



Technical Memorandum

To: Gabe Moreno, CSSA

From: Parsons

CC: Environmental Encyclopedia, DMS

Date: April 20, 2012

Re: Interim Removal Action for New Trench at Solid Waste Management Unit B-4, Camp Stanley Storage Activity, TX

Introduction

This technical memorandum documents the excavation of the new trench area at Solid Waste Management Unit (SWMU) B-4, appropriate management of all associated debris and soils, and confirmation soil sampling to ensure the success of the excavation. This work was performed in accordance with requirements of the Resource Conservation and Recovery Act (RCRA) 3008(h) Order in effect for Camp Stanley Storage Activity (CSSA) and in accordance with 30 Texas Administrative Code (TAC) §350, the Texas Risk Reduction Program (TRRP) of the Texas Commission on Environmental Quality (TCEQ).

Work included excavation and removal of impacted soil; waste characterization and confirmatory sampling and analysis; and proper documentation of all activities, including preparation of this technical memorandum. This memorandum does not include the associated sorting of the excavated debris from the new trench which is still underway; however, it will be amended with that information upon completion of the field effort.

Background

CSSA is located in northwestern Bexar County, about 19 miles northwest of downtown San Antonio. The installation consists of approximately 4,004 acres immediately east of Ralph Fair Road, and approximately 0.5 mile east of Interstate Highway 10 (**Figure 1**). Camp Bullis borders CSSA on the north, east, and south.

SWMU B-4 is located in the Inner Cantonment area northeast of the main compound adjacent to Area of Concern (AOC) 64 (**Figure 2**). The area was used for the disposal of classified documents, trash, and ordnance-related material for an indeterminate period prior to the 1990s. The original site boundary, which encompassed several trenches, covers approximately two acres (**Figure 3**). Five trenches were excavated by Weston in January and February 2011. In September 2011, an additional trench was discovered. This investigation involves the excavation of the additional trench discovered during the sorting of previously excavated trench material. Photographs showing investigation activities at the site are provided in **Appendix A**.

Sampling and Analytical Procedures

The investigative soil analyses for SWMU B-4 were performed using United States Environmental Protection Agency (USEPA) Test Methods for Evaluating Solid Waste (SW-846): Method 8260B (volatile organic compounds [VOCs]); Method 8270C (semi-volatile organic compounds [SVOCs]); Method 8330 (explosives); and Method 6010 (arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, and zinc, referred to as CSSA 9 metals); and Methods SW1311/6010B and SW1311/7470A (toxicity characteristic leaching procedure (TCLP) for RCRA 8 metals). All samples were sent to Agriculture & Priority Pollutants Laboratory, Inc. (APPL) for analyses. Sample analysis, reporting, and validation were conducted in accordance with the CSSA Quality Assurance Project Plan (QAPP). The data verification summary report for the sampling and analytical results is provided in **Appendix B**.

Excavation Effort

The new trench was excavated between February 21, 2012 and February 28, 2012. The trench was excavated from the southern end to the northern end while two unexploded ordnance (UXO) technicians performed inspections on the excavated material as it was stockpiled. The trench was approximately 15 feet (ft) wide by 200 ft long, and was excavated to a depth of 12 ft. Approximately 2,100 cubic yards (CY) of soil and waste materials in the new trench were excavated. These materials are currently being inspected for UXO and properly disposed of. No munitions and explosives of concern (MEC) or munitions debris (MD) were encountered during the excavation.

Surface Soil Samples

To assess the potential of impacted surface soil, a total of five surface soil samples (B4-US01, B4-US03, B4-US05, B4-US06, and B4-US08) were collected at approximately 3 feet below grade and approximately every 50 ft along alternating sidewalls (Figure 3). Based on the target contaminants of concerns (COCs) for the original five SWMU B-4 disposal trenches established by Weston during the pre-Interim Removal Action (IRA) assessment in April 2010, these samples were analyzed for CSSA 9 metals. One sample (B4-US01) exceeded the Tier 1 PCL for mercury with a concentration of 1.27 mg/kg (**Table 1**). The surface soil within this portion of the trench was over-excavated and resampled (B4-US10). The mercury results from B4-US10 were below the Tier 1 PCLs (**Table 2**).

Subsurface Soil Samples

Eleven samples were initially collected from the subsurface soil zone. Samples B4-NT1-SW1, and B4-NT1-SW3 through B4-NT1-SW9 were collected approximately every 50 ft along trench sidewalls at 11.0 to 11.5 ft below grade. Samples were collected at the bottom of the trench (B4-NT1-BOT01 through B4-NT1-BOT03) at 15.0-15.5 ft below grade (Figure 3). In addition to the Weston's established target COCs, both the subsurface sidewall and bottom soil samples were analyzed for VOCs, SVOCs, and explosives (Figure 3). No explosives, VOCs, or SVOCs were detected.

Metal concentrations exceeded Tier 1 protective contamination limits (PCLs) in B4-NT-BOT01 (copper at 140 mg/kg), B4-NT-BOT02 (copper at 110 mg/kg, mercury at 1.5 mg/kg, and

zinc at 180 mg/kg), and B4-NT-BOT03 (zinc at 130 mg/kg) (Table 1). Based on these results, the bottom of the trench was over-excavated and new samples were collected and analyzed for CSSA 9 metals (B4-NT-BOT04, B4-NT-BOT05, and B4-NT-BOT06; Figure 3). All trench bottom re-sample results were below Tier 1 PCLs. The mercury concentration in one of the subsurface sidewall samples, B4-NT1-SW5 (0.93 mg/kg) also exceeded the Tier 1 PCL: however the level was below the Tier 1 Residential Action Level (RAL) for Total Soil Combined of 2.1 mg/kg (Table 1) so was left in place.

Waste Characterization and Off-Post Disposal Activities

Waste characterization efforts were performed in accordance with requirements of CSSA's RCRA Facility Investigation Interim Measures Waste Management Plan (RFI/IM WMP) – Revised, dated May 2006 (approved by TCEQ in August 2006) and the RFI/IM WMP Addendum for SWMU B-4, dated February 2012. Prior to soil/waste disposal, waste characterization samples were collected from three piles of excavated material and analyzed for CSSA 9 Metals and by the TCLP for RCRA 8 metals. Waste characterization sample results for the excavated soils are included in **Table 4**.

Results of waste characterization showed that the impacted media from SWMU B-4 met State of Texas Class 2 non-hazardous criteria (30 TAC §335 Subchapter R). Two piles of approximately 1,000 CY of the soils also met Tier 1 PCLs for all metals except for mercury (1.2 mg/kg and 1.46 mg/kg). These mercury results were below the Tier 1 Residential Action Level (RAL) for Total Soil Combined of 2.1 mg/kg so were used as trench backfill of the subsurface to a depth not greater than 6 feet below grade. The mercury level (2.9 mg/kg) of the waste characterization sample from the remaining approximate 500 CY of soil exceeded the Tier 1 RAL so will be transported to the East Pasture Berm for reuse, as per TCEQ approval December 20, 2010 (**Appendix C**). Approximately 30 CY of miscellaneous metal debris was collected from SWMU B-4 and sent for recycling to Monterrey Iron and Metal Company in San Antonio, Texas. The waste manifests and profile data, including the waste analytical results, are kept on file at the CSSA Environmental Office.

TABLES AND FIGURES

Table 1 Assessment Levels for CSSA 9 Metals at SWMU B-4

Chemical of Potential Concern	Residential Tier 1 ^{Tot} Soil _{Comb} (mg/kg) ¹	Residential Tier 1 ^{GW} Soil _{Ing} (mg/kg) ²	CSSA Soil Background (mg/kg) ³	Texas-Specific Soil Background (mg/kg) ⁴	EcoBenchmark (mg/kg) ⁵
Arsenic	24	2.5	19.6	5.9	18
Barium	8100	220	186	300	330
Cadmium	52	0.75	3.0	NA	32
Chromium	27000	1200	40.2	30	0.4
Copper	550	520	23.2	15	61
Lead	500	1.5	84.5	15	120
Mercury	2.1	2.1	0.77	0.04	0.1
Nickel	830	79	35.5	NA	30
Zinc	9900	1200	73.2	30	120

1) Texas Risk Reduction Program Rule Tier 1 Protective Concentration Levels (PCLs) ^{Tot}Soil_{Comb}, for 30 acre source area, May 2011 (<http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html>).

2) Texas Risk Reduction Program Rule Protective Concentration Levels (PCLs) ^{GW}Soil_{Ing}, for 30 acre source area, May 2011 (<http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html>).

3) Second Revision to Evaluation of Background Metals Concentrations in Soils and Bedrock, February 2002.

4) Background Geochemistry of Some Rocks, Soils, Plants, and Vegetables in the Conterminous United States", by Jon J. Connor, Hansford T. Shacklette, et al., Geological Survey Professional Paper 574-F, US Geological Survey.

5) TCEQ Ecological Benchmark for Soil as stated in Update to Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas, Regulatory Guidance (RG)-263, Revised (January 2006) (<http://www.tceq.state.tx.us/assets/public/remediation/eco/0106eragupdate.pdf>).

Identified PCLs are shown in **bold**.

Table 2. Summary of Chemical Constituents Remaining in Surface Soils at SWMU B-4

		Volatile Organics																							
		1,1,1,2-Tetrachloroethane CAS: 630-20-6		1,1,1-Trichloroethane CAS: 71-55-6		1,1,2-Tetrachloroethane CAS: 79-34-5		1,1,2-Trichloroethane CAS: 79-00-5		1,1-Dichloroethane CAS: 75-34-3		1,1-Dichloroethene CAS: 75-35-4		1,1-Dichloropropene CAS: 563-58-6		1,2,3-Trichlorobenzene CAS: 87-61-6		1,2,3-Trichloropropene CAS: 96-18-4		1,2,4-Trichlorobenzene CAS: 120-82-1		1,2,4-Trimethylbenzene CAS: 95-65-6		1,2-Dibromo-3-chloropropane CAS: 96-12-8	
		Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																									
Residential Combined Exposure ^[1]		3.90E+01	c	3.20E+04	n	3.00E+01	c	1.00E+01	c	8.80E+03	n	1.60E+03	n	2.60E+01	c	8.70E+01	n	2.00E-01	c	7.00E+01	n	7.90E+01	n	8.00E-02	c
Residential Groundwater Exposure ^[2]		7.10E-01	c	8.10E-01	m	1.20E-02	c	1.00E-02	m	9.20E+00	n	2.50E-02	m	6.70E-02	c	1.30E+01	n	2.70E-04	c	2.40E+00	m	2.40E+01	n	8.70E-04	m
Ecological Benchmark ^[3]		na		na		na		na		na		na		na		na		na		na		na		na	
TCEQ-Approved Background Values																									
CSSA 9 Metals Background Concentration ^[4]		na		na		na		na		na		na		na		na		na		na		na		na	
Sample Locations (Date Collected)																									
B4-US01 (08-Mar-2012) (Excavated)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US03 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US05 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US06 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US08 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US10 (19-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US10-DUP (19-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	

		Volatile Organics																							
		1,2-Dibromoethane (EDB) CAS: 106-93-4		1,2-Dichlorobenzene CAS: 95-50-1		1,2-Dichloroethane CAS: 107-06-2		1,2-Dichloropropane CAS: 78-87-5		1,3,5-Trimethylbenzene (Mesitylene) CAS: 108-67-8		1,3-Dichlorobenzene CAS: 541-73-1		1,3-Dichloropropane CAS: 142-28-9		1,4-Dichlorobenzene CAS: 106-46-7		1-Chlorohexane CAS: 544-10-5		2,2-Dichloropropane CAS: 594-20-7		2-Chlorotoluene CAS: 95-49-8		4-Chlorotoluene CAS: 106-43-4	
		Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																									
Residential Combined Exposure ^[1]		4.30E-01	c	3.90E+02	n	6.40E+00	c	3.10E+01	n	5.90E+01	n	6.20E+01	n	2.60E+01	c	2.50E+02	c	2.30E+03	n	3.10E+01	n	1.10E+03	n	1.60E+03	n
Residential Groundwater Exposure ^[2]		1.00E-04	m	8.90E+00	m	6.90E-03	m	1.10E-02	m	2.70E+01	n	3.40E+00	n	3.20E-02	c	1.10E+00	m	2.00E+01	n	6.00E-02	c	4.50E+00	n	5.40E+00	n
Ecological Benchmark ^[3]		na		na		na		na		na		na		na		na		na		na		na		na	
TCEQ-Approved Background Values																									
CSSA 9 Metals Background Concentration ^[4]		na		na		na		na		na		na		na		na		na		na		na		na	
Sample Locations (Date Collected)																									
B4-US01 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US03 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US05 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US06 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US08 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US10 (19-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	
B4-US10-DUP (19-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--	

Table 2. Summary of Chemical Constituents Remaining in Surface Soils at SWMU B-4

		Volatile Organics																																						
		Benzene CAS: 71-43-2	Qualifier	Dilution	Bromobenzene CAS: 108-86-1	Qualifier	Dilution	Bromochloromethane CAS: 74-97-5	Qualifier	Dilution	Bromodichloromethane CAS: 75-27-4	Qualifier	Dilution	Bromoform CAS: 75-25-2	Qualifier	Dilution	Bromomethane CAS: 74-83-9	Qualifier	Dilution	Carbon tetrachloride CAS: 56-23-5	Qualifier	Dilution	Chlorobenzene CAS: 108-90-7	Qualifier	Dilution	Chloroethane CAS: 75-00-3	Qualifier	Dilution	Chloroform CAS: 67-66-3	Qualifier	Dilution	Chloromethane CAS: 74-87-3	Qualifier	Dilution	cis-1,2-Dichloroethene CAS: 156-59-2	Qualifier	Dilution			
Tier 1 Soil PCLs - 30 acre[†]																																								
Residential Combined Exposure ^[1]		6.90E+01	c		2.80E+02	n		3.30E+03	n		9.80E+01	c		2.80E+02	c		2.90E+01	n		2.30E+01	c		3.20E+02	n		2.30E+04	n		8.00E+00	c		8.40E+01	c		1.20E+02	n				
Residential Groundwater Exposure ^[2]		1.30E-02	m		1.20E+00	n		1.50E+00	n		3.30E-02	c		3.20E-01	c		6.50E-02	n		3.10E-02	m		5.50E-01	m		1.50E+01	n		5.10E-01	n		2.00E-01	c		1.20E-01	m				
Ecological Benchmark ^[3]		na			na			na			na			na			na			na			na			na			na			na			na					
TCEQ-Approved Background Values																																								
CSSA 9 Metals Background Concentration ^[4]		na			na			na			na			na			na			na			na			na			na			na			na					
Sample Locations (Date Collected)																																								
B4-US01 (08-Mar-2012) (Excavated)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US03 (08-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US05 (08-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US06 (08-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US08 (08-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US10 (19-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US10-DUP (19-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		

		Volatile Organics																																						
		cis-1,3-Dichloropropene CAS: 10061-01-5	Qualifier	Dilution	Dibromochloromethane CAS: 124-48-1	Qualifier	Dilution	Dibromomethane CAS: 74-95-3	Qualifier	Dilution	Dichlorodifluoromethane CAS: 75-71-8	Qualifier	Dilution	Ethylbenzene CAS: 100-41-4	Qualifier	Dilution	Hexachlorobutadiene CAS: 87-68-3	Qualifier	Dilution	Isopropylbenzene CAS: 98-82-8	Qualifier	Dilution	m,p-Xylene CAS: 179601-23-1	Qualifier	Dilution	Methylene chloride CAS: 75-09-2	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	n-Butylbenzene CAS: 104-51-8	Qualifier	Dilution	n-Propylbenzene CAS: 103-65-1	Qualifier	Dilution			
Tier 1 Soil PCLs - 30 acre[†]																																								
Residential Combined Exposure ^[1]		7.80E+00	n		7.20E+01	c		4.20E+01	n		7.50E+02	n		5.30E+03	n		1.20E+01	c		3.00E+03	n		na			2.60E+02	c		1.20E+02	n		3.30E+03	n		1.60E+03	n				
Residential Groundwater Exposure ^[2]		3.30E-03	c		2.50E-02	c		5.60E-01	c		1.20E+02	n		3.80E+00	m		1.60E+00	c		1.70E+02	n		na			6.50E-03	m		1.60E+01	n		7.60E+01	n		2.20E+01	n				
Ecological Benchmark ^[3]		na			na			na			na			na			na			na			na			na			na			na			na					
TCEQ-Approved Background Values																																								
CSSA 9 Metals Background Concentration ^[4]		na			na			na			na			na			na			na			na			na			na			na			na					
Sample Locations (Date Collected)																																								
B4-US01 (08-Mar-2012) (Excavated)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US03 (08-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US05 (08-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US06 (08-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US08 (08-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US10 (19-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-US10-DUP (19-Mar-2012)		--			--			--			--			--			--			--			--			--			--			--			--			--		

Table 2. Summary of Chemical Constituents Remaining in Surface Soils at SWMU B-4

		Volatile Organics																											
		o-Xylene CAS: 95-47-6		p-Cymene (p-Isopropyltoluene) CAS: 99-87-6		sec-Butylbenzene CAS: 135-98-8		Styrene CAS: 100-42-5		tert-Butylbenzene CAS: 98-06-6		Tetrachloroethene (PCE) CAS: 127-18-4		Toluene CAS: 108-88-3		trans-1,2-Dichloroethene CAS: 156-60-5		trans-1,3-Dichloropropene CAS: 10061-02-6		Trichloroethene (TCE) CAS: 79-01-6		Trichlorofluoromethane CAS: 75-69-4		Vinyl chloride CAS: 75-01-4					
		Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																													
	Residential Combined Exposure ^[1]	2.90E+04	n	8.20E+03	n	3.30E+03	n	4.30E+03	n	3.30E+03	n	9.40E+01	c	5.40E+03	n	3.70E+02	n	2.60E+01	c	6.80E+01	n	2.50E+04	n	3.40E+00	c				
	Residential Groundwater Exposure ^[2]	3.50E+01	m	1.20E+02	n	4.20E+01	n	1.60E+00	m	5.00E+01	n	2.50E-02	m	4.10E+00	m	2.50E-01	m	1.80E-02	c	1.70E-02	m	6.40E+01	n	1.10E-02	m				
	Ecological Benchmark ^[3]	na		na		na		na		na		na		na		na		na		na		na		na					
TCEQ-Approved Background Values																													
	CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		na		na		na		na		na		na		na		na		na			
Sample Locations (Date Collected)																													
	B4-US01 (08-Mar-2012) (Excavated)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US03 (08-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US05 (08-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US06 (08-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US08 (08-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US10 (19-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US10-DUP (19-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
		Semi-Volatile Organics																											
		1,2,4-Trichlorobenzene CAS: 120-82-1		1,2-Dichlorobenzene CAS: 95-50-1		1,3-Dichlorobenzene CAS: 541-73-1		1,4-Dichlorobenzene CAS: 106-46-7		2,4,5-Trichlorophenol CAS: 95-95-4		2,4,6-Trichlorophenol CAS: 88-06-2		2,4-Dichlorophenol CAS: 120-83-2		2,4-Dimethylphenol CAS: 105-67-9		2,4-Dinitrophenol CAS: 51-28-5		2,4-Dinitrotoluene CAS: 121-14-2		2,6-Dinitrotoluene CAS: 606-20-2		2-Chloronaphthalene CAS: 91-58-7					
		Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																													
	Residential Combined Exposure ^[1]	7.00E+01	n	3.90E+02	n	6.20E+01	n	2.50E+02	c	6.70E+03	n	6.70E+01	n	2.00E+02	n	1.30E+03	n	1.30E+02	n	6.90E+00	c	6.90E+00	c	5.00E+03	n				
	Residential Groundwater Exposure ^[2]	2.40E+00	m	8.90E+00	m	3.40E+00	n	1.10E+00	m	1.70E+01	n	8.70E-02	n	1.80E-01	n	1.60E+00	n	4.70E-02	n	2.70E-03	c	2.40E-03	c	3.30E+02	n				
	Ecological Benchmark ^[3]	na		na		na		na		na		na		na		na		na		na		na		na					
TCEQ-Approved Background Values																													
	CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		na		na		na		na		na		na		na		na		na			
Sample Locations (Date Collected)																													
	B4-US01 (08-Mar-2012) (Excavated)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US03 (08-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US05 (08-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US06 (08-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US08 (08-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US10 (19-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
	B4-US10-DUP (19-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			

Table 2. Summary of Chemical Constituents Remaining in Surface Soils at SWMU B-4

Semi-Volatile Organics																		
	2-Chlorophenol CAS: 95-57-8 Qualifier Dilution	2-Methyl-4,6-dinitrophenol CAS: 534-32-1 Qualifier Dilution	2-Methylnaphthalene CAS: 91-57-6 Qualifier Dilution	2-Methylphenol CAS: 95-48-7 Qualifier Dilution	2-Nitroaniline CAS: 88-74-4 Qualifier Dilution	2-Nitrophenol CAS: 88-73-5 Qualifier Dilution	3,3'-Dichlorobenzidine CAS: 91-94-1 Qualifier Dilution	3-Nitroaniline CAS: 99-09-2 Qualifier Dilution	4-Bromophenyl phenyl ether CAS: 101-55-3 Qualifier Dilution	4-Chloro-3-methyl phenol CAS: 59-50-7 Qualifier Dilution	4-Chloroaniline CAS: 106-47-8 Qualifier Dilution	4-Chlorophenyl phenyl ether CAS: 7005-72-3 Qualifier Dilution						
Tier 1 Soil PCLs - 30 acre[†]																		
Residential Combined Exposure ^[1]	4.10E+02 n	6.70E+00 n	2.50E+02 n	3.30E+03 n	1.10E+01 n	1.30E+02 n	1.00E+01 c	1.20E+01 n	2.70E-01 c	3.30E+02 n	2.30E+01 c	1.50E-01 c						
Residential Groundwater Exposure ^[2]	8.20E-01 n	2.30E-03 n	8.50E+00 n	3.60E+00 n	1.10E-02 n	6.70E-02 n	3.10E-02 c	1.30E-02 n	1.80E-01 c	2.30E+00 n	1.00E-02 c	1.60E-02 c						
Ecological Benchmark ^[3]	na	na	na	na	na	na	na	na	na	na	na	na						
TCEQ-Approved Background Values																		
CSSA 9 Metals Background Concentration ^[4]	na	na	na	na	na	na	na	na	na	na	na	na						
Sample Locations (Date Collected)																		
B4-US01 (08-Mar-2012) (Excavated)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US03 (08-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US05 (08-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US06 (08-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US08 (08-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US10 (19-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US10-DUP (19-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						

Semi-Volatile Organics																		
	4-Methylphenol (p-cresol) CAS: 106-44-5 Qualifier Dilution	4-Nitroaniline CAS: 100-01-6 Qualifier Dilution	4-Nitrophenol CAS: 100-02-7 Qualifier Dilution	Acenaphthene CAS: 83-32-9 Qualifier Dilution	Acenaphthylene CAS: 208-96-8 Qualifier Dilution	Anthracene CAS: 120-12-7 Qualifier Dilution	Benzo(a)anthracene CAS: 56-55-3 Qualifier Dilution	Benzo(a)pyrene CAS: 50-32-8 Qualifier Dilution	Benzo(b)fluoranthene CAS: 205-99-2 Qualifier Dilution	Benzo(g,h,i)perylene CAS: 191-24-2 Qualifier Dilution	Benzoic acid CAS: 65-85-0 Qualifier Dilution	Benzyl alcohol CAS: 100-51-6 Qualifier Dilution						
Tier 1 Soil PCLs - 30 acre[†]																		
Residential Combined Exposure ^[1]	3.30E+02 n	1.90E+02 n	1.30E+02 n	3.00E+03 n	3.80E+03 n	1.80E+04 n	5.60E+00 c	5.60E-01 c	5.70E+00 c	1.80E+03 n	2.70E+05 n	6.70E+03 n						
Residential Groundwater Exposure ^[2]	3.20E-01 n	5.40E-02 c	5.00E-02 n	1.20E+02 n	2.00E+02 n	3.40E+03 n	>S 8.90E+00 c	3.80E+00 m	3.00E+01 c	2.30E+04 n	>S 9.50E+01 n	2.90E+00 n						
Ecological Benchmark ^[3]	na	na	na	na	na	na	na	na	na	na	na	na						
TCEQ-Approved Background Values																		
CSSA 9 Metals Background Concentration ^[4]	na	na	na	na	na	na	na	na	na	na	na	na						
Sample Locations (Date Collected)																		
B4-US01 (08-Mar-2012) (Excavated)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US03 (08-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US05 (08-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US06 (08-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US08 (08-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US10 (19-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						
B4-US10-DUP (19-Mar-2012)	--	--	--	--	--	--	--	--	--	--	--	--						

Table 2. Summary of Chemical Constituents Remaining in Surface Soils at SWMU B-4

		Semi-Volatile Organics																																				
		Benzyl butyl phthalate CAS: 85-68-7	Qualifier	Dilution	bis(2-Chloroethoxy)methane CAS: 111-91-1	Qualifier	Dilution	bis(2-Chloroethyl)ether CAS: 111-44-4	Qualifier	Dilution	bis(2-Chloroisopropyl)ether CAS: 108-60-1	Qualifier	Dilution	bis(2-Ethylhexyl) phthalate CAS: 117-81-7	Qualifier	Dilution	Chrysene CAS: 218-01-9	Qualifier	Dilution	Dibenz(a,h)anthracene CAS: 53-70-3	Qualifier	Dilution	Dibenzofuran CAS: 132-64-9	Qualifier	Dilution	Diethyl phthalate CAS: 84-66-2	Qualifier	Dilution	Dimethyl phthalate CAS: 131-11-3	Qualifier	Dilution	Di-n-butyl phthalate CAS: 84-74-2	Qualifier	Dilution	Di-n-octyl phthalate CAS: 117-84-0	Qualifier	Dilution	
Tier 1 Soil PCLs - 30 acre[†]																																						
	Residential Combined Exposure ^[1]	1.60E+03	c		2.50E+00	c		1.40E+00	c		4.10E+01	c		4.30E+01	c		5.60E+02	c		5.50E-01	c		2.70E+02	n		5.30E+04	n		5.30E+04	n		6.20E+03	n		2.60E+03	n		
	Residential Groundwater Exposure ^[2]	1.30E+02	c		5.90E-03	c		1.10E-03	c		9.50E-02	c		8.20E+01	m		7.70E+02	c	>S	7.60E+00	c		1.70E+01	n		7.80E+01	n		3.10E+01	n		1.70E+03	n		1.00E+06	n	>S	
	Ecological Benchmark ^[3]	na			na			na			na			na			na			na			na			na			na			na			na			
TCEQ-Approved Background Values																																						
	CSSA 9 Metals Background Concentration ^[4]	na			na			na			na			na			na			na			na			na			na			na			na			
Sample Locations (Date Collected)																																						
	B4-US01 (08-Mar-2012) (Excavated)	--			--			--			--			--			--			--			--			--			--			--			--			
	B4-US03 (08-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			
	B4-US05 (08-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			
	B4-US06 (08-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			
	B4-US08 (08-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			
	B4-US10 (19-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			
	B4-US10-DUP (19-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			

		Semi-Volatile Organics																																					
		Fluoranthene CAS: 206-44-0	Qualifier	Dilution	Fluorene CAS: 86-73-7	Qualifier	Dilution	Hexachlorobenzene CAS: 118-74-1	Qualifier	Dilution	Hexachlorobutadiene CAS: 87-68-3	Qualifier	Dilution	Hexachlorocyclopentadiene CAS: 77-47-4	Qualifier	Dilution	Hexachloroethane CAS: 67-72-1	Qualifier	Dilution	Indeno(1,2,3-cd)pyrene CAS: 193-39-5	Qualifier	Dilution	Isochlorine CAS: 78-59-1	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	Nitrobenzene CAS: 98-95-3	Qualifier	Dilution	p-Nitrosodi-n-propylamine CAS: 621-64-7	Qualifier	Dilution	p-Nitrosodiphenylamine CAS: 86-30-6	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																																							
	Residential Combined Exposure ^[1]	2.30E+03	n		2.30E+03	n		1.00E+00	c		1.20E+01	c		7.20E+00	n		6.70E+01	n		5.70E+00	c		4.90E+03	c		1.20E+02	n		3.40E+01	c		4.00E-01	c		5.70E+02	c			
	Residential Groundwater Exposure ^[2]	9.60E+02	n	>S	1.50E+02	n		5.60E-01	m		1.60E+00	c		9.60E+00	m		9.20E-01	n		8.70E+01	c		1.50E+00	c		1.60E+01	n		1.80E-01	n		1.80E-04	c		1.40E+00	c			
	Ecological Benchmark ^[3]	na			na			na			na			na			na			na			na			na			na			na			na				
TCEQ-Approved Background Values																																							
	CSSA 9 Metals Background Concentration ^[4]	na			na			na			na			na			na			na			na			na			na			na			na				
Sample Locations (Date Collected)																																							
	B4-US01 (08-Mar-2012) (Excavated)	--			--			--			--			--			--			--			--			--			--			--			--				
	B4-US03 (08-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
	B4-US05 (08-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
	B4-US06 (08-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
	B4-US08 (08-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
	B4-US10 (19-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
	B4-US10-DUP (19-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				

Table 2. Summary of Chemical Constituents Remaining in Surface Soils at SWMU B-4

	Semi-Volatile Organics														Explosives													
	Pentachlorophenol CAS: 87-86-5		Phenanthrene CAS: 85-01-8		Phenol CAS: 108-95-2		Pyrene CAS: 129-00-0		1,3,5-Trinitrobenzene CAS: 99-35-4		1,3-Dinitrobenzene CAS: 99-65-0		2,4,6-Trinitrotoluene (TNT) CAS: 118-96-7		2,4-Dinitrotoluene CAS: 121-14-2		2,6-Dinitrotoluene CAS: 606-20-2		2-Nitrotoluene CAS: 88-72-2		3-Nitrotoluene CAS: 99-08-1		4-Nitrotoluene CAS: 99-99-0					
	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution				
Tier 1 Soil PCLs - 30 acre [†]																												
Residential Combined Exposure ^[1]		7.30E-01 c		1.70E+03 n		2.00E+04 n		1.70E+03 n		2.00E+03 n		6.70E+00 n		3.30E+01 n		6.90E+00 c		6.90E+00 c		2.10E+01 c		6.70E+02 n		2.70E+02 n				
Residential Groundwater Exposure ^[2]		9.20E-03 m		2.10E+02 n		9.60E+00 n		5.60E+02 n	>S	9.10E-01 n		3.80E-03 n		8.60E-02 n		2.70E-03 c		2.40E-03 c		1.60E-02 c		9.20E-01 n		2.20E-01 c				
Ecological Benchmark ^[3]		na		na		na		na		na		na		na		na		na		na		na		na				
TCEQ-Approved Background Values																												
CSSA 9 Metals Background Concentration ^[4]		na		na		na		na		na		na		na		na		na		na		na		na				
Sample Locations (Date Collected)																												
B4-US01 (08-Mar-2012) (Excavated)		--		--		--		--		--		--		--		--		--		--		--		--				
B4-US03 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--				
B4-US05 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--				
B4-US06 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--				
B4-US08 (08-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--				
B4-US10 (19-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--				
B4-US10-DUP (19-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		--				

	Explosives														Metals																		
	HMX CAS: 2691-41-0		Nitrobenzene CAS: 98-95-3		RDX CAS: 121-82-4		Tetryl CAS: 479-45-8		Arsenic CAS: 7440-38-2		Barium CAS: 7440-39-3		Cadmium CAS: 7440-43-9		Chromium CAS: 7440-47-3		Copper CAS: 7440-50-8		Lead CAS: 7439-92-1		Mercury CAS: 7439-97-6		Nickel CAS: 7440-02-0		Zinc CAS: 7440-66-6								
	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution							
Tier 1 Soil PCLs - 30 acre [†]																																	
Residential Combined Exposure ^[1]		1.60E+03 n		3.40E+01 c		4.30E+01 c		2.70E+02 n		2.40E+01 n		8.10E+03 n		5.20E+01 n		2.70E+04 n		5.50E+02 n		5.00E+02 n		2.10E+00 n		8.30E+02 n		9.90E+03 n							
Residential Groundwater Exposure ^[2]		1.20E+00 n		1.80E-01 n		1.80E-02 c		5.50E-01 n	>S	2.50E+00 m	>S	2.20E+02 m	>S	7.50E-01 m	>S	1.20E+03 m	>S	5.20E+02 a	>S	1.50E+00 a	>S	3.90E-03 m		7.90E+01 n	>S	1.20E+03 n							
Ecological Benchmark ^[3]		na		na		na		na		1.80E+01		3.30E+02		3.20E+01		4.00E-01		6.10E+01		1.20E+02		1.00E-01		3.00E+01		1.20E+02							
TCEQ-Approved Background Values																																	
CSSA 9 Metals Background Concentration ^[4]		na		na		na		na		19.6 ^{††}		300 ^{†††}		3 ^{††}		40.2 ^{††}		23.2 ^{††}		84.5 ^{††}		0.77 ^{††}		35.5 ^{††}		73.2 ^{††}							
Sample Locations (Date Collected)																																	
B4-US01 (08-Mar-2012) (Excavated)		--		--		--		--		6.7	F	1	62	1	0.030	U	1	18	F	1	8.9	1	7.6	F	1	1.3							
B4-US03 (08-Mar-2012)		--		--		--		--		12	F	1	150	1	0.030	U	1	34	F	1	11	1	15	1	0.040	F	1	17	1	32	1		
B4-US05 (08-Mar-2012)		--		--		--		--		4.9	F	1	34	1	0.030	U	1	12	F	1	6.0	1	4.9	F	1	0.080	F	1	5.2	1	6.2	1	
B4-US06 (08-Mar-2012)		--		--		--		--		3.5	F	1	25	1	0.030	U	1	7.8	F	1	5.8	1	3.0	F	1	0.050	F	1	2.6	1	0.70	F	1
B4-US08 (08-Mar-2012)		--		--		--		--		7.4	F	1	63	1	0.030	U	1	20	F	1	8.3	1	9.0	F	1	0.30	F	1	9.6	1	19	1	
B4-US10 (19-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		0.040	F	1	--		--		--		
B4-US10-DUP (19-Mar-2012)		--		--		--		--		--		--		--		--		--		--		--		0.040	F	1	--		--		--		

NOTES:

- † TCEQ, TRRP Tier 1 Soil PCLs (Last Revised: May 24, 2011).
- †† CSSA Soil Background Concentrations. Second Revision, Evaluation of Background Metals Concentrations in Soils and Bedrock at CSSA. February 2002. Values from Table 3.3.
- ††† Texas-Specific median background concentration.
- PCLs and CSSA background values coded in this table as [1, 2, 3].
- [1] ¹⁹⁰Soil_{Comb} = PCL for COPC in soil for a 30 acre source area and a potential future resident (combined exposure for ingestion, dermal contact, inhalation of volatiles and particulates, and ingestion of above-ground and below-ground vegetables).
- [2] ¹⁹⁰Soil_{Ing} = PCL for COPC in soil for a 30 acre source area and a potential future resident (soil-to-groundwater leaching of COPC to Class 1 and 2 groundwater).
- [3] TCEQ Ecological Benchmark for Soil.
- [4] CSSA Soil Background Concentrations.

- c = carcinogenic.
 - n = noncarcinogenic.
 - m = primary MCL-based.
 - a = EPA Action Level-based.
 - >S = solubility limit exceeded during calculation.
 - na = not applicable.
- All values are measured in milligrams per kilogram (mg/Kg) unless otherwise noted.
PCLs are shown in blue font.

QA NOTES AND DATA QUALIFIERS:

- (NO CODE) - Confirmed identification.
- U - Analyte was not detected above the indicated Method Detection Limit (MDL).
- F - Analyte was positively identified, but the quantitation is an estimation above the MDL and below the Reporting Limit (RL).
- J - Analyte was positively identified, but the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
- M = Concentration is estimated due to a matrix effect.
- Values shown in **BOLD** indicate detections above the MDL.
- Values **HIGHLIGHTED** indicate detections above the PCL.

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Volatile Organics																											
	1,1,1,2-Tetrachloroethane CAS: 630-20-6		1,1,1-Trichloroethane CAS: 71-35-6		1,1,2,2-Tetrachloroethane CAS: 79-34-5		1,1,2-Trichloroethane CAS: 79-00-5		1,1-Dichloroethane CAS: 75-34-3		1,1-Dichloroethene CAS: 75-35-4		1,1-Dichloropropene CAS: 563-58-6		1,2,3-Trichlorobenzene CAS: 87-61-6		1,2,3-Trichloropropane CAS: 96-18-4		1,2,4-Trichlorobenzene CAS: 120-82-1		1,2,4-Trimethylbenzene CAS: 95-63-6		1,2-Dibromo-3-chloropropane CAS: 96-12-8					
	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																												
Residential Combined Exposure ^[1]	3.90E+01	c	3.20E+04	n	3.00E+01	c	1.00E+01	c	8.80E+03	n	1.60E+03	n	2.60E+01	c	8.70E+01	n	2.00E-01	c	7.00E+01	n	7.90E+01	n	8.00E-02	c				
Residential Groundwater Exposure ^[2]	7.10E-01	c	8.10E-01	m	1.20E-02	c	1.00E-02	m	9.20E+00	n	2.50E-02	m	6.70E-02	c	1.30E+01	n	2.70E-04	c	2.40E+00	m	2.40E+01	n	8.70E-04	m				
Ecological Background ^[3]	na		na		na		na		na		na		na		na		na		na		na		na					
TCEQ-Approved Background Values																												
CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		na		na		na		na		na		na		na		na					
Sample Locations (Date Collected)																												
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.00080	U 1	0.00090	M 1	0.00090	U 1	0.00090	U 1	0.0010	M 1	0.0011	M 1	0.0012	M 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	M 1	0.0020	U 1		
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-BOT04 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--					
B4-NT1-BOT05 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--					
B4-NT1-BOT06 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--					
B4-NT1-SW1 (29-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-SW3 (27-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-SW4 (27-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-SW5 (27-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-SW6 (27-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-SW6-DUP (27-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-SW7 (27-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-SW8 (27-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		
B4-NT1-SW9 (27-Feb-2012)	0.00080	U 1	0.00090	U 1	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0011	U 1	0.0012	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0010	U 1	0.0011	U 1	0.0020	U 1		

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Volatile Organics																							
	1,2-Dibromoethane (EDB) CAS: 106-93-4		1,2-Dichlorobenzene CAS: 95-50-1		1,2-Dichloroethane CAS: 107-06-2		1,2-Dichloropropane CAS: 78-87-5		1,3,5-Trimethylbenzene (Mesitylene) CAS: 108-67-8		1,3-Dichlorobenzene CAS: 54-1-73-1		1,3-Dichloropropane CAS: 142-28-9		1,4-Dichlorobenzene CAS: 106-46-7		1-Chlorohexane CAS: 544-10-5		2,2-Dichloropropane CAS: 594-20-7		2-Chlorotoluene CAS: 95-49-8		4-Chlorotoluene CAS: 106-43-4	
	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																								
Residential Combined Exposure ^[1]	4.30E-01	c	3.90E+02	n	6.40E+00	c	3.10E+01	n	5.90E+01	n	6.20E+01	n	2.60E+01	c	2.50E+02	c	2.30E+03	n	3.10E+01	n	1.10E+03	n	1.60E+03	n
Residential Groundwater Exposure ^[2]	1.00E-04	m	8.90E+00	m	6.90E-03	m	1.10E-02	m	2.70E+01	n	3.40E+00	n	3.20E-02	c	1.10E+00	m	2.00E+01	n	6.00E-02	c	4.50E+00	n	5.40E+00	n
Ecological Background ^[3]	na		na		na		na		na		na		na		na		na		na		na		na	
TCEQ-Approved Background Values																								
CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		na		na		na		na		na		na		na		na	
Sample Locations (Date Collected)																								
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	M 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	M 1	0.0010	M 1	0.0013	U 1	0.0011	U 1
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-BOT04 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--	
B4-NT1-BOT05 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--	
B4-NT1-BOT06 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--	
B4-NT1-SW1 (29-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-SW3 (27-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-SW4 (27-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-SW5 (27-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-SW6 (27-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-SW6-DUP (27-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-SW7 (27-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-SW8 (27-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1
B4-NT1-SW9 (27-Feb-2012)	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.00070	U 1	0.0011	U 1	0.0011	U 1	0.00070	U 1	0.00080	U 1	0.00090	U 1	0.0010	U 1	0.0013	U 1	0.0011	U 1

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Volatile Organics																																					
	Benzene CAS: 71-43-2	Qualifier	Dilution	Bromobenzene CAS: 108-86-1	Qualifier	Dilution	Bromochloromethane CAS: 74-97-5	Qualifier	Dilution	Bromodichloromethane CAS: 75-27-4	Qualifier	Dilution	Bromoform CAS: 75-25-2	Qualifier	Dilution	Bromomethane CAS: 74-83-9	Qualifier	Dilution	Carbon tetrachloride CAS: 56-23-5	Qualifier	Dilution	Chlorobenzene CAS: 108-90-7	Qualifier	Dilution	Chloroethane CAS: 75-00-3	Qualifier	Dilution	Chloroform CAS: 67-66-3	Qualifier	Dilution	Chloromethane CAS: 74-87-3	Qualifier	Dilution	cis-1,2-Dichloroethene CAS: 156-59-2	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																																						
Residential Combined Exposure ^[1]	6.90E+01	c		2.80E+02	n		3.30E+03	n		9.80E+01	c		2.80E+02	c		2.90E+01	n		2.30E+01	c		3.20E+02	n		2.30E+04	n		8.00E+00	c		8.40E+01	c		1.20E+02	n			
Residential Groundwater Exposure ^[2]	1.30E-02	m		1.20E+00	n		1.50E+00	n		3.30E-02	c		3.20E-01	c		6.50E-02	n		3.10E-02	m		5.50E-01	m		1.50E+01	n		5.10E-01	n		2.00E-01	c		1.20E-01	m			
Ecological Background ^[3]	na			na			na			na			na			na			na			na			na			na			na			na				
TCEQ-Approved Background Values																																						
CSSA 9 Metals Background Concentration ^[4]	na			na			na			na			na			na			na			na			na			na			na			na				
Sample Locations (Date Collected)																																						
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.00090	M	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	M	1	0.00070	U	1	0.0022	M	1	0.00070	U	1	0.0015	M	1	0.00080	U	1		
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-BOT04 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
B4-NT1-BOT05 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
B4-NT1-BOT06 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
B4-NT1-SW1 (29-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-SW3 (27-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-SW4 (27-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-SW5 (27-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-SW6 (27-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-SW6-DUP (27-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-SW7 (27-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-SW8 (27-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		
B4-NT1-SW9 (27-Feb-2012)	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1		

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Volatile Organics																											
	<i>cis</i> -1,3-Dichloropropene CAS: 10061-01-5		Dibromochloromethane CAS: 124-48-1		Dibromomethane CAS: 74-95-3		Dichlorodifluoromethane CAS: 75-71-8		Ethylbenzene CAS: 100-41-4		Hexachlorobutadiene CAS: 87-68-3		Isopropylbenzene CAS: 98-82-8		<i>m,p</i> -Xylene CAS: 179601-23-1		Methylene chloride CAS: 75-09-2		Naphthalene CAS: 91-20-3		<i>n</i> -Butylbenzene CAS: 104-51-8		<i>n</i> -Propylbenzene CAS: 103-65-1					
	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																												
Residential Combined Exposure ^[1]	7.80E+00	n	7.20E+01	c	4.20E+01	n	7.50E+02	n	5.30E+03	n	1.20E+01	c	3.00E+03	n	na		2.60E+02	c	1.20E+02	n	3.30E+03	n	1.60E+03	n				
Residential Groundwater Exposure ^[2]	3.30E-03	c	2.50E-02	c	5.60E-01	c	1.20E+02	n	3.80E+00	m	1.60E+00	c	1.70E+02	n	na		6.50E-03	m	1.60E+01	n	7.60E+01	n	2.20E+01	n				
Ecological Background ^[3]	na		na		na		na		na		na		na		na		na		na		na		na		na			
TCEQ-Approved Background Values																												
CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		na		na		na		na		na		na		na		na		na			
Sample Locations (Date Collected)																												
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	M 1	0.0010	M 1	0.0011	U 1	0.0010	M 1	0.0018	M 1	0.0013	U 1	0.0010	M 1	0.0010	M 1	0.0012	M 1				
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-BOT04 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-BOT05 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-BOT06 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-SW1 (29-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-SW3 (27-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-SW4 (27-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-SW5 (27-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-SW6 (27-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0026	F 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-SW6-DUP (27-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-SW7 (27-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-SW8 (27-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				
B4-NT1-SW9 (27-Feb-2012)	0.00090	U 1	0.00090	U 1	0.0010	U 1	0.0018	U 1	0.0010	U 1	0.0011	U 1	0.0010	U 1	0.0018	U 1	0.0013	U 1	0.0010	U 1	0.0010	U 1	0.0012	U 1				

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

		Volatile Organics																											
		<i>o</i> -Xylene CAS: 95-47-6		<i>p</i> -Cymene (p-Isopropyltoluene) CAS: 99-87-6		sec-Butylbenzene CAS: 135-98-8		Styrene CAS: 100-42-5		tert-Butylbenzene CAS: 98-06-6		Tetrachloroethene (PCE) CAS: 127-18-4		Toluene CAS: 108-88-3		trans-1,2-Dichloroethene CAS: 156-60-5		trans-1,3-Dichloropropene CAS: 10061-02-6		Trichloroethene (TCE) CAS: 79-01-6		Trichlorofluoromethane CAS: 75-69-4		Vinyl chloride CAS: 75-01-4					
		Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																													
	Residential Combined Exposure ^[1]	2.90E+04	n	8.20E+03	n	3.30E+03	n	4.30E+03	n	3.30E+03	n	9.40E+01	c	5.40E+03	n	3.70E+02	n	2.60E+01	c	6.80E+01	n	2.50E+04	n	3.40E+00	c				
	Residential Groundwater Exposure ^[2]	3.50E+01	m	1.20E+02	n	4.20E+01	n	1.60E+00	m	5.00E+01	n	2.50E-02	m	4.10E+00	m	2.50E-01	m	1.80E-02	c	1.70E-02	m	6.40E+01	n	1.10E-02	m				
	Ecological Background ^[3]	na		na		na		na		na		na		na		na		na		na		na		na					
TCEQ-Approved Background Values																													
	CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		na		na		na		na		na		na		na		na					
Sample Locations (Date Collected)																													
	B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.00070	U 1	0.0012	M 1	0.0011	M 1	0.00090	U 1	0.0012	M 1	0.00080	M 1	0.0010	M 1	0.00080	M 1	0.00090	U 1	0.0012	M 1	0.0013	M 1	0.0013	M 1				
	B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-BOT04 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--							
	B4-NT1-BOT05 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--							
	B4-NT1-BOT06 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--							
	B4-NT1-SW1 (29-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-SW3 (27-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-SW4 (27-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-SW5 (27-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-SW6 (27-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00090	F 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-SW6-DUP (27-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-SW7 (27-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-SW8 (27-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.00080	U 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				
	B4-NT1-SW9 (27-Feb-2012)	0.00070	U 1	0.0012	U 1	0.0011	U 1	0.00090	U 1	0.0012	U 1	0.0013	F 1	0.0010	U 1	0.00080	U 1	0.00090	U 1	0.0012	U 1	0.0013	U 1	0.0013	U 1				

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Semi-Volatile Organics																											
	1,2,4-Trichlorobenzene CAS: 120-82-1		1,2-Dichlorobenzene CAS: 95-50-1		1,3-Dichlorobenzene CAS: 541-73-1		1,4-Dichlorobenzene CAS: 106-46-7		2,4,5-Trichlorophenol CAS: 95-95-4		2,4,6-Trichlorophenol CAS: 88-06-2		2,4-Dichlorophenol CAS: 120-83-2		2,4-Dimethylphenol CAS: 105-67-9		2,4-Dinitrophenol CAS: 51-28-5		2,4-Dinitrotoluene CAS: 121-14-2		2,6-Dinitrotoluene CAS: 606-20-2		2-Chloronaphthalene CAS: 91-58-7					
	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																												
Residential Combined Exposure ^[1]	7.00E+01	n	3.90E+02	n	6.20E+01	n	2.50E+02	c	6.70E+03	n	6.70E+01	n	2.00E+02	n	1.30E+03	n	1.30E+02	n	6.90E+00	c	6.90E+00	c	5.00E+03	n				
Residential Groundwater Exposure ^[2]	2.40E+00	m	8.90E+00	m	3.40E+00	n	1.10E+00	m	1.70E+01	n	8.70E-02	n	1.80E-01	n	1.60E+00	n	4.70E-02	n	2.70E-03	c	2.40E-03	c	3.30E+02	n				
Ecological Background ^[3]	na		na		na		na		na		na		na		na		na		na		na		na					
TCEQ-Approved Background Values																												
CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		na		na		na		na		na		na		na		na					
Sample Locations (Date Collected)																												
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-BOT04 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-BOT05 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-BOT06 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-SW1 (29-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-SW3 (27-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-SW4 (27-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-SW5 (27-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-SW6 (27-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-SW6-DUP (27-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-SW7 (27-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-SW8 (27-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		
B4-NT1-SW9 (27-Feb-2012)	0.040	U 1	0.030	U 1	0.040	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.080	U 1	0.030	U 1	0.050	U 1	0.040	U 1	0.040	U 1	0.040	U 1		

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Semi-Volatile Organics																																						
	2-Chlorophenol CAS: 95-57-8	Qualifier	Dilution	2-Methyl-4,6-dinitrophenol CAS: 534-52-1	Qualifier	Dilution	2-Methylnaphthalene CAS: 91-57-6	Qualifier	Dilution	2-Methylphenol CAS: 95-48-7	Qualifier	Dilution	2-Nitroaniline CAS: 88-74-4	Qualifier	Dilution	2-Nitrophenol CAS: 88-75-5	Qualifier	Dilution	3,3'-Dichlorobenzidine CAS: 91-94-1	Qualifier	Dilution	3-Nitroaniline CAS: 99-09-2	Qualifier	Dilution	4-Bromophenyl phenyl ether CAS: 101-55-3	Qualifier	Dilution	4-Chloro-3-methyl phenol CAS: 59-50-7	Qualifier	Dilution	4-Chloroaniline CAS: 106-47-8	Qualifier	Dilution	4-Chlorophenyl phenyl ether CAS: 7005-72-3	Qualifier	Dilution			
Tier 1 Soil PCLs - 30 acre[†]																																							
Residential Combined Exposure ^[1]	4.10E+02	n		6.70E+00	n		2.50E+02	n		3.30E+03	n		1.10E+01	n		1.30E+02	n		1.00E+01	c		1.20E+01	n		2.70E-01	c		3.30E+02	n		2.30E+01	c		1.50E-01	c				
Residential Groundwater Exposure ^[2]	8.20E-01	n		2.30E-03	n		8.50E+00	n		3.60E+00	n		1.10E-02	n		6.70E-02	n		3.10E-02	c		1.30E-02	n		1.80E-01	c		2.30E+00	n		1.00E-02	c		1.60E-02	c				
Ecological Background ^[3]	na			na			na			na			na			na			na			na			na			na			na			na					
TCEQ-Approved Background Values																																							
CSSA 9 Metals Background Concentration ^[4]	na			na			na			na			na			na			na			na			na			na			na			na					
Sample Locations (Date Collected)																																							
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-BOT04 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-NT1-BOT05 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-NT1-BOT06 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-NT1-SW1 (29-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-SW3 (27-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-SW4 (27-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-SW5 (27-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-SW6 (27-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-SW6-DUP (27-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-SW7 (27-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-SW8 (27-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1
B4-NT1-SW9 (27-Feb-2012)	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Semi-Volatile Organics																																						
	4-Methylphenol (p-cresol) CAS: 106-44-5	Qualifier	Dilution	4-Nitroaniline CAS: 100-01-6	Qualifier	Dilution	4-Nitrophenol CAS: 100-02-7	Qualifier	Dilution	Acenaphthene CAS: 83-32-9	Qualifier	Dilution	Acenaphthylene CAS: 208-96-8	Qualifier	Dilution	Anthracene CAS: 120-12-7	Qualifier	Dilution	Benzo(a)anthracene CAS: 56-55-3	Qualifier	Dilution	Benzo(a)pyrene CAS: 50-32-8	Qualifier	Dilution	Benzo(b)fluoranthene CAS: 205-99-2	Qualifier	Dilution	Benzo(g,h,i)perylene CAS: 191-24-2	Qualifier	Dilution	Benzoic acid CAS: 65-85-0	Qualifier	Dilution	Benzyl alcohol CAS: 100-51-6	Qualifier	Dilution			
Tier 1 Soil PCLs - 30 acre[†]																																							
Residential Combined Exposure ^[1]	3.30E+02	n		1.90E+02	n		1.30E+02	n		3.00E+03	n		3.80E+03	n		1.80E+04	n		5.60E+00	c		5.60E-01	c		5.70E+00	c		1.80E+03	n		2.70E+05	n		6.70E+03	n				
Residential Groundwater Exposure ^[2]	3.20E-01	n		5.40E-02	c		5.00E-02	n		1.20E+02	n		2.00E+02	n		3.40E+03	n	>S	8.90E+00	c		3.80E+00	m		3.00E+01	c		2.30E+04	n	>S	9.50E+01	n		2.90E+00	n				
Ecological Background ^[3]	na			na			na			na			na			na			na			na			na			na			na			na			na		
TCEQ-Approved Background Values																																							
CSSA 9 Metals Background Concentration ^[4]	na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																							
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	M	1	0.12	U	1			
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-BOT04 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-NT1-BOT05 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-NT1-BOT06 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--			--		
B4-NT1-SW1 (29-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-SW3 (27-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-SW4 (27-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-SW5 (27-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-SW6 (27-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-SW6-DUP (27-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-SW7 (27-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-SW8 (27-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			
B4-NT1-SW9 (27-Feb-2012)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1			

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Semi-Volatile Organics																											
	Benzyl butyl phthalate CAS: 85-68-7		bis(2-Chloroethoxy)methane CAS: 111-91-1		bis(2-Chloroethyl)ether CAS: 111-44-4		bis(2-Chloroisopropyl)ether CAS: 108-60-1		bis(2-Ethylhexyl) phthalate CAS: 117-81-7		Chrysene CAS: 218-01-9		Dibenzo(a,b)anthracene CAS: 53-70-3		Dibenzofuran CAS: 132-64-9		Diethyl phthalate CAS: 84-66-2		Dimethyl phthalate CAS: 131-11-3		Di-n-butyl phthalate CAS: 84-74-2		Di-n-octyl phthalate CAS: 117-84-0					
	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																												
Residential Combined Exposure ^[1]	1.60E+03	c	2.50E+00	c	1.40E+00	c	4.10E+01	c	4.30E+01	c	5.60E+02	c	5.50E-01	c	2.70E+02	n	5.30E+04	n	5.30E+04	n	6.20E+03	n	2.60E+03	n				
Residential Groundwater Exposure ^[2]	1.30E+02	c	5.90E-03	c	1.10E-03	c	9.50E-02	c	8.20E+01	m	7.70E+02	c	>S	7.60E+00	c	1.70E+01	n	7.80E+01	n	3.10E+01	n	1.70E+03	n	1.00E+06	n	>S		
Ecological Background ^[3]	na		na		na		na		na		na		na		na		na		na		na		na		na			
TCEQ-Approved Background Values																												
CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		na		na		na		na		na		na		na		na		na			
Sample Locations (Date Collected)																												
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-BOT04 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-BOT05 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-BOT06 (12-Mar-2012)	--		--		--		--		--		--		--		--		--		--		--		--		--			
B4-NT1-SW1 (29-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-SW3 (27-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-SW4 (27-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-SW5 (27-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-SW6 (27-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-SW6-DUP (27-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-SW7 (27-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-SW8 (27-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		
B4-NT1-SW9 (27-Feb-2012)	0.040	U 1	0.060	U 1	0.040	U 1	0.050	U 1	0.030	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.040	U 1	0.030	U 1		

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Semi-Volatile Organics																																					
	Fluoranthene CAS: 206-44-0	Qualifier	Dilution	Fluorene CAS: 86-73-7	Qualifier	Dilution	Hexachlorobenzene CAS: 118-74-1	Qualifier	Dilution	Hexachlorobutadiene CAS: 87-68-3	Qualifier	Dilution	Hexachlorocyclopentadiene CAS: 77-47-4	Qualifier	Dilution	Hexachloroethane CAS: 67-72-1	Qualifier	Dilution	Indeno(1,2,3-cd)pyrene CAS: 193-39-5	Qualifier	Dilution	Isophorone CAS: 78-59-1	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	Nitrobenzene CAS: 98-95-3	Qualifier	Dilution	n-Nitrosodi-n-propylamine CAS: 621-64-7	Qualifier	Dilution	n-Nitrosodiphenylamine CAS: 86-30-6	Qualifier	Dilution		
Tier 1 Soil PCLs - 30 acre[†]																																						
Residential Combined Exposure ^[1]	2.30E+03	n		2.30E+03	n		1.00E+00	c		1.20E+01	c		7.20E+00	n		6.70E+01	n		5.70E+00	c		4.90E+03	c		1.20E+02	n		3.40E+01	c		4.00E-01	c		5.70E+02	c			
Residential Groundwater Exposure ^[2]	9.60E+02	n	>S	1.50E+02	n		5.60E-01	m		1.60E+00	c		9.60E+00	m		9.20E-01	n		8.70E+01	c		1.50E+00	c		1.60E+01	n		1.80E-01	n		1.80E-04	c		1.40E+00	c			
Ecological Background ^[3]	na			na			na			na			na			na			na			na			na			na			na			na				
TCEQ-Approved Background Values																																						
CSSA 9 Metals Background Concentration ^[4]	na			na			na			na			na			na			na			na			na			na			na			na				
Sample Locations (Date Collected)																																						
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-BOT04 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
B4-NT1-BOT05 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
B4-NT1-BOT06 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--				
B4-NT1-SW1 (29-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-SW3 (27-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-SW4 (27-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-SW5 (27-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-SW6 (27-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-SW6-DUP (27-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-SW7 (27-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-SW8 (27-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		
B4-NT1-SW9 (27-Feb-2012)	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1		

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Semi-Volatile Organics										Explosives																												
	Pentachlorophenol CAS: 87-86-5	Qualifier	Dilution	Phenanthrene CAS: 85-01-8	Qualifier	Dilution	Phenol CAS: 108-95-2	Qualifier	Dilution	Pyrene CAS: 129-00-0	Qualifier	Dilution	1,3,5-Trinitrobenzene CAS: 99-35-4	Qualifier	Dilution	1,3-Dinitrobenzene CAS: 99-65-0	Qualifier	Dilution	2,4,6-Trinitrotoluene (TNT) CAS: 118-96-7	Qualifier	Dilution	2,4-Dinitrotoluene CAS: 121-14-2	Qualifier	Dilution	2,6-Dinitrotoluene CAS: 606-20-2	Qualifier	Dilution	2-Nitrotoluene CAS: 88-72-2	Qualifier	Dilution	3-Nitrotoluene CAS: 99-08-1	Qualifier	Dilution	4-Nitrotoluene CAS: 99-99-0	Qualifier	Dilution			
Tier 1 Soil PCLs - 30 acre[†]																																							
Residential Combined Exposure ^[1]	7.30E-01	c		1.70E+03	n		2.00E+04	n		1.70E+03	n		2.00E+03	n		6.70E+00	n		3.30E+01	n		6.90E+00	c		6.90E+00	c		2.10E+01	c		6.70E+02	n		2.70E+02	n				
Residential Groundwater Exposure ^[2]	9.20E-03	m		2.10E+02	n		9.60E+00	n		5.60E+02	n	>S	9.10E-01	n		3.80E-03	n		8.60E-02	n		2.70E-03	c		2.40E-03	c		1.60E-02	c		9.20E-01	n		2.20E-01	c				
Ecological Background ^[3]	na			na			na			na			na			na			na			na			na			na			na			na					
TCEQ-Approved Background Values																																							
CSSA 9 Metals Background Concentration ^[4]	na			na			na			na			na			na			na			na			na			na			na			na					
Sample Locations (Date Collected)																																							
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-BOT04 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--					
B4-NT1-BOT05 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--					
B4-NT1-BOT06 (12-Mar-2012)	--			--			--			--			--			--			--			--			--			--			--			--					
B4-NT1-SW1 (29-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-SW3 (27-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-SW4 (27-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-SW5 (27-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-SW6 (27-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-SW6-DUP (27-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-SW7 (27-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-SW8 (27-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1
B4-NT1-SW9 (27-Feb-2012)	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1

Table 3. Summary of Chemical Constituents Remaining in Subsurface Soils at SWMU B-4

	Explosives										Metals																	
	HMX CAS: 2691-41-0 Qualifier Dilution	Nitrobenzene CAS: 98-95-3 Qualifier Dilution	RDX CAS: 121-82-4 Qualifier Dilution	Tetryl CAS: 479-45-8 Qualifier Dilution	Arsenic CAS: 7440-38-2 Qualifier Dilution	Barium CAS: 7440-39-3 Qualifier Dilution	Cadmium CAS: 7440-43-9 Qualifier Dilution	Chromium CAS: 7440-47-3 Qualifier Dilution	Copper CAS: 7440-50-8 Qualifier Dilution	Lead CAS: 7439-92-1 Qualifier Dilution	Mercury CAS: 7439-97-6 Qualifier Dilution	Nickel CAS: 7440-02-0 Qualifier Dilution	Zinc CAS: 7440-66-6 Qualifier Dilution															
Tier 1 Soil PCLs - 30 acre [†]																												
Residential Combined Exposure ^[1]	1.60E+03	n	3.40E+01	c	4.30E+01	c	2.70E+02	n	2.40E+01	n	8.10E+03	n	5.20E+01	n	2.70E+04	n	5.50E+02	n	5.00E+02	n	2.10E+00	n	8.30E+02	n	9.90E+03	n		
Residential Groundwater Exposure ^[2]	1.20E+00	n	1.80E-01	n	1.80E-02	c	5.50E-01	n	2.50E+00	m >S	2.20E+02	m >S	7.50E-01	m >S	1.20E+03	m >S	5.20E+02	a >S	1.50E+00	a >S	3.90E-03	m	7.90E+01	n >S	1.20E+03	n >S		
Ecological Benchmark ^[3]	na		na		na		na		1.80E+01		3.30E+02		3.20E+01		4.00E-01		6.10E+01		1.20E+02		1.00E-01		3.00E+01		1.20E+02			
TCEQ-Approved Background Values																												
CSSA 9 Metals Background Concentration ^[4]	na		na		na		na		19.6 ^{††}		300 ^{†††}		3 ^{††}		40.2 ^{††}		23.2 ^{††}		84.5 ^{††}		0.77 ^{††}		35.5 ^{††}		73.2 ^{††}			
Sample Locations (Date Collected)																												
B4-NT1-BOT01 (27-Feb-2012) (Excavated)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	3.9	M 1	42	M 5	0.030	M 1	9.5	M 1	140	M 5	12	M 1	0.30		5.6	M 1	55	M 5		
B4-NT1-BOT01-DUP (27-Feb-2012) (Excavated)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	2.2	F 1	25	J 5	2.1		6.5	F 1	34	J 5	11		0.34		3.5	J 1	43	J 5		
B4-NT1-BOT02 (27-Feb-2012) (Excavated)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	2.1	F 1	57	J 5	2.3		5.5	F 1	110	J 5	41		1.5		19	J 1	180	J 5		
B4-NT1-BOT03 (27-Feb-2012) (Excavated)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	2.7	F 1	35	J 5	0.030	U 1	8.6	F 1	11	J 5	34		0.53		5.3	J 1	130	J 5		
B4-NT1-BOT04 (12-Mar-2012)	--		--		--		--		0.50	F 1	4.1	J 1	0.030	UJ 1	1.8	F 1	3.6		0.66	F 1	0.020	F 1	0.12	UJ 1	1.0	F 1		
B4-NT1-BOT05 (12-Mar-2012)	--		--		--		--		0.80	F 1	9.6	J 1	0.030	UJ 1	3.5	F 1	4.5		1.8	F 1	0.10		3.0	J 1	5.9	J 1		
B4-NT1-BOT06 (12-Mar-2012)	--		--		--		--		3.2	F 1	25	J 1	0.030	UJ 1	8.9	F 1	33		4.5	F 1	0.13		7.0	J 1	30	J 1		
B4-NT1-SW1 (29-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	5.3	F 1	54	J 1	0.030	UJ 1	17	F 1	5.2		5.2	F 1	0.070	F 1	8.0		14			
B4-NT1-SW3 (27-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	2.5	F 1	28	J 5	0.030	U 1	4.2	F 1	3.0	J 1	2.3	F 1	0.030	F 1	2.6	J 1	16	J 1		
B4-NT1-SW4 (27-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	3.6	F 1	32	J 5	0.030	U 1	8.4	F 1	7.4	J 1	3.8	F 1	0.090	F 1	5.8	J 1	10	J 1		
B4-NT1-SW5 (27-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	5.3	F 1	48	J 5	0.030	U 1	12	F 1	6.7	J 1	5.1	F 1	0.93		7.1	J 1	18	J 1		
B4-NT1-SW6 (27-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	1.8	F 1	8.5	J 5	0.030	U 1	1.5	F 1	3.3	J 1	1.4	F 1	0.050	F 1	1.5	F 1	14	J 1		
B4-NT1-SW6-DUP (27-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	1.7	F 1	10	J 5	0.030	U 1	2.7	F 1	4.0	J 1	1.5	F 1	0.080	F 1	2.0	J 1	5.2	J 1		
B4-NT1-SW7 (27-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	5.2	F 1	52	J 5	0.030	U 1	14	F 1	7.5	J 1	5.2	F 1	0.070	F 1	6.9	J 1	16	J 1		
B4-NT1-SW8 (27-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	2.0	F 1	28	J 5	0.030	U 1	5.3	F 1	3.0	J 1	2.0	F 1	0.24		2.0	J 1	14	J 1		
B4-NT1-SW9 (27-Feb-2012)	0.080	U 1	0.075	U 1	0.080	U 1	0.075	U 1	2.1	F 1	24	J 5	0.030	U 1	4.4	F 1	2.9	J 1	1.7	F 1	0.030	F 1	2.0	F 1	5.4	J 1		

NOTES:
[†] TCEQ, TRRP Tier 1 Soil PCLs (Last Revised: May 24, 2011).
^{††} CSSA Soil Background Concentrations. Second Revision, Evaluation of Background Metals Concentrations in Soils and Bedrock at CSSA. February 2002. Values from Table 3.3.
^{†††} Texas-Specific median background concentration.
PCLs and CSSA background values coded in this table as [1, 2, 3].
[1] ^{To}Soil_{Comb} = PCL for COPC in soil for a 30 acre source area and a potential future resident (combined exposure for ingestion, dermal contact, inhalation of volatiles and particulates, and ingestion of above-ground and below-ground vegetables).
[2] ^{GW}Soil_{Ing} = PCL for COPC in soil for a 30 acre source area and a potential future resident (soil-to-groundwater leaching of COPC to Class 1 and 2 groundwater).
[3] TCEQ Ecological Benchmark for Soil.
[4] CSSA Soil Background Concentrations.

c = carcinogenic.
n = noncarcinogenic.
m = primary MCL-based.
a = EPA Action Level-based.
>S = solubility limit exceeded during calculation.
na = not applicable.
All values are measured in milligrams per kilogram (mg/Kg) unless otherwise noted.
PCLs are shown in **blue** font.

QA NOTES AND DATA QUALIFIERS:
(NO CODE) - Confirmed identification.
U - Analyte was not detected above the indicated Method Detection Limit (MDL).
F - Analyte was positively identified, but the quantitation is an estimation above the MDL and below the Reporting Limit (RL).
J - Analyte was positively identified, but the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M = Concentration is estimated due to a matrix effect.
Values shown in **BOLD** indicate detections above the MDL.
Values **HIGHLIGHTED** indicate detections above the PCL.

Table 4. Waste Characterization Sampling Results for SWMU B-4

SAMPLE ID:		B4-WC01		B4-WC02		B4-WC03		TCLP Regulatory Levels ¹
DATE SAMPLED:		2/27/2012		2/27/2012		2/27/2012		
LAB SAMPLE ID:		AY55857		AY55858		AY55859		
Units								
Metals - SW6010B/SW7471A								
Arsenic	mg/kg	3.5	F	3.4	F	4.6	F	--
Barium	mg/kg	40	J	36	J	57	J	--
Cadmium	mg/kg	0.030	U	0.030	U	0.030	U	--
Chromium	mg/kg	8.0	F	7.0	F	12	F	--
Copper	mg/kg	14	J	7.6	J	9.7	J	--
Lead	mg/kg	6.5	F	5.5	F	6.3	F	--
Mercury	mg/kg	1.2		1.5		2.9		--
Nickel	mg/kg	4.8	J	4.5	J	8.7	J	--
Zinc	mg/kg	32	J	22	J	38	J	--
Metals - SW6010B/SW7470A								
Arsenic	mg/L	0.0030	F	0.0060	F	0.0050	F	5.0
Barium	mg/L	0.40		0.56		0.62		100.0
Cadmium	mg/L	0.00030	U	0.00030	U	0.00030	U	1.0
Chromium	mg/L	0.0010	U	0.0010	U	0.0010	U	5.0
Lead	mg/L	0.0012	U	0.0012	U	0.0012	U	5.0
Mercury	mg/L	0.00010	U	0.00010	U	0.00010	U	0.2
Selenium	mg/L	0.0020	U	0.0020	U	0.0020	U	1.0
Silver	mg/L	0.023		0.045		0.034		5.0

QA NOTES AND DATA QUALIFIERS:

(NO CODE) - Confirmed identification.

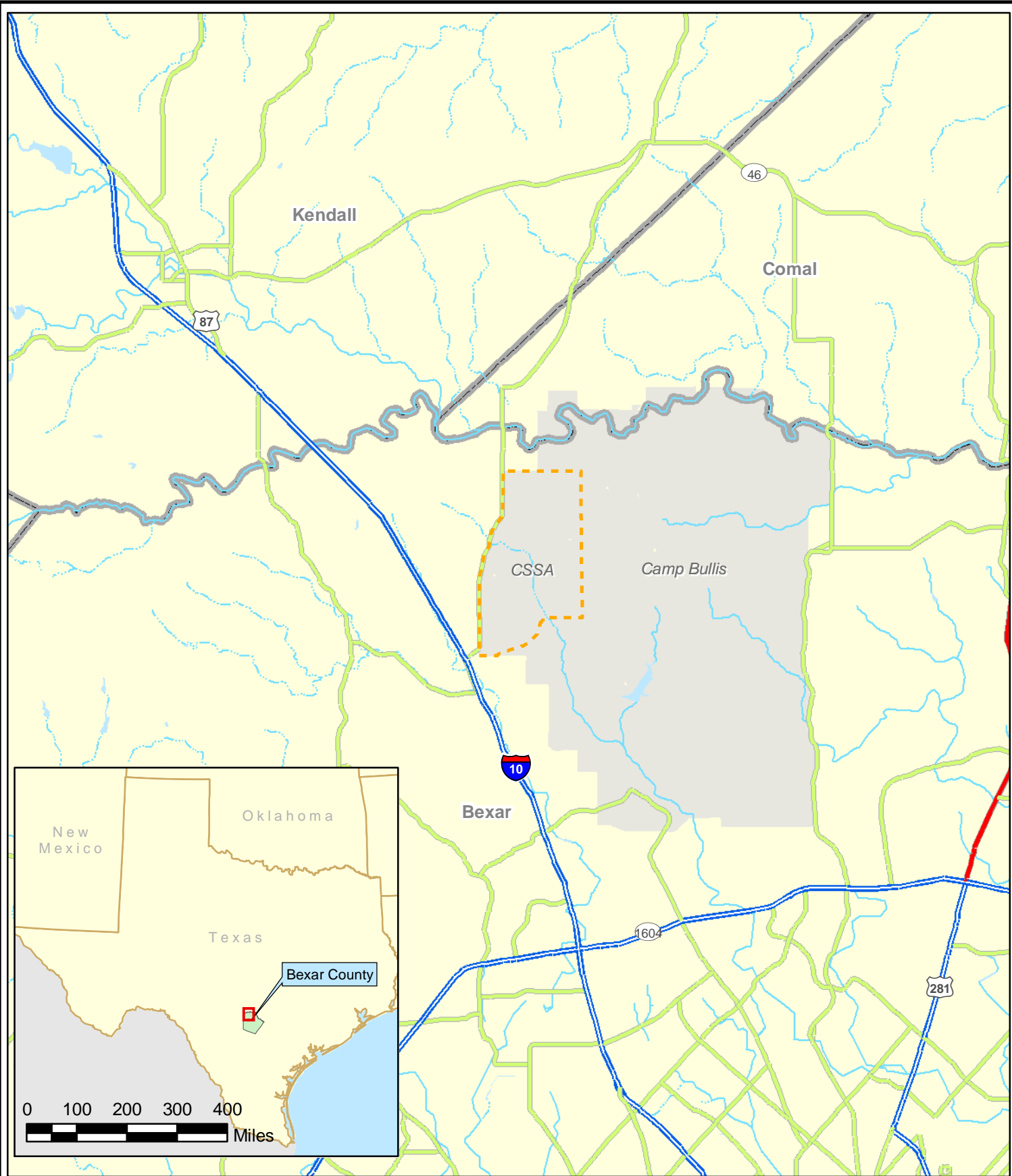
U - Analyte was not detected above the indicated Method Detection Limit (MDL).

F - Analyte was positively identified, but the quantitation is an estimation above the MDL and below the Reporting Limit (RL).

J - Analyte was positively identified, but the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

¹ - TCLP Regulatory levels for waste toxicity as defined by 40 CFR Section 261.23.

Detections are **bolded**.









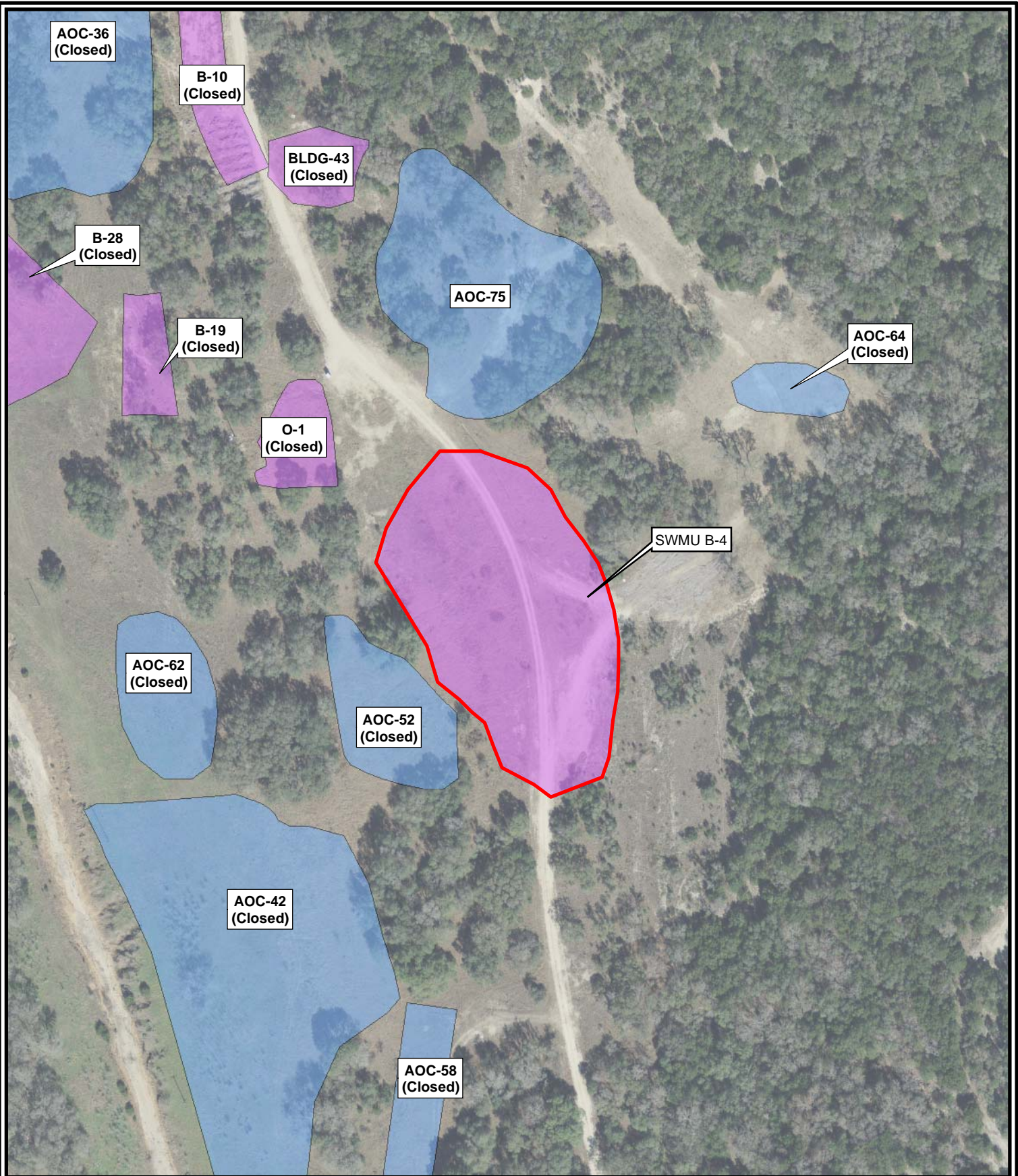
-  CSSA
-  Freeway
-  Highway
-  Major Road
-  County Boundary
-  Military Installation

Figure 1

CSSA Location Map
Camp Stanley Storage Activity

PARSONS



Aerial Photo Date: 2010



- CSSA Boundary
- SWMU B-4 Boundary
- AOC Boundary
- SWMU Boundary

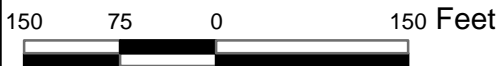
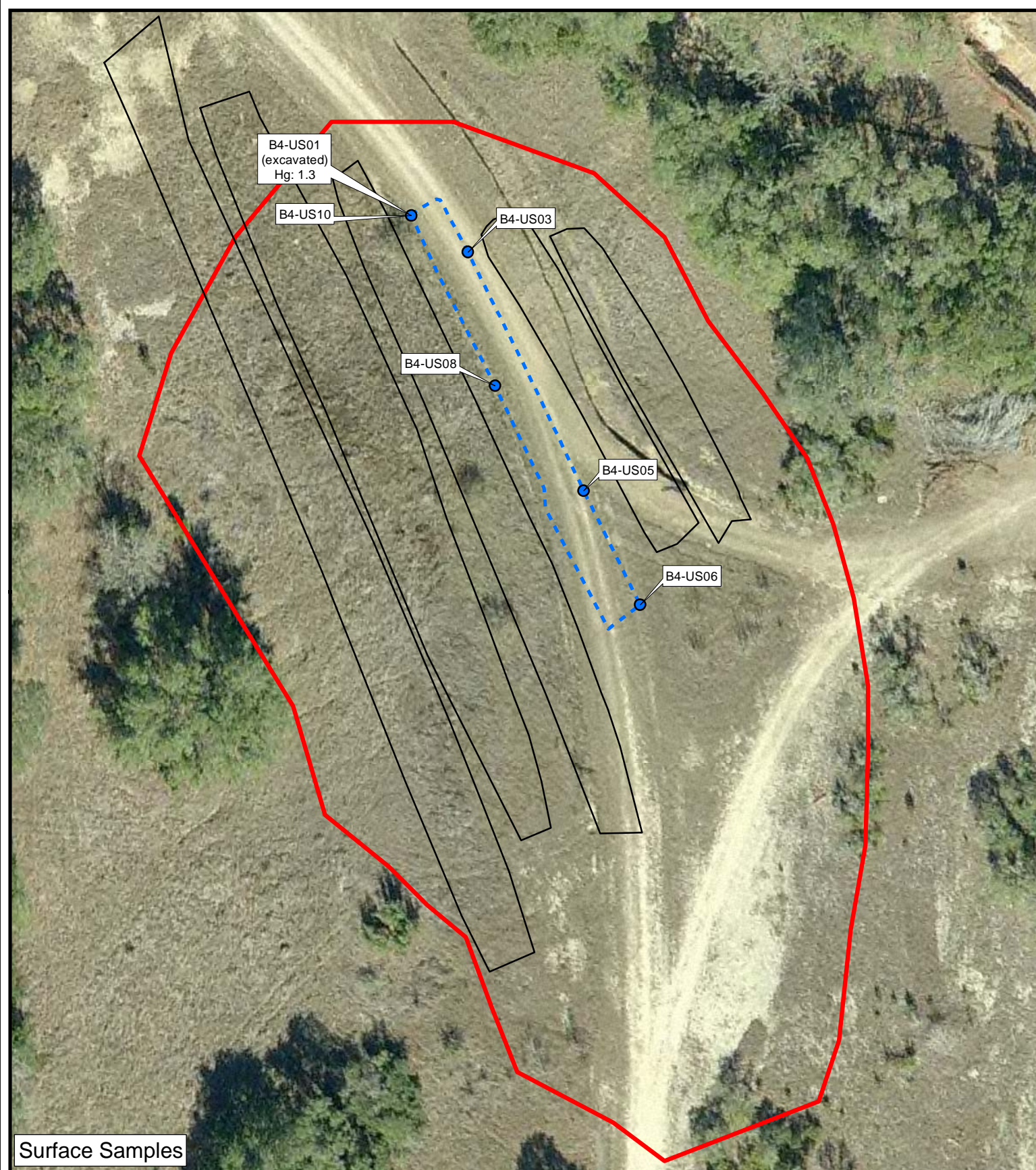


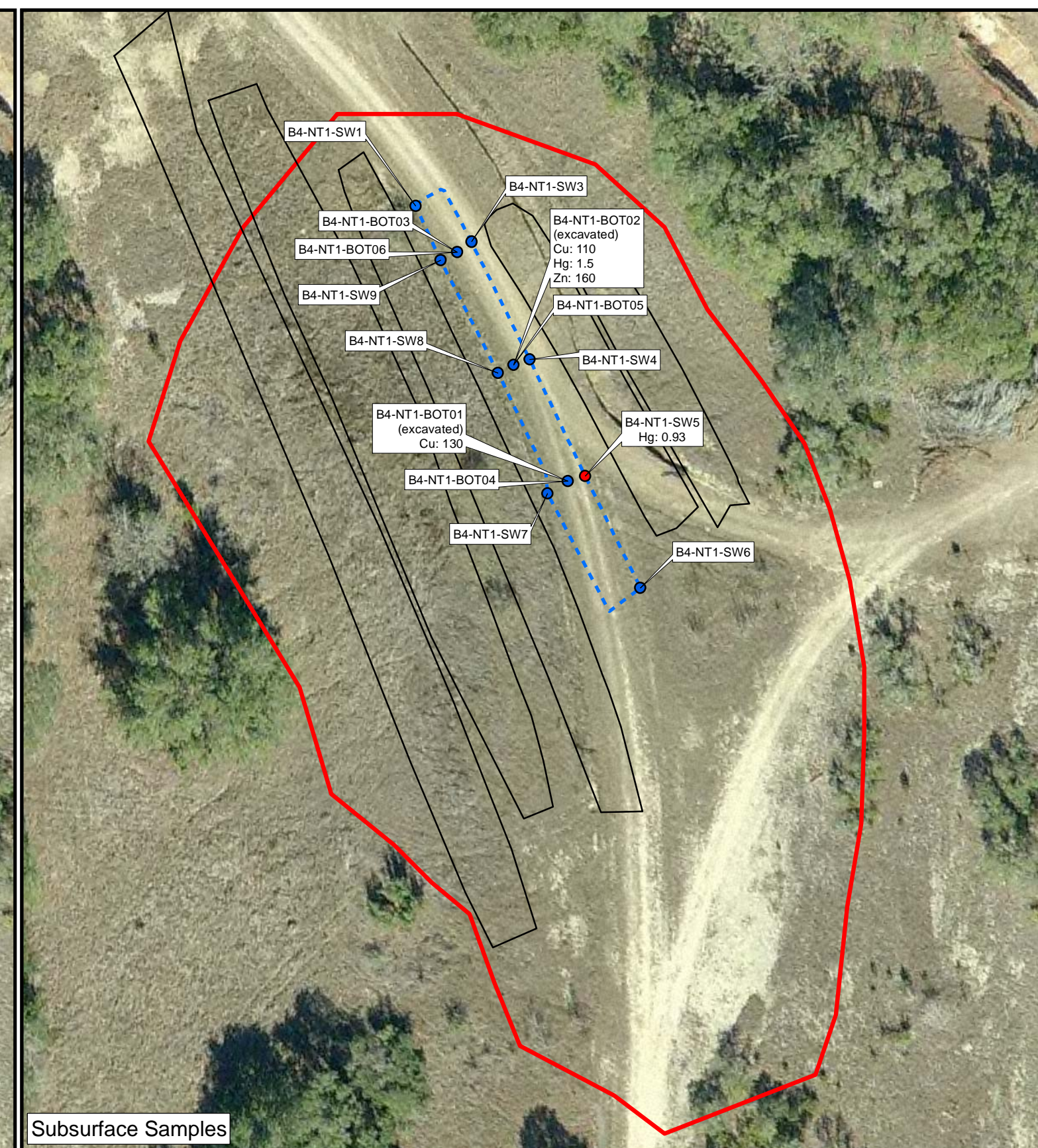
Figure 2

SWMU B-4
Site Location Map
Camp Stanley Storage Activity

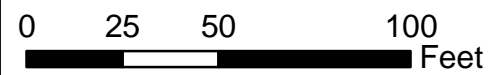
PARSONS



Surface Samples



Subsurface Samples



- Soil Sample
- Soil Sample with result above Tier 1 PCL
- SWMU B-4 Site Boundary
- Previously Excavated Trenches
- New Trench Excavation Area

Figure 3
 SWMU B-4
 Sample and Excavation Locations
 Camp Stanley Storage Activity

PARSONS

APPENDIX A
Site Photographs



Photo 1. Excavation of the new trench at SWMU B-4, looking south (February 2012).



Photo 2. Excavation of the new trench at SWMU B-4, looking north (February 2012).



Photo 3. Excavator sorting metal debris at SWMU B-4, looking east (February 2012).



Photo 4. Metal debris from the new trench at SWMU B-4, looking southwest (February 2012).



Photo 5. Gun parts and magazines found at SWMU B-4 (February 2012).



Photo 6. Large bore Mortar Tubes at SWMU B-4 (February 2012).



Photo 7. Printing press found at SWMU B-4 (February 2012).

APPENDIX B
Data Verification Summary Report

DATA VERIFICATION SUMMARY REPORT
for B4 samples collected from
CAMP STANLEY STORAGE ACTIVITY
BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers soil samples and associated field quality control (QC) samples collected from B4 at Camp Stanley Storage Activity (CSSA) on February 27, 2012. The samples were assigned to the following Sample Delivery Group (SDG):

67072

The samples in this SDG were analyzed for volatile organic compounds (VOCs), semi-VOCs (SVOCs), explosives, total metals and TCLP metals. Not all samples were analyzed for all parameters. QC samples included one trip blank (TB) for VOC only, two sets of parent and field duplicate (FD), and one pair of matrix spike/matrix spike duplicate (MS/MSD) samples.

All samples were collected by Parsons and analyzed by APPL, Inc. following the procedures outlined in the Statement of Work and CSSA QAPP, Version 1.0. The samples in this SDG were shipped to the laboratory in one cooler. The cooler was received by the laboratory at a temperature of 2.0°C, which was within the 2-6°C range recommended by the CSSA QAPP.

EVALUATION CRITERIA

The data submitted by the laboratory has been reviewed and verified following the guidelines outlined in the CSSA QAPP, Version 1.0. Information reviewed in the data package included sample results; field and laboratory quality control samples; calibrations; case narratives; raw data; chain-of-custody (COC) forms and the sample receipt checklist. The findings presented in this report are based on the reviewed information, and whether the guidelines in the CSSA QAPP, Version 1.0, were met.

ICP-AES Metals

General

The ICP-AES metal portion of this SDG consisted of seventeen (17) soil samples and three (3) waste characterization soil samples. All total metal samples were analyzed for arsenic, barium, cadmium, chromium, copper, nickel, lead, and zinc. In addition, the three waste characterization soil samples were analyzed for TCLP-silver, arsenic, barium, cadmium, chromium, lead, and selenium.

The metal analyses were performed using USEPA SW846 Method 6010B and TCLP was performed using SW1311. The samples were analyzed following the procedures outlined in the Work Plan. All samples were prepared and analyzed within the holding time required by the method and the Work Plan.

The samples were digested in two batches (#164424 for TCLP batch and #164465 for total metals). The samples were injected in two injection batches under two sets of initial calibration curve (ICAL). All analyses were performed undiluted except most digestates were diluted 5 fold for one or all of the following metals: barium, copper, and zinc.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the two laboratory control samples (LCSs), one for total metals and one for TCLP-metals, and MS/MSD results.

The LCS recoveries for all target metals were within acceptance criteria for both batches.

Sample B4-NT1-BOT01 was designated as the parent sample for the MS/MSD analyses. All non-compliant %Rs for the MS/MSD are listed below:

B4-NT1-BOT01

Metals	MS, %R	MSD, %R	Criteria, %R
Arsenic	72	(75)	75-125
Barium	156	158	
Cadmium	64	64	
Chromium	70	68	
Copper	375	145	
Lead	(79)	63	
Nickel	(76)	66	
Zinc	161	135	

() indicates the %R was compliant.

“M” flags were applied to the above metal results of the parent sample.

Precision

Precision was evaluated by the relative percent difference (%RPD) of the two sets of parent and FD sample results and MS/MSD results. Samples B4-NT1-BOT01 and B4-NT1-SW6 were collected in duplicate.

%RPD of MS/MSD were compliant except copper which had a %RPD of 88% (criteria is $\leq 20\%$). “M” flag has already been applied to the parent sample result due to accuracy issue, no further flagging is needed.

%RPD calculation is only applicable when both parent and FD sample results are greater than RL.

B4-NT1-BOT01

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Barium	41.7	25.0	50	≤ 20
Copper	135.20	34.46	119	
Lead	12.30	10.65	14	
Nickel	5.62	3.51	46	
Zinc	54.9	42.8	25	

B4-NT1-SW6

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Barium	8.5	10.4	20	≤20
Copper	3.31	4.03	20	
Zinc	14.4	5.2	94	

“J” flags were applied to all total barium, copper, nickel, and zinc results of all samples in this SDG.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating preservation and holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

All samples in this SDG were analyzed following the COC and the analytical procedures described in the Work Plan. All samples were prepared and analyzed within the holding times required by the method.

- All instrument initial calibration criteria were met.
- Low-level check standard met the criteria.
- All second source criteria were met. Both ICV samples were prepared using a secondary source.
- All CCV criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The dilution test (DT) was performed on sample B4-NT1-BOT01. This test was applicable to barium, chromium, copper, lead, nickel and zinc:

Metal	%D	Criteria
Barium	5.0	%D ≤ 10
Chromium	19	
Copper	2.8	
Lead	28	
Nickel	30	
Zinc	5.8	

- The post digestion spike (PDS) was performed on the same sample as the DT. It was applicable for arsenic, cadmium, chromium, lead, and nickel:

Metal	%R	Criteria
Arsenic	89	
Cadmium	74	
Chromium	79	75 – 125%
Lead	74	
Nickel	78	

“J” flags were applied to all total cadmium and total lead results of all soil samples in this SDG by the lab. Parsons data validator removed all those flags due to 1% non-compliance of the PDS results.

There were two method blanks and several calibration blanks associated with the metal analyses in this SDG. All blanks were compliant.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All ICP-AES metal results (total and TCLP) for the samples in this SDG were considered usable. Therefore, the completeness for the metal portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

MERURY

General

The mercury portion of this SDG consisted of seventeen (17) soil samples for total mercury and three (3) waste characterization samples for TCLP-mercury. All samples were collected on February 27, 2012 and were prepared and analyzed for total mercury using USEPA Method SW1311/7470A for the TCLP mercury and SW7471B for total mercury.

All samples were analyzed following the procedures outlined in the CSSA QAPP, prepared and analyzed within the holding time required by the method.

The sample was digested in batch #164409 for total mercury and batch #164393 for the TCLP-mercury. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtain from the two LCSs and MS/MSD. Sample B4-NT1-BOT01 was designated as the parent sample for the MS/MSD analyses.

The %R for the two LCSs and MS/MSD for mercury were within acceptance criteria.

Precision

Precision was evaluated based on the %RPD of the two sets of parent/FD and MS/MSD results. Samples B4-NT1-BOT01 and B4-NT1-SW6 were collected in duplicate.

%RPD of MS/MSD was compliant.

B4-NT1-BOT01

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Mercury	0.30	0.34	12	≤20

Mercury was not detected at or above RL for the parent and FD of sample B4-NT1-SW6.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

All samples in this SDG were analyzed following the COC and the analytical procedures described in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All second source verification criteria were met. Both two ICVs were prepared using a secondary source.
- All calibration verification criteria were met.
- DT and PDS are not applicable.

There were two method blanks and several calibration blanks associated with the mercury analyses in this SDG. All blanks were free of mercury at or above the RL.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

The total and TCLP mercury result for the samples in this SDG were considered usable. The completeness for the mercury portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

VOLATILES

General

This data package consisted of fourteen (14) soil samples and one TB. The samples were collected on February 27, 2012 and were analyzed for a full list of VOCs.

The VOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8260B. The samples were analyzed in four analytical batches under four sets of initial calibration (ICAL) curves. All samples were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method. All samples were analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the four LCSs, MS/MSD, and the surrogate spikes. MS/MSD analyses were performed with sample B4-NT1-BOT01.

All LCSs recoveries were within acceptance criteria for all four batches.

There were 28 VOCs with non-compliant MS and/or MSD %R. "M" flags were applied to the parent sample results.

All surrogates were recovered within the limits.

Precision

Precision was evaluated with the %RPD of the MS/MSD and the two sets of parent and field duplicate sample results. Samples B4-NT1-BOT01 and B4-NT1-SW6 were collected in duplicate.

There were two compounds with %RPD greater than 30% of the MS/MSD analyses. "M" flags have already been applied to the parent sample results due to accuracy issue; therefore, no additional flags were needed.

None of the target compounds were detected above the RLs in both parent and FD samples, therefore, the %RPD calculation is not applicable.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining TB and laboratory blanks for cross contamination of samples during sample collection and analysis.

All samples in this data package were analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0. All samples were prepared and analyzed within the holding time required by the method.

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- All four LCS samples were prepared with a secondary source. All second source verification criteria were met.
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

There were four MBs, one TB, and few calibration blanks associated with the VOC analyses in this SDG. All blanks were non-detect for all target VOCs at RLs.

Completeness

Completeness has been evaluated in accordance with the CSSA QAPP. The number of usable results has been divided by the number of possible individual analyte results and expressed as a percentage to determine the completeness of the data set.

All VOC results for the samples in this SDG were considered usable. The completeness for this SDG is 100%, which meets the minimum acceptance criteria of 95%.

SEMI-VOLATILES

General

This data package consisted of fourteen (14) soil samples including QC samples of one pair of MS/MSD and two FDs. The samples were collected on February 27, 2012 and were analyzed for a full list of SVOCs.

The SVOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8270C. The samples were analyzed in one analytical batch under one set of initial calibration (ICAL) curves. All samples were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method. All samples were analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the LCS, MS/MSD, and the surrogate spikes. MS/MSD analyses were performed with sample B4-NT1-BOT01.

All LCS and surrogate spike recoveries were within acceptance criteria.

Benzoic acid had non-compliant %Rs for the MS and MSD. "M" flag was applied to the parent sample result of benzoic acid.

Precision

Precision was evaluated with the %RPD of the MS/MSD and parent and field duplicate sample results. Samples B4-NT1-BOT01 and B4-NT1-SW6 were collected in duplicate.

All %RPDs of the MS/MSD results were compliant.

None of the target SVOCs were detected in both sets of parent and FD at or greater than RLs.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

All samples in this data package were analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0. All samples were prepared and analyzed within the holding time required by the method.

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- The LCS sample was prepared with a secondary source. All second source verification criteria were met.
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.
- All internal standard criteria were met.

There were one MB and few calibration blanks associated with the SVOC analyses in this SDG. All blanks were non-detect for all target SVOCs.

Completeness

Completeness has been evaluated in accordance with the CSSA QAPP. The number of usable results has been divided by the number of possible individual analyte results and expressed as a percentage to determine the completeness of the data set.

All SVOC results for the samples in this SDG were considered usable. The completeness for this SDG is 100%, which meets the minimum acceptance criteria of 95%.

EXPLOSIVES

General

This data package consisted of fourteen (14) soil samples including QC samples. All samples were collected on February 29, 2012 and were analyzed for a full list of explosives by SW8330B.

The explosive analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8330B. The samples were analyzed in one analytical batch under one set of initial calibration (ICAL) curves. All samples were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed undiluted within the holding time required by the method.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the LCS, MS, MSD, and the surrogate spikes. Sample B4-NT1-BOT01 was designated as the parent sample for the MS/MSD analyses by Parsons.

All LCS, MS, MSD, and surrogate spike recoveries were within acceptance criteria.

Precision

Precision was evaluated based on the %RPD of MS/MSD and parent/FD. Samples B4-NT1-BOT01 and B4-NT1-SW6 were collected in duplicate.

Neither parent or FD had explosives detected at reporting limits in both pairs of parent and FD, therefore, the %RPD calculation is not applicable.

All %RPDs of MS/MSD were compliant.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blank for cross contamination of samples during sample preparation and analysis.

All samples in this data package were analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0. All samples were prepared and analyzed within the holding time required by the method.

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- The LCS was prepared with a secondary source. All second source verification criteria were met.
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

There were one MB and several calibration blanks associated with the explosive analyses in this SDG. All blanks were non-detect for all target explosives.

Completeness

Completeness has been evaluated in accordance with the CSSA QAPP. The number of usable results has been divided by the number of possible individual analyte results and expressed as a percentage to determine the completeness of the data set.

All explosive results for the samples in this SDG were considered usable. The completeness for this SDG is 100%, which meets the minimum acceptance criteria of 95%.

DATA VERIFICATION SUMMARY REPORT
for B4 samples collected from
CAMP STANLEY STORAGE ACTIVITY
BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers one soil sample and one associated field quality control (QC) sample collected from B4 at Camp Stanley Storage Activity (CSSA) on February 29, 2012. The samples were assigned to the following Sample Delivery Group (SDG):

67099

The samples in this SDG were analyzed for volatile organic compounds (VOCs), semi-VOCs (SVOCs), explosives, and metals. QC sample included one trip blank (TB) for VOC only.

All samples were collected by Parsons and analyzed by APPL, Inc. following the procedures outlined in the Statement of Work and CSSA QAPP, Version 1.0. The samples in this SDG were shipped to the laboratory in one cooler. The cooler was received by the laboratory at a temperature of 2.0°C, which was within the 2-6°C range recommended by the CSSA QAPP.

EVALUATION CRITERIA

The data submitted by the laboratory has been reviewed and verified following the guidelines outlined in the CSSA QAPP, Version 1.0. Information reviewed in the data package included sample results; field and laboratory quality control samples; calibrations; case narratives; raw data; chain-of-custody (COC) forms and the sample receipt checklist. The findings presented in this report are based on the reviewed information, and whether the guidelines in the CSSA QAPP, Version 1.0, were met.

ICP-AES Metals

General

The ICP-AES metal portion of this SDG consisted of one (1) soil sample for the analysis of arsenic, barium, cadmium, chromium, copper, nickel, lead, and zinc.

The metal analyses were performed using USEPA SW846 Method 6010B. The samples were analyzed following the procedures outlined in the Work Plan. All samples were prepared and analyzed within the holding time required by the method and the Work Plan.

The sample was digested in batch #164505. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the laboratory control sample (LCS).

The LCS recoveries for all target metals were within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analyses.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating preservation and holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

This sample was analyzed following the COC and the analytical procedures described in the Work Plan. This sample was prepared and analyzed within the holding times required by the method.

- All instrument initial calibration criteria were met.
- Low-level check standard met the criteria.
- All second source criteria were met. The initial calibration verification (ICV) sample was prepared using a secondary source.
- All continuing calibration verification (CCV) criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The dilution test (DT) was performed on sample B4-NT1-SW1. This test was applicable to barium and chromium:

Metal	%D	Criteria
Barium	19	%D ≤ 10
Chromium	17	

- The post digestion spike (PDS) was performed on the same sample as the DT. It was applicable for barium, cadmium, nickel, and zinc:

Metal	%R	Criteria
Arsenic	96	75 – 125%
Barium	70	
Cadmium	64	
Chromium	78	
Copper	86	

Nickel	78	
Lead	77	
Zinc	76	

“J” flag was applied to the barium and cadmium results of the soil sample in this SDG.

There were one method blank and several calibration blanks associated with the metal analyses in this SDG. All blanks were compliant.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All ICP-AES metal results for the sample in this SDG were considered usable. Therefore, the completeness for the lead portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

MERURY

General

The mercury portion of this SDG consisted of one (1) soil sample. This sample was collected on February 29, 2012 and was prepared and analyzed for total mercury using USEPA Method SW7471B.

This sample was analyzed following the procedures outlined in the CSSA QAPP, prepared and analyzed within the holding time required by the method.

The sample was digested in batch #164455 and analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtain from the LCS.

The LCS recovery was within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analysis.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

The sample in this SDG was analyzed following the COC and the analytical procedures described in the CSSA QAPP. This sample was prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All second source verification criteria were met. The ICV was prepared using a secondary source.
- All calibration verification criteria were met.
- DT and PDS are not applicable.

There were one method blank and several calibration blanks associated with the mercury analyses in this SDG. All blanks were free of mercury at or above the RL.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

The mercury result for the sample in this SDG was considered usable. The completeness for the mercury portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

VOLATILES

General

This data package consisted of one (1) soil samples and one TB. The samples were collected on February 29, 2012 and were analyzed for a full list of VOCs.

The VOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8260B. The samples were analyzed in two analytical batches under two sets of initial calibration (ICAL) curves. All samples were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method. All samples were analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the two LCSs and the surrogate spikes.

All LCSs and surrogates recoveries were within acceptance criteria for both batches.

Precision

Precision could not be evaluated due to the lack of duplicate analyses in this SDG.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining TB and laboratory blanks for cross contamination of samples during sample collection and analysis.

Both samples in this data package were analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0. Both samples were prepared and analyzed within the holding time required by the method.

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- Both two LCS samples were prepared with a secondary source. All second source verification criteria were met.
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

There were two MBs, one TB, and few calibration blanks associated with the VOC analyses in this SDG. All blanks were non-detect for all target VOCs at RLs.

Completeness

Completeness has been evaluated in accordance with the CSSA QAPP. The number of usable results has been divided by the number of possible individual analyte results and expressed as a percentage to determine the completeness of the data set.

All VOC results for the samples in this SDG were considered usable. The completeness for this SDG is 100%, which meets the minimum acceptance criteria of 95%.

SEMI-VOLATILES

General

This data package consisted of one (1) soil sample which was collected on February 29, 2012 and was analyzed for a full list of SVOCs.

The SVOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8270C. This soil sample was analyzed following the procedures outlined in the CSSA QAPP, prepared, and analyzed undiluted within the holding time required by the method.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the LCS and the surrogate spikes.

The LCS and surrogate spike recoveries were within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analysis in this SDG.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;

- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

The sample in this data package was analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0, prepared and analyzed undiluted within the holding time required by the method.

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- The LCS sample was prepared with a secondary source. All second source verification criteria were met.
- All ICV criteria were met.
- All CCV criteria were met.
- All internal standard criteria were met.

There were one MB and few calibration blanks associated with the SVOC analyses in this SDG. All blanks were non-detect for all target SVOCs.

Completeness

Completeness has been evaluated in accordance with the CSSA QAPP. The number of usable results has been divided by the number of possible individual analyte results and expressed as a percentage to determine the completeness of the data set.

All SVOC results for the sample in this SDG were considered usable. The completeness for this SDG is 100%, which meets the minimum acceptance criteria of 95%.

EXPLOSIVES

General

This data package consisted of one (1) soil sample which was collected on February 29, 2012 and was analyzed for a full list of explosives by SW8330B.

The explosive analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8330B. The sample was analyzed in one analytical batch under one set of initial calibration (ICAL) curves. This sample was analyzed following the procedures outlined in the CSSA QAPP. This sample was prepared and analyzed undiluted within the holding time required by the method.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the LCS and the surrogate spikes.

All LCS and surrogate spike recoveries were within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analysis.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blank for cross contamination of samples during sample preparation and analysis.

The sample in this data package was analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0. This sample was prepared and analyzed undiluted within the holding time required by the method.

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- The LCS was prepared with a secondary source. All second source verification criteria were met.
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

There were one MB and several calibration blanks associated with the explosive analyses in this SDG. All blanks were non-detect for all target explosives.

Completeness

Completeness has been evaluated in accordance with the CSSA QAPP. The number of usable results has been divided by the number of possible individual analyte results and expressed as a percentage to determine the completeness of the data set.

All explosive results for the sample in this SDG were considered usable. The completeness for this SDG is 100%, which meets the minimum acceptance criteria of 95%.

DATA VERIFICATION SUMMARY REPORT
for B4 samples collected from
CAMP STANLEY STORAGE ACTIVITY
BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers five soil samples collected from B4 at Camp Stanley Storage Activity (CSSA) on March 8, 2012. The samples were assigned to the following Sample Delivery Group (SDG):

67172

The samples in this SDG were analyzed for metals.

All samples were collected by Parsons and analyzed by APPL, Inc. following the procedures outlined in the Statement of Work and CSSA QAPP, Version 1.0. The samples in this SDG were shipped to the laboratory in one cooler. The cooler was received by the laboratory at a temperature of 1.5°C, which was below the 2-6°C range recommended by the CSSA QAPP. There were no indications of freeze when lab received the sample shipment.

EVALUATION CRITERIA

The data submitted by the laboratory has been reviewed and verified following the guidelines outlined in the CSSA QAPP, Version 1.0. Information reviewed in the data package included sample results; laboratory quality control samples; calibrations; case narratives; raw data; chain-of-custody (COC) forms and the sample receipt checklist. The findings presented in this report are based on the reviewed information, and whether the guidelines in the CSSA QAPP, Version 1.0, were met.

ICP-AES Metals

General

The ICP-AES metal portion of this SDG consisted of five (5) soil samples for the analysis of arsenic, barium, cadmium, chromium, copper, nickel, lead, and zinc.

The metal analyses were performed using USEPA SW846 Method 6010B. The samples were analyzed following the procedures outlined in the Work Plan. All samples were prepared and analyzed within the holding time required by the method and the Work Plan.

These samples were digested in batch #164848. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the laboratory control sample (LCS).

The LCS recoveries for all target metals were within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analyses.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating preservation and holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

All samples were analyzed following the COC and the analytical procedures described in the Work Plan. All samples were prepared and analyzed within the holding times required by the method.

- All instrument initial calibration criteria were met.
- Low-level check standard met the criteria.
- All second source criteria were met. The initial calibration verification (ICV) sample was prepared using a secondary source.
- All continuing calibration verification (CCV) criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The dilution test (DT) was performed on sample B4-US01. This test was applicable to metals listed below:

Metal	%D	Criteria
Arsenic	8.8	%D ≤ 10
Barium	42	
Chromium	43	
Copper	19	
Nickel	42	
Lead	42	

- The post digestion spike (PDS) was performed on the same sample as the DT. It was applicable for barium, cadmium, nickel, and zinc:

Metal	%R	Criteria
Barium	82	75 – 125%
Cadmium	75	
Chromium	98	
Copper	94	
Nickel	92	

Lead	90	
Zinc	87	

There were one method blank and several calibration blanks associated with the metal analyses in this SDG. All blanks were compliant.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All ICP-AES metal results for the samples in this SDG were considered usable. Therefore, the completeness for the lead portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

MERURY

General

The mercury portion of this SDG consisted of five (5) soil samples. These samples were collected on March 8, 2012 and was prepared and analyzed for total mercury using USEPA Method SW7471B.

These samples were analyzed following the procedures outlined in the CSSA QAPP, prepared and analyzed within the holding time required by the method.

These samples were digested in batch #164750 and analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtain from the LCS.

The LCS recovery was within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analysis.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.

- All second source verification criteria were met. The ICV was prepared using a secondary source.
- All calibration verification criteria were met.
- DT was performed with sample B4-US01. The %difference (%D) was 4.3% which was less than the criteria of 10%.

There were one method blank and several calibration blanks associated with the mercury analyses in this SDG. All blanks were free of mercury at or above the RL.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

The mercury results for the samples in this SDG were considered usable. The completeness for the mercury portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

DATA VERIFICATION SUMMARY REPORT
for B4 samples collected from
CAMP STANLEY STORAGE ACTIVITY
BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers three soil samples collected from B4 at Camp Stanley Storage Activity (CSSA) on March 12, 2012. The samples were assigned to the following Sample Delivery Group (SDG):

67194

The samples in this SDG were analyzed for metals.

All samples were collected by Parsons and analyzed by APPL, Inc. following the procedures outlined in the Statement of Work and CSSA QAPP, Version 1.0. The samples in this SDG were shipped to the laboratory in one cooler. The cooler was received by the laboratory at a temperature of 2.5°C, which was within the 2-6°C range recommended by the CSSA QAPP.

EVALUATION CRITERIA

The data submitted by the laboratory has been reviewed and verified following the guidelines outlined in the CSSA QAPP, Version 1.0. Information reviewed in the data package included sample results; laboratory quality control samples; calibrations; case narratives; raw data; chain-of-custody (COC) forms and the sample receipt checklist. The findings presented in this report are based on the reviewed information, and whether the guidelines in the CSSA QAPP, Version 1.0, were met.

ICP-AES Metals

General

The ICP-AES metal portion of this SDG consisted of three (3) soil samples for the analysis of arsenic, barium, cadmium, chromium, copper, nickel, lead, and zinc.

The metal analyses were performed using USEPA SW846 Method 6010B. The samples were analyzed following the procedures outlined in the Work Plan. All samples were prepared and analyzed within the holding time required by the method and the Work Plan.

These samples were digested in batch #164961. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the laboratory control sample (LCS).

The LCS recoveries for all target metals were within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analyses.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating preservation and holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

All samples were analyzed following the COC and the analytical procedures described in the Work Plan. All samples were prepared and analyzed within the holding times required by the method.

- All instrument initial calibration criteria were met.
- Low-level check standard met the criteria.
- All second source criteria were met. The initial calibration verification (ICV) sample was prepared using a secondary source.
- All continuing calibration verification (CCV) criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The dilution test (DT) was performed on sample B4-NT1-BOT06. This test was applicable to metals listed below:

Metal	%D	Criteria
Barium	33	%D ≤ 10
Chromium	12	
Copper	18	
Lead	27	

- The post digestion spike (PDS) was performed on the same sample as the DT. It was applicable for barium, cadmium, nickel, and zinc:

Metal	%R	Criteria
Arsenic	81	75 – 125%
Barium	70	
Cadmium	59	
Chromium	74	
Copper	76	
Nickel	68	
Lead	69	
Zinc	57	

The “J” flags applied to the chromium results were replaced with “F” due to (1) minor exceedance in the PDS; and (2) results were between method detection limit and reporting limit. “J” flags were applied to all non-compliant metal result.

There were one method blank and several calibration blanks associated with the metal analyses in this SDG. All blanks were compliant.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All ICP-AES metal results for the samples in this SDG were considered usable. Therefore, the completeness for the lead portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

MERURY

General

The mercury portion of this SDG consisted of three (3) soil samples. These samples were collected on March 12, 2012 and was prepared and analyzed for total mercury using USEPA Method SW7471B.

These samples were analyzed following the procedures outlined in the CSSA QAPP, prepared and analyzed within the holding time required by the method.

These samples were digested in batch #164958 and analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtain from the LCS.

The LCS recovery was within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analysis.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All second source verification criteria were met. The ICV was prepared using a secondary source.
- All calibration verification criteria were met.
- DT and PDS were not applicable.

There were one method blank and several calibration blanks associated with the mercury analyses in this SDG. All blanks were free of mercury at or above the RL.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

The mercury results for the samples in this SDG were considered usable. The completeness for the mercury portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

DATA VERIFICATION SUMMARY REPORT
for B4 samples collected from
CAMP STANLEY STORAGE ACTIVITY
BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers one soil sample and associated field quality control (QC) samples collected from B4 at Camp Stanley Storage Activity (CSSA) on March 19, 2012. The samples were assigned to the following Sample Delivery Group (SDG):

67264

Field QC sample included one field duplicate (FD) and one pair of matrix spike and matrix spike duplicate (MS/MSD). The samples in this SDG were analyzed for mercury.

All samples were collected by Parsons and analyzed by APPL, Inc. following the procedures outlined in the Statement of Work and CSSA QAPP, Version 1.0. The samples in this SDG were shipped to the laboratory in one cooler. The cooler was received by the laboratory at a temperature of 2.0°C, which was within the 2-6°C range recommended by the CSSA QAPP.

EVALUATION CRITERIA

The data submitted by the laboratory has been reviewed and verified following the guidelines outlined in the CSSA QAPP, Version 1.0. Information reviewed in the data package included sample results; field and laboratory quality control samples; calibrations; case narratives; raw data; chain-of-custody (COC) forms and the sample receipt checklist. The findings presented in this report are based on the reviewed information, and whether the guidelines in the CSSA QAPP, Version 1.0, were met.

MERURY

General

The mercury portion of this SDG consisted of four (4) soil samples including field QC samples. These samples were collected on March 19, 2012 and were prepared and analyzed for total mercury using USEPA Method SW7471B.

These samples were analyzed following the procedures outlined in the CSSA QAPP, prepared and analyzed within the holding time required by the method.

These samples were digested in batch #165061 and analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtain from the laboratory control sample (LCS) and MS/MSD.

The LCS, MS, and MSD recoveries were within acceptance criteria.

Precision

Precision was evaluated based on the relative percent difference (%RPD) of the MS/MSD and parent/FD results.

The %RPD of the MS/MSD was compliant.

Neither parent or FD had mercury detected at or above the reporting limit, therefore, the %RPD calculation was not applicable.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All second source verification criteria were met. The ICV was prepared using a secondary source.
- All calibration verification criteria were met.
- DT and PDS were not applicable.

There were one method blank and several calibration blanks associated with the mercury analyses in this SDG. All blanks were free of mercury at or above the RL.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

The mercury results for the samples in this SDG were considered usable. The completeness for the mercury portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

APPENDIX C
TCEQ Approval for Non-Hazardous Soils Reuse, December 20, 2010



DEPARTMENT OF THE ARMY
CAMP STANLEY STORAGE ACTIVITY, RRAD
25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800

December 3, 2010

U-029-10

Mr. Kirk Coulter, P.G., Project Manager
Texas Commission on Environmental Quality
Corrective Action Team 1, VCP-CA Section
Remediation Division
PO Box 13087 (MC-127)
Austin, TX 78711-3087

SUBJECT: Movement of Non-Hazardous Metals Impacted Soils from SWMU/AOC Closure Efforts to East Pasture Firing Range, Camp Stanley Storage Activity, Boerne, Texas
TCEQ Industrial Solid Waste Registration #69026, EPA Identification Number TX2210020739

Dear Mr. Coulter:

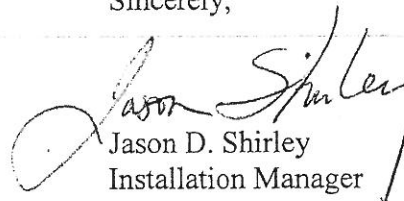
The Camp Stanley Storage Activity (CSSA), McAlester Army Ammunition Plant, U.S. Army Field Support Command, Army Material Command, U.S. Army, is providing this letter to notify the TCEQ of CSSA's plan to move and manage non-hazardous metals-impacted soils generated during remedial actions at CSSA's Solid Waste Management Units (SWMU) and Area of Concerns (AOC) to CSSA's East Pasture Firing Range Berm located in Range Management Unit 1 (RMU-1).

CSSA currently has a need for additional soils on the small arms firing range berm in the east pasture. In recent years, this berm has been modified with non-hazardous soils generated from various SWMUs and AOCs remedial actions. The non-hazardous soil movement and management within the east pasture RMU-1 was authorized by TCEQ and USEPA during a Technical Interchange Meeting held on April 19, 2006 and subsequent letter by Mr. Sonny Rayos, TCEQ Project Manager, dated May 7, 2008. This letter is provided to TCEQ to reaffirm regulatory agreement with this practice.

To verify the generated remediation soils are non-hazardous prior to movement to the east pasture, soil samples will be collected and analyzed for TCLP metals in accordance with CSSA's approved RFI/IM Waste Management Plan dated May 2006. Movement of the non-hazardous metals-impacted soils from CSSA SWMUs and AOCs to the East Pasture Firing Range Berm is expected to occur on an as needed basis as determined by CSSA.

If you have any questions regarding this notification, please contact Gabriel Moreno-Fergusson at (210) 698-5208 or Mr. Ken Rice, Parsons, at (512) 719-6050.

Sincerely,


Jason D. Shirley
Installation Manager

cc: Mr. Greg Lyssy, EPA Region 6
Mr. Jorge Salazar, TCEQ Region 13
Ms. Julie Burdey, Parsons

Schoepflin, Shannon

From: Kirk Coulter [KCoulter@tceq.state.tx.us]
Sent: Monday, December 20, 2010 2:40 PM
To: Rice, Ken R
Subject: Re: Revised workplan fo Vapor Intrusion Survey Investigation at AOC-65

Hi Ken

On the movement of non-haz waste letter. I am sending this E-Mail to you as an informal approval of the letter sent to me on December 3, 2010. I understand that this procedure was approved during Technical meeting held on April 19, 2006 between Camp Stanley, Mr. Sonny Rayos (TCEQ), Parsons Engineering and Mr. Greg Lyssy (EPA).

If you have any questions, please call me

Thanks

Kirk

>>> "Rice, Ken R" <Ken.R.Rice@parsons.com> 12/7/2010 4:48 PM >>>
Greg,

I was preparing for our upcoming meeting in January and realized I have not set you the attached revised vapor intrusion survey work plan you requested from our last meeting. This was revised to include that three additional soil gas samples within AOC-65 southwest of building 90 for TO-15 PCE SIM analysis. We have collected soil gas samples directly west of building 90 (at CSSA's fence line) and indoor air samples within building 90. The remaining effort is to collect soil gas data similar to what may be present off-post. That is, the groundwater PCE concentrations within the LGR aquifer in the southern portion of AOC-65 are conservatively similar in off-post groundwater PCE concentrations. Therefore soil gas samples collected in the southern portion of AOC-65 may be more representative of the off-post soil gas present above similar LGR contaminated groundwater. We intend to take the soil gas samples for TO-15 PCE SIM analysis prior to our meeting so that all results may be discussed and finalization of the Vapor Intrusion Survey Report initiated. If you have any questions or concerns please do not hesitate to call or contact me.

Regards,

Ken Rice
Parsons
512-719-6050 (Austin)
512-497-0075 (mobile)

Safety - Make it Personal !