FINAL

SEPTEMBER 2008

On-Post
Quarterly Groundwater Monitoring Report

Prepared For

Department of the Army
Camp Stanley Storage Activity
Boerne, Texas

February 2009

GEOSCIENTIST CERTIFICATION

September 2008 On-post Quarterly Groundwater Monitoring Report

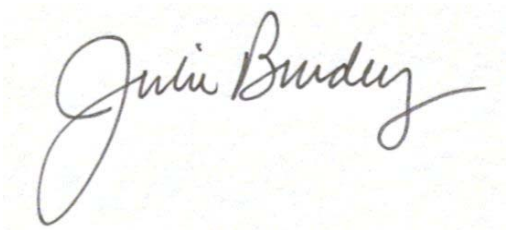
For

Department of the Army

Camp Stanley Storage Activity

Boerne, Texas

I, Julie Burdey, P.G., hereby certify that the September 2008 On-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 Laboratories, and field data obtained during groundwater monitoring conducted at the site in September 2008, and is true and accurate to the best of my knowledge and belief.



Julie Burdey, P.G.
State of Texas
Geology License No. 1913

2/26/2009

Date

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

- Of the 33 wells scheduled to be sampled in September 2008, four wells were not sampled due to low water levels and one well was not sampled due to a pump outage. An additional sample was collected from the reservoir due to recent metals detections in the area.
- Water levels have continued to decrease for the fourth consecutive quarter after record high rainfall during the first half of 2007. CSSA received roughly 6 inches of rain between June and September 2008, and the average water level dropped about 23 feet.
- The action level (AL) was exceeded for lead in well CS-11; this is a former drinking water well. In the remaining wells, lead was detected above the method detection limit (MDL) but below the reporting limit (RL) and AL in 26 of the 29 samples collected.
- PCE and TCE concentrations exceeded the MCL in wells CS-MW1-LGR, CS-MW16-LGR, CS-MW16-CC, and CS-D. The *cis*-1,2-DCE concentration exceeded the MCL in wells CS-MW16-LGR and CS-D.
- The Lower Glen Rose (LGR) zones of Westbay wells 01-04 were sampled this quarter. PCE was above the MCL in 19 of the 35 zones sampled. Westbay wells will be sampled again in March 2009.

SEPTEMBER 2008
GROUNDWATER MONITORING REPORT
CAMP STANLEY STORAGE ACTIVITY, TEXAS

1.0 INTRODUCTION

This report presents results from the on-post quarterly sampling performed at Camp Stanley Storage Activity (CSSA) in September 2008. Laboratory analytical results are presented along with potentiometric contour figures. The purpose of this report is to present a summary of the sampling results. Results from all four 2008 quarterly monitoring events (March, June, September, and December) will be described in detail in an Annual Report. 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 at CSSA, scoped under the U.S. Army Corps of Engineers (USACE) Fort Worth District (CESWF), Contract W91278-06-D-0026, Task Order (TO) DY02, was performed September 8, 2008 through September 19, 2008. On-post groundwater monitoring conducted under this TO began with the September 2007 sampling event.

Current objectives of the groundwater monitoring program are to determine groundwater flow direction and elevations, determine groundwater contaminant concentrations for characterization purposes, and identify meteorological and seasonal variations in physical and chemical properties. **Appendix A** identifies the data quality objectives (DQO) for CSSA's groundwater monitoring program, along with an evaluation of whether each DQO was attained. The objectives listed in Appendix A also reference appropriate sections of the **3008(h) Administrative Order on Consent** (Order).

The CSSA groundwater monitoring program follows the provisions of the groundwater monitoring program DQOs as well as the recommendations of the **Three-Tiered Long Term Monitoring Network Optimization Evaluation (Parsons 2005)** which provided recommendations for sampling based on a long-term monitoring optimization (LTMO) study performed for the CSSA groundwater monitoring program. LTMO study sampling frequencies were implemented on-post in December 2005, as approved by the Texas Commission on Environmental Quality (TCEQ) and the United States Environmental Protection Agency (USEPA).

2.0 BASE-WIDE FLOW DIRECTION AND GRADIENT

Forty-seven water level measurements were recorded on September 8, 2008 from on-post monitoring wells completed in the Lower Glen Rose (LGR), Bexar Shale (BS), and Cow Creek (CC) formations. The groundwater potentiometric surface maps illustrating groundwater elevations from the LGR, BS, and CC zones in September 2008 are shown in **Figures 2-1, 2-2, and 2-3**.

The September 2008 potentiometric surface map for LGR-screened wells exhibited a wide range of groundwater elevations, from a minimum of 928.99 feet above mean sea level (MSL) at CS-MW10-CC to a maximum 1049.60 feet above MSL at CS-I. Groundwater elevations are generally higher in the northern and central portions of CSSA, and decrease to the southwest and southeast. Average groundwater elevations in September 2008 decreased 23.17 feet from the elevations measured in June 2008, reflecting the lack of significant rain in the area. From June 25, 2008 to September 19, 2008, weather station south (WS-S) recorded 25 rainfall events with 6.95 inches of rain. Weather station north (WS-N) also recorded 23 rainfall events with a total of 6.06 inches of rain from June 25, 2008 to September 19, 2008. For comparison, CSSA has received approximately 5.0 inches of rain total, through June 2008.

Well CS-MW4-LGR in the central portion of CSSA usually has one of the highest groundwater elevations of LGR-screened wells. The elevation is usually 20 to 40 feet higher than the nearest comparable wells (CS-MW2-LGR and CS-MW5-LGR). The lack of recent rainfall did not change this general historical trend; CS-MW4-LGR is still approximately 7 feet higher than nearby wells. The higher elevations measured in north pasture wells CS-MWG-LGR (1044.84' MSL), CS-MWH-LGR (1012.01' MSL), and CS-I (1049.60' MSL) reflect the general trend of north to south.

It should be noted that pumping of CSSA wells affects the potentiometric surface. Monitoring wells CS-MW16-LGR and CS-MW16-CC pumped groundwater continuously to the SWMU B-3 Bioreactor between June and September 2008. Drinking water wells CS-1 and CS-10 are cycled on and off periodically to maintain the drinking water system currently in place at CSSA. Influence from these pumping wells is depicted in **Figure 2-1**.

An overall groundwater gradient averaged across CSSA is to the south at 0.0063 ft/ft. The groundwater gradient varies slightly in direction and velocity in different areas of CSSA. Groundwater gradients calculated from different LGR wells ranged from 0.0037 ft/ft to 0.0091 ft/ft.

Groundwater elevations have been measured and recorded since 1992. Previous droughts resulted in water levels decreasing substantially in 1996, 1999, 2000, and 2006. However, there was unusually high rainfall, 53.17 inches, in 2007. The current drought has caused groundwater elevations to decrease since the December 2007 event. Although water levels are low they still remain about 15 to 20 feet above the levels measured during the December 2006 drought.

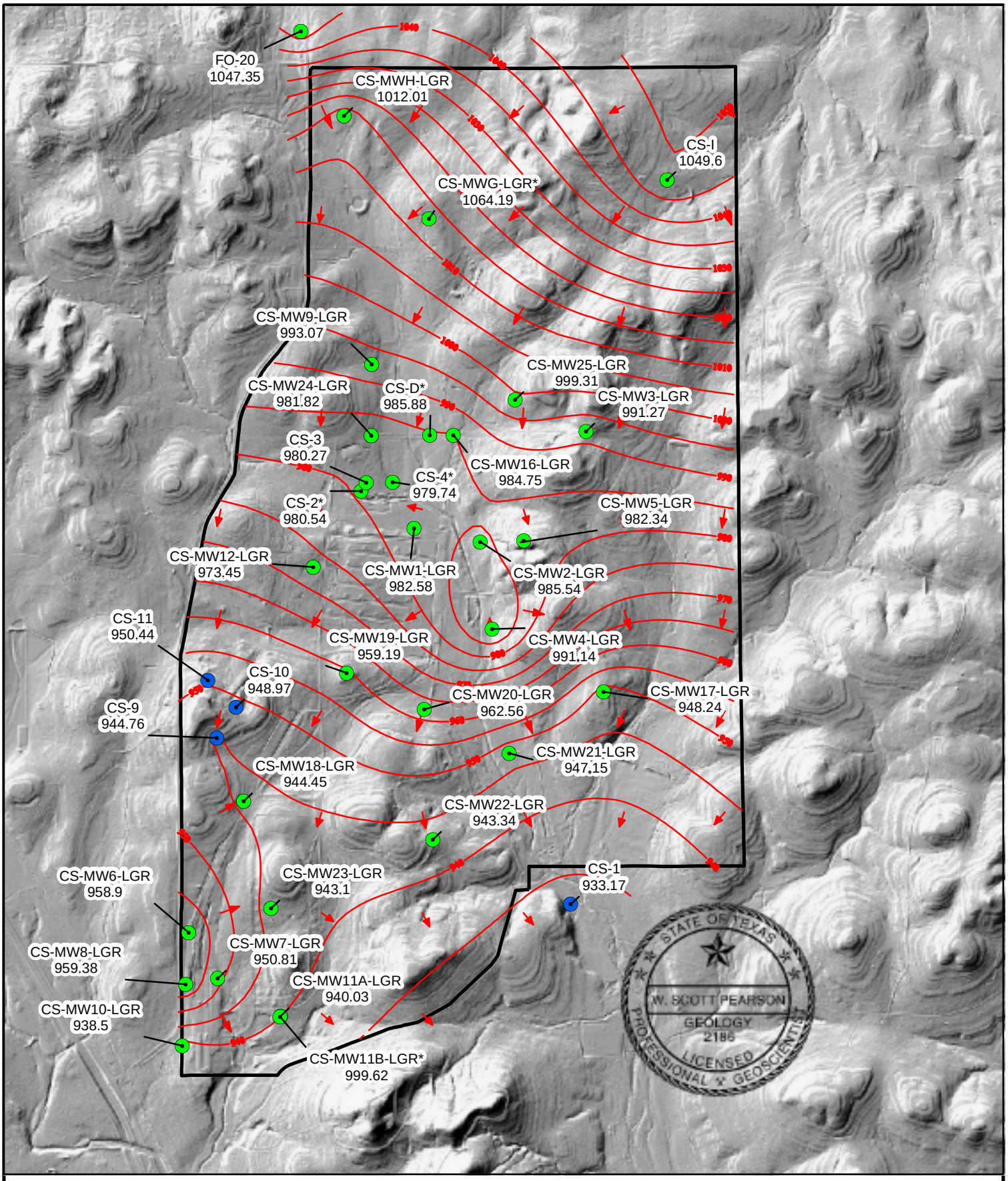


Figure 2-1

September 2008 Potentiometric Surface Map, LGR Wells

Camp Stanley Storage Activity

Parsons

J:\743\743322 CSSA TO 08\GIS\csm_figure_updates\Sept08_potentiometric_lgr.mxd - 2/25/2009 @ 2:25:14 PM

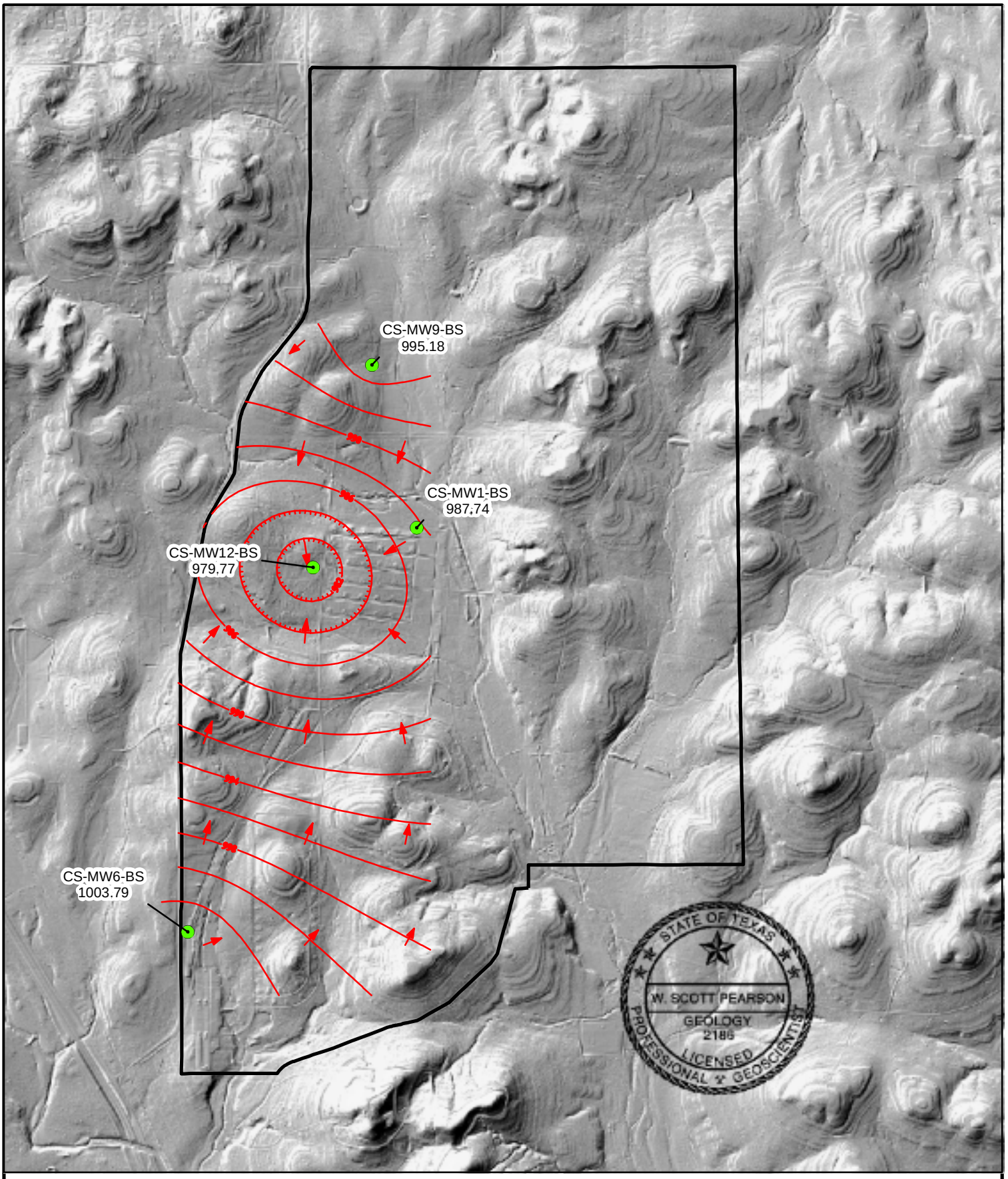


Figure 2-2

September 2008 Potentiometric Surface Map, BS Wells

Camp Stanley Storage Activity

Parsons

J:\743\743322 CSSA TO 08\GIS\csm_figure_updates\Sept08_potentiometric_bs.mxd - 12/18/2008 @ 1:19:40 PM

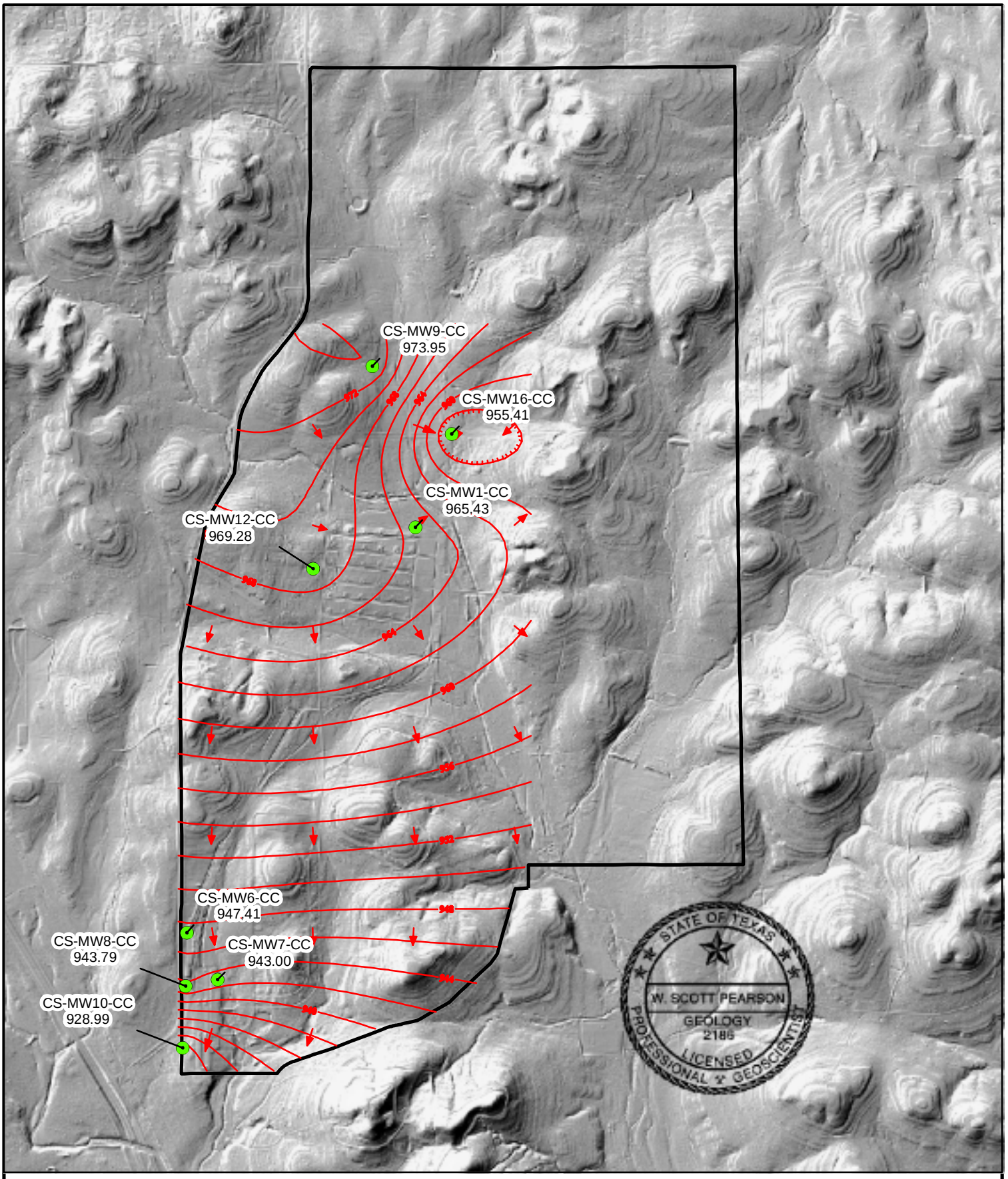


Figure 2-3

September 2008 Potentiometric Surface Map, CC Wells

Camp Stanley Storage Activity

P a r s o n s

J:\743\743322 CSSA TO 08\GIS\csm_figure_updates\Sept08_potentiometric_cc.mxd - 12/18/2008 @ 1:23:03 PM

Table 3-1
Overview of the On-Post Monitoring Program

Count	Well ID	*Analytes*	*Current Sample Date*	*Next Sample Date*	*Sampling Frequency*
1	CS-MW1-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
2	CS-MW1-BS	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
3	CS-MW1-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
4	CS-MW2-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
5	CS-MW2-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
6	CS-MW3-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
7	CS-MW4-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
8	CS-MW5-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
9	CS-MW6-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
10	CS-MW6-BS	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
11	CS-MW6-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
12	CS-MW7-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
13	CS-MW7-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
14	CS-MW8-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Jun-09	Every 9 months*
15	CS-MW8-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
16	CS-MW9-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
17	CS-MW9-BS	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
18	CS-MW9-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
19	CS-MW10-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Jun-09	Every 9 months*
20	CS-MW10-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
21	CS-MW11A-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
22	CS-MW11B-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
23	CS-MW12-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Jun-09	Every 9 months*
24	CS-MW12-BS	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
25	CS-MW12-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
26	CS-MW16-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
27	CS-MW16-CC	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
28	CW-MW17-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Jun-09	Every 9 months*
29	CS-MW18-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
30	CS-MW19-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
31	**CS-1**	**VOC on-post short list & metals (8 CSSA Metals)**	**Sep-08**	Dec-08	**Quarterly**
32	CS-2	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Jun-09	Every 9 months*
33	CS-4	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
34	**CS-9**	**VOC on-post short list & metals (8 CSSA Metals)**	**Sep-08**	Dec-08	**Quarterly**
35	**CS-10**	**VOC on-post short list & metals (8 CSSA Metals)**	**Sep-08**	Dec-08	**Quarterly**
36	CS-11	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Jun-09	Every 9 months*
37	CS-D	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Mar-09	Semi-annual
38	CS-MWG-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Jun-09	Every 9 months*
39	CS-MWH-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	Sep-09	Sep-11	Biennial
40	CS-I	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Jun-09	Every 9 months*
41	CS-MW20-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Dec-08	Quarterly
42	CS-MW21-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Dec-08	Quarterly
43	CS-MW22-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Dec-08	Quarterly
44	CS-MW23-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Dec-08	Quarterly
45	CS-MW24-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Dec-08	Quarterly
46	CS-MW25-LGR	VOC on-post short list & metals (Hg, Pb, Cd, Cr)	**Sep-08**	Dec-08	Quarterly
	Westbay Wells WB01-WB04 "LGR" zones	VOC on-post short list	**Sep-08**	Mar-09	Semi-annual
	Westbay Wells WB01-WB04 "BS & CC" zones	VOC on-post short list	Sep-09	Sep-11	Biennial

*Wells recommended for annual sampling frequency in the LTMO are scheduled every nine months (every third quarter) to gather seasonal data.
8 CSSA Metals = As, Cd, Cu, Zn, Ba, Cr, Hg, Pb

3.0 SEPTEMBER ANALYTICAL RESULTS

3.1 Monitoring Wells

Under the provisions of the groundwater monitoring DQOs and the LTMO study, the schedule for sampling on-post in September 2008 included 30 on-post monitoring wells and 3 drinking water wells. In addition, a sample was collected from the reservoir to provide additional data for metals concentrations in nearby wells. **Table 3-1** provides a sampling overview for September 2008 and the schedule under the LTMO recommendations. The monitoring wells (CS-MW1-LGR, CS-MW2-LGR, CS-MW3-LGR, CS-MW5-LGR, CS-MW6-LGR, CS-MW7-LGR, CS-MW8-LGR, CS-MW9-LGR, CS-MW10-LGR, CS-MW11A-LGR, CS-MW12-LGR, CS-MW19-LGR, CS-MW20-LGR, CS-MW21-LGR, CS-MW22-LGR, CS-MW23-LGR, CS-MW24-LGR, CS-MW25-LGR, CS-MWG-LGR, CS-D, CS-2, and CS-4) were sampled using dedicated low-flow gas operated bladder pumps. Wells CS-MW16-LGR, CS-MW16-CC, CS-1, CS-9, CS-10, and CS-11 were sampled using dedicated submersible pumps. Wells CS-MW4-LGR, CS-MW11B-LGR, CS-MW17-LGR, and CS-MW18-LGR were not sampled because water levels were below the bladder pumps. Well CS-I was not sampled due to submersible pump failure. **Figure 3-1** shows well sampling locations.

Wells sampled by low-flow pumps were purged until the field parameters stabilized. Field parameters including pH, temperature, and conductivity, were recorded to ensure stabilization during well purging. The on-post monitoring wells were sampled in September 2008 for the short list of volatile organic compounds (VOC), and metals (cadmium, lead, chromium, and mercury). Drinking water wells were sampled for short list VOCs and metals (arsenic, barium, chromium, copper, zinc, cadmium, mercury, and lead). In addition, a sample was collected from the reservoir for the eight metals listed above. Samples were analyzed by APPL Laboratories in Fresno, California. All detected concentrations of VOCs and metals are presented in **Table 3-2**. Full analytical results are presented in **Appendix B**.

Results from on-post monitoring wells are considered definitive data and are subject to data validation and verification under provisions of the CSSA Quality Assurance Project Plan (QAPP). Parsons data packages numbered DY02- #87 through #92 containing the analytical results from this sampling event were received by Parsons between September 23 and October 10, 2008. Data validation was conducted and the data validation summary was submitted to CSSA. Cumulative historical analytical results can be found in **Tables 6** and **7** of the **Introduction to the Quarterly Groundwater Monitoring Program** (Parsons 2001) (**Volume 5, Groundwater**). Plume maps from this quarter will be included in the 2008 Annual Groundwater Report.

3.2 Westbay-equipped Wells

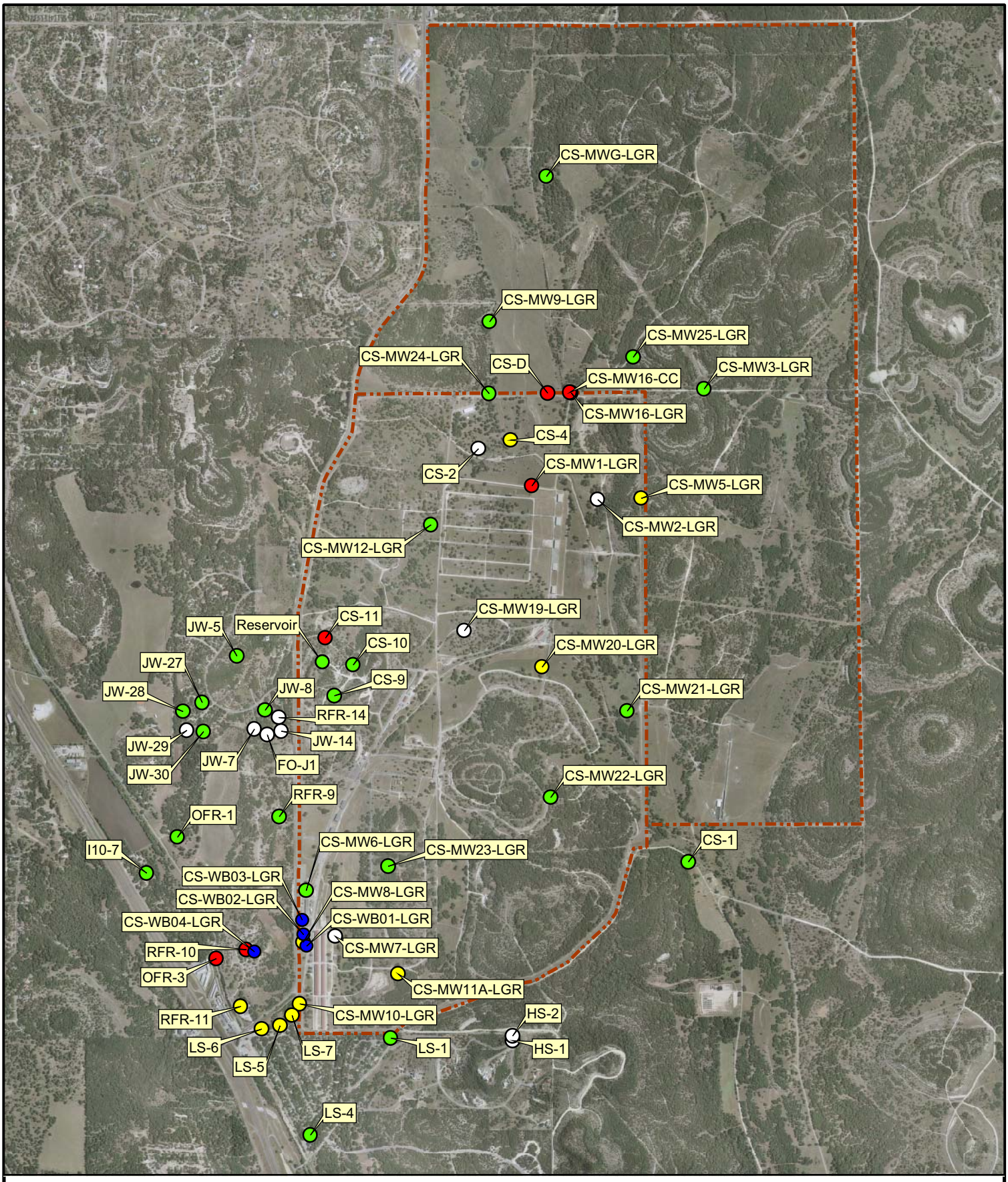
Under the provisions of the groundwater monitoring DQOs and the LTMO study, the schedule for on-post sampling in September 2008 included the LGR zones in Westbay wells CS-WB01, CS-WB02, CS-WB03, and CS-WB04. These wells are sampled on a semi-annual frequency as recommended in the LTMO study and will be sampled again during the March

2009 event. All detected concentrations of VOCs are presented in **Table 3-3**. Full analytical results are presented in **Appendix C**. The Westbay wells are sampled for VOCs: 1,1-dichloroethene, *cis*-1,2-DCE, *trans*-1,2-DCE, PCE, TCE, and vinyl chloride.

Westbay wells CS-WB05, CS-WB06, CS-WB07, and CS-WB08 are not sampled as part of the groundwater monitoring program but are sampled as part of the SWMU B-3 bioreactor monitoring. Results for those wells are presented in a separate report.

4.0 SEPTEMBER 2008 SUMMARY

- Of the 33 wells scheduled for sampling, 28 were sampled in September 2008. In addition, a reservoir sample was collected for additional metals data in the area. Four wells were not sampled because water levels were below the bladder pumps and well CS-I was not sampled due to submersible pump failure.
- From June 25, 2008 to September 19, 2008, weather stations north and south recorded 6.06 and 6.95 inches of rain, respectively.
- Water levels decreased an average of 23.17 feet per well since last quarter. The water levels have continued to decrease for the fourth consecutive quarter after record high rainfall last year.
- PCE and TCE were above the MCL in wells CS-MW1-LGR, CS-MW16-LGR, CS-MW16-CC, and CS-D.
- *Cis*-1,2-DCE was above the MCL in wells CS-MW16-LGR and CS-D.
- Lead was detected at a concentration 0.1972 mg/L, which was above the AL (0.015 mg/L) in well CS-11 this quarter; well CS-11 is a former drinking water well. Lead levels found in the CSSA drinking water wells and in the drinking water reservoir were below ALs.
- Three of the four Westbay wells sampled showed the LGR-02 zone as dry. The UGR zone was also dry in 3 of the 4 Westbay wells.
- The MCL was exceeded for PCE in 19 Westbay wells zones and the MCL for TCE was exceeded in 13 of the Westbay well zones.
- Westbay well zones CS-WB03-UGR-01 and CS-WB03-LGR-01 reported PCE at levels of 3,900 µg/L and 2,500 µg/L, respectively. WB03 had detections of PCE above the MCL in every zone except CS-WB03-LGR-02, which was dry.



*Off-post wells not analyzed for metals.

Figure 3-1

On-Post and Off-Post Well Sampling Locations for September 2008

Camp Stanley Storage Activity

PARSONS

J:\745\745953 CSSA DY02\GIS\Sept08_Sampled_Wells.mxd - 1/30/2009 @ 8:28:28 AM

Table 3-2
September 2008 On-Post Quarterly Groundwater Results, Detected Analytes

Well ID	Sample Date	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Zinc	Mercury	Comments
CS-MW1-LGR	9/9/2008	NA	NA	--	**0.023**	NA	**0.0027F**	NA	--	
CS-MW2-LGR	9/16/2008	NA	NA	--	--	NA	**0.0034F**	NA	--	
CS-MW3-LGR	9/16/2008	NA	NA	--	--	NA	**0.0024F**	NA	--	
CS-MW5-LGR	9/11/2008	NA	NA	--	**0.002F**	NA	**0.005F**	NA	--	
CS-MW6-LGR	9/10/2008	NA	NA	--	**0.005F**	NA	**0.0043F**	NA	--	
CS-MW7-LGR	9/9/2008	NA	NA	--	**0.002F**	NA	--	NA	--	
CS-MW8-LGR	9/10/2008	NA	NA	**0.0007F**	**0.002F**	NA	**0.0027F**	NA	--	
CS-MW9-LGR	9/16/2008	NA	NA	--	**0.002F**	NA	**0.0022F**	NA	--	
CS-MW9-LGR FD	9/16/2008	NA	NA	--	**0.002F**	NA	**0.0038F**	NA	--	
CS-MW10-LGR	9/15/2008	NA	NA	--	**0.016**	NA	**0.0025F**	NA	--	
CS-MW10-LGR FD	9/15/2008	NA	NA	--	**0.014**	NA	**0.0023F**	NA	--	
CS-MW11A-LGR	9/15/2008	NA	NA	**0.0008F**	--	NA	**0.0023F**	NA	--	
CS-MW12-LGR	9/11/2008	NA	NA	--	--	NA	**0.0026F**	NA	--	
CS-MW16-LGR	9/9/2008	NA	NA	--	--	NA	**0.0043F**	NA	--	
CS-MW16-CC	9/9/2008	NA	NA	--	--	NA	**0.0029F**	NA	--	
CS-MW19-LGR	9/11/2008	NA	NA	--	**0.002F**	NA	**0.0037F**	NA	--	
CS-MW20-LGR	9/15/2008	NA	NA	**0.0008F**	**0.002F**	NA	**0.0029F**	NA	--	
CS-MW21-LGR	9/15/2008	NA	NA	--	--	NA	**0.0032F**	NA	--	
CS-MW22-LGR	9/15/2008	NA	NA	--	--	NA	**0.0037F**	NA	--	Significant reduction in lead since this well was first sampled in June 2007.
CS-MW23-LGR	9/15/2008	NA	NA	**0.0006F**	**0.004F**	NA	**0.0079F**	NA	--	
CS-MW24-LGR	9/10/2008	NA	NA	--	**0.002F**	NA	**0.0035F**	NA	--	
CS-MW25-LGR	9/16/2008	NA	NA	--	**0.002F**	NA	**0.0035F**	NA	--	Significant reduction in lead and chromium since this well was first sampled in June 2007.
CS-MWG-LGR	9/16/2008	NA	NA	**0.0006F**	--	NA	**0.0102F**	NA	--	
CS-D	9/9/2008	NA	NA	--	--	NA	**0.0038F**	NA	--	
CS-2	9/11/2008	NA	NA	--	--	NA	**0.003F**	NA	--	
CS-4	9/15/2008	NA	NA	--	--	NA	**0.0026F**	NA	--	
CS-11	9/15/2008	NA	NA	--	**0.02**	NA	**0.1972**	NA	--	
CSSA Drinking Water Well System										
CS-1	9/18/2008	**0.00222F**	**0.0376**	--	--	--	--	**0.067**	--	
CS-9	9/16/2008	**0.00197F**	**0.0394**	--	--	--	**0.0088F**	**2.42**	**0.0082J**	
CS-9 FD	9/16/2008	**0.00196F**	**0.0384**	--	--	--	**0.0083F**	**2.242**	**0.0066J**	
CS-10	9/16/2008	**0.00338F**	**0.0393**	--	--	--	**0.0054F**	**0.184**	--	
Reservoir	9/18/2008	**0.00222F**	**0.0389**	--	--	--	--	**0.166**	--	
Comparison Criteria										
Method Detection Limit (MDL)		**0.00022**	**0.0003**	**0.0005**	**0.001**	**0.003**	**0.0019**	**0.008**	**0.0001**	
Reporting Limit (RL)		**0.03**	**0.005**	**0.007**	**0.01**	**0.01**	**0.025**	**0.05**	**0.001**	
Max. Contaminant Level (MCL)		**0.01**	**2**	**0.005**	**0.1**	**AL=1.3**	**AL=0.015**	**SS=5.0**	**0.002**	

Table 3-2
September 2008 On-Post Quarterly Groundwater Results, Detected Analytes

Well ID	Sample Date	1,1-DCE	*cis* -1,2-DCE	*trans* -1,2-DCE	PCE	TCE	Vinyl Chloride	Comments
CS-MW1-LGR	9/9/2008	--	**16.3**	**0.26F**	**12.87**	**29.33**	--	PCE & TCE remain above the MCL since June 2000.
CS-MW2-LGR	9/16/2008	--	**0.58F**	--	--	--	--	
CS-MW3-LGR	9/16/2008	--	--	--	--	--	--	
CS-MW5-LGR	9/11/2008	--	**1.24**	--	**0.68F**	**1.01**	--	
CS-MW6-LGR	9/10/2008	--	--	--	--	--	--	
CS-MW7-LGR	9/9/2008	--	--	--	**0.22F**	--	--	First PCE detection since December 2003.
CS-MW8-LGR	9/10/2008	--	--	--	**1.66**	--	--	
CS-MW9-LGR	9/16/2008	--	--	--	--	--	--	
CS-MW9-LGR FD	9/16/2008	--	--	--	--	--	--	
CS-MW10-LGR	9/15/2008	--	--	--	**1.94**	**0.50F**	--	
CS-MW10-LGR FD	9/15/2008	--	--	--	**2.08**	**0.39F**	--	
CS-MW11A-LGR	9/15/2008	--	--	--	**1.59**	--	--	
CS-MW12-LGR	9/11/2008	--	--	--	--	--	--	
CS-MW16-LGR	9/9/2008	--	**179.24***	**0.72**	**172.98***	**202.14***	--	Slight increase of PCE, TCE, and cis-1,2-DCE since March 08.
CS-MW16-CC	9/9/2008	**0.38F**	**51.07**	**2.11**	**14.3**	**63.51**	--	PCE & TCE concentrations remain steady since March 08.
CS-MW19-LGR	9/11/2008	--	--	--	**0.40F**	--	--	
CS-MW20-LGR	9/15/2008	--	--	--	**1.88**	--	--	Consistant PCE detections since well was installed in June 2007.
CS-MW21-LGR	9/15/2008	--	--	--	--	--	--	
CS-MW22-LGR	9/15/2008	--	--	--	--	--	--	
CS-MW23-LGR	9/15/2008	--	--	--	--	--	--	
CS-MW24-LGR	9/10/2008	--	--	--	--	--	--	
CS-MW25-LGR	9/16/2008	--	--	--	--	--	--	
CS-MWG-LGR	9/16/2008	--	--	--	--	--	--	
CS-D	9/9/2008	--	**93.66**	**0.8**	**72.16**	**102.32**	--	
CS-2	9/11/2008	--	--	--	**0.64F**	--	--	
CS-4	9/15/2008	--	--	--	**0.75F**	**1.08**	--	
CS-11	9/15/2008	--	--	--	--	--	--	
CSSA Drinking Water Well System								
CS-1	9/18/2008	--	--	--	--	--	--	
CS-9	9/16/2008	--	--	--	--	--	--	
CS-9 FD	9/16/2008	--	--	--	--	--	--	
CS-10	9/16/2008	--	--	--	--	--	--	
Comparison Criteria								
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**	**1.0**	**1.1**	
Max. Contaminant Level (MCL)		**7**	**70**	**100**	**5**	**5**	**2**	

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

Precipitation per Quarter:	**Mar-08**	**Jun-08**	**Sep-08**
Weather Station South (WS-S)	2.31	2.69	6.95
Weather Station North (WS-N)	2.17	1.9	6.06

All samples were analyzed by APPL, Inc.
VOC data reported in ug/L & metals data reported in mg/L.

Abbreviations/Notes:

FD	Field Duplicate
TCE	Trichloroethene
PCE	Tetrachloroethene
DCE	Dichloroethene
AL	Action Level
SS	Secondary Standard
NA	Not Analyzed for this parameter

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.
J - The analyte was positively identified, the quantitation is an estimation.
* dilution of 10 run for this sample.

Table 3-3
September 2008 Westbay Analytical Results, Detections Only

Well ID	Date Sampled	1,1-DCE (1,1-dichloroethene)	*cis*-1.2-DCE (cis-1,2-dichloroethene)	TCE (trichloroethene)	PCE (tetrachloroethene)	*trans*-1,2-DCE (trans-1,2-dichloroethene)	Vinyl Chloride
CS-WB01-UGR-01	9/17/08	dry	dry	dry	dry	dry	dry
CS-WB01-LGR-01	9/17/08	--	--	**0.34J**	**6.5**	--	--
CS-WB01-LGR-02	9/17/08	--	--	**3.4**	**9.3**	--	--
CS-WB01-LGR-03	9/17/08	--	--	**15.0**	**5.8**	--	--
CS-WB01-LGR-04	9/17/08	--	--	**0.25J**	--	--	--
CS-WB01-LGR-05	9/17/08	--	--	**0.24J**	**0.18J**	--	--
CS-WB01-LGR-06	9/17/08	--	--	**0.71J**	**0.38J**	--	--
CS-WB01-LGR-07	9/17/08	--	--	**10**	**10**	--	--
CS-WB01-LGR-08	9/17/08	--	--	**1.4**	**0.53J**	--	**0.33J**
CS-WB01-LGR-09	9/17/08	--	**0.45J**	**22**	**17**	--	--
CS-WB02-UGR-01	9/17/08	dry	dry	dry	dry	dry	dry
CS-WB02-LGR-01	9/17/08	--	--	**3.5**	**3.3**	--	--
CS-WB02-LGR-02	9/17/08	dry	dry	dry	dry	dry	dry
CS-WB02-LGR-03	9/17/08	--	--	**2.0**	**7.1**	--	--
CS-WB02-LGR-04	9/17/08	--	--	**14**	**4.2**	--	--
CS-WB02-LGR-05	9/17/08	--	--	**4.4**	**1.1J**	--	--
CS-WB02-LGR-06	9/17/08	--	--	**4.6**	**1.3J**	--	--
CS-WB02-LGR-07	9/17/08	--	--	**1.0**	**0.83J**	--	--
CS-WB02-LGR-08	9/17/08	--	--	**1.6**	**2.2**	--	--
CS-WB02-LGR-09	9/17/08	--	**0.33J**	**13**	**15**	--	--
CS-WB03-UGR-01	9/17/08	--	--	**54J**	**3,900**	--	--
CS-WB03-LGR-01	9/17/08	--	**0.35J**	**19**	**2,500**	--	--
CS-WB03-LGR-02	9/17/08	dry	dry	dry	dry	dry	dry
CS-WB03-LGR-03	9/17/08	--	**0.37J**	**11**	**24**	--	--
CS-WB03-LGR-04	9/17/08	--	--	**8.8**	**22**	--	--
CS-WB03-LGR-05	9/17/08	--	--	**6.0**	**20**	--	--
CS-WB03-LGR-06	9/17/08	--	--	**1.3**	**9.2**	--	--
CS-WB03-LGR-07	9/17/08	--	**0.18J**	**4.2**	**10**	--	--
CS-WB03-LGR-08	9/17/08	--	--	**1.5**	**14**	--	--
CS-WB03-LGR-09	9/17/08	--	--	**4.8**	**16**	--	--
CS-WB04-UGR-01	9/18/08	dry	dry	dry	dry	dry	dry
CS-WB04-LGR-01	9/18/08	--	--	--	**0.54J**	--	--
CS-WB04-LGR-02	9/18/08	dry	dry	dry	dry	dry	dry
CS-WB04-LGR-03	9/18/08	--	--	--	--	--	--
CS-WB04-LGR-04	9/18/08	--	--	--	--	--	--
CS-WB04-LGR-06	9/18/08	--	**3.8**	**16**	**6.5**	**0.33J**	--
CS-WB04-LGR-07	9/18/08	--	**3.6**	**15**	**6**	**0.22J**	--
CS-WB04-LGR-08	9/18/08	--	--	**0.64J**	**0.42J**	--	--
CS-WB04-LGR-09	9/18/08	--	--	**8.8**	**10**	--	--
CS-WB04-LGR-10	9/18/08	--	--	**0.68J**	**0.91J**	--	--
CS-WB04-LGR-11	9/18/08	--	--	--	**3.5**	--	--
Comparison Criteria							
Method Detection Limit	**MDL**	**0.3**	**0.16**	**0.16**	**0.15**	**0.19**	**0.23**
Reporting Limit	**RL**	**1.2**	**1.2**	**1**	**1.4**	**0.6**	**1.1**
Max. Contaminant Level	**MCL**	**7**	**70**	**5**	**5**	**100**	**2**

Data Qualifiers:
F- The analyte was positively identified but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantitation is an estimation.
U - The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
M- Matrix Effect Present.
"--" indicates the result was non-detect.
All values are reported in µg/L.

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

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.	All sampling was conducted in accordance with the procedures described in the project plans.	Yes.	NA
Characterization of Environmental Setting (Hydrogeology)	Prepare water-level contour and/or potentiometric maps for each formation of the Middle Trinity Aquifer (3.5.3).	Potentiometric surface maps were prepared based on water levels measured in each of CSSA's wells screened in three formations on September 8, 2008.	To the extent possible with data available. Due to the limited data available and the fact that wells are completed across multiple water-bearing units, potentiometric maps should only be used for regional water flow direction, not local. Ongoing pumping in the CSSA area likely affects the natural groundwater flow direction.	As additional wells are installed screened in distinct formations, future evaluations will eliminate reliance on wells screened across multiple formations.
	Describe the flow system, including the vertical and horizontal components of flow (2.1.9).	Potentiometric maps were created using September 8, 2008 water level data, and horizontal flow direction was tentatively identified. Insufficient data are currently available to determine vertical component of flow.	As described above, due to the lack of aquifer-specific water level information, potentiometric surface maps should only be used as an estimate of regional flow direction.	Same as above.
	Define formation(s) in the Middle Trinity Aquifer are impacted by the VOC contaminants (2.1.3).	Quarterly groundwater monitoring provides information on Middle Trinity Aquifer impacts. Monitoring wells equipped with Westbay® - multi-port samplers are sampled semiannually and will be sampled again during the March 2009 event.	Yes.	Continue sampling.

Activity	Objectives	Action	Objective Attained?	Recommendations
	Identify any temporal changes in hydraulic gradients due to seasonal influences (2.1.5).	Downloaded data from continuous-reading transducers in wells: CS-MW4-LGR, CS-MW18-LGR, CS-MW19-LGR, CS-MW21-LGR, CS-MW22-LGR, and CS-MW24-LGR. Additional continuous reading transducers were added to the program through the SCADA project. The following wells can be uploaded to see real time water level data: CS-MW9-LGR, CS-MW9-BS, CS-MW9-CC, CS-MW16-LGR, CS-MW16-CC, CS-MW1-LGR, CS-MW1-BS, CS-MW1-CC, CS-MW12-LGR, CS-MW12-BS, CS-MW12-CC, CS-MW10-LGR, CS-MW10-CC, CS-MW6-LGR, CS-MW6-BS, CS-MW6-CC, CS-9, CS-1, and CS-10. Data was also downloaded from the northern and southern continuous-reading weather stations WS-N and WS-S. Water levels will be graphed at these wells against precipitation data through December 2008 and included in the annual groundwater report.	Yes.	Continue collection of transducer data and possibly install transducers in other cluster wells.
Contamination Characterization (Ground Water Contamination)	Characterize the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the Facility (3.1.2).	Samples for laboratory analysis were collected from 28 of 46 CSSA wells. Of the 33 wells scheduled to be sampled in September 2008, 28 were sampled. Four wells were not sampled due to low water levels and one well was not sampled due to a pump outage. One additional sample was added from the reservoir.	The horizontal and vertical extent of groundwater contamination is continuously monitored.	Continue groundwater monitoring and construct additional wells as necessary.

<table>
<tr><th>Activity</th><th>Objectives</th><th>Action</th><th>Objective Attained?</th><th>Recommendations</th></tr>
<tr><td rowspan="2"></td><td>Determine the horizontal and vertical concentration profiles of all constituents of concern (COC) in the groundwater that are measured by USEPA-approved procedures (3.1.2). COCs are those chemicals that have been detected in groundwater in the past and their daughter (breakdown) products.</td><td>Groundwater samples were collected from wells: CS-MW1-LGR, CS-MW2-LGR, CS-MW3-LGR, CS-MW5-LGR, CS-MW6-LGR, CS-MW7-LGR, CS-MW8-LGR, CS-MW9-LGR, CS-MW10-LGR, CS-MW11A-LGR, CS-MW12-LGR, CS-MW19-LGR, CS-MW20-LGR, CS-MW21-LGR, CS-MW22-LGR, CS-MW23-LGR, CS-MW24-LGR, CS-MW25-LGR, CS-MWG-LGR, CS-D, CS-2, CS-4 CS-MW16-LGR, CS-MW16-CC, CS-1, CS-9, CS-10, and CS-11. Samples were analyzed for the short list of VOCs using USEPA method SW8260B, and metals (arsenic, cadmium, lead, mercury, barium, chromium, copper, and zinc). Analyses were conducted in accordance with the AFCEE QAPP and approved variances. All RLs were below MCLs, as listed below:</td><td>Yes.</td><td>Continue sampling.</td></tr>
<tr><td></td><td>
<table>
<tr><th>ANALYTE</th><th>RL (µg /L)</th><th>MCL(µg/L)</th></tr>
<tr><td>Chloroform</td><td>0.4</td><td>100</td></tr>
<tr><td>Chloromethane</td><td>1.3</td><td>--</td></tr>
<tr><td>Dibromochloromethane</td><td>0.5</td><td>100</td></tr>
<tr><td>1,1-DCE</td><td>1.2</td><td>7</td></tr>
<tr><td>cis-1,2-DCE</td><td>1.2</td><td>70</td></tr>
<tr><td>trans-1,2-DCE</td><td>0.6</td><td>100</td></tr>
<tr><td>Methylene Chloride</td><td>2</td><td>5</td></tr>
<tr><td>PCE</td><td>1.4</td><td>5</td></tr>
<tr><td>TCE</td><td>1.0</td><td>5</td></tr>
</table>
</td><td></td><td></td></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>ANALYTE</th><th>RL (µg/L)</th><th>MCL (µg /L)</th></tr>
<tr><td>Barium</td><td>5</td><td>2,000</td></tr>
<tr><td>Chromium</td><td>10</td><td>100</td></tr>
<tr><td>Copper</td><td>10</td><td>1,300</td></tr>
<tr><td>Zinc</td><td>50</td><td>5,000</td></tr>
<tr><td>Arsenic</td><td>20</td><td>10</td></tr>
<tr><td>Cadmium</td><td>2</td><td>5</td></tr>
<tr><td>Lead</td><td>2</td><td>15</td></tr>
<tr><td>Mercury</td><td>1</td><td>2</td></tr>
</table>
</td><td></td><td></td></tr>
</table>

Activity	Objectives	Action	Objective Attained?	Recommendations
Contamination Characterization (Ground Water Contamination) (Continued)	Meet AFCEE QAPP quality assurance requirements.	Samples were analyzed in accordance with the CSSA QAPP and approved variances. Parsons chemists verified all data, and AFCEE approval was obtained.	Yes.	NA
		All data flagged with a "U," "J," and "F" are usable for characterizing contamination. All "R" flagged data are considered unusable.	Yes.	NA
		Previously, a method detection limit (MDL) study for arsenic, cadmium, and lead was not performed within a year of the analyses, as required by the AFCEE QAPP.	The laboratory performed new MDL studies in February 2001 for these metals and the new MDL values were found to be almost identical to the previous MDLs and all met the associated AFCEE QAPP requirements. MDLs for these three metals are well below MCLs. In addition, the laboratory performed daily calibrations and RL verifications for these metals, both of which demonstrate the laboratory's ability to detect and quantitate these metals at RL levels. These daily analyses also indicate that concentrations above the laboratory RL for these compounds were not affected by the expired MDL study.	Use results for groundwater characterization purposes.
Remediation	Determine goals and create cost-effective and technologically appropriate methods for remediation (2.2.1).	Continued data collection will provide analytical results for accomplishing this objective.	Ongoing.	Continue sampling and evaluation, including quarterly groundwater monitoring teleconferences to address remediation.
	Determine placement of new wells for monitoring (2.3.1, 3.6)	Sampling frequency and sample locations to be monitored (including any new wells) will be based on trend data from monitoring event(s) (3.1.5).	Ongoing.	Continue quarterly groundwater teleconferences to discuss sampling frequency and placement of new monitor wells.

Activity	Objectives	Action	Objective Attained?	Recommendations
Project schedule/ Reporting	Produce a quarterly monitoring project schedule as a road map for sampling, analysis, validation, verification, reviews, and reports.	Prepare schedules and sampling guidelines prior to each quarterly sampling event.	Yes.	Continue sampling schedule preparation each quarter.

Appendix B
September 2008 Quarterly Groundwater Analytical Results

Well ID	Sample Date	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Zinc	Mercury
CS-MW1-LGR	9/9/2008	NA	NA	0.0005U	**0.023**	NA	**0.0027F**	NA	0.0001U
CS-MW2-LGR	9/16/2008	NA	NA	0.0005U	0.001U	NA	**0.0034F**	NA	0.0001U
CS-MW3-LGR	9/16/2008	NA	NA	0.0005U	0.001U	NA	**0.0024F**	NA	0.0001U
CS-MW5-LGR	9/11/2008	NA	NA	0.0005U	**0.002F**	NA	**0.005F**	NA	0.0001U
CS-MW6-LGR	9/10/2008	NA	NA	0.0005U	**0.005F**	NA	**0.0043F**	NA	0.0001U
CS-MW7-LGR	9/9/2008	NA	NA	0.0005U	**0.002F**	NA	0.0019U	NA	0.0001U
CS-MW8-LGR	9/10/2008	NA	NA	**0.0007F**	**0.002F**	NA	**0.0027F**	NA	0.0001U
CS-MW9-LGR	9/16/2008	NA	NA	0.0005U	**0.002F**	NA	**0.0022F**	NA	0.0001U
CS-MW9-LGR FD	9/16/2008	NA	NA	0.0005U	**0.002F**	NA	**0.0038F**	NA	0.0001U
CS-MW10-LGR	9/15/2008	NA	NA	0.0005U	**0.016**	NA	**0.0025F**	NA	0.0001U
CS-MW10-LGR FD	9/15/2008	NA	NA	0.0005U	**0.014**	NA	**0.0023F**	NA	0.0001U
CS-MW11A-LGR	9/15/2008	NA	NA	**0.0008F**	0.001U	NA	**0.0023F**	NA	0.0001U
CS-MW12-LGR	9/11/2008	NA	NA	0.0005U	0.001U	NA	**0.0026F**	NA	0.0001U
CS-MW16-LGR	9/9/2008	NA	NA	0.0005U	0.001U	NA	**0.0043F**	NA	0.0001U
CS-MW16-CC	9/9/2008	NA	NA	0.0005U	0.001U	NA	**0.0029F**	NA	0.0001U
CS-MW19-LGR	9/11/2008	NA	NA	0.0005U	**0.002F**	NA	**0.0037F**	NA	0.0001U
CS-MW20-LGR	9/15/2008	NA	NA	**0.0008F**	**0.002F**	NA	**0.0029F**	NA	0.0001U
CS-MW21-LGR	9/15/2008	NA	NA	0.0005U	0.001U	NA	**0.0032F**	NA	0.0001U
CS-MW22-LGR	9/15/2008	NA	NA	0.0005U	0.001U	NA	**0.0037F**	NA	0.0001U
CS-MW23-LGR	9/15/2008	NA	NA	**0.0006F**	**0.004F**	NA	**0.0079F**	NA	0.0001U
CS-MW24-LGR	9/10/2008	NA	NA	0.0005U	**0.002F**	NA	**0.0035F**	NA	0.0001U
CS-MW25-LGR	9/16/2008	NA	NA	0.0005U	**0.002F**	NA	**0.0035F**	NA	0.0001U
CS-MWG-LGR	9/16/2008	NA	NA	**0.0006F**	0.001U	NA	**0.0102F**	NA	0.0001U
CS-D	9/9/2008	NA	NA	0.0005U	0.001U	NA	**0.0038F**	NA	0.0001U
CS-2	9/11/2008	NA	NA	0.0005U	0.001U	NA	**0.003F**	NA	0.0001U
CS-4	9/15/2008	NA	NA	0.0005U	0.001U	NA	**0.0026F**	NA	0.0001U
CS-11	9/15/2008	NA	NA	0.0005U	**0.02**	NA	**0.1972**	NA	0.0001U
CSSA Drinking Water Well System									
CS-1	9/18/2008	**0.00222F**	**0.0376**	0.0005U	0.001U	0.003U	0.0019U	**0.067**	0.0001U
CS-9	9/16/2008	**0.00197F**	**0.0394**	0.0005U	0.001U	0.003U	**0.0088F**	**2.42**	**0.0082J**
CS-9 FD	9/16/2008	**0.00196F**	**0.0384**	0.0005U	0.001U	0.003U	**0.0083F**	**2.242**	**0.0066J**
CS-10	9/16/2008	**0.00338F**	**0.0393**	0.0005U	0.001U	0.003U	**0.0054F**	**0.184**	0.0001U
Reservoir	9/18/2008	**0.00222F**	**0.0389**	0.0005U	0.001U	0.003U	0.0019U	**0.166**	0.0001U

Well ID	Sample Date	1,1-DCE	*cis*-1,2-DCE	*trans*-1,2-DCE	PCE	TCE	Vinyl Chloride
CS-MW1-LGR	9/9/2008	0.12U	**16.3**	**0.26F**	**12.87**	**29.33**	0.08U
CS-MW2-LGR	9/16/2008	0.12U	**0.58F**	0.08U	0.06U	**0.05U**	0.08U
CS-MW3-LGR	9/16/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW5-LGR	9/11/2008	0.12U	**1.24**	0.08U	**0.68F**	**1.01**	0.08U
CS-MW6-LGR	9/10/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW7-LGR	9/9/2008	0.12U	0.07U	0.08U	**0.22F**	0.05U	0.08U
CS-MW8-LGR	9/10/2008	0.12U	0.07U	0.08U	**1.66**	0.05U	0.08U
CS-MW9-LGR	9/16/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW9-LGR FD	9/16/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW10-LGR	9/15/2008	0.12U	0.07U	0.08U	**1.94**	**0.50F**	0.08U
CS-MW10-LGR FD	9/15/2008	0.12U	0.07U	0.08U	**2.08**	**0.39F**	0.08U
CS-MW11A-LGR	9/15/2008	0.12U	0.07U	0.08U	**1.59**	0.05U	0.08U
CS-MW12-LGR	9/11/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW16-LGR	9/9/2008	0.12U	**179.24***	**0.72**	**172.98***	**202.14***	0.08U
CS-MW16-CC	9/9/2008	**0.38F**	**51.07**	**2.11**	**14.3**	**63.51**	0.08U
CS-MW19-LGR	9/11/2008	0.12U	0.07U	0.08U	**0.40F**	0.05U	0.08U
CS-MW20-LGR	9/15/2008	0.12U	0.07U	0.08U	**1.88**	0.05U	0.08U
CS-MW21-LGR	9/15/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW22-LGR	9/15/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW23-LGR	9/15/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW24-LGR	9/10/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MW25-LGR	9/16/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-MWG-LGR	9/16/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-D	9/9/2008	0.12U	**93.66**	**0.8**	**72.16**	**102.32**	0.08U
CS-2	9/11/2008	0.12U	0.07U	0.08U	**0.64F**	**0.05U**	0.08U
CS-4	9/15/2008	0.12U	0.07U	0.08U	**0.75F**	**1.08**	0.08U
CS-11	9/15/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-1	9/18/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-9	9/16/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-9 FD	9/16/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
CS-10	9/16/2008	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U

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

All samples were analyzed by APPL, Inc.
VOC data reported in ug/L & metals data reported in mg/L.

Abbreviations/Notes:

FD	Field Duplicate
TCE	Trichloroethene
PCE	Tetrachloroethene
DCE	Dichloroethene
NA	Not Analyzed for this parameter

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.
J - The analyte was positively identified, the quantitation is an estimation.
* dilution of 10 run for this sample.

Appendix C
September 2008 Westbay Analytical Results

Well ID	Date Sampled	1,1-DCE (1,1-dichloroethene)	*cis* -1.2-DCE (cis-1,2-dichloroethene)	TCE (trichloroethene)	PCE (tetrachloroethene)	*trans* -1,2-DCE (trans-1,2-dichloroethene)	Vinyl Chloride
CS-WB01-UGR-01	9/17/08	dry	dry	dry	dry	dry	dry
CS-WB01-LGR-01	9/17/08	<0.3	<0.16	**0.34J**	**6.5**	<0.19	<0.23
CS-WB01-LGR-02	9/17/08	<0.3	<0.16	**3.4**	**9.3**	<0.19	<0.23
CS-WB01-LGR-03	9/17/08	<0.3	<0.16	**15.0**	**5.8**	<0.19	<0.23
CS-WB01-LGR-04	9/17/08	<0.3	<0.16	**0.25J**	<0.15	<0.19	<0.23
CS-WB01-LGR-05	9/17/08	<0.3	<0.16	**0.24J**	**0.18J**	<0.19	<0.23
CS-WB01-LGR-06	9/17/08	<0.3	<0.16	**0.71J**	**0.38J**	<0.19	<0.23
CS-WB01-LGR-07	9/17/08	<0.3	<0.16	**10**	**10**	<0.19	<0.23
CS-WB01-LGR-08	9/17/08	<0.3	<0.16	**1.4**	**0.53J**	<0.19	**0.33J**
CS-WB01-LGR-09	9/17/08	<0.3	**0.45J**	**22**	**17**	<0.19	<0.23
CS-WB02-UGR-01	9/17/08	dry	dry	dry	dry	dry	dry
CS-WB02-LGR-01	9/17/08	<0.3	<0.16	**3.5**	**3.3**	<0.19	<0.23
CS-WB02-LGR-02	9/17/08	dry	dry	dry	dry	dry	dry
CS-WB02-LGR-03	9/17/08	<0.3	<0.16	**2.0**	**7.1**	<0.19	<0.23
CS-WB02-LGR-04	9/17/08	<0.3	<0.16	**14**	**4.2**	<0.19	<0.23
CS-WB02-LGR-05	9/17/08	<0.3	<0.16	**4.4**	**1.1J**	<0.19	<0.23
CS-WB02-LGR-06	9/17/08	<0.3	<0.16	**4.6**	**1.3J**	<0.19	<0.23
CS-WB02-LGR-07	9/17/08	<0.3	<0.16	**1.0**	**0.83J**	<0.19	<0.23
CS-WB02-LGR-08	9/17/08	<0.3	<0.16	**1.6**	**2.2**	<0.19	<0.23
CS-WB02-LGR-09	9/17/08	<0.3	**0.33J**	**13**	**15**	<0.19	<0.23
CS-WB03-UGR-01	9/17/08	<0.3	<0.16	**54J**	**3,900**	<0.19	<0.23
CS-WB03-LGR-01	9/17/08	<0.3	**0.35J**	**19**	**2,500**	<0.19	<0.23
CS-WB03-LGR-02	9/17/08	dry	dry	dry	dry	dry	dry
CS-WB03-LGR-03	9/17/08	<0.3	**0.37J**	**11**	**24**	<0.19	<0.23
CS-WB03-LGR-04	9/17/08	<0.3	<0.16	**8.8**	**22**	<0.19	<0.23
CS-WB03-LGR-05	9/17/08	<0.3	<0.16	**6.0**	**20**	<0.19	<0.23
CS-WB03-LGR-06	9/17/08	<0.3	<0.16	**1.3**	**9.2**	<0.19	<0.23
CS-WB03-LGR-07	9/17/08	<0.3	**0.18J**	**4.2**	**10**	<0.19	<0.23
CS-WB03-LGR-08	9/17/08	<0.3	<0.16	**1.5**	**14**	<0.19	<0.23
CS-WB03-LGR-09	9/17/08	<0.3	<0.16	**4.8**	**16**	<0.19	<0.23
CS-WB04-UGR-01	9/18/08	dry	dry	dry	dry	dry	dry
CS-WB04-LGR-01	9/18/08	<0.3	<0.16	<0.16	**0.54J**	<0.19	<0.23
CS-WB04-LGR-02	9/18/08	dry	dry	dry	dry	dry	dry
CS-WB04-LGR-03	9/18/08	<0.3	<0.16	<0.16	<0.15	<0.19	<0.23
CS-WB04-LGR-04	9/18/08	<0.3	<0.16	<0.16	<0.15	<0.19	<0.23
CS-WB04-LGR-06	9/18/08	<0.3	**3.8**	**16**	**6.5**	**0.33J**	<0.23
CS-WB04-LGR-07	9/18/08	<0.3	**3.6**	**15**	**6**	**0.22J**	<0.23
CS-WB04-LGR-08	9/18/08	<0.3	<0.16	**0.64J**	**0.42J**	<0.19	<0.23
CS-WB04-LGR-09	9/18/08	<0.3	<0.16	**8.8**	**10**	<0.19	<0.23
CS-WB04-LGR-10	9/18/08	<0.3	<0.16	**0.68J**	**0.91J**	<0.19	<0.23
CS-WB04-LGR-11	9/18/08	<0.3	<0.16	<0.16	**3.5**	<0.19	<0.23

Data Qualifiers:
F- The analyte was positively identified but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantitation is an estimation.
M- Matrix Effect Present.
All values are reported in µg/L.

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