.1	27.1	271		Qtrly, 1 year thru Mar 10	[8	as needed basis.
OFR-2	NS NS																NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well was P&A by Centex	7.7.1	
OFR-3																															Qtrly, 1 year thru Mar 10		Not applicable, samples can no
OFR-3-A2	NS NS		NS		NS		NS		NS .	NS		NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		Biannually (Mar & Sept)		onger be collected from this
OFR-4	NS NS							N	NS S	NS	NS			S NS			NS	NS	NS			NS	NS			NS	NS				As needed, once annually		ocaiton due to P&A or declined
RFR-3					NS 1								IS NS					NS		NS	NS	NS		NS		NS					As needed, once annually	r	right-of-entry.
RFR-4		NS			NS 1						NS		ol NS	S NS	NS		NS	NS	NS		NS		NS		NS	NS					As needed, once annually		
RFR-5					NS 1					NS				S NS			NS				NS	NS				NS					As needed, once annually		
RFR-6		NS		NS			NS			NS																					Plugged & abandoned		
RFR-7		NS		NS	NS 1	NS			NS	NS			IS NS				NS	NS	NA		NA	NA		NA	NA	NA	NA	NA	NA	NA	Plugged & abandoned		
RFR-8	NS	NS		NS	NS 1	NS		NS N	NS NS			NS N	IS S	NS	NS				NS	NS		NS	NS	NS		NS	NS			NS	As needed, once annually		
RFR-9		NS			NS 1				IS NS				IS NS			NS			NS		NS		NS	NS	NS				NS		As needed, once annually		
RFR-10		_											276																		Qtrly, 1 year thru Sept 09		
RFR-10-A2			NS		NS		NS	N	NS .	NS		NS	NS	3	NS		NS		NS		NS		NS		NS		NS		NS		Biannually (Mar & Sept)		
RFR-10-B2					NS 1				NS S	NS		NS	NS	3	NS		NS		NS		NS		NS		NS		NS				Biannually (Mar & Sept)		
RFR-10-62			110	140	110	. 113	110	ľ	10	140		140	182	,	140		140		110		110		110		140		110		110		Qtrly, 1 year thru Sept 09		
			NIC		NIC		NIC		IC	NIC		NIC	NIC	1	NIC		NIC		NIC		NIC		NC		NIC		NIC		NIC				
RFR-11-A2			NS		NS		NS	N	NS .	NS		NS	NS)	NS		NS	NIC	NS		NS	NIC	NS		NS	NG	NS				Biannually (Mar & Sept)		
																	NS				INS	NS			NS		NS		INS		As needed, once annually		
RFR-12										*** ** *								3.70	3.70	3.70				3				3.7~					
RFR-12 RFR-13										Well In	stalled			***				NS	NS	NS		NS	NS	NS		NS	NS	NS			As needed, once annually		
RFR-12										Well In	nstalled			Well I1	ıstalled			NS	NS	NS		NS	NS	NS		NS				Yes	Qtrly, 1 year thru Mar 10		
RFR-12 RFR-13										Well In	nstalled			Well I	ıstalled			NS	NS	NS		NS	NS	NS		NS	7	NS Fotal Prootal Pos		Yes			

7

Total # of first time samples

Total # of samples:

32

J:\745\745953 CSSA DY02\01000 GWM\0ff-Post\Sept 08 Event

APPENDIX A EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Appendix A Evaluation of Data Quality Objectives Attainment

Activity	Objectives	Action	Objective Attained?	Recommendations
Field Sampling	Conduct field sampling in accordance with procedures defined in the project work plan, SAP, QAPP, and HSP.	accordance with the procedures	Yes	NA
Contamination Characterization (Groundwater Contamination)	Determine the potential extent of off-post contamination (§2.3.1 of the DQOs for the Groundwater Contamination Investigation, revised November 2003).	Samples for laboratory analysis were collected from selected off-post public and private wells, which are located within a ½ mile radius of CSSA.	Partially	Replace wells where no VOCs were detected with wells that may be identified in the future, located to the west and southwest of AOC-65 to provide better definition of plume 2. Continue sampling of wells to the west of plume 1 (Fair Oaks and Jackson Woods) to confirm any detections possibly related to plume 1.
	Meet CSSA QAPP quality assurance	Samples were analyzed in accordance with the CSSA QAPP, and approved variances. A chemist verified all data.	Yes	NA
	requirements.	All data flagged with a "U" and "J" are usable for characterizing contamination.	Yes	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
	Evaluate CSSA monitoring program and expand as necessary (§2.3.1 of the DQOs for the Groundwater Contamination Investigation, revised November 2003). Determine locations of future monitoring locations.	Evaluation of data collected is ongoing and is reported in this quarterly groundwater report and will be reported in future quarterly groundwater reports. Additional information covering the CSSA monitoring program is available in Volume 5, CSSA Environmental Encyclopedia.	Yes	Continue data evaluation and quarterly teleconferences for evaluation of the monitoring program. Each teleconference/planning session covers expansion of the quarterly monitoring program, if necessary.
Project schedule/ Reporting	The quarterly monitoring project schedule shall provide a schedule for sampling, analysis, validation, verification, reviews, and reports for monitoring events off-post.	validation, verification and data review, and reports is provided in this quarterly groundwater report and will be reported in future quarterly groundwater reports. Additional information covering the CSSA monitoring program is available in	Yes	Continue quarterly reporting to include a schedule for sampling, analysis, validation, and verification and data review and data reports.

Activity	Objectives	Action	Objective Attained?	Recommendations
Remediation	Evaluate the effectiveness of GACs (§3.2.3) and install as needed (§3.2.5 both of the DQOs for the Groundwater Contamination Investigation, revised November 2003).	i periorm – mainienance as needed	Yes	Maintenance to the off-post GAC systems to be continued by Parsons' personnel every 3 weeks. Twice yearly (or as needed) maintenance to the off-post GAC systems by additional subcontractors to continue. Evaluations of future sampling results for installation of new GAC systems will occur as needed.

APPENDIX B JUNE 2009 QUARTERLY OFF-POST GROUNDWATER ANALYTICAL RESULTS

Appendix B June 2009 Quarterly Off-Post Groundwater Analytical Results

			cis-1,2-	trans-1,2-			Vinyl
Well ID	Sample Date	1,1-DCE	DCE	DCE	PCE	TCE	Chloride
FO-17	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
FO-J1	6/3/2009	0.12U	0.07U	0.08U	0.57F	0.05U	0.08U
HS-1	6/3/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
HS-2	6/3/2009	0.12U	0.07U	0.08U	0.23F	0.05U	0.08U
HS-3	6/3/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
I10-4	6/1/2009	0.12U	0.07U	0.08U	6.48	2.7	0.08U
I10-7	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
I10-7 FD	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-6	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-7	6/2/2009	0.12U	0.07U	0.08U	0.48F	0.05U	0.08U
JW-8	6/3/2009	0.12U	0.07U	0.08U	0.37F	0.05U	0.08U
JW-12	6/5/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-13	6/5/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-14	6/3/2009	0.12U	0.07U	0.08U	0.19F	0.05U	0.08U
JW-28	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-29	6/10/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-29 FD	6/10/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-30	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
LS-1	6/4/2009	0.12U	0.07U	0.08U	0.85F	0.05U	0.08U
LS-1 FD	6/4/2009	0.12U	0.07U	0.08U	0.76F	0.20F	0.08U
LS-4	6/4/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
LS-5	6/1/2009	0.12U	0.07U	0.08U	0.80F	2.64	0.08U
LS-6	6/1/2009	0.12U	0.07U	0.08U	0.93F	1.33	0.08U
LS-7	6/1/2009	0.12U	0.07U	0.08U	1.87	0.72F	0.08U
OFR-1	6/3/2009	0.12U	0.07U	0.08U	0.33F	0.05U	0.08U
OFR-3	6/1/2009	0.12U	0.07U	0.08U	5.98	3.21	0.08U
RFR-8	6/3/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
RFR-10	6/1/2009	0.12U	0.07U	0.08U	8.78	2.65	0.08U
RFR-11	6/1/2009	0.12U	0.07U	0.08U	0.49F	1.45	0.08U
RFR-13	6/3/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
RFR-14	6/3/2009	0.12U	0.07U	0.08U	0.24F	0.05U	0.08U

BOLD	= Above the MDL
BOLD	= Above the RL
BOLD	= Above the MCL

All samples wer	re analyzed by APPL, Inc.	
VOC data repor	ted in ug/L.	
Abbreviations/	Notes:	
FD	Field Duplicate	
TCE PCE	Trichloroethene	
	Tetrachloroethene	
DCE	Dichloroethene	

Data Qualifiers

U-The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

F-The analyte was positively identified but the associated numerical value is below the RL.