SITE-SPECIFIC CLOSURE REPORT ADDENDUM
(Fiber Optic Line Investigation Area)

SOLID WASTE MANAGEMENT UNIT B-34
CAMP STANLEY STORAGE ACTIVITY

Prepared for:

Camp Stanley Storage Activity
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June 2020

Executive Summary

The Fiber Optic Line Investigation Area (Investigation Area) is a small area approximately 140 square feet in size, located within the footprint of Solid Waste Management Unit (SWMU) B-34. SWMU B-34 was granted closure by the Texas Commission on Environmental Quality (TCEQ) on April 22, 2014, with the submission of the *Site-Specific Closure Report* (Parsons, 2014), included in **Appendix H**.

The Investigation Area is situated about 50 feet east of Building 73 at the intersection of former railroad tracks that originally led out of Building 28. Building 28, which is situated to the northeast, was constructed in 1943 as a locomotive shelter and repair and maintenance shop. It was used for painting and maintenance until 1993 when the locomotive was sold and taken offsite.

The Investigation Area was identified when contractors were excavating a trench for the installation of a new fiber optic communications cable. On November 22, 2019, discolored soil was encountered at approximately two feet below ground surface (bgs) at the bottom of the utility trench. The maintenance and painting activities previously conducted at Building 28 are a potential source of the soil contamination. Analytical sample results indicated elevated levels of chromium, copper, lead, and zinc. In response, Parsons excavated soils from the area on December 11, 2019 and on January 8, 2020. Confirmation sampling was conducted following both excavation efforts.

This remediation effort resulted in the following:

- Soils found to have total chromium, copper, and zinc at concentrations greater than Tier 1 Residential Protective Concentration Limits (PCLs) were excavated from the site.
- Tier 2 PCLs based on site-specific criteria for 2,4-dinitrotoluene and lead were developed;
- Soil detections of 2,4-dinitrotoluene did not exceed the Tier 2 Residential PCL;
- Soils found to have lead concentrations greater than the Tier 2 Residential PCL (i.e., the critical PCL) were excavated from the site;
- Approximately 35 cubic yards (CY) of contaminated soil were excavated and properly managed at the East Pasture Berm; and
- Confirmation samples were collected from excavation bottoms and sidewalls to confirm all waste had been removed.

From the information presented in this addendum, the results of the remedial activities conducted at the Investigation Area meet the following three criteria:

- Soils found to have contaminant of concern (COC) concentrations greater than the established critical PCL (based on Tier 1 residential Tier 1 PCLs and calculated Tier 2 PCLs) were excavated and removed from the site.
- There is no evidence of other affected or threatened environmental media (e.g., groundwater, surface water, or sediment) at SWMU B-34.
- SWMU B-34 (and therefore the Investigation Area within it) passes the Tier 1 Ecological Exclusion Criteria Checklist (**Appendix B**).

Because these three criteria are met this Site-Specific Closure Report Addendum has been prepared to document the results and to confirm the appropriateness of the continuing status of the NFA decision for SWMU B-34 from TCEQ.

SWMU B-34 SITE-SPECIFIC CLOSURE REPORT ADDENDUM - FIBER OPTIC LINE INVESTIGATION AREA
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ACRONYMS AND ABBREVIATIONS

AL	Action Limit
AOC	Area of Concern
bgs	below ground surface
COC	contaminant of concern
CSSA	Camp Stanley Storage Activity
CY	cubic yard
ft	feet
ft^2	Square feet
LGR	Lower Glen Rose
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
MQL	method quantification limit
NFA	No Further Action
PCL	protective concentration level
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RIR	Release Investigation Report
SSCR	Site-Specific Closure Report
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCLP	toxicity characteristic leaching procedure
$^{Tot}Soil_{Comb}$	surface soil PCL for combined ingestion, dermal, inhalation
$^{GW}Soil_{Ing}$	PCL for surface and subsurface soil to protect groundwater
TPH	total petroleum hydrocarbon
TRRP	Texas Risk Reduction Program
VOC	volatile organic compound
XRF	x-ray fluorescence

1.0 INTRODUCTION

This Addendum is submitted in association with the *Site-Specific Closure Report* (SSCR) for the Solid Waste Management Unit (SWMU) B-34 at the Camp Stanley Storage Activity (CSSA) (**Figure 1.1**) (Parsons, 2014). The SSCR was submitted in January 2014 and approved by the Texas Commission on Environmental Quality (TCEQ) on April 22, 2014, and is included in **Appendix H**. The SSCR documents the results of the site investigation and associated field efforts implemented to close the site and obtain a No Further Action (NFA) decision from the TCEQ. The contaminants of concern (COCs) identified at concentrations greater than soil background concentrations at SWMU B-34 were chromium, lead, nickel, and zinc. Areas of contamination exceeding Tier 1 or Tier 2 Residential Protective Concentration Limits (PCLs) were either excavated and removed from the site or were used to calculate a 95% upper confidence limit (UCL) for which did not exceed the developed Residential Tier 2 PCL of 500 mg/kg. All work was performed following the requirements of the Resource Conservation and Recovery Act (RCRA) 3008(h) Order in effect for CSSA and per 30 Texas Administrative Code (TAC) §350, the Texas Risk Reduction Program (TRRP) administered by TCEQ.

In November 22, 2019, contractors were excavating a trench for the installation/maintenance of a fiber optic communications cable within the footprint of the former SWMU B-34 when discolored (green) soil was encountered at approximately two feet below ground surface (bgs) (**Figure 1.2**) (**Photograph 1.1**). Work at the fiber optic line was stopped pending further investigation of the soil. Samples of the green soil taken at that time indicated the material met non-hazardous waste criteria with elevated levels of chromium, copper, lead, and zinc. In response, Parsons conducted a soil excavation and sampling effort on December 11, 2019, and a subsequent additional excavation on January 8, 2020.

During the December 2019 excavation effort of the Fiber Optic Line Investigation Area (Investigation Area), Parsons over-excavated the area in addition to removing the discolored soil. Approximately 15 CY of material were removed. Samples were collected and analyzed from the sidewalls and bottom of the excavation. The sample results indicated the continued presence of contaminated soils. In response, Parsons over-excavated the area and removed an additional 20 CY of soils in January 2020. New confirmation samples were collected from the sidewalls and bottom of the excavation. Results from all samples were less than the established critical PCLs as shown in **Table 3.1**.

This addendum will focus on the approximately 140 square foot (~0.03 acre) area within former SWMU B-34 where excavation activities took place. Section 1 provides an introduction and explanation of the excavation and sampling activity. Section 2 provides historical background information for SWMU B-34 and the Investigation Area. Section 3 describes the groundwater and surface water for CSSA and the area near SWMU B-34, and also identifies the target COCs, exposure pathways, and critical PCLs for the site. Section 4 describes the investigation approach taken at SWMU B-34 and the findings from environmental investigations for the site. Section 5 summarizes the overall findings and conclusions for the site. Section 6 includes all the references cited for this report.

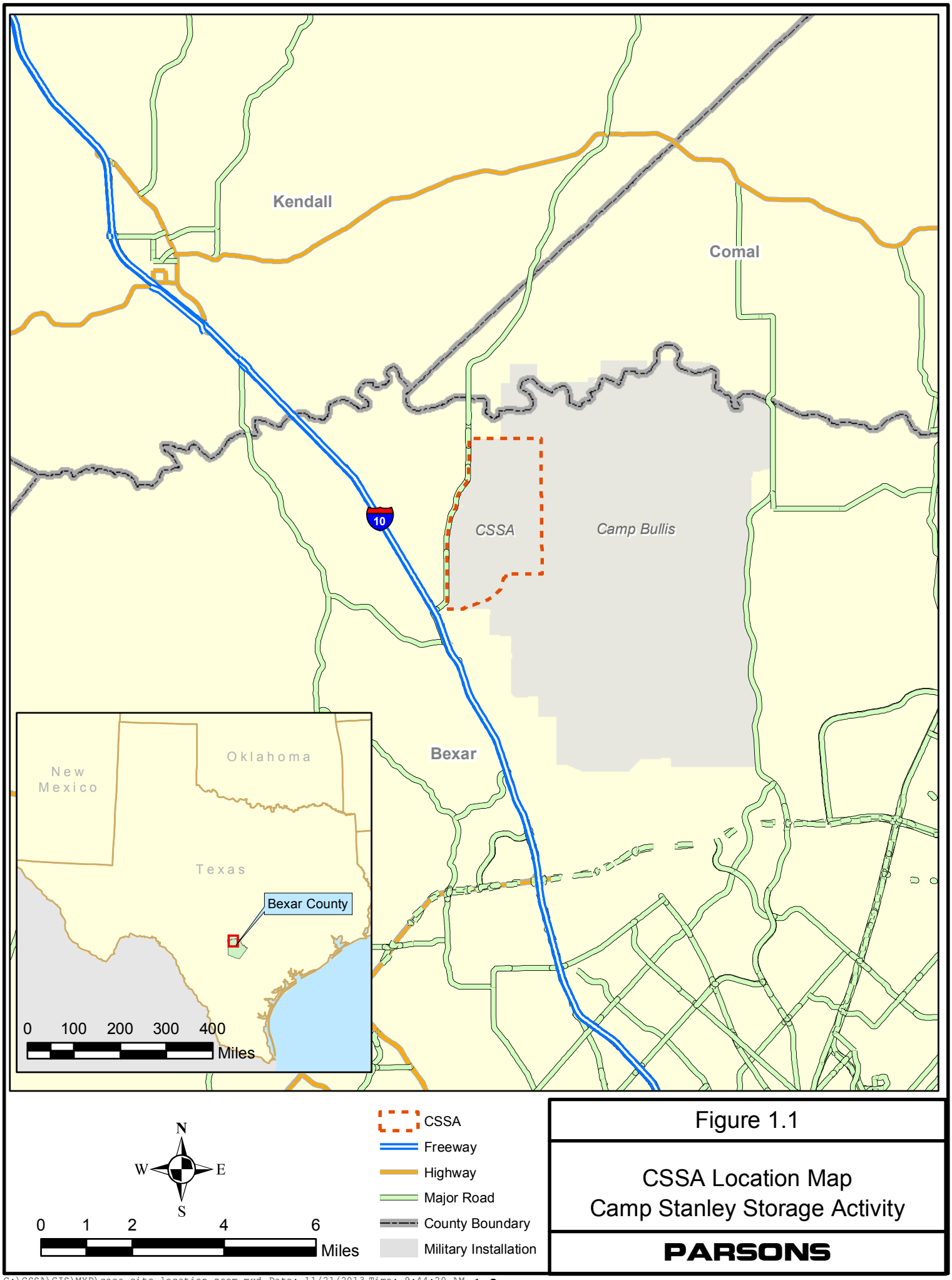

Figure 1.1

CSSA Location Map
Camp Stanley Storage Activity

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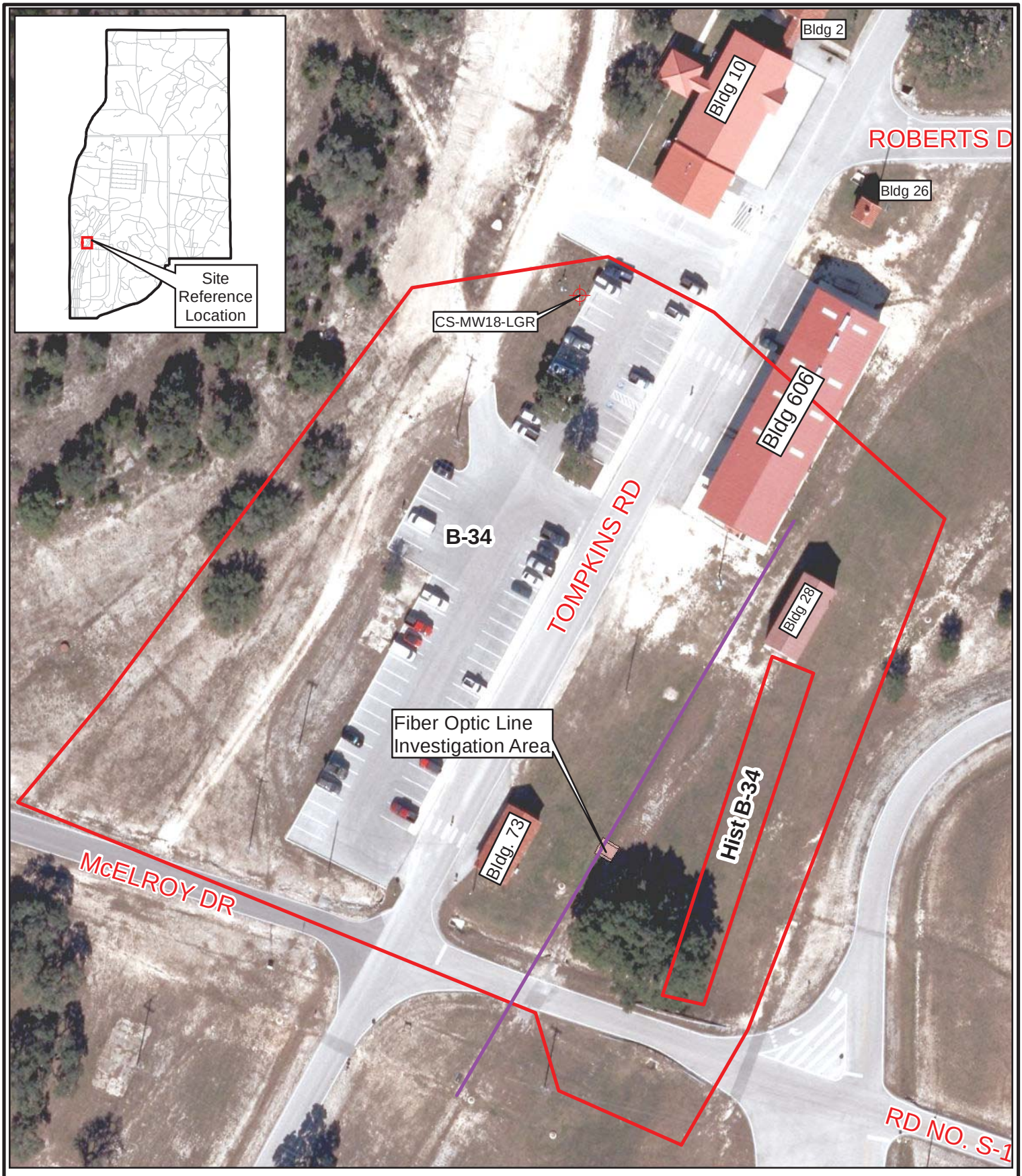

Figure 1.2

Fiber Optic Line Investigation Area Map
Camp Stanley Storage Activity
Bexar County, Texas

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2.0 SITE DESCRIPTION AND BACKGROUND INFORMATION

2.1 Overview and Site History

The area where the discolored soil was found is located within the footprint of the railroad tracks that existed at the site from at least 1957 to around 2006, approximately 50 feet east of Building 73. Building 28 was constructed in 1943 as a locomotive shelter and repair and maintenance shop and historically, locomotive maintenance was conducted in the area. Two large metal sliding doors on the south side of the building provided locomotive access. The interior was an open bay with a large work pit in the concrete floor. The former railroad tracks led from a spur line into the building and stopped at bumpers at the end of the interior work pit (SAIC, 1997). The building was used for maintenance, including painting, until 1993. The discolored soil area is located approximately 150 feet south-southwest of Building 28 (Figure 1.2).

2.2 Setting, Size, and Description

SWMU B-34 is located in a developed area of the Inner Cantonment of CSSA (Figure 1.2). The site is covered almost entirely by concrete and asphalt, with a narrow, maintained grassy area along its eastern and western edges. The original site boundary for SWMU B-34 encompassed approximately 0.5 acre, however subsequent sampling and investigations led to the expansion of the boundary to 4.9 acres as shown on Figure 1.2. SWMU B-34 received an NFA closure with TCEQ approval on April 22, 2014, with the submission of a *Site-Specific Closure Report* (Parsons, 2014).

In late 2019, a construction crew began the installation of a new fiber optic communication line along the former railroad right of way that crossed through SWMU B-34. The trench extended approximately 420 feet long and 6 to 10 feet wide within SWMU B-34. The Investigation Area consists of an area of approximately 140 square feet within SWMU B-34.

2.3 Potential Contaminant Sources

SWMU B-34 was identified in 1993 due to the presence of a locomotive maintenance shed and pit in Building 28. This pit was used for CSSA personnel to perform maintenance activities on locomotive and railway equipment through 1993. Since Building 28 was used for diesel locomotive maintenance, there were multiple chemicals of concern associated with SWMU B-34. Diesel engine maintenance products, oil products, and various solvents are all likely to have been used at the maintenance pit. Spills of maintenance products while performing these activities could transmit them into the drainage piping associated with Building 28 and subsequently into the ditch that lies near the piping outfall area. However, subsequent research of historic maps and drawings revealed that this area was also used for paint mixing and storing. Contamination found at the site, primarily elevated lead levels distributed over 4.9 acres in the surface soil and rock, are likely due to the past paint-related activities at the site.

3.0 INVESTIGATION APPROACH

3.1 Target Chemicals of Concern

Samples collected from surface and subsurface soils during the previous investigations at SWMU B-34 (2000 and 2003) were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and the CSSA 9 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, and zinc). Neither VOCs nor SVOCs were detected; however, the presence of metals at concentrations greater than their remedial action levels prompted later investigations between 2004 through 2013 to focus on delineating the vertical and horizontal extent of metals in site soils. The 2004 investigation also concluded that, while several of the CSSA 9 metals are present in surface soil at SWMU B-34, only lead was consistently present at concentrations greater than Tier 1 Residential PCLs. As such, only lead was retained as a target COC for the 2013 remedial action at SWMU B-34.

During the initial sampling of the discolored soil encountered in 2019 at the Investigation Area, concentrations of chromium, copper, lead, zinc, and 2,4-dinitrotoluene greater than Tier I Residential PCLs were found and so were retained as target COCs for this investigation.

3.2 Evaluation of Exposure Pathways

Exposure pathways for the Investigation Area mirror those of SMWU B-34 (Parsons, 2014). As the area is located within an undeveloped portion of SWMU B-34, covered with grass, and not known to be an area where pedestrians walk, it is unlikely that a typical employee or visitor at the site would be exposed to site soil. Soil may be encountered by an intrusive worker, but overall, the chance of exposure to subsurface soil is minimal.

One current drinking water supply well is located within ½-mile of the site. Supply well CS-10 is located approximately 1,750 feet north of the site. The well is actively used as a potable water supply well for the post. Because of environmental concerns associated with other environmental sites, the well has been sampled on a routine quarterly basis since September 1999 for VOCs and metals. Since 2005, TCE has only been detected in groundwater at CS-10 at a trace (F-Flagged) level in 2010 and PCE at trace (F-Flagged) levels in 2016 and 2017. Those contaminants are associated with solvent releases from SWMUs B-3 and O-1, located to the east. Well CS-10 has not had any detection of contaminants greater than any maximum contamination level (MCL) or action limit (AL) in any sampling event since 1996. A single instance of lead was reported greater than the AL (0.015 mg/L) in December 1995, at a concentration of 0.06 mg/L. Since that time (51 sampling events), no other analytical result has exceeded the AL for lead.

Due to the post-wide groundwater monitoring program, there is some site-specific information regarding groundwater at SWMU B-34. A Lower Glen Rose (LGR) observation well (CS-MW18-LGR) that is associated with the monitoring and detection of groundwater contamination emanating from SWMU B-3 happens to be located in the northern corner of the site (Figure 1.2). The well is properly constructed, and the casing is cemented from the surface to a depth of 380 feet below grade. Between September 2002 and June 2013, measured water levels at well CS-MW18-LGR, have ranged from 104.4 feet below top of casing (ft BTOC) (December 2004) to 350.34 ft BTOC (September 2009). The long-term average water level in this well is 257.52 feet BTOC. This well has been sampled numerous times for VOCs and metals since its

installation in 2002. Since 2010, there have been no detections for VOCs or metals reported in the LGR groundwater beneath SWMU B-34.

With the exception of barium, only trace (F-flagged) detections less than the RL of arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc have been reported in LGR groundwater beneath SWMU B-34. Although the barium detections were greater than the reporting limit, all were less than the MCL of 2 mg/L.

None of the VOC or inorganic concentrations detected in CS-MW18-LGR exceed any regulatory threshold, including MCLs, secondary standards (SS), or AL set forth by the Safe Drinking Water Act (SDWA).

Surface water is only intermittently present at the site immediately after a rainfall event and therefore is not considered an exposure pathway at SWMU B-34.

There is no potential for the site to be used for residential purposes (e.g., human habitation or any other activities defined as residential per 30 Texas Administrative Code [TAC] §350.4(a)), and therefore current and future land use at SWMU B-34 meets the definition of commercial/industrial.

3.3 Development of Critical PCLs

Both Tier 1 and Tier 2 Residential PCLs were used to determine cleanup criteria at the Investigation Area. Tier 1 PCLs were used as the critical PCLs for all COPCs except for lead and 2,4-dinitrotoluene (see Tier 2 discussion below). The final critical PCLs are shown in Table 3.1.

Tier 1 PCL Development

The Tier 1 PCLs identified for this investigation are defined as the lowest value among following: 1) the Tier 1 Residential 0.5-acre PCL for total soil combined pathway ($^{Tot}Soil_{Comb}$) and 2) the Tier 1 Residential 0.5-acre PCL for groundwater protection ($^{GW}Soil_{Ing}$). If the lowest of the two Tier 1 Residential values is less than the CSSA soil background value, the CSSA soil background value becomes the Tier 1 PCL. If the Texas-specific soil background value is greater than the CSSA soil background value (which is the case for barium), the Texas-specific soil background value then becomes the Tier 1 PCL.

Tier 2 PCL Development

For the SVOC 2,4-dinitrotoluene, analytical results of the removed discolored soils identified concentrations greater the Tier 1 PCL as defined above. For this reason, a Tier 2 $^{GW}Soil_{Ing}$ PCL was developed in accordance with 30 TAC §350 TRRP requirements (Appendix A). Using site-specific values, the calculation resulted in a Tier 2 $^{GW}Soil_{Ing}$ PCL of 2.0 mg/kg. This value was less than the Tier 1 $^{Tot}Soil_{Comb}$ PCL (6.9 mg/kg), therefore, the Tier 2 $^{GW}Soil_{Ing}$ PCL became the critical PCL used to delineate the PCLE zone for 2.4-dinitrotoluene at the Investigation Area.

Similarly, a Tier 2 $^{GW}Soil_{Ing}$ PCL for lead was also developed. The calculation resulted in a Tier 2 $^{GW}Soil_{Ing}$ PCL of 142,700 mg/kg. Since this value was greater than the Tier 1 $^{Tot}Soil_{Comb}$ PCL (500 mg/kg), the Tier 1 $^{Tot}Soil_{Comb}$ PCL became the critical PCL used to delineate the PCLE zone for lead at the Investigation Area.

3.4 Sampling and Analytical Procedures

For all sampling and analytical activities at CSSA, Parsons follows TCEQ-approved Quality Assurance (QA) and Quality Control (QC) procedures as described in the post-wide CSSA Quality Assurance Project Plan (QAPP) which can be found in the CSSA EE (Volume 1-4, QAPP). The detailed CSSA QAPP presents specific policies, organization, functions, and QA/QC requirements for environmental programs at CSSA, including TCEQ-approved analytical methods, reporting limits (RL), and QA/QC procedures.

Following the CSSA-specific plans, the investigative soil analyses were performed using U.S. Environmental Protection Agency (USEPA) *Test Methods for Evaluating Solid Waste* (SW-846): Method 8260B (VOCs); and Method 6010 (total). All samples were sent to Agriculture & Priority Pollutants Laboratory, Inc. (APPL) for analyses.

TABLE 3.1
Critical PCLs for Soil
Fiber Optic Line Investigation Area

Contaminant of Potential Concern	Residential Tier 1 $^{Tot}Soil_{Comb}$ (mg/kg)[1]	Residential Tier 1 $^{GW}Soil_{Ing}$ (mg/kg)[2]	Residential Tier 2 $^{GW}Soil_{Ing}$ (mg/kg)[3]	CSSA Soil Background (mg/kg)[4]	Texas-Specific Soil Background (mg/kg)[5]
Total Chromium	33,000	**2,400**	--	40.2	30
Copper	1,300	**1,000**	--	23.2	15
Lead	**500**[7]	3	142,700	84.5[6]	15
Zinc	9,900	**2,400**	--	73.2	30
Benzene	120	**0.026**	--	NA	NA
2,4-Dinitrotoluene	6.9	0.0053	**2.0**	NA	NA

Critical PCLs are shown in **bold**.

(1) Tier 1 $^{Tot}Soil_{Comb}$ PCLs, for 0.5-acre source area, November 2019, (https://www.tceq.texas.gov/remediation/trrp/trrppcls.html).
(2) Tier 1 $^{GW}Soil_{Ing}$ PCLs, for 0.5-acre source area, November 2019, (https://www.tceq.texas.gov/remediation/trrp/trrppcls.html).
(3) See Section 3.3 and Appendix A. "--" indicates a Tier 2 PCL was not calculated for this compound.
(4) Second Revision to Evaluation of Background Metals Concentrations in Soils and Bedrock, February 2002.
(5) Background Geochemistry of Some Rocks, Soils, Plants, and Vegetables in the Conterminous United States, Jon J. Connor, Hansford T. Shacklette, and Richard J. Ebens, Geological Survey Professional Paper 574-F, United States Geological Survey, 1975.
(6) The Tier 1 PCL for lead was defined as the CSSA soil background value through the process described in Section 3.3. This value was superseded by the development of a Tier 2 PCL for lead after the completion of the January 2020 excavation effort.
(7) Critical PCL for lead is based on the calculation of a Tier 2 Residential PCL (see Section 3.3 and Appendix A).

4.0 REMEDIAL INVESTIGATIONS AND ACTIONS

This section describes the methods and results of remedial investigations and actions performed at the Investigation Area beginning with the response to the discovery of discolored soil. Corresponding figures and data results tables are cited throughout, and site photographs are included in **Appendix C**. **Appendix D** includes a table showing all analytical data collected at the Investigation Area, including data from both December and January excavation efforts. Data validation was performed for all samples. The data validation report is included in **Appendix F**.

4.1 Initial Discovery and Sampling Effort

As discussed previously, the discolored soil was encountered during the excavation of a fiber optic line within the footprint of SWMU B-34. In order to characterize the soil for waste disposal, a sample was sent to the lab for toxicity characteristic leaching procedure (TCLP) analysis for Texas 11 Metals and copper (antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, and silver). In addition, total concentrations for the 12 metals and SVOCs were also requested to establish if additional excavation of the area would be necessary.

The results of waste characterization showed that the discolored soil met the State of Texas Class 2 non-hazardous criteria. The results of the total metals analysis indicated that concentrations of chromium (7,589 mg/kg), copper (9,856 mg/kg), and lead (1,041 mg/kg) were present in the sample at concentrations greater than Tier 1 PCLs (2,400 mg/kg, 1,000 mg/kg, and 84.5 mg/kg, respectively). SVOC analytical results indicated a presence of 2,4-dinitrotoluene at 1.68 mg/kg which was less than the critical PCL of 2.0 mg/kg. Follow-on sampling of 2,4-dinitrotoluene after the discolored soils were removed was not performed given the low-level non-exceedance concentration and the depth to groundwater at the site. Based on these findings, remedial actions were taken to remove the contaminated soils as described below.

4.2 December 2019 Excavation

On December 11, 2019, Parsons excavated the discolored soil from the Investigation Area. An attempt was made to over-excavate the area; the excavation was conducted to two feet deeper than the discolored soil and extended past the discoloration in all directions (**Figure 4.1**). Approximately 15 CY of soil was removed from the area and properly managed on-post. A total of 10 confirmation samples were collected as outlined below and depicted on Figure 4.1

Sample Number	Location	Depth (ft bgs)
SS01	Sidewall	1
SS02	Sidewall	3
SS03	Sidewall	1
SS04	Sidewall	3
SS05	Sidewall	1
SS06	Sidewall	3
SS07	Sidewall	1
SS08	Sidewall	3
SS09	Bottom	4
SS10	Bottom	4

All ten samples were analyzed for chromium, copper, lead, and zinc and two samples (SS03 and SS08) were also analyzed for VOCs. In addition, based on the concentrations of chromium detected in the sample of the discolored soil, SS10 was also analyzed for hexavalent chromium.

The VOC analysis showed only one detection, benzene in SS03, but at a concentration (0.0029 mg/kg) less than the Tier 1 critical PCL of 0.026 mg/kg; no other VOCs were detected. For SS10, the results showed that both the total chromium value (405.8 mg/kg) and the hexavalent chromium value (16.8 mg/kg) are less than their respective Tier 1 critical PCLs of 2,400 mg/kg and 28 mg/kg (based on the Tier 1 Residential $^{GW}Soil_{Ing}$ PCL), respectively.

The only analyte detected at concentrations exceeding the Tier 1 critical PCL was lead (84.5 mg/kg). Lead concentrations ranged from 87.09 mg/kg to 1,572.76 mg/kg (Figure 4.1). The sample with the greatest exceedance of lead was bottom sample SS10. The results from samples collected from the western (SS05 and SS06) and southern (SS07 and SS08) sidewalls of the excavation were also elevated. The sample from the northern sidewall (SS04) and the second bottom sample SS09 also showed minimal exceedances. The results of all confirmation samples are provided in Appendix D.

Due to the number of exceedances of the Tier 1 PCL for lead, an additional excavation was planned to remove remaining contaminated soils to the extent practicable. **Photograph 4.1 (Appendix C)** shows the extent of the December 2019 excavation.

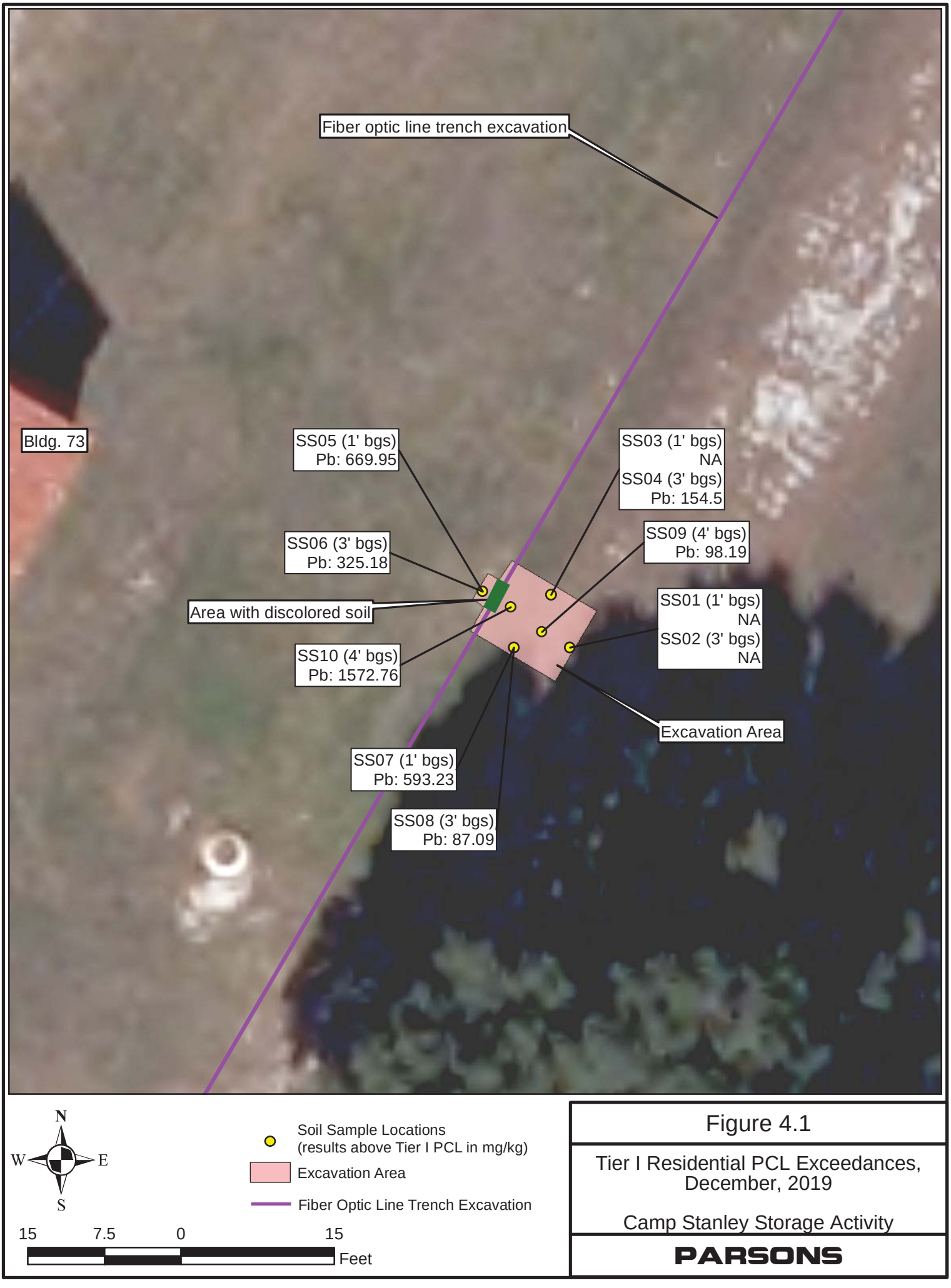

Figure 4.1

Tier I Residential PCL Exceedances, December, 2019

Camp Stanley Storage Activity

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4.3 January 2020 Excavation

On January 8, 2020, Parsons continued excavation efforts, where practicable, to remove the remaining contaminated soils (**Figure 4.2**). An additional volume of approximately 20 CY was removed from the area. The excavation efforts advanced along the northern, southern, and western walls and also progressed from 4 to 4.5 ft bgs at the bottom of the excavation area. In the process, soil associated with samples SS03 – SS10 was removed. Based on the results of SS01 and SS02, the excavation was not advanced to the east and those sample locations remained in place. **Photograph 4.2 (Appendix C)** shows the extent of the January 2020 excavation.

A total of nine new confirmation samples were collected and analyzed for chromium, copper, lead, and zinc: two from the bottom of the excavation footprint and seven from the sidewalls (north, west, and south sides at vertical intervals of 1 feet and 3 feet bgs) as shown below and on Figure 4.2.

Sample Number	Location	Depth (ft bgs)
SS11	Sidewall	1
SS12	Sidewall	3
SS13	Sidewall	1
SS14	Sidewall	3
SS15	Sidewall	1
SS16	Sidewall	3
SS17	Bottom	4.5
SS18	Bottom	4.5

Sample results from the January excavation effort are provided in Appendix D. Only two samples showed concentrations of metals greater than the Tier 1 PCL. The concentrations of lead in both SS13 (112 mg/kg) and SS15 (178 mg/kg) exceeded the Tier 1 PCL (84.5 mg/kg). At this point, a Tier 2 $^{GW}Soil_{Ing}$ PCLs was calculated as described in Section 3.4, resulting in a critical PCL of 500 mg/kg. Neither lead results exceeded lead's critical PCL, so the excavation effort was concluded.

4.4 Waste Management

A total of 35 CY of waste was removed from the Investigation Area. Waste characterization efforts were performed per the requirements of CSSA's *RCRA Facility Investigation (RFI) and Interim Measures (IM) Waste Management Plan (WMP) – Revised*, dated May 2006 (approved by TCEQ in August 2006) and the RFI/IM WMP Addendum for SWMU B-34 (Parsons, 2013). Waste characterization sample results for excavated soils are included in **Appendix E**.

Results of waste characterization showed that the impacted soil removed during the excavation effort met State of Texas Class 2 non-hazardous criteria (30 TAC §335 Subchapter R). All of the excavated soil was transported to the East Pasture Berm for reuse (**Appendix G**).

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Figure 4.2

Tier I Residential PCL Exceedances, January, 2020

Camp Stanley Storage Activity

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5.0 SUMMARY AND RECOMMENDATIONS

The Investigation Area, which is approximately 140 square feet, is located within the footprint of SWMU B-34. SWMU B-34 received an NFA closure with TCEQ approval on April 22, 2014, with the submission of a *Site-Specific Closure Report* (Parsons, 2014; Appendix H). The subject Investigation Area was identified in November 2019 when contractors were excavating a trench for the installation of a new fiber optic communications cable. Analytical tests conducted on discolored soil that was encountered at two feet bgs showed elevated concentrations of chromium, lead, copper, and zinc.

In summary, activities at the Investigation Area, as described in this addendum to the SSCR, resulted in the following:

- Excavation efforts conducted in December 2019 and January 2020 included the removal of approximately 35 CY of soil which was properly managed at the East Pasture Berm. Confirmation sampling followed both efforts.
- Soils found to have COC concentrations greater than the established critical PCL (based on Tier 1 PCLs (chromium, copper, and zinc) and calculated Tier 2 PCLs (2,4-dinitrotoluene and lead)) were excavated and removed from the site.
- Confirmation samples were collected from trench bottoms and sidewalls to confirm all waste had been removed;
- There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at the Investigation Area; and
- SWMU B-34 (and therefore the Investigation Area within it) passes the Tier 1 Ecological Exclusion Criteria Checklist (**Appendix B**).

This addendum was prepared to document the results of the above remedial activities and to confirm the continuing status of the NFA decision for SWMU B-34. In support of this request, the following is highlighted:

- Confirmation results show a significant reduction in lead, chromium, copper, and zinc concentrations from the December excavation to the January excavation. These results suggest that contamination was located within a small hot spot within the SWMU B-34 boundary and has not spread farther than the original hot spot;
- None of the sample results from previous investigations (26 samples within 200 feet) showed any exceedances of Tier 1 PCLs for lead or chromium deeper than 0.5 feet bgs (**Figure 5.1**) further substantiating that this investigation area was a small hot spot within SMWU B-34.
- A large portion of the fiber optic line trench was excavated before this small area was discovered. The entire excavation only represents 3% of the trench area. No discolored soil was discovered along the other 97% of the trench.

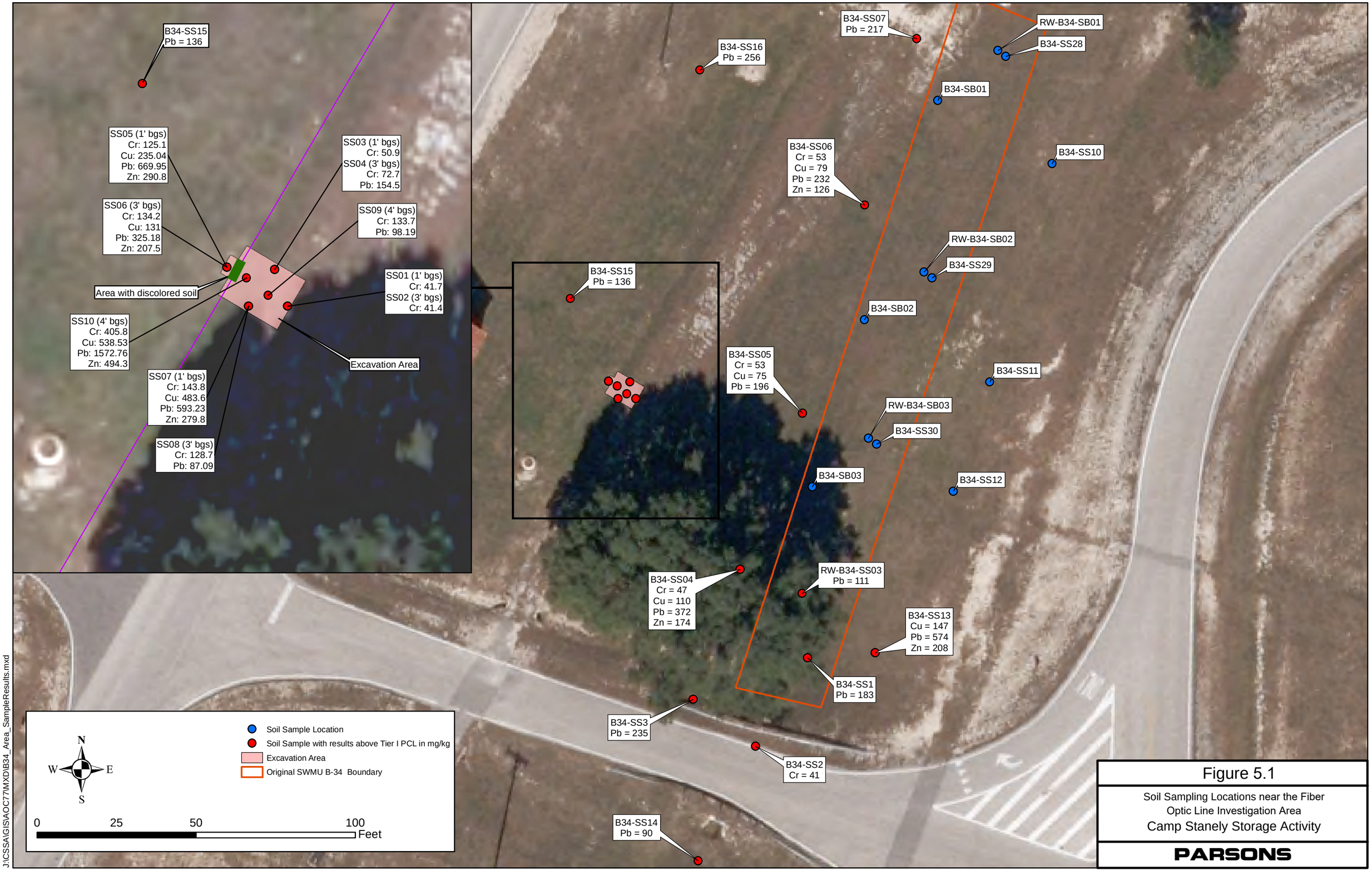

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Figure 5.1

Soil Sampling Locations near the Fiber Optic Line Investigation Area
Camp Stanely Storage Activity

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6.0 REFERENCES

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APPENDIX A
Tier 2 PCL Calculations

Camp Stanley Residential Tier 2 calculations for 2,4-Dinitrotoluene in Soil

Equation from §350.73.(b)(1), Amended March 19, 2007

$$^{GW}Soil_{Ing} = \frac{(Critical\ Groundwater\ PCL) \times LDF}{K_{sw}} \times \frac{L_2}{L_1}$$

$$^{GW}Soil_{Ing} = \frac{0.0013 \times 20}{3.31} \times \frac{260}{1}$$

$$^{GW}Soil_{Ing} = \boxed{\textbf{2.04E+00}}$$

$$K_{SW} = \frac{\rho_b}{\theta_{ws} + K_d \rho_b + H' \theta_{as}}$$

So that:

$$K_{SW} = \frac{1.21}{0.241 + (0.1026 \times 1.21) + (0.000036 \times 0.21)}$$

$$K_{SW} = \frac{1.21E+00}{3.65E-01}$$

$$K_{SW} = \boxed{\textbf{3.31E+00}}$$

When:

ρ_b	= Soil bulk density (g/cm^3)	1.21E+00
θ_{ws}	= Volumetric water content of vadose zone soils	2.41E-01
K_d	= Soil-water partition coefficient (K_{oc} x foc)	1.03E-01
K_{oc}	= Soil organic carbon-water partition coefficient	5.13E+01
foc	= fraction organic carbon	2.00E-03
H'	= Henry's Law Constant	3.60E-05
θ_{as}	= Volumetric air content of vadose zone soils	2.10E-01
LDF	= Lateral Dilution Factor	2.00E+01
L_2	= Depth from top of affected soil to groundwater table (ft)	2.60E+02
L_1	= Thickness of affected soil (ft)	1.00E+00

Using:

Groundwater Critical PCL:

$^{GW}GW_{Ing}$ = 1.30E-03

H' - from figure 30 TAC 350.73(e)
K_d - from figure 30 TAC 350.73(e)(1)(C)

LDF, ρ_b, θ_{ws}, and θ_{as} using Tier 1 defaults

Shaded cells represent compound-specific variables.

Average pH of soil in 7.85

Camp Stanley Residential Tier 2 calculations for Lead in Soil

Equation from §350.73.(b)(1), Ammended March 19, 2007

$$^{GW}Soil_{Ing} = \frac{(Critical\ Groundwater\ PCL) \times LDF}{K_{sw}} \times \frac{L_2}{L_1}$$

$$^{GW}Soil_{Ing} = \frac{0.015 \times 20}{0.00} \times \frac{260}{1}$$

$$^{GW}Soil_{Ing} = \boxed{\textbf{1.43E+05}}$$

$$K_{SW} = \frac{\rho_b}{\theta_{ws} + K_d \rho_b + H' \theta_{as}}$$

When:

ρ_b	= Soil bulk density (g/cm^3)	1.21E+00
θ_{ws}	= Volumetric water content of vadose zone soils	2.41E-01
K_d	= Soil-water partition coefficient (K_{oc} x foc)	1.83E+03
K_{oc}	= Soil organic carbon-water partition coefficient	
foc	= fraction organic carbon	2.00E-03
H'	= Henry's Law Constant	0.00E+00
θ_{as}	= Volumetric air content of vadose zone soils	2.10E-01
LDF	= Lateral Dilution Factor	2.00E+01
L_2	= Depth from top of affected soil to groundwater table (ft)	2.60E+02
L_1	= Thickness of affected soil (ft)	1.00E+00

So that:

$$K_{SW} = \frac{1.21}{0.241 + (1830 \times 1.21) + (0 \times 0.21)}$$

$$K_{SW} = \frac{1.21E+00}{2.21E+03}$$

$$K_{SW} = \boxed{\textbf{5.46E-04}}$$

Using:

Groundwater Critical PCL:

$^{GW}GW_{Ing}$ = 1.50E-02

H' - from figure 30 TAC 350.73(e)
K_d - from figure 30 TAC 350.73(e)(1)(C)

LDF, ρ_b, θ_{ws}, and θ_{as} using Tier 1 defaults

Shaded cells represent compound-specific variables.

Average pH of soil in 5.5

APPENDIX B

Tier 1 Ecological Exclusion Checklist

PART I. Affected Property Identification and Background Information

1) Provide a description of the specific area of the response action and the nature of the release. Include estimated acreage of the affected property and the facility property, and a description of the type of facility and/or operation associated with the affected property. Also describe the location of the affected property with respect to the facility property boundaries and public roadways.

Camp Stanley Storage Activity: 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 (see Figure 1.1 of the Closure Report). CSSA has several historical waste sites, including SWMUs, AOCs, and RMUs. The present mission of CSSA is the receipt, storage, issue, and maintenance of ordnance, as well as quality assurance testing and maintenance of military weapons and ammunition. Because of its mission, CSSA has been designated a restricted access facility. No changes to the CSSA mission and/or military activities are expected in the future.

SWMU B-34 is located in a developed industrial area of the Inner Cantonment of CSSA (Figure 1.2 of the Closure Report). The site is covered almost entirely by concrete and asphalt, with a narrow, maintained grassy area along its eastern edge. The original site boundary for SWMU B-34 encompassed approximately 0.5 acre, however subsequent sampling and investigations led to the expansion of the boundary to include 4.9 acres as shown on Figure 2.

Attach available USGS topographic maps and/or aerial or other affected property photographs to this form to depict the affected property and surrounding area. Indicate attachments:

☑ Topo map ☑ Aerial photo ☑ Other

Figure 1.2 of the Closure Report shows the general location of SWMU B-34. Aerial photos of the site and land adjacent to the site are shown on Figure 2.1. A map showing the topography of the site is included as Figure 2.3 of the Closure Report.

2) Identify environmental media known or suspected to contain chemicals of concern (COCs) at the present time. Check all that apply:

Known/Suspected COC Location	Based on sampling data?	
☐ Soil ≤ 5 ft below ground surface	☐ Yes	☑ No
☐ Soil >5 ft below ground surface	☐ Yes	☑ No
☐ Groundwater	☐ Yes	☑ No
☐ Surface Water/Sediments	☐ Yes	☑ No

Explain (previously submitted information may be referenced):

A Lower Glen Rose (LGR) observation well (CS-MW18-LGR) that is associated with the monitoring and detection of groundwater contamination emanating from SWMU B-3 is located in the northern corner of SWMU B-34 (Figure 1.2). Between September 2002 and June 2013, measured water levels at well CS-MW18-LGR have ranged from 104.4 feet below top of casing (ft BTOC) (December 2004) to 350.34 ft BTOC (September 2009). The long-term average water level in this well is 257.52 feet BTOC.

Since 2002, this well has been sampled numerous times for volatile organic compounds (VOCs) and metals. The VOCs methylene chloride, tetrachloroethene (PCE), toluene, and trichloroethene (TCE) have each been detected in CS-MW18-LGR but were reported as "trace" (F-flagged) because the detections were at levels below the reporting limit (RL). The VOC toluene was detected (1.4 µg/L) above the RL in March 2003, but below any regulatory threshold, including maximum contaminant limit (MCLs), secondary standards (SS), or action levels (AL) set forth by the Safe Drinking Water Act (SDWA). This list of VOC compounds is consistent with the basewide detections of solvents in groundwater due to past management practices associated with activities at AOC-65 and SWMU B-3.

Trace (F-flagged) detections of the metals arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc have been detected in CS-MW18-LGR below the RL. Barium has also been detected in the well, at levels above the RL. However none of the barium detections were above the MCL of 2 mg/L. None of the metal concentrations detected in CS-MW18-LGR exceed any regulatory threshold, including MCLs, secondary standards (SS), or action levels (AL) set forth by the Safe Drinking Water Act (SDWA). Tables 2.1 and 2.2 of this Closure Report list the results for VOC and metals detections, respectively, in CS-MW18-LGR.

The nearest perennial water feature within the watershed is the "W-Tank" detention pond, located approximately 3,500 feet south of SWMU B-34. The W-Tank is fed by precipitation. The D-Tank detention pond is located 3,300 feet north of SWMU B-34, but it is part of separate Salado Creek watershed, and therefore is unable to receive drainage runoff from the site. No significant degradation of high quality receiving waters is anticipated from SWMU B-34.

Based on soil samples collected at SWMU B-34, there are no VOCs or SVOCs at the site that exceed their respective PCL (see Appendix D of this Closure Report). Soils with lead concentrations exceeding the critical PCL at the site were excavated and removed or used to calculate a 95% UCL per TAC §350.79(2)(A) that does not exceed the critical PCL. There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at SWMU B-34.

Since all waste and contaminated soil have been removed or meet the 95% UCL per TAC §350.79(2)(A), there can be no impact to groundwater, surface water, or sediment from SWMU B-34.

3) Provide the information below for the nearest surface water body which has become or has the potential to become impacted from migrating COCs via surface water runoff, air deposition, groundwater seepage, etc. Exclude wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit. Also exclude conveyances, decorative ponds, and those portions of process facilities which are:

a. Not in contact with surface waters in the State or other surface waters which are ultimately in contact with surface waters in the State; and

b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

The nearest perennial surface water body, **"W-Tank" detention pond, approximately 3,500 feet** from the affected property **(south of SWMU B-34)**. These water bodies are best described as:

☑ freshwater stream: _____ perennial (has water all year)
_✓_ intermittent (dries up completely for at least 1 week a year) **[only contains water during and immediately after rain events]**
_____ intermittent with perennial pools

☐ freshwater swamp/marsh/wetland

☐ saltwater or brackish marsh/swamp/wetland

☑ reservoir, lake, or **pond (i.e., W-Tank)**; approximate surface acres**: 0.52 acres**

☐ drainage ditch

☐ tidal stream ☐ bay ☐ estuary

☐ other; specify

Is the water body listed as a State classified segment in Appendix C of the current Texas Surface Water Quality Standards; §§307.1 - 307.10?

☐ Yes Segment # _____ Use Classification:

☑ **No**

If the water body is not a State classified segment, identify the first downstream classified segment.

Name:

Upper Leon Creek

Segment #:

Segment 1907 – from a point 100 meters (330 feet) upstream of State Highway 16 northwest of San Antonio in Bexar County to a point 9.0 kilometers (5.6 miles) upstream of Scenic Loop Road north of Helotes in Bexar County.

Use Classification:

Upper Leon Creek is classified as a perennial stream. The designated uses of Segment 1907 are high aquatic life, contact recreation, public water supply, and aquifer protection. No significant degradation of high quality receiving waters is anticipated from SWMU B-34.

All creeks at CSSA are intermittent and only have water during and immediately following rain events.

As necessary, provide further description of surface waters in the vicinity of the affected property:

The nearest perennial water feature within the watershed is the "W-Tank" detention pond, approximately 3,500 feet south of SWMU B-34. The W-Tank is fed by precipitation. The D-Tank detention pond is located 3,300 feet north of SWMU B-34, but it is part of separate Salado Creek watershed, and therefore is unable to receive drainage runoff from the site.

The nearest downgradient classified creek from SWMU B-34 is Upper Leon Creek. Upper Leon Creek is classified as a perennial stream, and is classified under Texas Surface Water Quality Standards as Segment 1907 from a point 330 feet upstream of State Highway 16 northwest of San Antonio in Bexar County to a point 5.6 miles upstream of Scenic Loop Road north of Helotes in Bexar County. The designated uses of Segment 1907 are high aquatic life, contact recreation, public water supply, and aquifer protection. No significant degradation of high quality receiving waters is anticipated from SWMU B-34.

PART II. Exclusion Criteria and Supportive Information

Subpart A. Surface Water/Sediment Exposure

1) Regarding the affected property where a response action is being pursued under the TRRP, have COCs migrated and resulted in a release or imminent threat of release to either surface waters or to their associated sediments via surface water runoff, air deposition, groundwater seepage, etc.? Exclude wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit. Also exclude conveyances, decorative ponds, and those portions of process facilities which are:

a. Not in contact with surface waters in the State or other surface waters which are ultimately in contact with surface waters in the State; and

b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

☐ Yes ☑ No

Explain:

There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at SWMU B-34. Since soils were not found to have concentrations of VOCs, SVOCs, or metals above critical PCLs, there can be no impact to groundwater, surface water, or sediment from SWMU B-34.

The nearest perennial water feature within the watershed is the "W-Tank" detention pond, approximately 3,500 feet south of SWMU B-34. The W-Tank is fed by precipitation.

If the answer is Yes to Subpart A above, the affected property does not meet the exclusion criteria. However, complete the remainder of Part II to determine if there is a complete and/or significant soil exposure pathway, then complete PART III - Qualitative Summary and Certification. If the answer is No, go to Subpart B.

Subpart B. Affected Property Setting

In answering "Yes" to the following question, it is understood that the affected property is not attractive to wildlife or livestock, including threatened or endangered species (i.e., the affected property does not serve as valuable habitat, foraging area, or refuge for ecological communities). (May require consultation with wildlife management agencies.)

1) Is the affected property wholly contained within contiguous land characterized by: pavement, buildings, landscaped area, functioning cap, roadways, equipment storage area, manufacturing or process area, other surface cover or structure, or otherwise disturbed ground?

☑ Yes ☐ No

Explain:

SWMU B-34 is located in a developed industrial area of the Inner Cantonment of CSSA (Figure 2). The site is covered almost entirely by concrete and asphalt, with a narrow, maintained grassy area along its eastern edge.

Several surveys have been conducted at CSSA for threatened and endangered (T&E) species. The only T&E species that have been documented at CSSA are the black-capped vireo (*Vireo atricapillus*) [BCVI] and golden-cheeked warbler (*Dendroica chrysoparia*) [GCWA]. SWMU B-34 is not located within BCVI or GCWA habitat. The nearest potential habitats for local endangered species are approximately 2,100 feet to the southeast. Additional information can be found in the following references:

- **Parsons, 2007. *Final Integrated Natural Resource Management Plan*. Prepared for Camp Stanley Storage Activity, Boerne, Texas. October 2007. Available online: CSSA EE (Volume 1.6, Other Plans and Approaches)**
- **Parsons, 2011. *Final Species and Habitat Distributions of Black-Capped Vireos and Golden-Cheeked Warblers, 2009 Breeding/Nesting Season*. Prepared for Camp Stanley Storage Activity, Boerne, Texas. September 2011. Available online: CSSA EE (Volume 1.6, Other Plans and Approaches)**

If the answer to Subpart B above is Yes, the affected property meets the exclusion criteria, assuming the answer to Subpart A was No. Skip Subparts C and D and complete PART III - Qualitative Summary and Certification. If the answer to Subpart B above is No, go to Subpart C.

Subpart C. Soil Exposure

1) Are COCs which are in the soil of the affected property solely below the first 5 feet beneath ground surface **or** does the affected property have a physical barrier present to prevent exposure of receptors to COCs in surface soil? **Subpart C skipped based on answer to Subpart B.**

☐ Yes ☐ No

Explain:

If the answer to Subpart C above is Yes, the affected property meets the exclusion criteria, assuming the answer to Subpart A was No. Skip Subpart D and complete PART III - Qualitative Summary and Certification. If the answer to Subpart C above is No, proceed to Subpart D.

Subpart D. *De Minimus* Land Area Subpart D skipped based on answer to Subpart B.

In answering "Yes" to the question below, it is understood that all of the following conditions apply:

☐ The affected property is not known to serve as habitat, foraging area, or refuge to threatened/endangered or otherwise protected species. (Will likely require consultation with wildlife management agencies.)

☐ Similar but unimpacted habitat exists within a half-mile radius.

☐ The affected property is not known to be located within one-quarter mile of sensitive environmental areas (e.g., rookeries, wildlife management areas, preserves). (Will likely require consultation with wildlife management agencies.)

☐ There is no reason to suspect that the COCs associated with the affected property will migrate such that the affected property will become larger than one acre.

1) Using human health protective concentration levels as a basis to determine the extent of the COCs, does the affected property consist of one acre or less and does it meet all of the conditions above?

☐ Yes ☐ No

Explain how conditions are met/not met:

If the answer to Subpart D above is Yes, then no further ecological evaluation is needed at this affected property. Assuming the answer to Subpart A was No, Complete PART III - Qualitative Summary and Certification. If the answer to Subpart D above is No, proceed to Tier 2 or 3 or comparable ERA.

PART III. Qualitative Summary and Certification (Complete in all cases).

Attach a brief statement (not to exceed 1 page) summarizing the information you have provided in this form. This summary should include sufficient information to verify that the affected property meets or does not meet the exclusion criteria. The person should make the initial decision regarding the need for further ecological evaluation (i.e., Tier 2 or 3) based upon the results of this checklist. After review, TCEQ will make a final determination on the need for further assessment. **Note that the person has the continuing obligation to re-enter the ERA process if changing circumstances result in the affected property not meeting the Tier 1 exclusion criteria.**

Completed by: Laura Marbury, P.G. *(Typed/Printed Name)*

Principal Geologist *(Title)*

November 22, 2013 *(Date)*

I believe that the information submitted is true, accurate, and complete, to the best of my knowledge.

Julie Burdey, P.G. *(Typed/Printed Name of Person)*

Project Manager *(Title of Person)*

(Signature of Person)

APPENDIX C

Site Photographs

Photograph 1.1: Discolored soils discovered by a construction crew digging a trench to install a new fiber optic communication line. Approximate depth below ground surface is two feet.

Camp Stanley Storage Activity —
Bexar County Texas
Fiber Optic Trench Investigation Area

PARSONS

Photograph 4.1: An overview of the excavation in December 2019. Note the fiber optic line at the top of the photo.

Camp Stanley Storage Activity —
Bexar County Texas
Fiber Optic Trench Investigation Area

PARSONS

Photograph 4.2: An overview of the excavation in January 2020. Note the fiber op-tic line at the top of the photo.

Camp Stanley Storage Activity —
Bexar County Texas
Fiber Optic Trench Investigation Area

PARSONS

APPENDIX D

Summary of Results for All Analytes

Appendix D - Fiber Optic Line Investigation

Soil Samples Collected December 11, 2019 and January 8, 2020

LOCID	SACODE	SBD	SED	Analysis Group	Analyte	Date Sampled	Result	Flag	Unit
AOC77-SS01	N	1	1	Metals	Chromium	12/11/2019	41.7		mg/kg
AOC77-SS01	N	1	1	Metals	Copper	12/11/2019	12.49		mg/kg
AOC77-SS01	N	1	1	Metals	Lead	12/11/2019	23.21		mg/kg
AOC77-SS01	N	1	1	Metals	Zinc	12/11/2019	27.2		mg/kg
AOC77-SS01	N	1	1	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS01	FD	1	1	Metals	Chromium	12/11/2019	43.1		mg/kg
AOC77-SS01	FD	1	1	Metals	Copper	12/11/2019	11.35		mg/kg
AOC77-SS01	FD	1	1	Metals	Lead	12/11/2019	24.73		mg/kg
AOC77-SS01	FD	1	1	Metals	Zinc	12/11/2019	28.6		mg/kg
AOC77-SS01	FD	1	1	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS02	N	3	3	Metals	Chromium	12/11/2019	41.4		mg/kg
AOC77-SS02	N	3	3	Metals	Copper	12/11/2019	8.1		mg/kg
AOC77-SS02	N	3	3	Metals	Lead	12/11/2019	22.82		mg/kg
AOC77-SS02	N	3	3	Metals	Zinc	12/11/2019	23		mg/kg
AOC77-SS02	N	3	3	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS03	N	1	1	Metals	Chromium	12/11/2019	50.9		mg/kg
AOC77-SS03	N	1	1	Metals	Copper	12/11/2019	16.68		mg/kg
AOC77-SS03	N	1	1	Metals	Lead	12/11/2019	30.28		mg/kg
AOC77-SS03	N	1	1	Metals	Zinc	12/11/2019	33.7		mg/kg
AOC77-SS03	N	1	1	VOCs	1,1,1,2-Tetrachloroethane	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,1,1-Trichloroethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,1,2,2-Tetrachloroethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,1,2-Trichloroethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,1-Dichloroethane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,1-Dichloroethene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,1-Dichloropropene	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2,3-Trichlorobenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2,3-Trichloropropane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2,4-Trichlorobenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2,4-Trimethylbenzene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2-Dibromo-3-chloropropane	12/11/2019	< 0.002	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2-Dibromoethane (Ethylene Dibromide)	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2-Dichlorobenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2-Dichloroethane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,2-Dichloropropane	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,3-Dichlorobenzene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,3-Dichloropropane	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1,4-Dichlorobenzene	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS03	N	1	1	VOCs	1-Chlorohexane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	2,2-Dichloropropane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	2-Chlorotoluene	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS03	N	1	1	VOCs	4-Butylbenzene	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS03	N	1	1	VOCs	4-Chlorotoluene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Benzene	12/11/2019	0.0018	F	mg/kg
AOC77-SS03	N	1	1	VOCs	Bromobenzene	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Bromochloromethane	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Bromodichloromethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Bromoform	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Bromomethane	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Carbon tetrachloride	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Chlorobenzene	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Chloroethane	12/11/2019	< 0.0015	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Chloroform	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Chloromethane	12/11/2019	< 0.0015	U	mg/kg
AOC77-SS03	N	1	1	VOCs	cis-1,2-Dichloroethene	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS03	N	1	1	VOCs	cis-1,3-Dichloropropene	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Dibromochloromethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Dibromomethane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Dichlorodifluoromethane	12/11/2019	< 0.0018	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Ethylbenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Hexachlorobutadiene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Isopropylbenzene	12/11/2019	< 0.001	U	mg/kg

Appendix D - Fiber Optic Line Investigation

Soil Samples Collected December 11, 2019 and January 8, 2020

LOCID	SACODE	SBD	SED	Analysis Group	Analyte	Date Sampled	Result	Flag	Unit
AOC77-SS03	N	1	1	VOCs	m,p-Xylene (Sum of Isomers)	12/11/2019	< 0.0018	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Methylene chloride	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Naphthalene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	n-Butylbenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS03	N	1	1	VOCs	n-Propylbenzene	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS03	N	1	1	VOCs	o-Xylene (1,2-Dimethylbenzene)	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS03	N	1	1	VOCs	P-Cymene (p-Isopropyltoluene)	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS03	N	1	1	VOCs	sec-Butylbenzene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Styrene	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Tetrachloroethylene (PCE)	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Toluene	12/11/2019	0.0015	F	mg/kg
AOC77-SS03	N	1	1	VOCs	trans-1,2-Dichloroethene	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS03	N	1	1	VOCs	trans-1,3-Dichloropropene	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Trichloroethylene (TCE)	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Trichlorofluoromethane	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS03	N	1	1	VOCs	Vinyl chloride	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS03	N	1	1	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS04	N	3	3	Metals	Chromium	12/11/2019	72.7		mg/kg
AOC77-SS04	N	3	3	Metals	Copper	12/11/2019	50.92		mg/kg
AOC77-SS04	N	3	3	Metals	Lead	12/11/2019	154.5		mg/kg
AOC77-SS04	N	3	3	Metals	Zinc	12/11/2019	53.8		mg/kg
AOC77-SS04	N	3	3	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS05	N	1	1	Metals	Chromium	12/11/2019	125.1		mg/kg
AOC77-SS05	N	1	1	Metals	Copper	12/11/2019	235.04		mg/kg
AOC77-SS05	N	1	1	Metals	Lead	12/11/2019	669.95		mg/kg
AOC77-SS05	N	1	1	Metals	Zinc	12/11/2019	290.8		mg/kg
AOC77-SS05	N	1	1	SVOCs	2,4-Dinitrotoluene	12/11/2019	0.16	F	mg/kg
AOC77-SS06	N	3	3	Metals	Chromium	12/11/2019	134.2		mg/kg
AOC77-SS06	N	3	3	Metals	Copper	12/11/2019	131		mg/kg
AOC77-SS06	N	3	3	Metals	Lead	12/11/2019	325.18		mg/kg
AOC77-SS06	N	3	3	Metals	Zinc	12/11/2019	207.5		mg/kg
AOC77-SS06	N	3	3	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS07	N	1	1	Metals	Chromium	12/11/2019	143.8		mg/kg
AOC77-SS07	N	1	1	Metals	Copper	12/11/2019	483.6		mg/kg
AOC77-SS07	N	1	1	Metals	Lead	12/11/2019	592.23		mg/kg
AOC77-SS07	N	1	1	Metals	Zinc	12/11/2019	279.8		mg/kg
AOC77-SS07	N	1	1	SVOCs	2,4-Dinitrotoluene	12/11/2019	0.33	F	mg/kg
AOC77-SS08	N	3	3	Metals	Chromium	12/11/2019	128.7		mg/kg
AOC77-SS08	N	3	3	Metals	Copper	12/11/2019	17.02		mg/kg
AOC77-SS08	N	3	3	Metals	Lead	12/11/2019	87.09		mg/kg
AOC77-SS08	N	3	3	Metals	Zinc	12/11/2019	66.9		mg/kg
AOC77-SS08	N	3	3	VOCs	1,1,1,2-Tetrachloroethane	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,1,1-Trichloroethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,1,2,2-Tetrachloroethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,1,2-Trichloroethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,1-Dichloroethane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,1-Dichloroethene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,1-Dichloropropene	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2,3-Trichlorobenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2,3-Trichloropropane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2,4-Trichlorobenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2,4-Trimethylbenzene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2-Dibromo-3-chloropropane	12/11/2019	< 0.002	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2-Dibromoethane (Ethylene Dibromide)	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2-Dichlorobenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2-Dichloroethane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,2-Dichloropropane	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,3-Dichlorobenzene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,3-Dichloropropane	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1,4-Dichlorobenzene	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS08	N	3	3	VOCs	1-Chlorohexane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	2,2-Dichloropropane	12/11/2019	< 0.001	U	mg/kg

Appendix D - Fiber Optic Line Investigation

Soil Samples Collected December 11, 2019 and January 8, 2020

LOCID	SACODE	SBD	SED	Analysis Group	Analyte	Date Sampled	Result	Flag	Unit
AOC77-SS08	N	3	3	VOCs	2-Chlorotoluene	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS08	N	3	3	VOCs	4-Butylbenzene	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS08	N	3	3	VOCs	4-Chlorotoluene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Benzene	12/11/2019	0.0029		mg/kg
AOC77-SS08	N	3	3	VOCs	Bromobenzene	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Bromochloromethane	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Bromodichloromethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Bromoform	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Bromomethane	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Carbon tetrachloride	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Chlorobenzene	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Chloroethane	12/11/2019	< 0.0015	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Chloroform	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Chloromethane	12/11/2019	< 0.0015	U	mg/kg
AOC77-SS08	N	3	3	VOCs	cis-1,2-Dichloroethene	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS08	N	3	3	VOCs	cis-1,3-Dichloropropene	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Dibromochloromethane	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Dibromomethane	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Dichlorodifluoromethane	12/11/2019	< 0.0018	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Ethylbenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Hexachlorobutadiene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Isopropylbenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	m,p-Xylene (Sum of Isomers)	12/11/2019	< 0.0018	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Methylene chloride	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Naphthalene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	n-Butylbenzene	12/11/2019	< 0.001	U	mg/kg
AOC77-SS08	N	3	3	VOCs	n-Propylbenzene	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS08	N	3	3	VOCs	o-Xylene (1,2-Dimethylbenzene)	12/11/2019	< 0.0007	U	mg/kg
AOC77-SS08	N	3	3	VOCs	P-Cymene (p-Isopropyltoluene)	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS08	N	3	3	VOCs	sec-Butylbenzene	12/11/2019	< 0.0011	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Styrene	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Tetrachloroethylene (PCE)	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Toluene	12/11/2019	0.0021	F	mg/kg
AOC77-SS08	N	3	3	VOCs	trans-1,2-Dichloroethene	12/11/2019	< 0.0008	U	mg/kg
AOC77-SS08	N	3	3	VOCs	trans-1,3-Dichloropropene	12/11/2019	< 0.0009	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Trichloroethylene (TCE)	12/11/2019	< 0.0012	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Trichlorofluoromethane	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS08	N	3	3	VOCs	Vinyl chloride	12/11/2019	< 0.0013	U	mg/kg
AOC77-SS08	N	3	3	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS09	N	4	4	Metals	Chromium	12/11/2019	133.7		mg/kg
AOC77-SS09	N	4	4	Metals	Copper	12/11/2019	30.42		mg/kg
AOC77-SS09	N	4	4	Metals	Lead	12/11/2019	98.19		mg/kg
AOC77-SS09	N	4	4	Metals	Zinc	12/11/2019	68.5		mg/kg
AOC77-SS09	N	4	4	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS10	N	4	4	Metals	Chromium	12/11/2019	405.8		mg/kg
AOC77-SS10	N	4	4	Metals	Chromium, Hexavalent	12/11/2019	16.8	M	mg/kg
AOC77-SS10	N	4	4	Metals	Copper	12/11/2019	538.53		mg/kg
AOC77-SS10	N	4	4	Metals	Lead	12/11/2019	1572.76		mg/kg
AOC77-SS10	N	4	4	Metals	Zinc	12/11/2019	494.3		mg/kg
AOC77-SS10	N	4	4	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg
AOC77-SS11	N	1	1	Metals	Chromium	1/8/2020	43.7		mg/kg
AOC77-SS11	N	1	1	Metals	Copper	1/8/2020	20.9		mg/kg
AOC77-SS11	N	1	1	Metals	Lead	1/8/2020	47.4		mg/kg
AOC77-SS11	N	1	1	Metals	Zinc	1/8/2020	65.2		mg/kg
AOC77-SS11	N	1	1	Inorganics	pH	1/8/2020	7.85		pH units
AOC77-SS12	N	3	3	Metals	Chromium	1/8/2020	39.8		mg/kg
AOC77-SS12	N	3	3	Metals	Copper	1/8/2020	11.76		mg/kg
AOC77-SS12	N	3	3	Metals	Lead	1/8/2020	18.39		mg/kg
AOC77-SS12	N	3	3	Metals	Zinc	1/8/2020	48.7		mg/kg
AOC77-SS13	N	1	1	Metals	Chromium	1/8/2020	42.6		mg/kg
AOC77-SS13	N	1	1	Metals	Copper	1/8/2020	25.08		mg/kg
AOC77-SS13	N	1	1	Metals	Lead	1/8/2020	112.27		mg/kg
AOC77-SS13	N	1	1	Metals	Zinc	1/8/2020	87.4		mg/kg

Appendix D - Fiber Optic Line Investigation

Soil Samples Collected December 11, 2019 and January 8, 2020

LOCID	SACODE	SBD	SED	Analysis Group	Analyte	Date Sampled	Result	Flag	Unit
AOC77-SS14	N	3	3	Metals	Chromium	1/8/2020	47.3		mg/kg
AOC77-SS14	N	3	3	Metals	Copper	1/8/2020	13.51		mg/kg
AOC77-SS14	N	3	3	Metals	Lead	1/8/2020	24.96		mg/kg
AOC77-SS14	N	3	3	Metals	Zinc	1/8/2020	56.3		mg/kg
AOC77-SS15	N	1	1	Metals	Chromium	1/8/2020	93.5		mg/kg
AOC77-SS15	N	1	1	Metals	Copper	1/8/2020	81.63		mg/kg
AOC77-SS15	N	1	1	Metals	Lead	1/8/2020	177.86		mg/kg
AOC77-SS15	N	1	1	Metals	Zinc	1/8/2020	105.5		mg/kg
AOC77-SS15	FD	1	1	Metals	Chromium	1/8/2020	79.3		mg/kg
AOC77-SS15	FD	1	1	Metals	Copper	1/8/2020	64.04		mg/kg
AOC77-SS15	FD	1	1	Metals	Lead	1/8/2020	162.91		mg/kg
AOC77-SS15	FD	1	1	Metals	Zinc	1/8/2020	93.3		mg/kg
AOC77-SS16	N	3	3	Metals	Chromium	1/8/2020	52.7		mg/kg
AOC77-SS16	N	3	3	Metals	Copper	1/8/2020	12.94		mg/kg
AOC77-SS16	N	3	3	Metals	Lead	1/8/2020	26.07		mg/kg
AOC77-SS16	N	3	3	Metals	Zinc	1/8/2020	52.1		mg/kg
AOC77-SS17	N	4.5	4.5	Metals	Chromium	1/8/2020	57.4		mg/kg
AOC77-SS17	N	4.5	4.5	Metals	Copper	1/8/2020	65.58		mg/kg
AOC77-SS17	N	4.5	4.5	Metals	Lead	1/8/2020	70.96		mg/kg
AOC77-SS17	N	4.5	4.5	Metals	Zinc	1/8/2020	49.6		mg/kg
AOC77-SS18	N	4.5	4.5	Metals	Chromium	1/8/2020	219.5		mg/kg
AOC77-SS18	N	4.5	4.5	Metals	Copper	1/8/2020	61.77		mg/kg
AOC77-SS18	N	4.5	4.5	Metals	Lead	1/8/2020	51.35		mg/kg
AOC77-SS18	N	4.5	4.5	Metals	Zinc	1/8/2020	205.5		mg/kg
AOC77-SSBF	N	0	0	Metals	Arsenic	12/11/2019	6	F	mg/kg
AOC77-SSBF	N	0	0	Metals	Barium	12/11/2019	36.6		mg/kg
AOC77-SSBF	N	0	0	Metals	Cadmium	12/11/2019	0.33	F	mg/kg
AOC77-SSBF	N	0	0	Metals	Chromium	12/11/2019	13	F	mg/kg
AOC77-SSBF	N	0	0	Metals	Copper	12/11/2019	8.39		mg/kg
AOC77-SSBF	N	0	0	Metals	Lead	12/11/2019	8.19	F	mg/kg
AOC77-SSBF	N	0	0	Metals	Mercury	12/11/2019	< 0.01	U	mg/kg
AOC77-SSBF	N	0	0	Metals	Nickel	12/11/2019	5.86		mg/kg
AOC77-SSBF	N	0	0	Metals	Zinc	12/11/2019	31.8		mg/kg
AOC77-SSBF	N	0	0	SVOCs	2,4-Dinitrotoluene	12/11/2019	< 0.05	U	mg/kg

Qualifiers and Notes:

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

M - Concentration is estimated due to a matrix effect.

U - Analyte not detected.

< - Analyte was not detected above the indicated MDL.

mg/kg - milligrams per kilogram

APPENDIX E

Waste Characterization Sampling Results

Fiber Optic Line Inverstigation Area
Appendix E - Waste Charactorization Sample Results
Waste Characterization Soil Collected November 11, 2019

LOCID	SACODE	SBD	SED	Analysis Group	Analyte	Date Sampled	Result	Flag	Unit
Bldg73-WC01	N	0	0	Metals	Antimony	11/22/2019	149.3		mg/kg
Bldg73-WC01	N	0	0	Metals	Arsenic	11/22/2019	2.6	F	mg/kg
Bldg73-WC01	N	0	0	Metals	Barium	11/22/2019	135		mg/kg
Bldg73-WC01	N	0	0	Metals	Beryllium	11/22/2019	0.62	F	mg/kg
Bldg73-WC01	N	0	0	Metals	Cadmium	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	Metals	Chromium	11/22/2019	9140.5	J	mg/kg
Bldg73-WC01	N	0	0	Metals	Copper	11/22/2019	12564.1	J	mg/kg
Bldg73-WC01	N	0	0	Metals	Lead	11/22/2019	1041.92		mg/kg
Bldg73-WC01	N	0	0	Metals	Mercury	11/22/2019	< 0.01	U	mg/kg
Bldg73-WC01	N	0	0	Metals	Nickel	11/22/2019	62.51		mg/kg
Bldg73-WC01	N	0	0	Metals	Selenium	11/22/2019	< 0.2	U	mg/kg
Bldg73-WC01	N	0	0	Metals	Silver	11/22/2019	< 0.07	U	mg/kg
Bldg73-WC01	N	0	0	TCLP Metals	Antimony	11/22/2019	0.02	F	mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Arsenic	11/22/2019	< 0.002	U	mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Barium	11/22/2019	0.885		mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Beryllium	11/22/2019	0.0003	F	mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Cadmium	11/22/2019	< 0.0003	U	mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Chromium	11/22/2019	0.404		mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Copper	11/22/2019	1.824		mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Lead	11/22/2019	0.0613		mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Mercury	11/22/2019	< 0.0001	U	mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Nickel	11/22/2019	0.032		mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Selenium	11/22/2019	0.003	F	mg/L
Bldg73-WC01	N	0	0	TCLP Metals	Silver	11/22/2019	< 0.0002	U	mg/L
Bldg73-WC01	N	0	0	SVOCs	1,2,4-Trichlorobenzene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	1,2-Dichlorobenzene	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	1,3-Dichlorobenzene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	1,4-Dichlorobenzene	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2,4,5-Trichlorophenol	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2,4,6-Trichlorophenol	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2,4-Dichlorophenol	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2,4-Dimethylphenol	11/22/2019	< 0.08	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2,4-Dinitrophenol	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2,4-Dinitrotoluene	11/22/2019	1.68		mg/kg
Bldg73-WC01	N	0	0	SVOCs	2,6-Dinitrotoluene	11/22/2019	0.11	F	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2-Chloronaphthalene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2-Chlorophenol	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2-Methyl-4,6-dinitrophenol	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2-Methylnaphthalene	11/22/2019	< 0.05	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2-Methylphenol (o-cresol)	11/22/2019	< 0.02	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2-Nitroaniline	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	2-Nitrophenol	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	3,3-Dichlorobenzidine	11/22/2019	< 0.02	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	3-Nitroaniline	11/22/2019	< 0.01	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	4-Bromophenyl phenyl ether	11/22/2019	< 0.05	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	4-Chloro-3-methyl phenol	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	4-Chloroaniline	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	4-Chlorophenyl phenyl ether	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	4-Methylphenol (p-cresol)	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	4-Nitroaniline	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	4-Nitrophenol	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Acenaphthene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Acenaphthylene	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Anthracene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Benzo(a)anthracene	11/22/2019	0.09	F	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Benzo(a)pyrene	11/22/2019	0.11	F	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Benzo(b)fluoranthene	11/22/2019	0.21	F	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Benzo(g,h,i)perylene	11/22/2019	0.07	F	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Benzoic acid	11/22/2019	< 0.02	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Benzyl alcohol	11/22/2019	< 0.12	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Benzyl butyl phthalate	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Bis(2-chloroethoxy)methane	11/22/2019	< 0.06	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Bis(2-chloroethyl) ether (2-Chloroethyl Ether)	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Bis(2-chloroisopropyl)ether	11/22/2019	< 0.05	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Bis(2-ethylhexyl) phthalate	11/22/2019	< 0.03	U	mg/kg

Fiber Optic Line Inverstigation Area
Appendix E - Waste Charactorization Sample Results
Waste Characterization Soil Collected November 11, 2019

LOCID	SACODE	SBD	SED	Analysis Group	Analyte	Date Sampled	Result	Flag	Unit
Bldg73-WC01	N	0	0	SVOCs	Chrysene	11/22/2019	0.13	F	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Dibenzo(a,h)anthracene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Dibenzofuran	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Diethyl phthalate	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Dimethyl phthalate	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Di-n-butyl phthalate	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Di-n-octyl phthalate	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Fluoranthene	11/22/2019	0.12	F	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Fluorene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Hexachlorobenzene	11/22/2019	< 0.05	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Hexachlorobutadiene	11/22/2019	< 0.06	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Hexachlorocyclopentadiene	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Hexachloroethane	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Indeno(1,2,3-cd)pyrene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Isophorone	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Naphthalene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Nitrobenzene	11/22/2019	< 0.05	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	N-Nitrosodi-n-propylamine	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	N-Nitrosodiphenylamine	11/22/2019	< 0.05	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Pentachlorophenol	11/22/2019	< 0.03	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Phenanthrene	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Phenol	11/22/2019	< 0.04	U	mg/kg
Bldg73-WC01	N	0	0	SVOCs	Pyrene	11/22/2019	0.14	F	mg/kg

Qualifiers and Notes:

F - Analyte was positively identified, but the quantitation is an estimation above the method detection limit (MDL) and below the RL.
J - Analyte was positively identified, but the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U - Analyte not detected.
< - Analyte was not detected above the indicated MDL.
mg/kg - milligrams per kilogram.
mg/L - milligrams per liter.

APPENDIX F

Data Verification Summary Report

DATA VERIFICATION SUMMARY REPORT

for soil samples collected from

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Beth Driskill
Parsons - Austin

INTRODUCTION

The following data verification summary report covers twelve soil samples collected from Camp Stanley Storage Activity (CSSA) on December 11, 2019. The samples were assigned to the following Sample Delivery Group (SDG).

90996

The field QC sample associated with this SDG was one trip blank (TB), one matrix spike/matrix spike duplicate (MS/MSD) set, and one field duplicate (FD). No ambient blanks were collected. During the initiation of this project, it was determined that ambient blanks were not necessary due to the absence of a source at these sites.

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. Samples in this SDG were shipped to the laboratory in a single cooler, which was received by the laboratory at a temperature of 1.3ºC. APPL received a TB sample that was not included on the COC. APPL was instructed by Parsons to analyze the TB sample.

SAMPLE IDs AND REQUESTED PARAMETERS

Sample ID	Matrix	SVOCs	VOCs	Metals	Mercury	Hexavalent Chromium	Comments
AOC77-SS01	Soil	X		X			MS/MSD
AOC77-SS01-FD	Soil	X		X			Field duplicate of AOC77-SS01
AOC77-SS02	Soil	X		X			
AOC77-SS03	Soil	X	X	X			
AOC77-SS04	Soil	X		X			
AOC77-SS05	Soil	X		X			
AOC77-SS06	Soil	X		X			
AOC77-SS07	Soil	X		X			
AOC77-SS08	Soil	X	X	X			
AOC77-SS09	Soil	X		X			
AOC77-SS10	Soil	X		X		X	
AOC77-SSBF	Soil	X		X	X		

Sample ID	Matrix	SVOCs	VOCs	Metals	Mercury	Hexavalent Chromium	Comments
TRIPBLANK	Water		X				Trip blank

EXTRACTION, ANALYTICAL, AND REPORTING DETAILS

Parameter	Matrix	Prep Method	Analytical Method	Units
VOC	WATER	SW5030B	SW8260B	µg/L
VOC	SOIL	SW5035	SW8260B	mg/Kg
SVOC	SOIL	SW3550B	SW8270C	mg/Kg
METALS	SOIL	SW3050B	SW6010B	mg/Kg
MERCURY	SOIL	SW7471B	SW7471B	mg/Kg
HEXAVALENT CHROMIUM	SOIL	SW3060A	SW7199	mg/Kg

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.

SEMIVOLATILES

General

The semivolatiles portion of this data package consisted of eleven (11) soil samples and one (1) FD. All samples were collected on December 11, 2019 and analyzed for a single analyte, 2,4-Dinitrotoluene (2,4-DNT).

The SVOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8270C. The samples were analyzed in one analytical batche, #248568 under one initial calibration (ICAL). All samples were analyzed following the procedures outlined in the CSSA QAPP and were prepared and analyzed within the holding time required by the method. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the laboratory control samples (LCSs), the MS, the MSD, and the surrogate spikes. Sample AOC77-SS01 was designated as the MS/MSD on the COC.

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

All surrogate spike recoveries were within acceptance criteria except as follows.

Sample ID	Surrogate	%R	Criteria
AOC77-SS09	Terphenyl-d14	28.5	32-136%

The surrogate outside criteria is not associated to the target analyte 2,4-DNT; therefore, data quality was not affected and corrective action was not necessary.

Precision

Precision was evaluated using the relative percent difference (RPD) obtained from the MS/MSD results. Precision was further evaluated by comparing the field duplicate analyte results. Sample AOC77-SS01-FD was collected and analyzed as the field duplicate of AOC77-SS01.

The MS/MSD RPD was within acceptance criteria.

The FD/parent sample results were non-detect; therefore, RPD could not be evaluated.

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 collection, transportation, 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 initial calibration verification (ICV) criteria were met. The ICV was prepared using a secondary source standard. All second source verification criteria were met.
- All continuing calibration verification (CCV) criteria were met.
- All internal standard criteria were met.

One method blank was associated with the SVOC analyses in this SDG. The MB was non-detect for the target SVOC.

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%.

VOLATILES

General

The volatiles portion of this data package consisted of (2) soil samples and one (1) TB. All samples were collected on December 11, 2019 and analyzed for the full list of VOCs as listed in the QAPP.

The VOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8260B. The samples were analyzed in two analytical batches, #248809 and #248319 (one for water TB and one for soil samples) under two initial calibrations (ICALs). All samples were analyzed following the procedures outlined in the CSSA QAPP and were prepared and analyzed within the holding time required by the method. All analyses were performed undiluted.

Accuracy

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

All LCS and surrogate spike recoveries were within acceptance criteria.

Precision

Precision could not be evaluated for the VOCs 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 blank and TB for cross contamination of samples during sample collection, transportation, 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 initial calibration verification (ICV) criteria were met. The ICV was prepared using a secondary source standard.

- All continuing calibration verification (CCV) criteria were met except as follows.

CCV ID	Analyte	%R	Criteria
1216L14.D	Bromomethane	22	± 20%
	Chloroethane	22	
	Trichlorofluoromethane	25	

  The CCV also served as the ICV. The ICV and CCV have different acceptance criteria and the three analytes listed above did not meet CCV criteria; however, all three analytes were non-detect in the samples associated with this CCV. Therefore, data quality was not affected and corrective action was not necessary.

- All internal standard criteria were met.

There were two method blanks associated with the VOC analyses in this SDG. The MBs were non-detect for all target VOCs.

There was one trip blank sample associated with the VOC analyses in this SDG. The TB was also non-detect for all target VOCs.

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%.

ICP-AES METALS

General

The ICP-AES portion of this SDG consisted of twelve (12) soil samples that includes one (1) field duplicate and one (1) MS/MSD pair. All samples were collected on December 11, 2019. Samples AOC77-SS01 through AOC77-SS10 were analyzed for chromium, copper, lead, and zinc. Sample AOC77-SSBF was analyzed for arsenic, barium, cadmium, chromium, copper, nickel, lead, and zinc.

The ICP-AES metals analyses were performed using USEPA SW846 Method 6010B. All samples were analyzed following the procedures outlined in the CSSA QAPP and were prepared and analyzed within the holding time required by the method.

The samples for ICP-AES metals were digested in batch #248321. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS, LCSD, MS and MSD. AOC77-SS01 was designated as the parent sample for the MS/MSD analyses.

All LCS, LCSD, MS, and MSD recoveries were within acceptance.

Precision

Precision was measured based on the RPD of MS/MSD results and parent/FD sample results. Sample ACO77-SS01 FD was collected and analyzed as the field duplicate of ACO77-SS01.

All RPDs were compliant for the MS/MSD.

All target metals were detected above the reporting limit (RL) in the parent and FD samples, and met criteria as follows:

Metal	Parent (mg/kg)	FD (mg/kg)	RPD	Criteria (RPD)
Chromium	41.7	43.1	3.3	
Copper	12.49	11.35	9.6	
Lead	23.21	24.73	6.3	≤20
Zinc	27.2	28.6	5.0	

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 preservation and holding times; and
- Examining laboratory blank for cross contamination of samples during analysis.

All samples were analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0, 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 CCV criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- Dilution test (DT) was not applicable since all target metals met criteria in the MS/MSD.
- Post digestion spike (PDS) was also not applicable since all target metals met criteria in the MS/MSD samples.
- The initial calibration blank (ICB) reported low concentrations of chromium, below the reporting limit. The two continuing calibration blank (CCB) samples were non-detect at the reporting limit. No corrective action was necessary since qualifiers are only applied when blank results are above the reporting limits.

One method blank was analyzed in association with the ICP-AES analyses in this SDG. The method blank was free of target metals 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.

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

MERCURY

General

The mercury portion of this SDG consisted of one (1) soil sample. All samples were collected on December 11, 2019 and were analyzed for mercury.

The mercury analyses were performed using USEPA SW846 Method 7471B. The sample was analyzed following the procedures outlined in the CSSA QAPP, prepared and analyzed within the holding time required by the method.

The mercury samples were prepared in batch #248396. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS and LCSD.

The LCS and LCSD recoveries were not within acceptance criteria as follows.

Analyte	LCS %R	LCSD %R	Criteria
Mercury	122	121	77-120%

The associated sample was non-detect; therefore, the high bias does not affect data quality and no corrective action was necessary.

Precision

Precision was measured based on the RPD of LCS/LCSD results.

The RPD of LCS/LCSD was 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 blanks for cross contamination of samples during analysis.

All samples were analyzed following the COC and the analytical procedures described in the CSSA QAPP, prepared and analyzed within the holding times 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 CCV criteria were met.

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

Mercury result for the samples in this SDG was considered usable. The completeness for the mercury portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

HEXAVALENT CHROMIUM

General

The hexavalent chromium portion of this SDG consisted of one (1) soil sample. All samples were collected on December 11, 2019 and were analyzed for hexavalent chromium.

The hexavalent chromium analyses were performed using USEPA SW846 Method 7199. The CSSA QAPP states USEPA SW846 Method 7196 should be used for analysis of hexavalent chromium; however, the laboratory used method 7199 for analysis. This does not affect data quality. The sample was prepared and analyzed within the holding time required by the method.

The hexavalent chromium sample was prepared in batch #248861. The analysis was performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS and MS. The lab selected sample AOC77-SS10 for MS analysis.

The LCS recovery was within acceptance criteria.

The MS recovery was not within acceptance criteria

Analyte	MS %R	Criteria
Hexavalent Chromium	61.7	80-120%

The parent sample result was qualified “M” by the data validator.

Precision

Precision for Hexavalent Chromium could not be evaluated.

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 analysis.

All samples were analyzed following the COC and the analytical procedures described in the CSSA QAPP, prepared and analyzed within the holding times 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 CCV criteria were met.

There was one method blank, one initial calibration blank, and two continuing calibration blanks associated with the hexavalent chromium analyses in this SDG. All blanks were free of hexavalent chromium at or below 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.

Hexavalent Chromium result for the samples in this SDG was considered usable. The completeness for the Hexavalent Chromium portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

DATA VERIFICATION SUMMARY REPORT

for soil samples collected from

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Beth Driskill
Parsons - Austin

INTRODUCTION

The following data verification summary report covers nine soil samples collected from Camp Stanley Storage Activity (CSSA) on January 8, 2020. The samples were assigned to the following Sample Delivery Group (SDG).

91173

The field QC sample associated with this SDG was one field duplicate (FD). No ambient blanks were collected. During the initiation of this project, it was determined that ambient blanks were not necessary due to the absence of a source at these sites.

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. Samples in this SDG were shipped to the laboratory in a single cooler, which was received by the laboratory at a temperature of 2.4ºC. The COC requested metals to be analyzed by method 6010B; however, APPL analyzed the metals by method 6020A because the new ICP instrument for 6010 analysis was not operational at the time samples were received.

SAMPLE IDs AND REQUESTED PARAMETERS

Sample ID	Matrix	Metals	pH	Comments
AOC77-SS11	Soil	X	X	
AOC77-SS12	Soil	X		
AOC77-SS13	Soil	X		
AOC77-SS14	Soil	X		
AOC77-SS15	Soil	X		
AOC77-SS15 FD	Soil	X		Field duplicate of AOC77-SS15
AOC77-SS16	Soil	X		
AOC77-SS17	Soil	X		
AOC77-SS18	Soil	X		

EXTRACTION, ANALYTICAL, AND REPORTING DETAILS

Parameter	Matrix	Prep Method	Analytical Method	Units

METALS	SOIL	SW3050B	SW6020A	mg/Kg
PH	SOIL	NA	SW9045C	pH units

EVALUATION CRITERIA

The data submitted by the laboratory has been reviewed and verified following the guidelines outlined in the CSSA QAPP, Version 1.0 with the following exceptions. The reporting limits used do not match those listed in the QAPP; however, the laboratory reporting limits were lower than those listed in the QAPP or were lower than the 2019 TRRP protective concentration levels (PCLs). Furthermore, the laboratory control limits used to evaluate the laboratory control sample (LCS) were not those listed in the QAPP; however, the limits used by the laboratory were tighter than those listed in the QAPP. Therefore, these variances do not affect data quality or usability. 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-MS METALS

General

The ICP-MS portion of this SDG consisted of eight (8) soil samples that includes one (1) field duplicate. All samples were collected on January 8, 2020. The samples were analyzed for chromium, copper, lead, and zinc.

The ICP-AES metals analyses were performed using USEPA SW846 Method 6020A. All samples were analyzed following the procedures outlined in the CSSA QAPP except as noted above in the Evaluation Criteria section. All samples were prepared and analyzed within the holding time required by the method and all sample results were adjusted based on percent moisture.

The samples for ICP-MS metals were digested in batch #249152. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS and LCSD.

All LCS and LCSD recoveries were within acceptance.

Precision

Precision was measured based on the RPD of LCS/LCSD results and parent/FD sample results. Sample ACO77-SS15 FD was collected and analyzed as the field duplicate of ACO77-SS15.

All RPDs were compliant for the LCS/LCSD.

All target metals were detected above the reporting limit (RL) in the parent and FD samples, and met criteria as follows:

Metal	Parent (mg/kg)	FD (mg/kg)	RPD	Criteria (RPD)
Chromium	93.5	79.3	16.4	
Copper	81.6	64	24.2	
Lead	178	163	8.8	≤25
Zinc	105	93.3	11.8	

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 preservation and holding times; and
- Examining laboratory blank for cross contamination of samples during analysis.

All samples were analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0 (except where noted), 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 CCV criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- All internal standard criteria were met for target metals.
- The initial calibration blank (ICB) and continuing calibration blank (CCB) samples were free of target metals.

One method blank was analyzed in association with the ICP-AES analyses in this SDG. The method blank was free of target metals 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.

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

pH

General

The pH portion of this SDG consisted of one (1) soil sample. The sample was collected on January 8, 2020 and was analyzed for pH using USEPA SW 846 Method 9045C. The holding time for pH in accordance with the method is immediately after collection. However, the analysis was not requested on the COC and was requested by Parsons several days after the samples were received by the laboratory. Therefore, the sample was analyzed for pH after the holding time had expired.

APPENDIX G

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 Engineeriong 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 !

APPENDIX H

Site-Specific Closure Report for Solid Waste Management Unit B-34 (Parsons, 2014)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 22, 2014

Camp Stanley Storage Activity
Attention: Mr. Gabriel Moreno-Fergusson
25800 Ralph Fair Road
Boerne, TX 78015-4800

Re: Approval - *Site Specific Closure Report – Solid Waste Management Unit (SWMU) B-34,* dated, January 21, 2014
Camp Stanley Storage Activity (CSSA), Boerne, TX
TCEQ Solid Waste Registration (SWR) No. 69026; RN100662840; CN602728206
EPA ID No. TX2210020739

Dear Mr. Moreno-Fergusson:

The Texas Commission on Environmental Quality (TCEQ) has completed the review of the above mentioned report. SWMU B-34 has a total area of approximately 4.9 acres. Constituents of concern (COCs) at the site include primarily of lead, chromium, nickel, and zinc. Soils that were found to exceed the Tier 1 PCLs were either excavated or were used to calculate the 95% UCL, not exceeding the Tier 1 PCL. SWMU B-34 passes the Ecological Exclusion Criteria Checklist. A total of 1,530 cubic yards of soil and rock were excavated and properly managed at the East Pasture Berm. Approximately 225 cubic yards of asphalt was transported off-site for recycling. Confirmation samples were collected from the bottoms and sidewalls to confirm all waste had been removed.

CSSA requests no further action for SWMU B-34. Based on the information contained in the report, the TCEQ agrees that no further action for SWMU B-34 is needed. CSSA currently has approximately 88 on-site and off-site groundwater monitoring wells monitoring two chlorinated solvent plumes which originated from two sources not related to SWMU B-34.

Questions concerning this letter should be directed to my attention at 512.239-2572. Thank you for your continued cooperation.

Sincerely,

Kirk Coulter, P.G., Project Manager
Team 1, VCP-CA Section
Remediation Division

cc: Ms. Julie Burdey, Parsons Inc., 8000 Centre Park Drive, Suite 200, Austin, TX 78754
Mr. Joel Anderson, Waste Program Manager, TCEQ Region 13 Office, San Antonio, TX

SITE-SPECIFIC CLOSURE REPORT

SOLID WASTE MANAGEMENT UNIT B-34
CAMP STANLEY STORAGE ACTIVITY

Prepared for:

Camp Stanley Storage Activity
Boerne, Texas

Prepared by:

PARSONS

Austin, Texas

January 2014

Cover Page

Program ID No. (primary): None assigned Report date: January 14, 2014

TCEQ Region No.: 13 MSD Certificate No.:

Additional Program ID Numbers.: SWR/Facility ID No.: 69026 PST Facility ID No.: N/A

DCRP ID No.: N/A VCP ID No.: N/A LPST ID No.: N/A

MSW Tracking No.: N/A HW Permit/CP No.: N/A Enforcement ID No.: N/A

Other ID Nos.: U.S. Environmental Protection Agency (USEPA) Facility Identification No. TX2210020739

Reason for submittal (check all that apply):

☒	Initial submittal	Notice of Deficiency Letter	Enforcement/Agreed order
☐	Revision	Permit/Compliance Plan	Directive/NOV letter
		Voluntary response	Other:

On-Site Property Information

On-Site Property (Facility) Name: Camp Stanley Storage Activity, Solid Waste Management Unit B-34

Street no. 25800 Pre dir: Street name: Ralph Fair Street type: Road Post dir:

City: Boerne County: Bexar County Code 15 Zip: 78015

Nearest street intersection and location description: CSSA main entrance located ½ mile east of intersection of Ralph Fair Road and Interstate Highway 10

Latitude: Decimal Degrees (indicate one) North 29.707132

Longitude: Decimal Degrees (indicate one) West -98.612877

Contact Person for On-Site Property Information and Acknowledgment

Company Name or Person: U.S. Army Camp Stanley Storage Activity

Contact Name: Gabriel Moreno-Fergusson Title: Environmental Manager

Mailing Address: 25800 Ralph Fair Road

City: Boerne State: TX Zip: 78015 Phone: (210) 295-7453

Email: morenog@cssamma.com Fax: (210) 295-7386

Person is: ___ Property Owner ___ Property Manager ___ Potential Purchaser ___ Tenant ___ Operator

other Manager, CSSA Environmental Programs

By my signature below, I acknowledge the requirement of §350.2(a) that no person shall submit information to the executive director or to parties who are required to be provided information under this chapter which they know or reasonably should have known to be false or intentionally misleading, or fail to submit available information which is critical to the understanding of the matter at hand or to the basis of critical decisions which reasonably would have been influenced by that information. Violation of this rule may subject a person to the imposition of administrative, civil, or criminal penalties.

Signature of Person Name (print): Gabriel Moreno-Fergusson Date:

Consultant Contact Person

Consultant Company Name: Parsons

Contact Person: Julie Burdey, P.G. Title: Project Manager

Mailing Address: 8000 Centre Park Drive, Ste 200

City: Austin State: TX Zip: 78754

Phone: (512) 719-6062 Fax: (512) 719-6099 E-mail address julie.burdey@parsons.com

Professional Signatures and Seals

Professional Geoscientist

W. Scott Pearson, PG	2186	9/30/2014
Professional Geoscientist	Geoscientist License number	Expiration date
W. Scott Pearson	1-14-2014	
Signature	Date	
(512) 719-6087	(512) 719-6099	william.scott.pearson@parsons.com
Telephone number	FAX number	E-mail

Professional Engineer

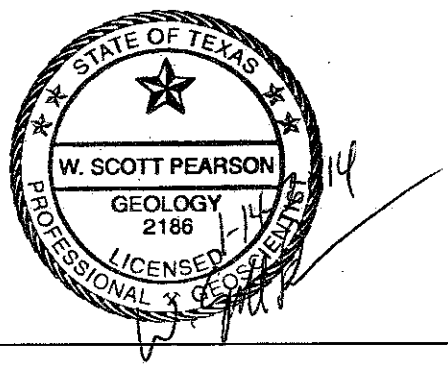
N/A		
Professional Engineer	P.E. License number	Expiration date
Signature	Date	
Telephone number	FAX number	E-mail

Registered Corrective Action Specialists (RCASs) and Corrective Action Project Managers (CAPMs)

For LPST sites only.

N/A		
Registered Corrective Action Specialist	RCAS Registration number	Expiration date
Signature	Date	
Corrective Action Project Manager	CAPM Registration number	Expiration date
Signature	Date	
Telephone number	FAX number	E-mail

Seals, as applicable:



Executive Summary

Solid Waste Management Unit (SWMU B-34) is a 4.9-acre site located in the western portion of Camp Stanley Storage Activity (CSSA)'s Inner Cantonment approximately 440 yards east of the western CSSA boundary where metals contamination, primarily lead, was identified in shallow soil. The site was originally identified as a SWMU because locomotive maintenance was conducted in the area. Building 28, which is adjacent to the site, was constructed in 1943 as a locomotive shelter and repair and maintenance shop. The building was used for maintenance until the locomotive was sold and taken offsite in 1993. SWMU B-34 originally consisted of below-grade pipe and pipe bedding that drained from the pit. The piping extended 230 feet southwest from Building 28 and traveled subgrade to an outfall area near McElroy Road.

The original site boundaries were mapped during a field investigation in March 1996. However, subsequent soil investigations from 2000 to 2013 expanded the area of SWMU B-34 from its original 0.5 acre to 4.9 acres due to the presence of metals above background levels. Work performed at the site included x-ray fluorescence (XRF) analysis of soil samples, environmental sampling, the removal and proper disposal of soil containing contaminants above Tier 1 or Tier 2 Residential Protective Concentration Levels (PCLs), and proper documentation of all activities, including preparation of this Site-Specific Closure Report. This report requests No Further Action (NFA) at SWMU B-34.

In summary, activities at SWMU B-34 as described in this Release Investigation Report (RIR) showed the following results:

- Excavation, removal, and confirmation sampling were performed at SWMU B-34.
- The contaminants of concern (COCs) identified above soil background concentrations at SWMU B-34 were chromium, lead, nickel, and zinc. Areas of contamination exceeding Tier 1 or Tier 2 Residential PCLs have been either excavated and removed from the site, or were used to calculate a 95% upper confidence limit (UCL) for lead per Texas Administrative Code (TAC) §350.79(2)(A) which does not exceed the Residential Tier 2 PCL of 500 mg/kg (Appendix A).
- Well CS-MW18-LGR, located at SWMU B-34, has been sampled numerous times since 2002 for volatile organic compounds (VOCs) and metals. Trace or very low detections of VOCs at the well have been below any regulatory threshold set forth by the Safe Drinking Water Act (SDWA). The detections are consistent with the basewide detections of solvents in groundwater due to past management practices associated with activities at AOC-65 and SWMU B-3, and are not related to contaminants at SWMU B-34.

From information presented in this report, the results of the investigation at SWMU B-34 meet the following three criteria:

- Soils found to have contaminant of concern (COC) concentrations above the Tier 1 PCLs (with the exception of lead) were excavated and removed from the site. Soils with lead concentrations above the calculated Tier 2 PCL that remain at the site were used to calculate a 95% UCL per TAC §350.79(2)(A) that does not exceed the Tier 2 Residential PCL.

- There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at SWMU B-34.
- SWMU B-34 passes the Tier 1 Ecological Exclusion Criteria Checklist (Appendix B).

Because these three criteria are met this Site-Specific Closure Report has been prepared to document the results and to request an NFA decision from TCEQ.

Environmental Media	Actual or Probable Exposures On-Site?		Actual or Probable Exposures Off-Site?		Have notifications for actual or probable exposures been completed? (§350.55(e))		
	Yes	No	Yes	No	Yes	No	N/A
Soil	x			✓			x
Groundwater		x		✓			x
Sediment		x		✓			x
Surface Water		x		✓			x

Is there, or has there been, an affected or potentially affected water well? ___ Yes ✓ No

If yes, what is the well used for? _____

Actual land use: On-site: ___ Res ✓ C/I Off-site affected property: ___ Res ___ C/I ✓ N/A

Land use for critical PCL determination: On-site: ✓ Res ___ C/I Off-site affected property: ___ Res ___ C/I ✓ N/A

Did the affected property pass the Tier 1 ecological exclusion criteria checklist? ✓ Yes _____ No

Affected groundwater-bearing unit(s) (in order from depth below ground surface), or *uppermost groundwater-bearing unit if none affected*

Unit No.	Name	Depth below ground surface (ft)	Resource Classification (1, 2, or 3)
1	Upper Glen Rose	Estimated at 50 feet below ground surface	3
2			
3			

Assessment

Environmental Media		Assessment Levels Exceeded?						Affected property defined to RAL?			Is COC extent stable or expanding?	General classes of COCs (VOCs SVOCs, metals, etc.)
		On-Site?			Off-Site?							
		Yes	No	Not sampled	Yes	No	Not sampled	Yes	No	N/A		
Soil	Surface		✓				✓		✓		Stable	Metals
	Subsurface		✓				✓		✓		Stable	Metals
Groundwater			✓				✓			✓	N/A	N/A
Sediment				✓			✓			✓	N/A	N/A
Surface Water				✓			✓			✓	N/A	N/A

NAPL Occurrence Matrix

		NAPL Occurrence	Description
NAPL in vadose zone	✓	No NAPL in vadose zone	There is no direct or indirect evidence of NAPL in the vadose zone
		NAPL in/on soil	NAPL detected in or on unsaturated, unconsolidated clay-, silt-, sand-, and/or gravel-dominated soils
		NAPL in fractured clay	NAPL detected in fractures of unsaturated fine-grained soils
		NAPL in fractured or porous rock	NAPL detected in unsaturated lithologic material
		NAPL in karst	NAPL detected in karst environment
NAPL at capillary fringe	✓	No NAPL at capillary fringe	There is no direct or indirect evidence of NAPL at the capillary fringe
		NAPL at capillary fringe	NAPL detected at vadose-saturated zone transition, capillary fringe (in contact with water table)
NAPL in saturated zone	✓	No NAPL in saturated zone	There is no direct or indirect evidence of NAPL in the saturated zone
		NAPL in soil	NAPL detected in saturated unconsolidated clay-, silt-, sand-, and/or gravel-dominated soils
		NAPL in fractured clay	NAPL detected in fractures of saturated fine-grained soil or other double-porosity sediments
		NAPL in saturated fractured or porous rock	NAPL detected in saturated lithologic material
		NAPL in saturated karst	NAPL detected in karst environment within the saturated zone
NAPL in surface water or sediment	✓	No NAPL in surface water or sediment	There is no direct or indirect evidence of NAPL in surface water or sediments
		NAPL in surface water	NAPL detected in surface water at exceedance concentration levels or visual observation
		NAPL in sediments	NAPL detected in sediments at exceedance concentration levels or visual observation via migration pathway or a direct release

Remedy Decision

Environmental Media		Critical PCL exceeded on-site?			Critical PCL exceeded off-site?			PCLE zones defined?			General class (VOCs, SVOCs, metals, etc.) of COCs requiring remedy
		Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
Soil	Surface		✓			✓				✓	None
	Subsurface		✓			✓				✓	None
Groundwater				✓			✓			✓	N/A
Sediment				✓			✓			✓	N/A
Surface Water				✓			✓			✓	N/A

NAPL Triggers

NAPL Response Action Triggers		Description of Triggers
✓	No NAPL response action triggers	No NAPL triggers have been observed in any assessment zones (vadose, capillary fringe and saturated), nor in surface water or sediments
	NAPL vapor accumulation is explosive	NAPL vapors accumulate in buildings, utility and other conduits, other existing structures, or within anticipated construction areas at levels that are potentially explosive (≥ 25% LEL)
	NAPL zone expanding	NAPL zone is observed to be expanding using time-series data
	Mobile NAPL in vadose zone	NAPL zone is observably mobile, or is theoretically mobile based on COC concentrations and residual saturation
	NAPL creating an aesthetic impact or causing nuisance condition	NAPL is responsible for objectionable characteristics (e.g., taste, odor, color, etc.) resulting in making a natural resource or soil unfit for intended use
	NAPL in contact with Class 1 groundwater	NAPL has come in actual contact with saturated zone or capillary fringe of a Class 1 GWBU
	NAPL in contact with Class 2 or 3 groundwater	NAPL has come in actual contact with saturated zone or capillary fringe of a Class 2 or Class 3 GWBU
	NAPL in contact with surface water	Liquid containing COC concentrations that exceed the aqueous solubility in contact with surface water via various migration pathways or direct release to surface water
	NAPL in or on sediments	Liquid containing COC concentrations that exceed the aqueous solubility impact surface water sediments via migration pathway or a direct release

Specialized Submittals Checklist

____ Check here if no specialized submittals in this report

	If included, specify section or appendix
Ecological Risk Assessment	
Reasoned justification, expedited stream evaluation, Tier 2 or 3 ecological risk assessment, and/or proposal for ecological services analysis	Section 3.3, Appendix B
Statistics	
Calculated site-specific background concentrations	
Used alternate statistical methods to determine proxy values for non-detected results (§350.51(n))	
Calculated representative concentrations (§350.79(2)) for remedy decision	
Analytical Issues	
Used SQL for assessment or critical PCL instead of the method quantification limit (MQL) (§350.51(d)(1)) or PCL (§350.79)	
The MQL of the analytical method exceeds assessment levels/critical PCLs (§350.54(e)(3))	
Human Health/Toxicology	
Variance to exposure factors approved by TCEQ Executive Director[1] (§350.74(j)(2))	
Developed PCLs based on alternate exposure areas	
Evaluated non-standard exposure pathway (e.g., agricultural, contact recreation, etc)	
Combined exposure pathways across media for simultaneously exposed populations (§350.71(j))	
Adjusted PCLs due to residual saturation, cumulative risk, hazard index, aesthetic concerns, or theoretical soil vapor	
Utilized non-default human health RBELs to calculate PCLs (includes use of non-default parameters, toxicity factors not published in rule, etc.) (§350.51(l), §350.73, §350.74)	
Calculated Tier 2 or 3 RBELs/PCLs or TSCA levels for polychlorinated biphenyls, or calculated Tier 2 or 3 RBELS/PCLs for cadmium, lead, dibenzo-p-dioxins, dibenzofurans, and/or polycyclic aromatic hydrocarbons	
Calculated Tier 1, 2, or 3 total petroleum hydrocarbon (TPH) PCLs	
Developed sediment/surface water human health RBELs and PCLs	
Fate and Transport	
Used or developed groundwater to surface water dilution factors	
Calculated Tier 2 PCL	Section 3.3, Appendix A
Calculated Tier 3 PCL	
Groundwater Issues	
Conducted aquifer test, classified Class 3 groundwater, or determined non-groundwater bearing unit (saturated soil)	

[1] Prior approval by Executive Director is required.

SWMU B-34 SITE-SPECIFIC CLOSURE REPORT
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LIST OF TABLES

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APPENDICES

ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
APPL	Agriculture & Priority Pollutants Laboratory, Inc.
bgs	below ground surface
BS	Bexar Shale
BTOC	below top of casing
CC	Cow Creek
COC	contaminant of concern
CSSA	Camp Stanley Storage Activity
CY	cubic yard
EE	Environmental Encyclopedia
ft	feet
ft^2	Square feet
IM	Interim Measures
LGR	Lower Glen Rose
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
MQL	method quantification limit
NFA	No Further Action
PCL	protective concentration level
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RIR	Release Investigation Report
RL	reporting limit
RMU	Range Management Unit
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCLP	toxicity characteristic leaching procedure
$^{Tot}Soil_{Comb}$	surface soil PCL for combined ingestion, dermal, inhalation
$^{GW}Soil_{Ing}$	PCL for surface and subsurface soil to protect groundwater
TPH	total petroleum hydrocarbon
TRRP	Texas Risk Reduction Program
UGR	Upper Glen Rose
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
WMP	Waste Management Plan
XRF	x-ray fluorescence

1.0 INTRODUCTION

Parsons is under contract to perform a Site Closure Investigation at Solid Waste Management Unit (SWMU) B-34, Camp Stanley Storage Activity (CSSA), Boerne, Texas (**Figure 1.1**). This contract includes the removal of impacted media and waste located at SWMU B-34, and preparation of appropriate documentation, including a closure report for SWMU B-34 (**Figure 1.2**). SWMU B-34 is located in the western portion of the CSSA Inner Cantonment, approximately 440 yards east of the western CSSA boundary. The site is approximately 4.9 acres in area. This work was performed in accordance with the requirements of the Resource Conservation and Recovery Act (RCRA) 3008(h) Order in effect for CSSA, and in accordance with 30 Texas Administrative Code (TAC) §350, the Texas Risk Reduction Program (TRRP) administered by the Texas Commission on Environmental Quality (TCEQ).

This report describes environmental investigation activities at SWMU B-34. Work included x-ray fluorescence (XRF) analysis for screening of soil samples, environmental sampling, the removal and proper disposal of impacted soil and debris, waste characterization, confirmatory sampling and laboratory analysis, and proper documentation of all activities, including preparation of this closure report. All work was performed according to applicable federal, state, and local rules and regulations.

For this report, Section 1 provides the introduction and the documentation to support this closure report. Section 2 provides historical background information for CSSA and SWMU B-34. The groundwater and surface water for CSSA and the area near SWMU B-34 are also described in Section 2. Section 3 identifies the target COCs, exposure pathways, and critical Protective Concentration Levels (PCLs) for the site, as well as summarizes the Tier 1 Ecological Exclusion Criteria Checklist (included as an appendix to this report). Section 4 describes the investigation approach taken at SWMU B-34 and the findings from environmental investigations for the site. Section 5 summarizes the overall findings and conclusions for the site. Section 6 includes all references cited for this report.

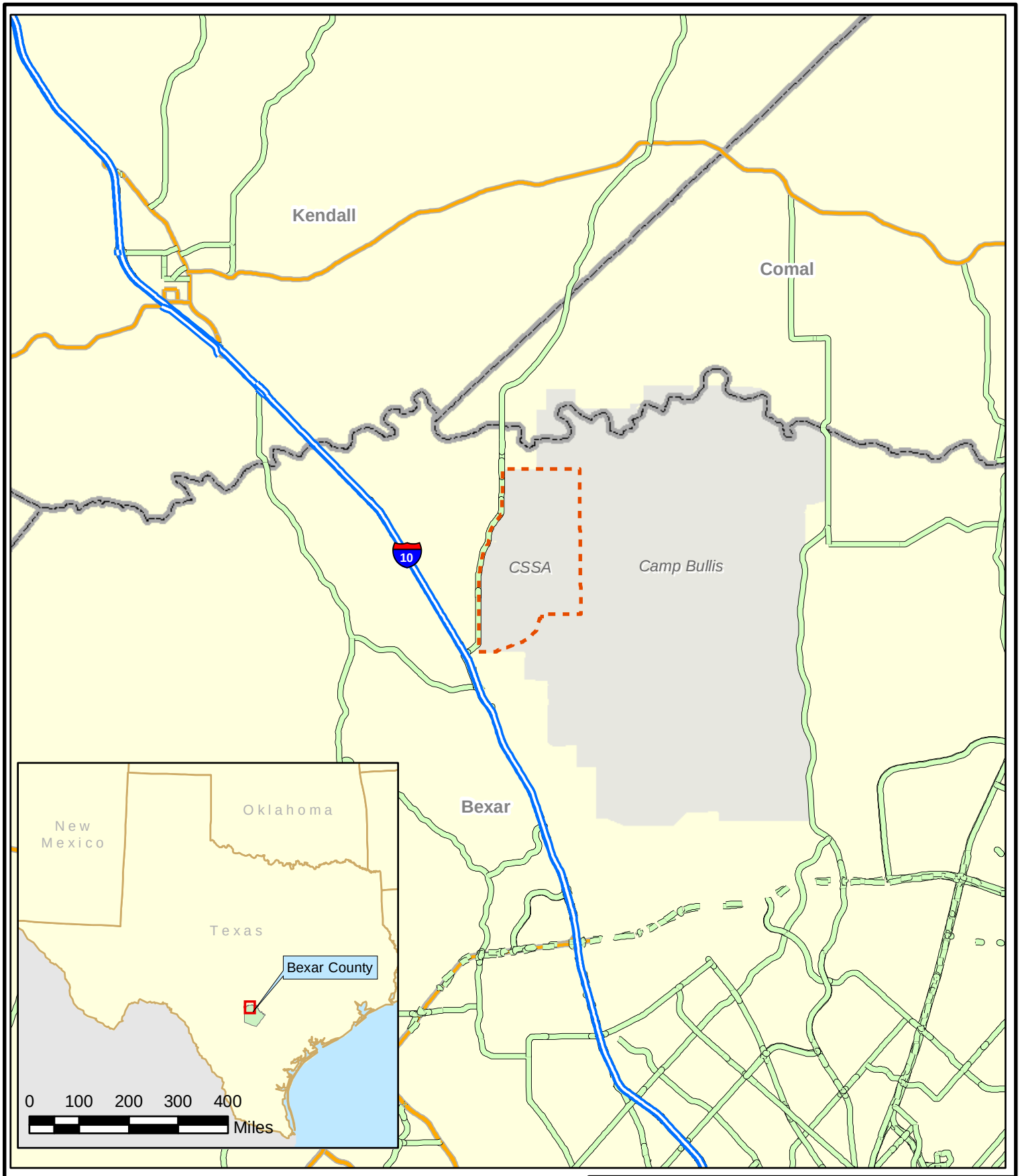
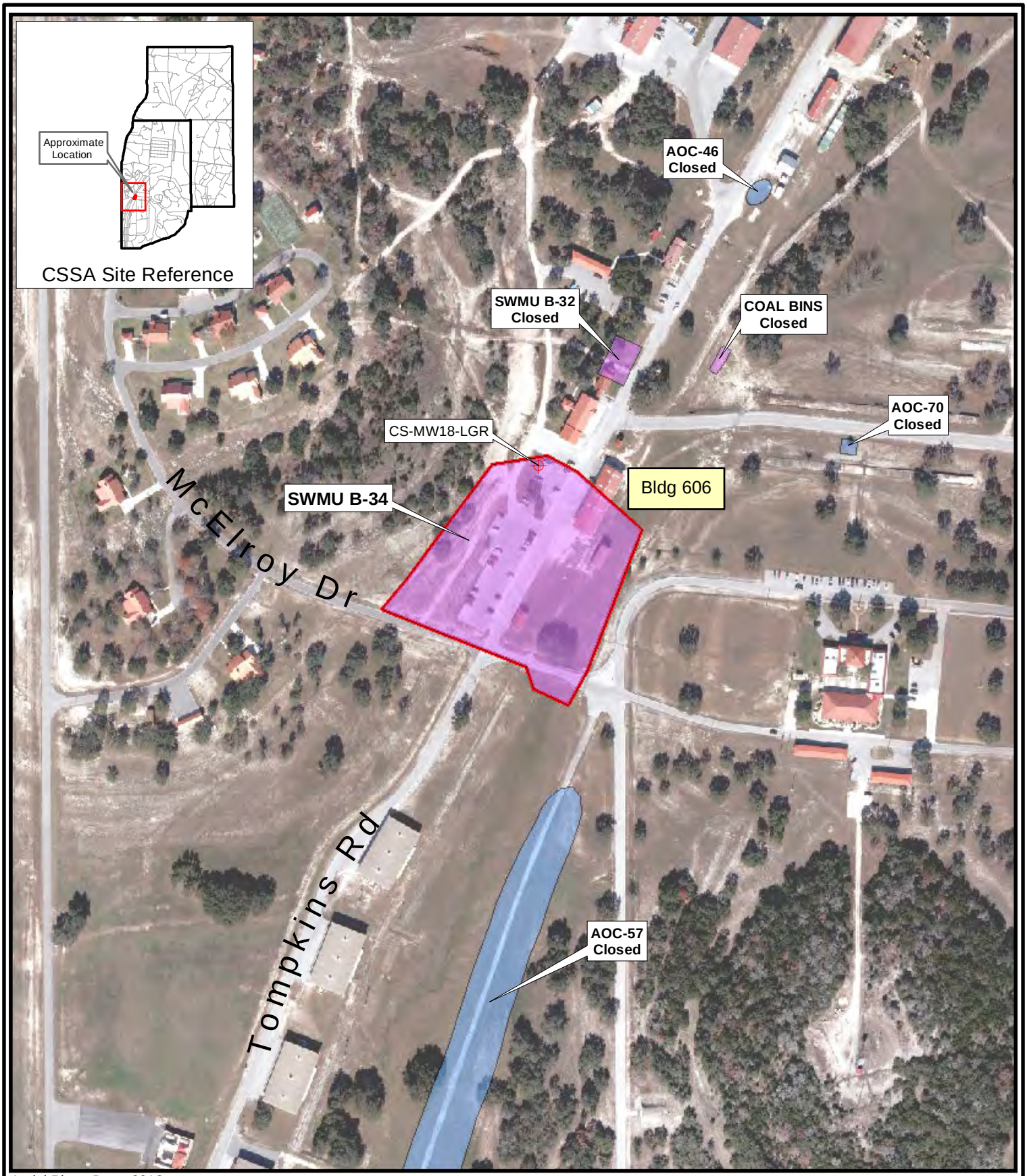


Figure 1.1

CSSA Location Map
Camp Stanley Storage Activity

PARSONS

C:\CSSA\GIS\MXD\cssa_site_location_zoom.mxd Date: 11/21/2013



Aerial Photo Date: 2013

N
W E
S

Well Location
SWMU B-34 Site Boundary
AOC Boundary
SWMU Boundary

300 150 0 300 Feet

Figure 1.2

SWMU B-34
Site Location Map
Camp Stanley Storage Activity

PARSONS

J:\CSSA\GIS\B34\Maps\B34_site_location_map.mxd

2.0 SITE DESCRIPTION AND BACKGROUND INFORMATION

2.1 Overview and Site History

CSSA is located in northwestern Bexar County about 19 miles northwest of downtown San Antonio. The installation consists of 4,004.18 acres immediately east of State Highway 3351, and approximately 0.5 mile east of Interstate Highway 10. Camp Bullis borders CSSA on the east and south. The land on which CSSA is located was used for ranching and agriculture until the 1900s (Army 1990). During 1906 and 1907, six tracts of land were purchased by the U.S Government and designated the Leon Springs Military Reservation. The lands included campgrounds and cavalry shelters.

In October 1917, the installation was redesignated Camp Stanley. United States involvement in World War I spurred extensive construction to provide housing for temporary cantonments and installation support facilities. In 1931, Camp Stanley was selected as an ammunition depot, and construction of standard magazines and igloo magazines began in 1938 (Army 1990). In addition to ammunition storage, CSSA lands were used to test, fire, and overhaul ammunition components.

The primary mission of CSSA is the receipt, storage, issue and maintenance of ordnance materiels. Because of its ordnance mission, CSSA has been designated as a restricted access facility. Limited wildlife hunting is allowed for CSSA employees only. No change to the CSSA mission and military activities are expected in the future.

SWMU B-34 is a 4.9-acre site located in the western portion of CSSA's Inner Cantonment approximately 440 yards east of the Western CSSA boundary (Figure 1.2). The site was originally identified as a SWMU because locomotive maintenance was conducted in the area. Building 28, which is adjacent to the site, was constructed in 1943 as a locomotive shelter and repair and maintenance shop. The building was used for maintenance until the locomotive was sold and taken offsite in 1993. Two large metal sliding doors on the south side of the building provided locomotive access. The interior was an open bay with a large work pit in the concrete floor. The former railroad tracks led from a spur line into the building and stopped at bumpers at the end of the interior work pit (SAIC 1997). Historical aerial photos of the site dating from 1957 to 2008 indicate that the area was consistently used for commercial/industrial purposes since prior to this time period (**Figure 2.1**). The location of Building 28 is present in all six photos, however several other buildings were either demolished or built throughout this time. As shown on **Figure 2.2**, these buildings included the following:

- Building 70: Post Engineer Building;
- Building 71: Post Engineer Garage;
- Building 72: Paint Storage;
- Building 75: Post Engineer Utility Shops;
- Building 77: Paint Shop (note: this building was demolished and replaced with Building 606);
- Building 26: Paint Mixing Building; and
- Building 55: Railroad Tool Shed.

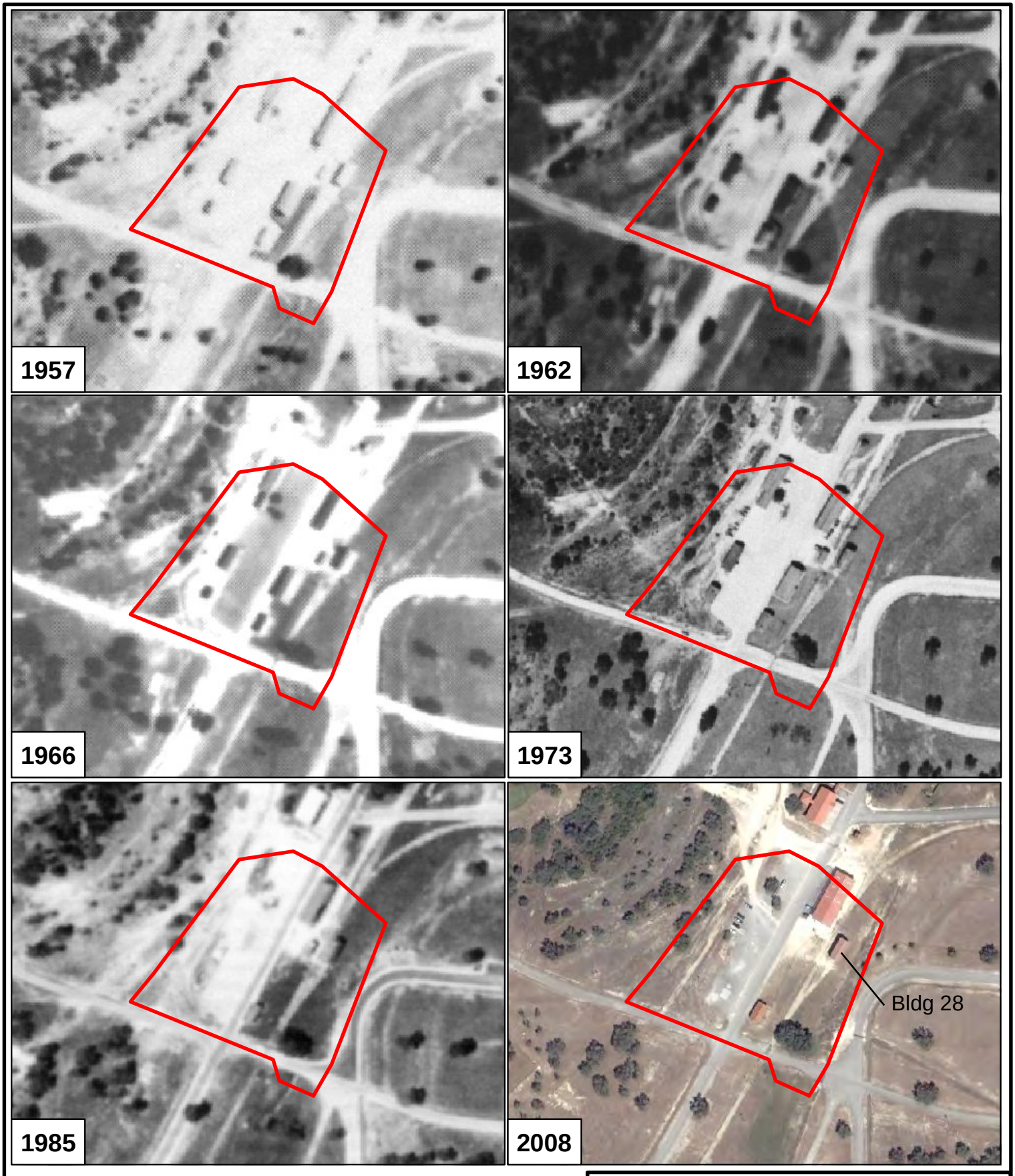


Figure 2.1

SWMU B-34
Aerial Photographs
Camp Stanley Storage Activity

PARSONS

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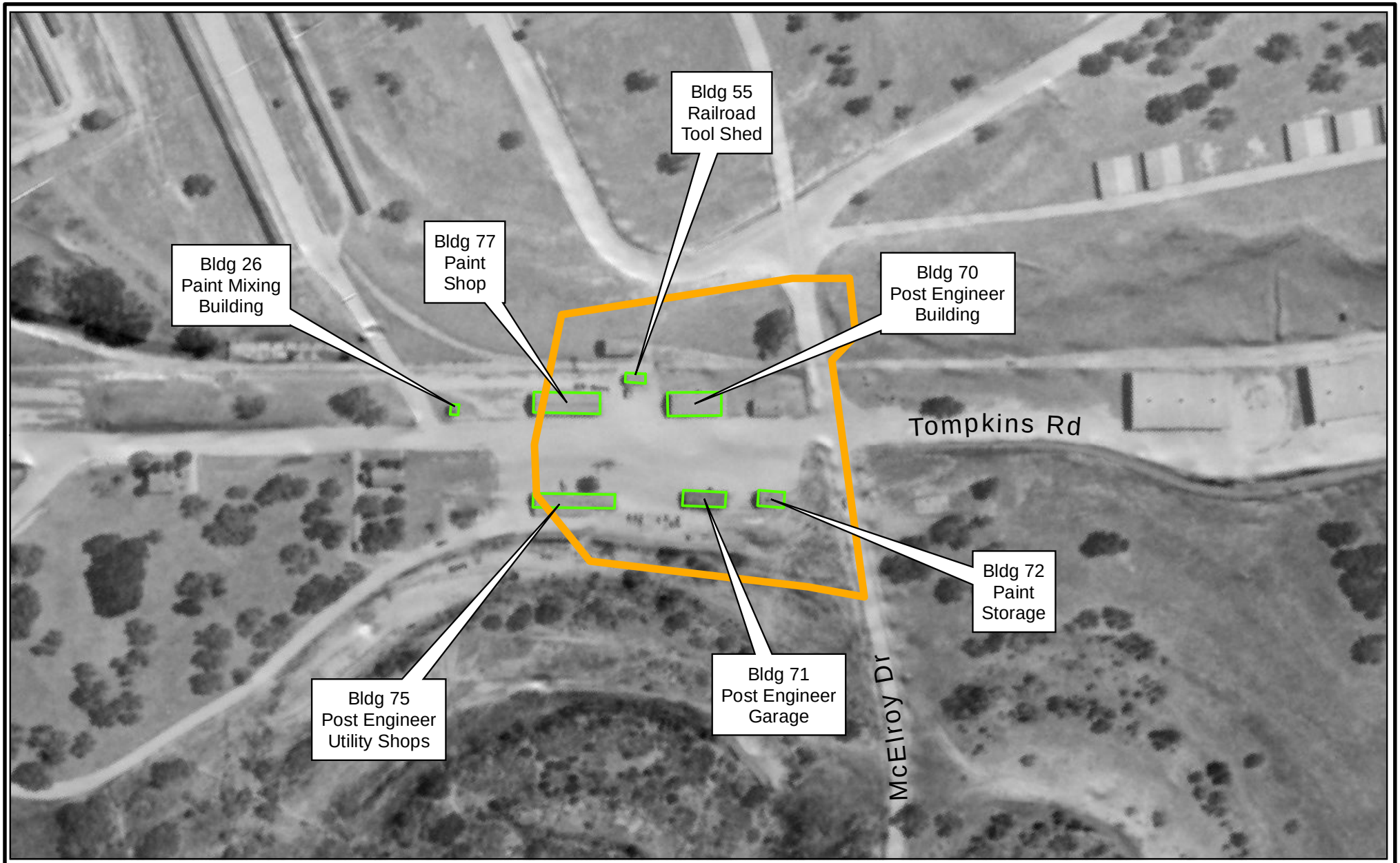

Aerial Imagery: 1973

1 inch = 200 feet

Figure 2.2

SWMU B-34 1973
Camp Stanley Storage Activity

PARSONS

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SWMU B-34 was originally identified as a SWMU due to the presence of below-grade pipe and pipe bedding that drained from the pit. The piping extended 230 feet southwest from Building 28 and traveled subgrade to an outfall area near McElroy Road. The outfall area drained to a ditch adjacent to the northern side of McElroy Road. In turn, the ditch drained from east to west along McElroy Road, then traveled south through a culvert constructed beneath the road. However, as described in this document, no contamination associated with subsurface piping was found. Instead, elevated metals concentrations were detected on the ground surface, likely related to past paint mixing and storage activities in the area.

2.2 Setting, Size, and Description

SWMU B-34 is located in a developed industrial area of the Inner Cantonment of CSSA (Figure 1.2). The site is covered almost entirely by concrete and asphalt, with a narrow, maintained grassy area along its eastern and western edges. The original site boundary for SWMU B-34 encompassed approximately 0.5 acre, however subsequent sampling and investigations led to the expansion of the boundary to 4.9 acres as shown on Figure 1.2.

2.3 Geology/Hydrogeology

2.3.1 Geology

The geology of SWMU B-34 consists of the Upper Glen Rose which is the uppermost geologic stratum in the area. The Upper Glen Rose consists of beds of blue shale, limestone, and marly limestone, with occasional gypsum beds. Generally, it outcrops in stream valleys and at the ground surface where soils are poorly developed or eroded. Where present at CSSA, the Upper Glen Rose Formation may be up to 150 feet thick. It is underlain by the Lower Glen Rose (LGR) Formation, which is estimated to be 325 feet thick beneath CSSA. The Lower Glen Rose is a massive, fossiliferous, vuggy limestone that grades upwards into thin beds of limestone, marl, and shale. The Lower Glen Rose is underlain by the Bexar Shale facies of the Hensell Sand and the Bexar Shale consists of silty dolomite, marl, calcareous shale and a shaley limestone. The geologic strata dip approximately 1 to 2 degrees to the south-southeast at CSSA.

The Upper Glen Rose Limestone bedrock was generally encountered at about five feet below ground surface (bgs) at SWMU B-34 and consisted of weathered mudstone to wackestone material containing iron-oxide mottling, bivalves, and interbedded marls.

Based on current published information, there are two known major fault (shatter) zones at CSSA: the North Fault Zone and the South Fault Zone. SWMU B-34 is located approximately 3,500 feet south of the North Fault Zone and approximately 3,000 feet north of the South Fault Zone.

2.3.2 Hydrogeology

The uppermost hydrogeologic layer at CSSA is the unconfined Upper Trinity aquifer, which consists of the Upper Glen Rose (UGR) Limestone. Locally at CSSA, very low-yielding perched zones of groundwater can exist in the UGR; however, it is very sporadic and seasonal. Transmissivity values are not available for the UGR. Regionally, groundwater flow is thought to be enhanced along the bedding contacts between marl and limestone; however, the hydraulic conductivity between beds is thought to be poor. This interpretation is based on the observation of discordant static water levels in adjacent wells completed in different beds. Principal development of solution channels is limited to evaporite layers in the UGR Limestone.

The Middle Trinity aquifer functions as the primary source of groundwater at CSSA. It consists of the LGR Limestone, the Bexar Shale (BS), and the Cow Creek (CC) Limestone. The LGR Limestone outcrops north of CSSA, along Cibolo Creek, and within the central and southwestern portions of CSSA. As such, principal recharge into the Middle Trinity aquifer is via precipitation infiltration at outcrops and along creek beds during flood events. At CSSA, the BS is interpreted as a confining layer, except where it is fractured and faulted, allowing vertical flow from the up-dip CC Limestone into the overlying, down-dip LGR. Fractures and faults within the BS may allow hydraulic communication between the LGR and CC Limestones. Regional groundwater flow within the Middle Trinity aquifer is toward the south and southeast and the average transmissivity coefficient is 1,700 gallons per day per feet (Ashworth, 1983). In general, groundwater at CSSA flows in a northwest to southeast direction. However, local flow gradient may vary depending on rainfall, recharge, and possibly well pumping.

2.4 Groundwater and Surface Water

2.4.1 Groundwater

Due to the postwide groundwater monitoring program, there is some site-specific information regarding groundwater at SWMU B-34. A Lower Glen Rose (LGR) observation well (CS-MW18-LGR) that is associated with the monitoring and detection of groundwater contamination emanating from SWMU B-3 happens to be located in the northern corner of site (Figure 1.2). Between September 2002 and June 2013, measured water levels at well CS-MW18-LGR, have ranged from 104.4 feet below top of casing (ft BTOC) (December 2004) to 350.34 ft BTOC (September 2009). The long-term average water level in this well is 257.52 feet BTOC.

This well has been sampled numerous times for volatile organic compounds (VOCs) and metals since its installation in 2002. **Tables 2.1** and **2.2** list the results for VOC and metals detections, respectively, in CS-MW18-LGR. Since its inception, only methylene chloride, tetrachloroethene (PCE), toluene, and trichloroethene (TCE) have been reported in LGR groundwater beneath SWMU B-34. With the exception of one instance, all these VOC results have been "trace" (F-flagged) detections below the reporting limit (RL). The only exception has been an isolated case of 1.4 µg/L of toluene reported in March 2003. This list of detectable compounds is consistent with the basewide detections of solvents in groundwater due to past management practices associated with activities at AOC-65 and SWMU B-3.

With the exception of barium, only trace (F-flagged) detections below the RL of arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc have been reported in LGR groundwater beneath SWMU B-34. Although the barium detections were above the reporting limit, all were below the maximum contaminant level (MCL) of 2 mg/L.

None of the VOC or inorganic concentrations detected in CS-MW18-LGR exceed any regulatory threshold, including MCLs, secondary standards (SS), or action levels (AL) set forth by the Safe Drinking Water Act (SDWA).

TABLE 2.1
DETECTIONS OF VOCs AT CS-MW18-LGR
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

	Sample Date	Methylene Chloride	Tetrachloroethene	Toluene	Trichloroethene
		(µg/L)[1]			
Maximum Contaminant Level or Protective Concentration Level:		5	5	1,000	5
	12/11/2002	0.2U[2]	0.05U	NA[3]	0.03U
	3/18/2003	0.2U	0.05U	**3.6B**[4]	**0.097F**[5]
	6/23/2003	**1.7F**	0.05U	**1.4**	0.03U
	9/24/2003	**0.37F**	0.05U	**0.1F**	0.03U
	12/15/2003	0.2U	0.05U	**0.69F**	0.03U
	3/9/2004	**0.62F**	0.05U	**0.37F**	0.03U
	6/17/2004	0.2U	0.05U	0.06U	0.03U
	9/10/2004	**0.69F**	**0.051F**	**0.09F**	0.03U
Duplicate	9/10/2004	**0.68F**	**0.052F**	**0.065F**	0.03U
	12/7/2004	0.17U	0.17U	0.17U	0.16U
Duplicate	12/7/2004	0.17U	0.17U	0.17U	0.16U
	3/8/2005	0.17U	0.17U	0.17U	0.16U
	6/14/2005	0.17U	0.17U	0.17U	0.16U
	9/9/2005	0.17U	0.17U	0.17U	0.16U
Duplicate	9/9/2005	0.17U	0.17U	0.17U	0.16U
	3/13/2007	NA	0.14U	NA	0.10U
	10/2/2007	NA	0.14U	NA	0.10U
Duplicate	10/2/2007	NA	0.14U	NA	0.10U
	3/12/2008	NA	0.06U	NA	0.05U
	12/17/2009	NA	0.06U	NA	0.05U
	6/8/2010	NA	0.06U	NA	0.05U
	9/10/2010	NA	0.06U	NA	0.05U
	3/9/2011	NA	0.06U	NA	0.05U
	3/21/2012	NA	0.06U	NA	0.05U
	1/10/2013	NA	**0.21F**	NA	0.05U
Duplicate	1/10/2013	NA	0.06U	NA	0.05U

(1) mg/L = milligrams per liter.
(2) U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection.
(3) NA = Not sampled for this parameter.
(4) B = Analyte was detected in the laboratory blank sample.
(5) F = The analyte was positively identified but the associated numerical value is below the RL.
Bold values indicate detected compound.

TABLE 2.2
DETECTIONS OF METALS AT CS-MW18-LGR
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

	Sample Date	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
		(mg/L)[1]								
Maximum Contaminant Level or Action Level:		0.010	2	0.005	0.1	1.3	0.015	0.002	-	5
	6/17/2004	**0.00041F**[2]	**0.045**	0.000028U[3]	0.0021U	0.00097U	0.000077U	0.000025U	**0.014**	0.0036U
	6/14/2005	**0.00078F**	**0.041**	0.00004U	0.00082U	0.0045U	**0.00018F**	**0.000056F**	**0.01**	**0.0069F**
	10/2/2007	NA[4]	NA	**0.0003F**	NA	NA	**0.0006F**	NA	**0.007F**	NA
Duplicate	10/2/2007	NA	NA	**0.0009F**	NA	NA	**0.0008F**	NA	**0.007F**	NA
	3/12/2008	NA	NA	0.0005U	NA	NA	**0.0022F**	NA	**0.007F**	NA
	12/17/2009	NA	NA	0.0005U	0.001U	NA	0.0019U	0.0001U	NA	NA
	6/8/2010	NA	NA	0.0005U	0.001U	NA	0.0019U	0.0001U	NA	NA
	9/10/2010	NA	NA	**0.0007F**	0.001U	NA	0.0019U	0.0001U	NA	NA
	3/9/2011	NA	NA	0.0005U	**0.039**	NA	0.0019U	0.0001U	NA	NA
	3/21/2012	NA	NA	0.0005U	0.001U	NA	0.0019U	0.0001U	NA	NA
	1/10/2013	NA	NA	0.0005U	**0.002F**	NA	0.0019U	0.0001U	NA	NA
Duplicate	1/10/2013	NA	NA	0.0005U	0.001U	NA	0.0019U	0.0001U	NA	NA

(1) mg/L = milligrams per liter.
(2) F = The analyte was positively identified but the associated numerical value is below the RL.
(3) U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection.
(4) NA = Not sampled for this parameter.
Bold values indicate detected compound.

2.4.2 Surface Water

SWMU B-34 is located within the Leon Creek watershed. Under normal climatic conditions, surface water is not present at the site. The nearest perennial water feature within the watershed is the "W-Tank" detention pond, approximately 3,500 feet south of SWMU B-34 (**Figure 2.3**). The D-Tank detention pond is located 3,300 feet north of SWMU B-34, but it is part of separate Salado Creek watershed, and therefore is unable to receive drainage runoff from the site.

At SWMU B-34, the nearest surface water features are stormwater drainage ditches to the south and east of the site. One drainage feature defines the southern boundary of SMWU B-34, on the north side of McElroy Road. This feature drains eastward into a larger (north-south) drainage system that approximately parallels Tompkins Road to the east. This larger drainage catchment bisects the eastern third of the SMWU-34 as it passes east of Buildings 606 and 73. At the confluence of the two drainage ditches, they pass southward beneath McElroy Road via a culvert. Stormwater runoff is conveyed southward along this broad drainage basin until it is captured by the W-Tank detention pond in the warehouse section of CSSA. During significant precipitation events, surface water that cannot be detained by the W-Tank is conveyed southward in a tributary of Leon Creek. This stormwater exits the post at the south fenceline, approximately

1,100 feet east of the southwest corner of CSSA. Stormwater passes through residential and commercial developments south of CSSA until it reaches Leon Creek in Leon Springs, 3,500 feet south of CSSA.

2.5 Potential Contaminant Sources

The area was identified as a SWMU in 1993 due to the presence of a locomotive maintenance shed and pit in Building 28. This pit was used for CSSA personnel to perform maintenance activities on locomotive and railway equipment through 1993. Since Building 28 was used for diesel locomotive maintenance, there are multiple constituents of concern associated with SWMU B-34. Diesel engine maintenance products, oil products, and various solvents are all likely to have been used at the maintenance pit. Spills of maintenance products while performing these activities could transmit them into the drainage piping associated with Building 28 and subsequently into the ditch that lies near the piping outfall area. However, subsequent research of historic maps and drawings revealed that this area was used for paint mixing and storing. Contamination found at the site, primarily elevated lead levels distributed over 4.9 acres in the surface soil and rock, are likely due to the past paint-related activities at the site.

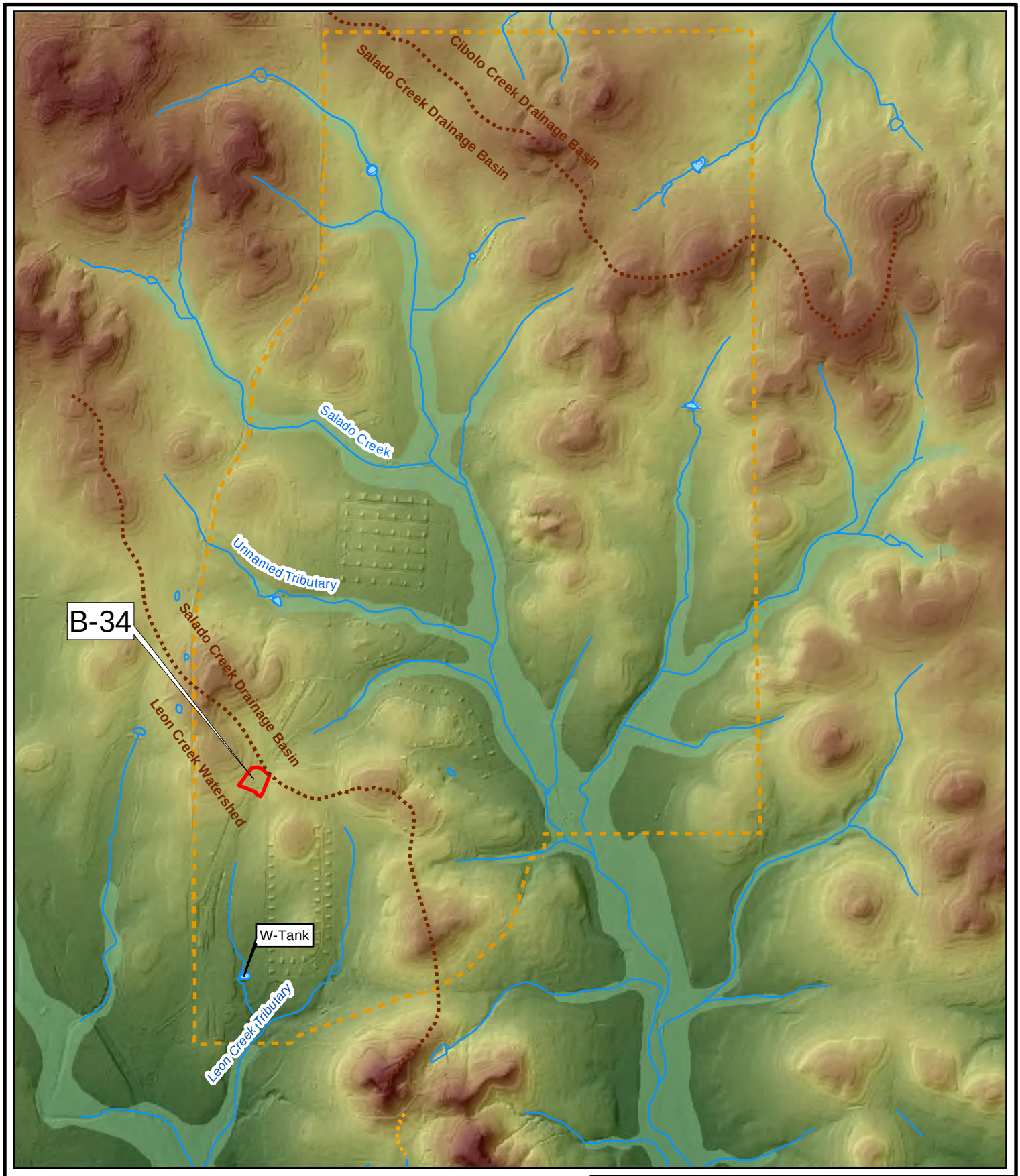

Figure 2.3

SWMU B-34 Topography, Surface Water, and Floodplains
Camp Stanley Storage Activity

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J:\CSSA\GIS\B34\Maps\B34_surf_wat_fld_plain_topo_map.mxd Date: 11/21/2013 Time: 9:57:58 AM Author: wayne.simoneau@parsons.com

2.6 Previous Investigations

This section summarizes soil investigations at SWMU B-34 commencing in March 2000 and continuing through March 2013. Soil sampling conducted after March 2013 is described in Section 4. Locations with analytes detected in soil during all previous investigations are shown in **Table 2.3** (VOCs and semi-volatile organic compounds [SVOCs]) and **Table 2.4** (metals), and the analytical results for all sample locations at CSSA are included in **Appendix D**. Previous investigation soil sample and XRF sample locations are shown on **Figure 2.4**.

2.6.1 2000 RCRA Facility Investigation

Previous investigation activities conducted at SWMU B-34 initially included soil borings (RW-B34-SS01 through RW-B34-SS03) and surface soil samples (RW-B34-SB01 through RW-B34-SB03) collected in March 2000 as part of the RCRA Facility Investigation (RFI) at SWMU B-34 (Figure 2.4) (Parsons 2002). As shown on Figure 2.4, the samples were collected along the former pipeline from Building 28. Samples were analyzed for VOCs, SVOCs, and the CSSA 9 metals (i.e., arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, and zinc).

Analytical results indicated the presence of barium, cadmium, chromium, copper, lead, nickel, and zinc above their respective background concentrations in surface soil samples collected from 0 to 0.5 feet bgs (Table 2.4). No metals were detected above background levels in samples collected below 0.5 feet bgs. Soil background concentrations for the CSSA 9 metals are shown at the top of Table 2.4 and are discussed further in Section 3.3.

No VOCs or SVOCs were detected above their respective reporting limits with the exception of three low detections of bis(2-ethylhexyl)phthalate ranging from 3.8 to 14 milligrams per kilogram (mg/kg), and three F-flagged (i.e., below the reporting limit) detections of 2,4-dinitrotoluene (2,4-DNT) ranging from 0.060F to 0.16F mg/kg (Table 2.3). The bis(2-ethylhexyl)phthalate detections were ultimately determined to be the result of laboratory contamination and not related to site contaminants. While the 2,4-DNT detections were below the reporting limit, a review of the RFI data conducted in 2011 determined the concentrations were above the current (2011) TRRP Tier 1 Residential 30-acre PCL for surface and subsurface soil to protect groundwater ($^{GW}Soil_{Ing}$) of 0.0053 mg/kg. For this reason, three samples (B34-SS28 through B34-SS30) were collected in January 2012 and analyzed for 2,4-DNT. No 2,4-DNT was detected in any of the three re-samples.

A geophysical survey conducted as part of the RFI did not indicate any anomalies other than those associated with nearby Building 28. However, because the soil sampling results indicated metals present at levels exceeding their current closure standards, additional sampling was recommended to identify the extent of metals contamination at the site.

2.6.2 2003 RCRA Facility Investigation Additional Sampling

In March 2003, fourteen surface soil samples (B34-SS01 through B34-SS14) were collected to satisfy the sampling recommendations from the 2002 RFI Report (Parsons 2003b). The samples were analyzed for VOCs, barium, cadmium, chromium, copper, lead, nickel, and zinc. Chromium, copper, lead, and zinc concentrations exceeded their respective background

TABLE 2.3
VOCS AND SVOCS DETECTED IN SOIL AT CSSA (MARCH 2000 - MARCH 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

	Volatile Organics															Semi-Volatile Organics																										
	Methylene chloride CAS: 75-09-2	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	p-Cymene (p-Isopropyltoluene) CAS: 99-87-6	Qualifier	Dilution	Toluene CAS: 108-88-3	Qualifier	Dilution	2,4-Dinitrotoluene CAS: 121-14-2	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	bis(2-Ethylhexyl) phthalate CAS: 117-81-7	Qualifier	Dilution	Chrysene CAS: 218-01-9	Qualifier	Dilution	Fluoranthene CAS: 206-44-0	Qualifier	Dilution	Indeno(1,2,3-cd)pyrene CAS: 193-39-5	Qualifier	Dilution	Pyrene CAS: 129-00-0	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																										
Residential Combined Exposure[1]	4.70E+02	n		1.20E+02	n		8.20E+03	n		5.40E+03	n		6.90E+00	c		5.60E+00	c		5.60E-01	c		5.70E+00	c		1.80E+03	n		4.30E+01	c		5.60E+02	c		2.30E+03	n		5.70E+00	c		1.70E+03	n	
Residential Groundwater Exposure[2]	6.50E-03	m		1.60E+01	n		1.20E+02	n		4.10E+00	m		2.70E-03	c		8.90E+00	c		3.80E+00	m		3.00E+01	c		2.30E+04	n	>S	8.20E+01	m		7.70E+02	c	>S	9.60E+02	n	>S	8.70E+01	c		5.60E+02	n	>S
Sample Locations (Date Collected)/(Depth Interval-ft bgs)																																										
RW-B34-SB01 (16-Mar-2000)/(12-12.5)	0.00070	U		0.0010	U		0.00050	U		0.00030	U		0.038	U		0.040	U		0.050	U		0.060	U		0.040	U		**14**			0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SB02 (16-Mar-2000)/(3.5-4)	0.00070	U		0.0010	U		0.00050	U		0.00030	U		0.038	U		0.040	U		0.050	U		0.060	U		0.040	U		**0.060**	F		0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SB02 (16-Mar-2000)/(8.5-9)	0.00070	U		0.0010	U		0.00050	U		0.00030	U		0.038	U		0.040	U		0.050	U		0.060	U		0.040	U		**8.2**			0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SB03 (16-Mar-2000)/(0-0.5)	0.00070	U		0.0010	M		0.00050	U		0.00030	U		**0.060**	F		0.040	U		0.050	U		0.060	U		0.040	U		0.030	U		0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SB03 (16-Mar-2000)/(13-13.5)	**0.0018**	F		0.0010	U		0.00050	U		0.00030	U		0.038	U		0.040	U		0.050	U		0.060	U		0.040	U		**4.8**			0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SS01 (16-Mar-2000)/(0-0.5)	0.00070	U		0.0010	M		0.00050	U		0.00030	U		**0.16**	F		0.040	U		0.050	U		**0.070**	F		0.040	U		**0.060**	F		0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SS01 (16-Mar-2000)/(4.5-5)	0.00070	U		0.0010	U		0.00050	U		0.00030	U		0.038	U		0.040	U		0.050	U		0.060	U		0.040	U		**3.8**			0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SS02 (16-Mar-2000)/(0-0.5)	0.00070	U		0.0010	M		0.00050	U		0.00030	U		**0.10**	F		**0.070**	F		**0.12**	F		**0.21**	F		**0.060**	F		0.030	U		**0.20**	F		**0.12**	F		**0.050**	F		**0.10**	F	
RW-B34-SS03 (16-Mar-2000)/(0-0.5)	0.00070	U		0.0010	M		0.00050	U		0.00030	U		0.038	U		0.040	U		0.050	U		0.060	U		0.040	U		**0.070**	F		0.040	U		**0.050**	F		0.040	U		0.050	U	
B34-SS02 (04-Mar-2003)/(0-0.1)	**0.094**	J	1	**0.0017**	M	1	0.0012	U	1	**0.045**	B	1	--			--			--			--			--			--			--			--			--			--		
B34-SS02-FD (04-Mar-2003)/(0-0.1)	**0.024**	J	1	**0.0011**	M	1	0.0012	U	1	**0.0023**	F	1	--			--			--			--			--			--			--			--			--			--		
B34-SS03 (04-Mar-2003)/(0-0.1)	**0.041**	J	1	0.0010	M	1	**0.0013**	F	1	**0.0088**	B	1	--			--			--			--			--			--			--			--			--			--		
B34-SS13 (04-Mar-2003)/(0-0.1)	**0.028**	J	1	0.0010	M	1	0.0012	U	1	**0.0065**	B	1	--			--			--			--			--			--			--			--			--			--		

NOTES:

† TCEQ, TRRP Tier 1 Soil PCLs (Last Revised: June 29, 2012).

[1] $^{Tot}Soil_{Comb}$ = 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).

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.

B = Blank contamination: The analyte was found in an associated blank above one half the RL, as well as in the sample.

Values shown in **BOLD** indicate detections above the MDL.

Values **HIGHLIGHTED** indicate detections above the Tier Tier 1 PCL.

-- Indicates the sample was not analyzed for this compound.

All values are measured in milligrams per kilogram (mg/Kg) unless otherwise noted.

TABLE 2.3
VOCS AND SVOCS DETECTED IN SOIL AT CSSA (MARCH 2000 - MARCH 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

Volatile Organics

	Methylene chloride CAS: 75-09-2	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	p-Cymene (p-Isopropyltoluene) CAS: 99-87-6	Qualifier	Dilution	Toluene CAS: 108-88-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†												
Residential Combined Exposure[1]	4.70E+02	n		1.20E+02	n		8.20E+03	n		5.40E+03	n	
Residential Groundwater Exposure[2]	**6.50E-03**	m		**1.60E+01**	n		**1.20E+02**	n		**4.10E+00**	m	
Sample Locations (Date Collected)/(Depth Interval-ft bgs)												
RW-B34-SB01 (16-Mar-2000)/(12-12.5)	0.00070	U		0.0010	U		0.00050	U		0.00030	U	
RW-B34-SB02 (16-Mar-2000)/(3.5-4)	0.00070	U		0.0010	U		0.00050	U		0.00030	U	
RW-B34-SB02 (16-Mar-2000)/(8.5-9)	0.00070	U		0.0010	U		0.00050	U		0.00030	U	
RW-B34-SB03 (16-Mar-2000)/(0-0.5)	0.00070	U		0.0010	M		0.00050	U		0.00030	U	
RW-B34-SB03 (16-Mar-2000)/(13-13.5)	**0.0018**	F		0.0010	U		0.00050	U		0.00030	U	
RW-B34-SS01 (16-Mar-2000)/(0-0.5)	0.00070	U		0.0010	M		0.00050	U		0.00030	U	
RW-B34-SS01 (16-Mar-2000)/(4.5-5)	0.00070	U		0.0010	U		0.00050	U		0.00030	U	
RW-B34-SS02 (16-Mar-2000)/(0-0.5)	0.00070	U		0.0010	M		0.00050	U		0.00030	U	
RW-B34-SS03 (16-Mar-2000)/(0-0.5)	0.00070	U		0.0010	M		0.00050	U		0.00030	U	
B34-SS02 (04-Mar-2003)/(0-0.1)	**0.094**	J	1	**0.0017**	M	1	0.0012	U	1	**0.045**	B	1
B34-SS02-FD (04-Mar-2003)/(0-0.1)	**0.024**	J	1	**0.0011**	M	1	0.0012	U	1	**0.0023**	F	1
B34-SS03 (04-Mar-2003)/(0-0.1)	**0.041**	J	1	0.0010	M	1	**0.0013**	F	1	**0.0088**	B	1
B34-SS13 (04-Mar-2003)/(0-0.1)	**0.028**	J	1	0.0010	M	1	0.0012	U	1	**0.0065**	B	1

Semi-Volatile Organics

	2,4-Dinitrotoluene CAS: 121-14-2	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
Tier 1 Soil PCLs - 30 acre†															
Residential Combined Exposure[1]	6.90E+00	c		**5.60E+00**	c		**5.60E-01**	c		**5.70E+00**	c		**1.80E+03**	n	
Residential Groundwater Exposure[2]	**2.70E-03**	c		8.90E+00	c		3.80E+00	m		3.00E+01	c		2.30E+04	n	>S
Sample Locations (Date Collected)/(Depth Interval-ft bgs)															
RW-B34-SB01 (16-Mar-2000)/(12-12.5)	0.038	U		0.040	U		0.050	U		0.060	U		0.040	U	
RW-B34-SB02 (16-Mar-2000)/(3.5-4)	0.038	U		0.040	U		0.050	U		0.060	U		0.040	U	
RW-B34-SB02 (16-Mar-2000)/(8.5-9)	0.038	U		0.040	U		0.050	U		0.060	U		0.040	U	
RW-B34-SB03 (16-Mar-2000)/(0-0.5)	**0.060**	F		0.040	U		0.050	U		0.060	U		0.040	U	
RW-B34-SB03 (16-Mar-2000)/(13-13.5)	0.038	U		0.040	U		0.050	U		0.060	U		0.040	U	
RW-B34-SS01 (16-Mar-2000)/(0-0.5)	**0.16**	F		0.040	U		0.050	U		**0.070**	F		0.040	U	
RW-B34-SS01 (16-Mar-2000)/(4.5-5)	0.038	U		0.040	U		0.050	U		0.060	U		0.040	U	
RW-B34-SS02 (16-Mar-2000)/(0-0.5)	**0.10**	F		**0.070**	F		**0.12**	F		**0.21**	F		**0.060**	F	
RW-B34-SS03 (16-Mar-2000)/(0-0.5)	0.038	U		0.040	U		0.050	U		0.060	U		0.040	U	
B34-SS02 (04-Mar-2003)/(0-0.1)	--			--			--			--			--		
B34-SS02-FD (04-Mar-2003)/(0-0.1)	--			--			--			--			--		
B34-SS03 (04-Mar-2003)/(0-0.1)	--			--			--			--			--		
B34-SS13 (04-Mar-2003)/(0-0.1)	--			--			--			--			--		

	bis(2-Ethylhexyl) phthalate CAS: 117-81-7	Qualifier	Dilution	Chrysene CAS: 218-01-9	Qualifier	Dilution	Fluoranthene CAS: 206-44-0	Qualifier	Dilution	Indeno(1,2,3-cd)pyrene CAS: 193-39-5	Qualifier	Dilution	Pyrene CAS: 129-00-0	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†															
Residential Combined Exposure[1]	**4.30E+01**	c		**5.60E+02**	c		2.30E+03	n		**5.70E+00**	c		1.70E+03	n	
Residential Groundwater Exposure[2]	8.20E+01	m		7.70E+02	c	>S	**9.60E+02**	n	>S	8.70E+01	c		**5.60E+02**	n	>S
Sample Locations (Date Collected)/(Depth Interval-ft bgs)															
RW-B34-SB01 (16-Mar-2000)/(12-12.5)	**14**			0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SB02 (16-Mar-2000)/(3.5-4)	**0.060**	F		0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SB02 (16-Mar-2000)/(8.5-9)	**8.2**			0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SB03 (16-Mar-2000)/(0-0.5)	0.030	U		0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SB03 (16-Mar-2000)/(13-13.5)	**4.8**			0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SS01 (16-Mar-2000)/(0-0.5)	**0.060**	F		0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SS01 (16-Mar-2000)/(4.5-5)	**3.8**			0.040	U		0.040	U		0.040	U		0.050	U	
RW-B34-SS02 (16-Mar-2000)/(0-0.5)	0.030	U		**0.20**	F		**0.12**	F		**0.050**	F		**0.10**	F	
RW-B34-SS03 (16-Mar-2000)/(0-0.5)	**0.070**	F		0.040	U		**0.050**	F		0.040	U		0.050	U	
B34-SS02 (04-Mar-2003)/(0-0.1)	--			--			--			--			--		
B34-SS02-FD (04-Mar-2003)/(0-0.1)	--			--			--			--			--		
B34-SS03 (04-Mar-2003)/(0-0.1)	--			--			--			--			--		
B34-SS13 (04-Mar-2003)/(0-0.1)	--			--			--			--			--		

NOTES:

† TCEQ, TRRP Tier 1 Soil PCLs (Last Revised: June 29, 2012).

[1] $^{Tot}Soil_{Comb}$ = 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).

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.

B = Blank contamination: The analyte was found in an associated blank above one half the RL, as well as in the sample.

Values shown in **BOLD** indicate detections above the MDL.

Values **HIGHLIGHTED** indicate detections above the Tier Tier 1 PCL.

-- Indicates the sample was not analyzed for this compound.

All values are measured in milligrams per kilogram (mg/Kg) unless otherwise noted.

TABLE 2.4
METALS DETECTED IN SOIL AT CSSA (MARCH 2000 - MARCH 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

	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
TCEQ-Approved Background Values																											
CSSA 9 Metals Background Concentration[1]	19.6	†		300	††		3	†		40.2	†		23.2	†		84.5	†		0.77	†		35.5	†		73.2	†	
Sample Locations (Date Collected)/(Depth Interval-ft bgs)																											
RW-B34-SB01 (16-Mar-2000)/(4.5-5)	**2.4**	J		**4.4**	F		**0.13**			**3.0**	F		**2.2**	F		**1.1**	J		0.024	U		**7.2**	F		**22**		
RW-B34-SB01 (16-Mar-2000)/(12-12.5)	**1.2**	J		**1.9**	F		**0.22**			**1.6**	F		**1.4**	F		**0.90**	J		0.024	U		**3.7**	F		**23**		
RW-B34-SB02 (16-Mar-2000)/(3.5-4)	**7.2**	J		**110**	J		**0.40**			**34**			**22**			**26**	J		0.024	U		**18**			**55**		
RW-B34-SB02 (16-Mar-2000)/(8.5-9)	**0.74**	J		**6.6**	M		**0.050**	M		**4.1**	F		**1.4**	F		**1.6**	M		0.024	M		**2.2**	F		**12**		
RW-B34-SB03 (16-Mar-2000)/(0-0.5)	**6.1**	J		**93**	J		**0.34**			**27**	F		**26**			**64**	J		0.024	U		**15**			**64**		
RW-B34-SB03 (16-Mar-2000)/(7.5-8)	**2.0**	J		**28**	M		**0.090**	M		**9.1**	F		**8.1**	F		**15**			0.024	M		**6.0**	F		**23**		
RW-B34-SB03-FD (16-Mar-2000)/(7.5-8)	**2.6**	J		**22**	M		**0.10**	M		**7.2**	F		**6.0**	F		**17**	M		0.024	M		**4.4**	F		**20**		
RW-B34-SB03 (16-Mar-2000)/(13-13.5)	**1.3**	J		**3.3**	F		0.022	U		**3.0**	F		**1.5**	F		**2.1**	J		0.024	U		**2.5**	F		**6.4**	F	
RW-B34-SS01 (16-Mar-2000)/(0-0.5)	**5.3**	J		**84**	J		**0.35**			**29**			**26**			**610**	J		**0.040**	F		**14**			**85**		
B34-SS01 (04-Mar-2003)/(0-0)	--			**110**		1	**0.95**	M	10	**22**		1	**34**	M	1	**180**	M	100	--			**14**	J	1	**86**	M	1
RW-B34-SS02 (16-Mar-2000)/(0-0.5)	**4.2**	J		**67**	J		**0.28**			**40**	F		**44**			**48**	J		0.024	U		**23**			**84**		
B34-SS02 (04-Mar-2003)/(0-0)	--			**140**		1	**0.46**	M	10	**41**		1	**20**	M	1	**40**	M	10	--			**18**	J	1	**35**	M	1
B34-SS02-FD (04-Mar-2003)/(0-0)	--			**150**		1	**0.66**	M	10	**46**		1	**29**	M	1	**52**	M	20	--			**21**	J	1	**45**	M	1
RW-B34-SS03 (16-Mar-2000)/(0-0.5)	**4.1**	J		**74**	J		**0.29**			**48**			**68**			**110**	J		**0.070**	F		**13**			**100**		
B34-SS03 (04-Mar-2003)/(0-0)	--			**70**		1	**0.67**	M	10	**16**	F	1	**48**	M	1	**240**	M	100	--			**9.3**	J	1	**89**	M	1
B34-SS04 (04-Mar-2003)/(0-0)	--			**120**		1	**0.72**	M	10	**47**		1	**110**	M	1	**370**	M	100	--			**15**	J	1	**170**	M	1
B34-SS05 (04-Mar-2003)/(0-0)	--			**110**		1	**0.61**	M	10	**53**		1	**75**	M	1	**200**	M	100	--			**19**	J	1	**110**	M	1
B34-SS06 (04-Mar-2003)/(0-0)	--			**130**		1	**0.81**	M	10	**53**		1	**79**	M	1	**230**	M	100	--			**23**	J	1	**130**	M	1
B34-SS06-FD (04-Mar-2003)/(0-0)	--			**130**		1	**0.73**	M	10	**45**		1	**68**	M	1	**220**	M	100	--			**22**	J	1	**140**	M	1
B34-SS07 (04-Mar-2003)/(0-0)	--			**21**		1	**0.38**	M	5	**7.8**	F	1	**14**	M	1	**220**	M	100	--			**4.0**	J	1	**52**	M	1
B34-SS08 (04-Mar-2003)/(0-0)	--			**97**		1	**0.74**	M	10	**20**		1	**22**	M	1	**140**	M	100	--			**15**	J	1	**88**	M	1
B34-SS09 (04-Mar-2003)/(0-0)	--			**98**		1	**1.3**	M	10	**24**		1	**100**	M	1	**210**	M	100	--			**16**	J	1	**170**	M	1
B34-SS10 (04-Mar-2003)/(0-0)	--			**110**		1	**0.51**	M	5	**25**		1	**18**	M	1	**56**	M	20	--			**17**	J	1	**58**	M	1
B34-SS11 (04-Mar-2003)/(0-0)	--			**80**		1	**0.42**	M	10	**17**	F	1	**15**	M	1	**48**	M	10	--			**13**	J	1	**42**	M	1
B34-SS12 (04-Mar-2003)/(0-0)	--			**91**		1	**0.33**	M	10	**20**		1	**18**	M	1	**46**	M	10	--			**13**	J	1	**52**	M	1
B34-SS13 (04-Mar-2003)/(0-0)	--			**150**		1	**0.61**	M	5	**26**		1	**150**	M	1	**570**	M	200	--			**17**	J	1	**210**	M	1
B34-SS14 (04-Mar-2003)/(0-0)	--			**61**		1	**0.51**	M	10	**16**	F	1	**20**	M	1	**90**	M	100	--			**9.8**	J	1	**60**	M	1
B34-SS15 (18-Feb-2004)/(0-0)	--			**59**	M	1	**0.68**		20	**13**	F	1	**14**	J	1	**140**		40	--			**7.3**	M	1	**99**	M	1
B34-SS15-FD (18-Feb-2004)/(0-0)	--			**60**	M	1	**0.66**		20	**13**	F	1	**23**	J	1	**150**		40	--			**7.2**	M	1	**120**	M	1
B34-SS16 (18-Feb-2004)/(0-0)	--			**33**	M	1	**0.96**		20	**9.9**	F	1	**9.6**	J	1	**260**		100	--			**2.8**	M	1	**93**	M	1
B34-SS17 (18-Feb-2004)/(0-0)	--			**57**	M	1	**0.74**		20	**11**	F	1	**13**	J	1	**330**		100	--			**1.9**	M	1	**400**	M	5
B34-SS18 (18-Feb-2004)/(0-0)	--			**41**	M	1	**0.89**		20	**14**	F	1	**13**	J	1	**300**		100	--			**4.3**	M	1	**110**	M	1
B34-SS19 (18-Feb-2004)/(0-0)	--			**89**	M	1	**0.63**		20	**24**		1	**16**	J	1	**52**		20	--			**17**	M	1	**43**	M	1
B34-SS20 (11-May-2009)/(0-0)	--			--			--			--			--			**7,600**		100	--			--			--		
B34-SS21 (11-May-2009)/(0-0)	--			--			--			--			--			**1,600**		25	--			--			--		
B34-SS22 (11-May-2009)/(0-0)	--			--			--			--			--			**180**		5	--			--			--		
B34-SS23 (11-May-2009)/(0-0)	--			--			--			--			--			**350**		5	--			--			--		
B34-SS24 (11-May-2009)/(0-0)	--			--			--			--			--			**290**		5	--			--			--		
B34-SS25 (11-May-2009)/(0-0)	--			--			--			--			--			**6,700**		100	--			--			--		
B34-SS26 (11-May-2009)/(0-0)	--			--			--			--			--			**230**		5	--			--			--		
B34-SS27 (11-May-2009)/(0-0)	--			--			--			--			--			**86**		5	--			--			--		
B34-SS31 (12-Jan-2012)/(0-0.5)	--			--			--			--			--			**13**		1	--			--			--		
B34-SS32 (12-Jan-2012)/(0-0.5)	--			--			--			--			--			**370**		1	--			--			--		

TABLE 2.4
METALS DETECTED IN SOIL AT CSSA (MARCH 2000 - MARCH 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

	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
TCEQ-Approved Background Values																											
CSSA 9 Metals Background Concentration[1]	19.6	†		300	††		3	†		40.2	†		23.2	†		84.5	†		0.77	†		35.5	†		73.2	†	
Sample Locations (Date Collected)/(Depth Interval-ft bgs)																											
B34-SS33 (12-Mar-2013)/(0-0)	--			--			--			**19**	M	1	**13**		1	**49**	M	1	--			--			**42**	M	1
B34-SS33-FD (12-Mar-2013)/(0-0)	--			--			--			**18**	F	1	**13**		1	**44**		1	--			--			**38**		1
B34-SS34 (12-Mar-2013)/(0-0)	--			--			--			**28**		1	**13**		1	**15**		1	--			--			**45**		1
B34-SS35 (12-Mar-2013)/(0-0)	--			--			--			**14**	F	1	**9.9**		1	**26**		1	--			--			**33**		1
B34-SS35-FD (12-Mar-2013)/(0-0)	--			--			--			**16**	F	1	**12**		1	**30**		1	--			--			**39**		1
B34-SS36 (12-Mar-2013)/(0-0)	--			--			--			--			--			**33**		1	--			--			--		
B34-SS37 (12-Mar-2013)/(0-0)	--			--			--			--			--			**54**		1	--			--			--		
B34-SS38 (12-Mar-2013)/(0-0)	--			--			--			--			--			**22**		1	--			--			--		
B34-SS39 (12-Mar-2013)/(0-0)	--			--			--			--			--			**42**		1	--			--			--		
B34-SS40 (13-Mar-2013)/(0-0)	--			--			--			--			--			**33**		1	--			--			--		
B34-SS41 (13-Mar-2013)/(0-0)	--			--			--			--			--			**75**		1	--			--			--		
B34-SS42 (13-Mar-2013)/(0-0)	--			--			--			--			--			**47**		1	--			--			--		
B34-SS43 (13-Mar-2013)/(0-0)	--			--			--			--			--			**14**		1	--			--			--		
B34-SS44 (13-Mar-2013)/(0-0)	--			--			--			--			--			**11**		1	--			--			--		

NOTES:

[1] CSSA Soil Background Concentrations.

† 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.

All values are measured in milligrams per kilogram (mg/Kg) unless otherwise noted.

-- Indicates that the metal was not tested for this sample.

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 soil background concentration.

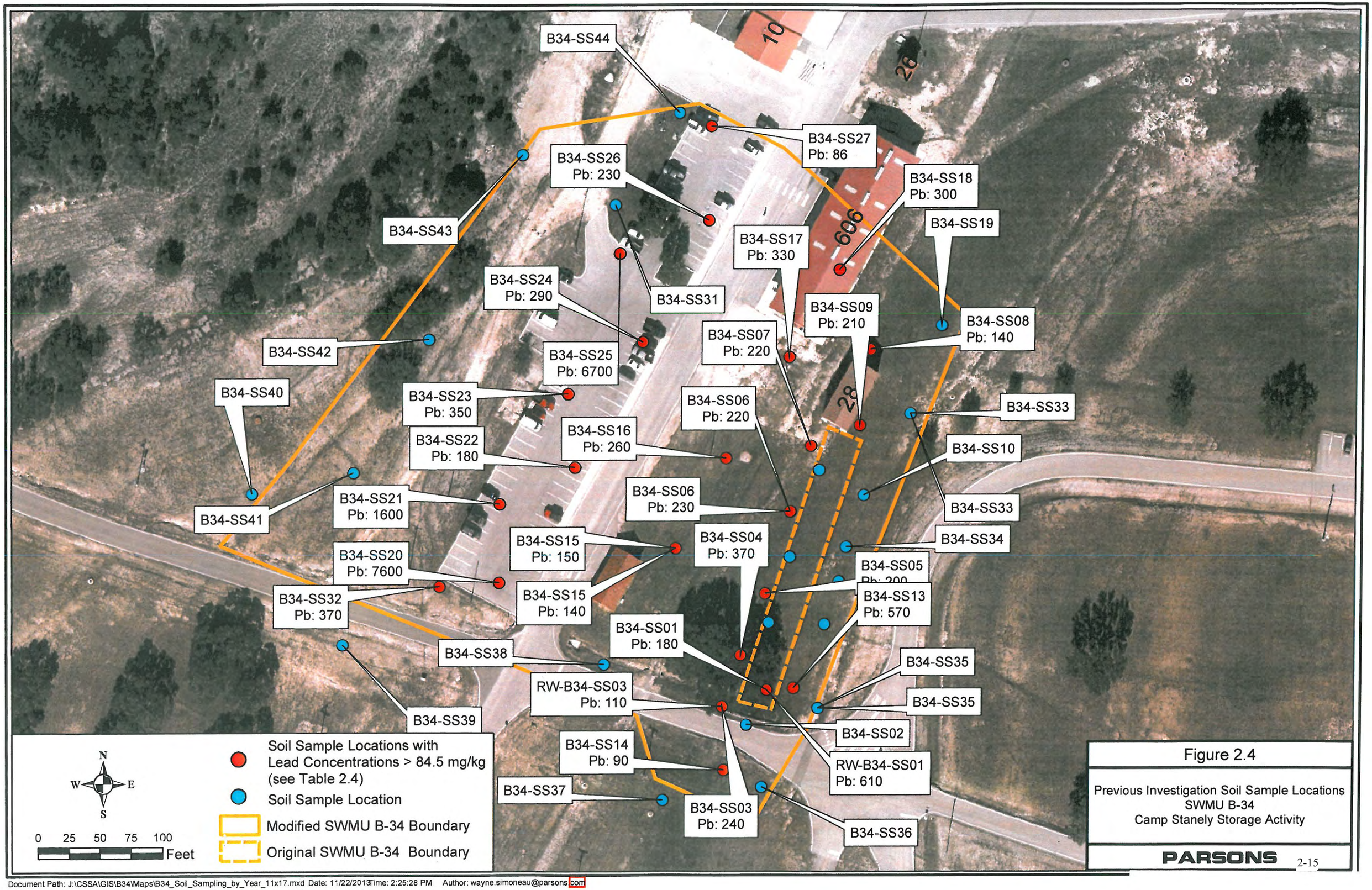

Figure 2.4

Previous Investigation Soil Sample Locations
SWMU B-34
Camp Stanely Storage Activity

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concentrations four or more times. The 2003 samples did not sufficiently define the extent of surface soil contamination, and further sampling was again recommended. Lead contamination was the most pervasive.

2.6.3 2004 Soil Sampling

In February 2004, six additional soil samples (B34-SS15 through B34-SS19) were collected 100 feet farther north and west of the previous samples in order to further delineate site boundaries in those directions (Figure 2.4). Samples were analyzed for barium, cadmium, chromium, copper, lead nickel, and zinc. Both zinc and lead were detected above their respective background concentrations at all but one location (B34-SS15), with lead results ranging from 52 to 330 mg/kg and zinc results ranging from 43 to 400 mg/kg (Table 2.4). Building 606 was later constructed over the location of B34-SS18.

2.6.4 2009 Soil Sampling

In 2009, a parking lot was constructed in this location to provide parking areas for workers at Buildings 73 and 606. Since the area would soon be generally inaccessible for sampling, eight surface soil samples (B34-SS20 through B34-SS27) were collected by CSSA and analyzed for lead prior to the installation of the new parking lot (Figure 2.4). Sample results contained lead concentrations ranging from 86 mg/kg to 7,600 mg/kg (Table 2.4).

2.6.5 XRF Surveys and Soil Sampling – December 2010 through March 2013

An XRF survey performed at SWMU B-34 in November 2010 (B34-XRF-01 through -41), June 2011 (B34-XRF-42 through -80), and January 2012 (B34-011212-XRF-001 through -011) indicated additional areas with lead and zinc concentrations in surface soil potentially above site background concentrations (**Table 2.5**). XRF sample locations are shown on Figure 2.5. The XRF results prompted the collection of two additional surface soil samples (B34-SS31 and B34-SS32) in January 2012 to further delineate the extent of lead contamination at the site (Table 2.4). Only B34-SS32 contained lead above background with a concentration of 370 mg/kg.

In preparation for the remedial action investigation outlined in Section 4.0, 21 XRF locations were screened (B34-XRF-81 through B34-XRF-101) and 12 surface soil samples (B34-SS33 through B34-SS44) were collected at SWMU B-34 in March 2013 to further delineate the extent of metals contamination at the site. XRF and soil sample locations are shown on Figure 2.4; and sample results are shown in Tables 2.4 and 2.5, respectively. Samples B34-SS33 through B34-SS35 were analyzed for chromium, copper, lead, and zinc, and B34-SS36 through B34-SS44 were analyzed for lead only. All laboratory sample results were below background.

TABLE 2.5
XRF LEAD RESULTS (NOVEMBER 2010-MARCH 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

Sample Location	Lead Reading (mg/kg)[1]
November 2010	
B34-XRF-01	28
B34-XRF-02	58
B34-XRF-03	90
B34-XRF-04	--[2]
B34-XRF-05	--
B34-XRF-06	--
B34-XRF-07	--
B34-XRF-08	--
B34-XRF-09	39
B34-XRF-10	999
B34-XRF-11	568
B34-XRF-12	79
B34-XRF-13	89
B34-XRF-14	497
B34-XRF-15	189
B34-XRF-16	119
B34-XRF-17	121
B34-XRF-18	192
B34-XRF-19	209
B34-XRF-21	67
B34-XRF-22	51
B34-XRF-23	62
B34-XRF-24	23
B34-XRF-25	78
B34-XRF-26	43
B34-XRF-27	23
B34-XRF-28	199
B34-XRF-29	219
B34-XRF-30	53
B34-XRF-31	30
B34-XRF-32	19
B34-XRF-33	40
B34-XRF-34	26
B34-XRF-35	72
B34-XRF-20	51
B34-XRF-36	35
B34-XRF-37	34
B34-XRF-38	123
B34-XRF-39	64
B34-XRF-40	68
B34-XRF-41	220

TABLE 2.5
XRF LEAD RESULTS (NOVEMBER 2010-MARCH 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

January 2012	
B34-011212-XRF-001	< LOD
B34-011212-XRF-002	< LOD
B34-011212-XRF-003	< LOD
B34-011212-XRF-004	< LOD
B34-011212-XRF-005	< LOD
B34-011212-XRF-006	334.44
B34-011212-XRF-007	225.57
B34-011212-XRF-008	< LOD
B34-011212-XRF-009	54.33
B34-011212-XRF-010	39.02
B34-011212-XRF-011	< LOD
June 2011	
B34-XRF-42	45
B34-XRF-43	0
B34-XRF-44	0
B34-XRF-45	--
B34-XRF-46	--
B34-XRF-47	--
B34-XRF-48	--
B34-XRF-49	--
B34-XRF-50	--
B34-XRF-51	--
B34-XRF-52	--
B34-XRF-53	--
B34-XRF-54	--
B34-XRF-55	--
B34-XRF-56	--
B34-XRF-57	--
B34-XRF-58	205
B34-XRF-59	617
B34-XRF-60	65
B34-XRF-61	649
B34-XRF-62	242
B34-XRF-63	32
B34-XRF-64	33
B34-XRF-66	81
B34-XRF-67	--
B34-XRF-68	383
B34-XRF-69	9
B34-XRF-70	346
B34-XRF-71	100
B34-XRF-72	71
B34-XRF-73	1032

TABLE 2.5
XRF LEAD RESULTS (NOVEMBER 2010-MARCH 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

B34-XRF-74	74
B34-XRF-75	53
B34-XRF-76	135
B34-XRF-77	100
B34-XRF-78	90
B34-XRF-79	20
B34-XRF-80	259
March 2013	
B34-XRF-81	46.02
B34-XRF-82	45.95
B34-XRF-83	52.69
B34-XRF-84	72.39
B34-XRF-85	172.47
B34-XRF-85-4[(3)]	242.54
B34-XRF-85-6	259.35
B34-XRF-86	80.03
B34-XRF-87	171.05
B34-XRF-87-4	735.37
B34-XRF-88	259.39
B34-XRF-88-6	104.66
B34-XRF-89	300.15
B34-XRF-89-2	213.56
B34-XRF-90	490.07
B34-XRF-90-3	41.11
B34-XRF-91	360.52
B34-XRF-91-4	75.61
B34-XRF-92	60.99
B34-XRF-93	109.05
B34-XRF-93-3	37.73
B34-XRF-94	390.12
B34-XRF-94-4	368.04
B34-XRF-95	45.05
B34-XRF-96	< LOD
B34-XRF-97	< LOD
B34-XRF-98	165.72
B34-XRF-99	73.66
B34-XRF-100	39.83
B34-XRF-101	< LOD

[(1)] mg/kg = milligrams per kilogram

[(2)] "--" indicates a reading could not be obtained at this location.

[(3)] Value after the hyphen indicates the depth of the sample (March 2013 event only).

Highlighted cells indicate lead greater than the 84.5 mg/kg background concentration.

3.0 INVESTIGATION APPROACH

3.1 Target Chemicals of Concern

Based on the earliest investigations at SWMU B-34 in 2000 and 2003, the contaminants of potential concern (COPCs) in soil at SWMU B-34 included the CSSA 9 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, and zinc). Samples collected from surface and subsurface soils during the earlier investigations at SWMU B-34 (2000 and 2003) included VOCs, SVOCs, and metals. The absence of VOC and SVOC detections and the presence of metals above their current remedial action levels prompted later investigations (2004 through 2013) to focus on delineating the vertical and horizontal extent of metals in site soils. These later investigations also concluded that, while several of the CSSA 9 metals are present in surface soil at SWMU B-34, only lead was consistently present above Tier 1 Residential PCLs (see Table 2.4). As such, lead was the only COPC retained as a target COC for the remedial action at SWMU B-34 (**Table 3.1**).

TABLE 3.1
CRITICAL PCLs FOR SOIL AT SWMU B-34
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

Contaminant of Potential Concern	Residential Tier 1 $^{Tot}Soil_{Comb}$ (mg/kg)(1)	Residential Tier 1 $^{GW}Soil_{Ing}$ (mg/kg)(2)	Residential Tier 2 $^{GW}Soil_{Ing}$ (mg/kg)(3)	CSSA Soil Background (mg/kg)(4)	Texas-Specific Soil Background (mg/kg)(5)	Retained as a Target COC?
Arsenic	24.2	2.51	--	**19.6**	5.9	No
Barium	8,095	221.9	--	186	**300**	No
Cadmium	52.4	0.75	--	**3.0**	NA	No
Chromium	26,569	**1,200**	--	40.2	30	No
Copper	548.2	**521.2**	--	23.2	15	No
Lead	**500**(6)	1.51	8,700	84.5	15	Yes
Mercury	2.09	0.0039	--	**0.77**	0.04	No
Nickel	832.1	**78.68**	--	35.5	NA	No
Zinc	9,921	**1,180.2**	--	73.2	30	No

(1) Texas Risk Reduction Program Rule Tier 1 Protective Concentration Levels (PCLs) TotSoilComb, for 30-acre source area, June 2012, (http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html).
(2) Texas Risk Reduction Program Rule Tier 1 Protective Concentration Levels (PCLs) GWSoilIng, for 30-acre source area, June 2012, (http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html).
(3) See Section 3.3 and Appendix A. "--" indicates a Tier 2 PCL was not calculated for this compound.
(4) Second Revision to Evaluation of Background Metals Concentrations in Soils and Bedrock, February 2002.
(5) Background Geochemistry of Some Rocks, Soils, Plants, and Vegetables in the Conterminous United States, Jon J. Connor, Hansford T. Shacklette, and Richard J. Ebens, Geological Survey Professional Paper 574-F, United States Geological Survey, 1975.
(6) Critical PCL for lead is based on calculation of a Tier 2 Residential PCL (see Section 3.3 and Appendix A).

Critical PCLs are shown in **bold**.

3.2 Evaluation of Exposure Pathways

SWMU B-34 is located in a developed portion of the Inner Cantonment that experiences a relatively high volume of pedestrian and vehicle traffic during a typical work week (Figure 1.2). The site is almost entirely covered in asphalt, with the exception of a few narrow areas of dirt and grass along the eastern and western boundaries of the site. Due to the extensive asphalt cover at the site, a typical employee or visitor at the site would not be exposed to site soil. Soil may be encountered by an intrusive worker; however, no further intrusive work is currently planned for the site.

One current drinking water supply well is located within ½-mile of the site. Supply well, CS-10, is located approximately 1,750 north of the site. The well is actively used as a potable water supply well for the post. Because of other environmental concerns associated with other environmental sites, the well has been sampled on a routine quarterly basis since September 1999 for VOCs and metals. Since that time, CS-10 has only had periodic, trace (F-Flagged) detections of either PCE or TCE in groundwater. Those contaminants are associated with solvent releases from SWMUs B-3 and O-1, located to the east. Well CS-10 has not had any detection of metals above any MCL or AL in any sampling event since 1996. A single instance of lead was reported above the AL (0.015 mg/L) in December 1995, at a concentration of 0.06 mg/L. Since that time (51 sampling events), no other analytical result has exceeded the AL for lead.

There is one environmental well within the SWMU B-34 boundary. The well is used only for sampling by trained environmental contractors, and therefore there are no risks of exposure as non-potable water source for the general population. The condition of the groundwater in that well was previously discussed in Section 2.4.1, and has not been impacted by previous site activities at SMWU B-34. The well is properly constructed and the casing is cemented from the surface to a depth of 380 feet below grade.

As described previously in Section 2.4, surface water is only at the site immediately after a rainfall event, and therefore is not considered an exposure pathway at SWMU B-34.

There is no potential for the site to be used for residential purposes (e.g., human habitation or any other activities defined as residential per 30 Texas Administrative Code [TAC] §350.4(a)), and therefore current and future land use at SWMU B-34 meets the definition of commercial/industrial.

3.3 Development of Critical PCLs

Both Tier 1 and Tier 2 Residential PCLs were used to determine cleanup criteria at SWMU B-34. Tier 1 PCLs were used as the critical PCLs for all CSSA metals with the exception of lead (see Tier 2 discussion below). The TRRP Tier 1 PCLs identified for this investigation are defined as the lowest value among following: 1) the TRRP Tier 1 Residential 30-acre PCL for total soil combined pathway ($^{Tot}Soil_{Comb}$) and 2) the TRRP Tier 1 Residential 30-acre PCL for groundwater protection ($^{GW}Soil_{Ing}$). If the lowest of the two Tier 1 values is less than the CSSA soil background value, the CSSA soil background value becomes the Tier 1 critical PCL. If the Texas-specific soil background value is greater than the CSSA soil background value (which is the case for barium), the Texas-specific soil background value then becomes the Tier 1 PCL.

The critical PCL for lead at SWMU B-34 was developed through the calculation of a Tier 2 $^{GW}Soil_{Ing}$ PCL in accordance with 30 TAC §350 TRRP requirements (**Appendix A**). Using site-specific values, this calculation resulted in a Tier 2 $^{GW}Soil_{Ing}$ PCL for lead of 8,700 mg/kg. Since this value was greater than the Tier 1 $^{Tot}Soil_{Comb}$ PCL (500 mg/kg), the $^{Tot}Soil_{Comb}$ PCL became the critical PCL used to delineate the PCLE zone for lead at SWMU B-34. For reference, the Tier 1 $^{GW}Soil_{Ing}$ PCL for lead is 1.51 mg/kg and the CSSA soil background concentration is 84.5 mg/kg. The final critical PCLs for the remedial action at SWMU B-34 are shown in Table 3.1.

Ecological PCLs were not considered nor developed for SWMU B-34 based on the results of the completed Tier 1 Ecological Exclusion Checklist (**Appendix B**). Per 30 TAC §350.77(b), the Tier 1 Ecological Exclusion Checklist must be completed for all affected property subject to TRRP. Results show that the site passes the checklist and that there are no ecological exposure pathways of concern at SWMU B-34. Thus, based on the absence of any complete or significant ecological exposure pathways, SWMU B-34 may be excluded from further ecological assessment.

Additionally, SWMU B-34 is located in a developed industrial area of the Inner Cantonment of CSSA, and does not contain habitat attractive to wildlife. Several surveys have been conducted at CSSA for threatened and endangered (T&E) species. The only T&E species that have been documented at CSSA are the black-capped vireo (*Vireo atricapillus*) [BCVI] and golden-cheeked warbler (*Dendroica chrysoparia*) [GCWA]. SWMU B-34 is not located within BCVI or GCWA habitat. The nearest potential habitats for local endangered species are approximately 2,100 feet to the southeast. Additional information can be found in the following references:

- Parsons, 2007. *Final Integrated Natural Resource Management Plan*. Prepared for Camp Stanley Storage Activity, Boerne, Texas. October 2007. Available online: CSSA Environmental Encyclopedia (EE) (Volume 1.6, Other Plans and Approaches)
- Parsons, 2011. *Final Species and Habitat Distributions of Black-Capped Vireos and Golden-Cheeked Warblers, 2009 Breeding/Nesting Season*. Prepared for Camp Stanley Storage Activity, Boerne, Texas. September 2011. Available online: CSSA EE (Volume 1.6, Other Plans and Approaches)

4.0 REMEDIAL INVESTIGATIONS AND ACTIONS

This section describes the methods and results of remedial investigations and actions performed at SWMU B-34 beginning in June 2013. Corresponding figures and data results tables are cited throughout, and site photographs are included in **Appendix C**. **Appendix D** includes a table showing all analytical data collected at SWMU B-34, including data from previous investigations and analytes that are not considered target COCs for SWMU B-34.

4.1 Parking Lot Investigation

Previous sampling in 2004 and 2009 had indicated that lead was present in surface soils on the west side of Tompkins Road, across from what is now Building 606. Lead concentrations up to 7,630 mg/kg were reported in surface samples along the hillside between Building 2 (Gymnasium) and the intersection of Tompkins and McElroy Roads. In 2009, a parking lot was constructed in this location to provide parking areas for workers at Buildings 73 and 606. In preparation of the parking lot construction the subcontractor graded the hillside to the native limestone bedrock, removing most of the native surface soils that had been sampled in prior investigations. These soils were sampled by the subcontractor for toxicity characteristic leaching procedure (TCLP) analyses, and properly disposed of at a permitted Class 2 non-hazardous landfill. Imported A2 base material was laid over the remaining soils and bedrock to provide a smooth and level surface to apply the asphalt pavement.

Since the construction of the parking lot was not a remedial action, the result of the soil removal was never quantified in terms of risk to human health and ecological receptors. It was presumed that much of the impacted soils had been either been removed (and landfilled) or redistributed over the site during the construction activity. This investigation was designed to delineate the presence and extent of lead-contaminated subsurface soils of the parking area and roadway located to the northwest of Buildings 73 and 606. XRF analysis was performed and confirmation samples were collected for laboratory analysis. Since the parking area had not been addressed in terms of an environmental site closure, it was determined that additional investigation would be necessary to define the lateral and vertical extent of lead-impacted soils.

4.1.1 Soil Borings

From June 7-9, 2013, a total of 78 shallow soil borings were drilled through the asphalt pavement of both Tompkins Road and the Building 606 parking lot. The work was conducted in a grid-like fashion over the parking area and roadway to the northwest of Buildings 73 and 606 (**Figure 4.1**). Each sampling location was navigated to using a pre-programmed global positioning system (GPS) with the sample locations previously identified and mapped in the CSSA GIS. Additional soil borings were also placed between the grid nodes based on XRF field screening to further delineate the extent of hot spots above 300 parts per million (ppm) of lead.

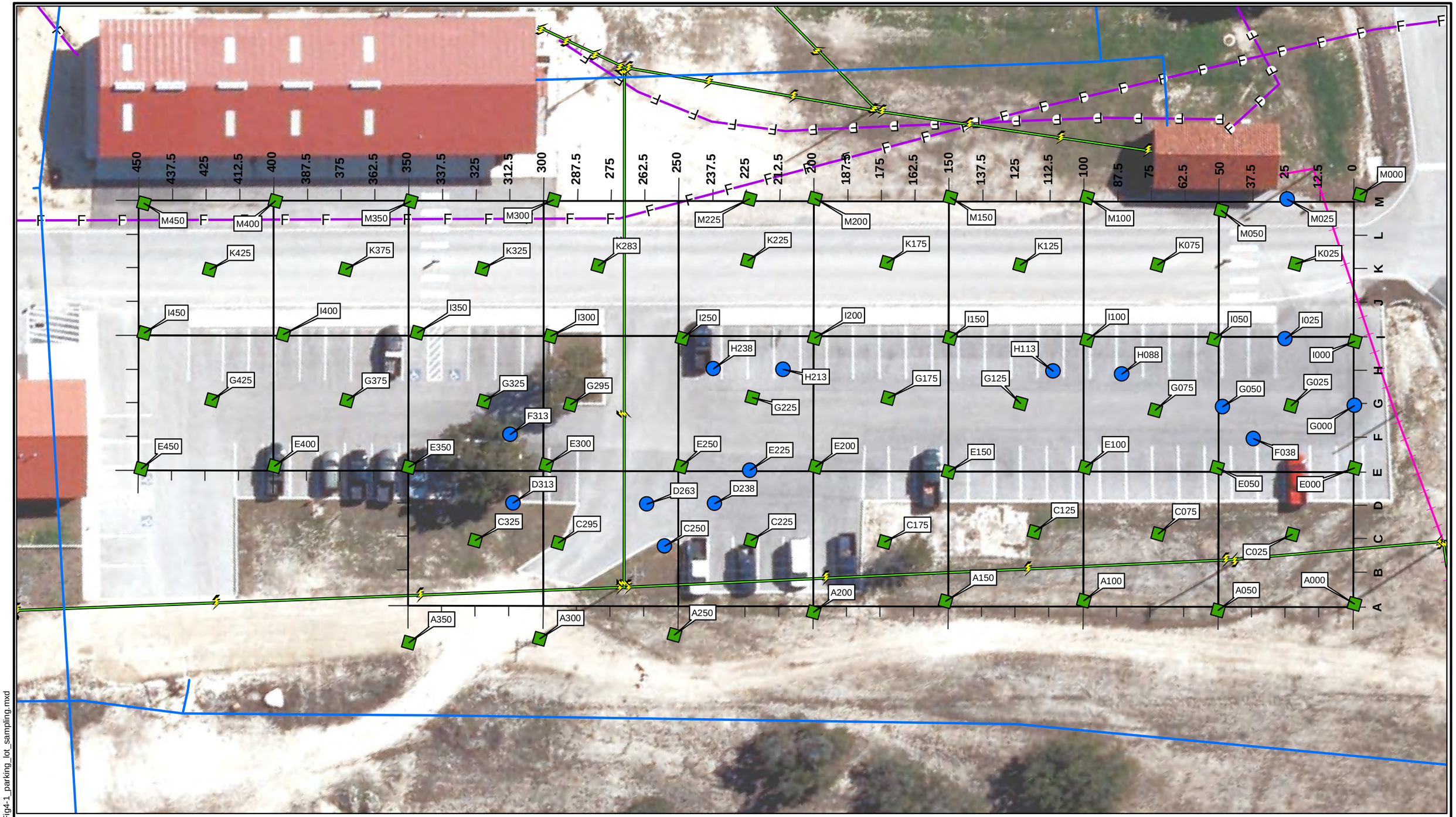

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Figure 4.1

Location of June 2013 Soil Borings
at SWMU B-34
Camp Stanley Storage Activity

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4.1.1.1 Sampling and Analytical Procedures

Samples for laboratory submittal were labeled using the following nomenclature: **B34-[Grid Column Letter]-[Row Distance from Baseline]** where the **Grid Column Letter** ranges between A through M); and the **Row Distance from Baseline** is a three-digit number that ranges between 0 through 450). Some examples of the sampling nomenclature are as follows:

- **B34-A250** (grid column A, 250 feet north of baseline)
- **B34-B163** (grid column B, 163 feet north of baseline)
- **B34-K025** (grid column K, 25 feet north of baseline)

All soil samples were submitted to Agriculture & Priority Pollutants Laboratory, Inc. (APPL) for the inorganic analysis of lead using method SW6010B. The collection and analysis of quality assurance/quality control (QA/QC) samples is described in the *Final CSSA Base-wide Quality Assurance Project Plan (QAPP), Version 1.0* (Parsons 2003a). The QA/QC samples and their collection frequency are as follows:

- One Field Duplicate (FD) per 10 samples;
- One Matrix Spike (MS) and one Matrix Spike Duplicate (MSD) per 20 samples; and
- One Equipment Blank (EB).

Full QA/QC was performed on these samples and 100% of the results were validated/verified by a chemist. The data validation reports are included in **Appendix F**.

4.1.1.2 Methodology

Parsons obtained utility clearances and digging permits from CSSA for the investigation area. GeoProjects International (GPI) of Austin, TX was subcontracted to perform the soil boring work. At each location within asphalt, the drilling subcontractor utilized a four-inch concrete coring saw to fully cut the entire thickness of the asphalt pavement. The pavement thickness was typically 2.5 inches in the parking areas, and 5 inches in Tompkins Road (2 layers of pavement). Once the pavement was fully cut, the resultant waste cylinder was extracted and retained for proper disposal.

GPI utilized a CME 75 drilling rig with a hydraulic 140-pound geotechnical hammer to collect the subsurface samples. Once the corehole had been sufficiently cleaned of debris and cobbles, a soil profile was collected to a depth of two feet below grade (or until penetration refusal) using a decontaminated two-inch split spoon sampler. A Parsons geologist lithlogically logged, photographed, and screened each sample using a ThermoScientific XRF analyzer.

Inspection of the retrieved soil core indicated that the soil profile below the pavement generally consisted of A2 construction base (¼-inch crushed angular limestone with red clay) over weathered limestone bedrock. There typically was a thin layer of native clayey soil between the A2 base and the bedrock, ranging from ½-inch to several inches in thickness (see **Figure 4.2** below). The interface of native soil between the imported base and bedrock was targeted for soil screening and analysis. In some locations the native soil was non-existent due to grading requirements of the parking lot installation. In those cases, the sample was collected

from the top of the weathered bedrock interface. The split spoon sampler was decontaminated between each use with alconox soap, isopropyl alcohol, and de-ionized water.

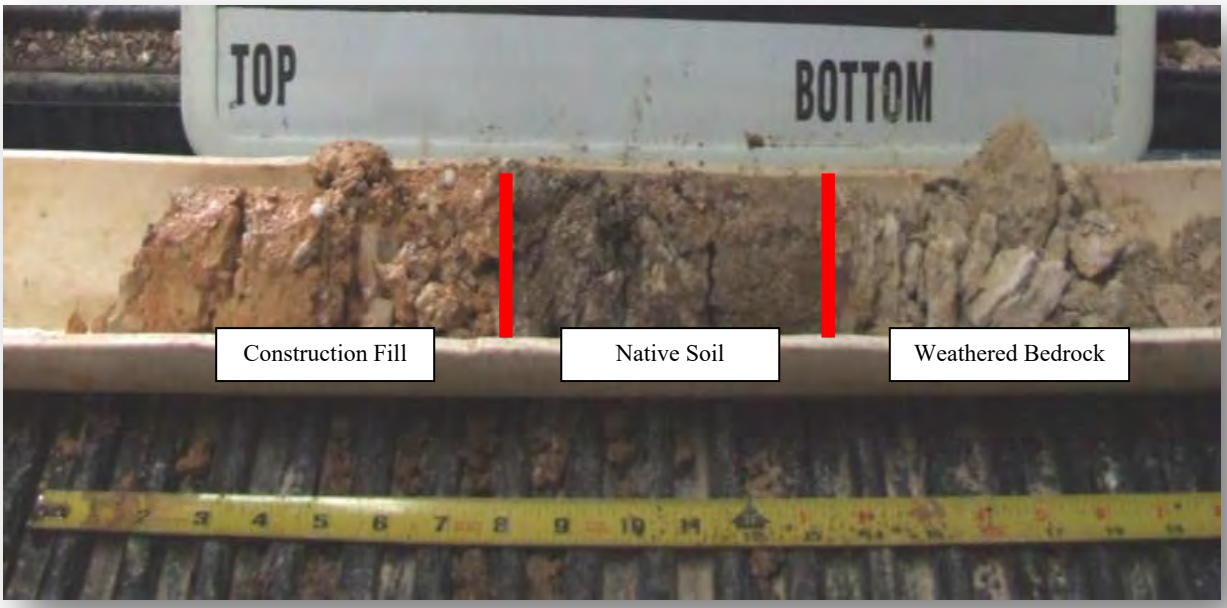


Figure 4.2 Example of Soil Profile below Parking Lot (Location D-238)

The work was conducted in phases to quickly determine the extent, and then focus on areas which exceeded a pre-determined screening criteria of 300 ppm of lead. As shown on Figure 4.1, Phase I consisted of 63 sampling locations that were uniformly distributed over a grid that was approximately 150 feet by 450 feet in size. A total of 41 of these locations required the sample to be obtained from beneath an asphalt paved surface. Where possible, several locations were adjusted slightly in favor of a non-paved surface that would exist within 15 feet of the selected location. Additionally, a few locations were adjusted accordingly to provide minimum safe distances from for overhead (electric) and buried (water, communication, and fiber optic) utilities. At each location, a soil sample was obtained to be field screened by XRF and submitted to the laboratory for lead analysis.

Once the Phase I sampling was completed, the XRF screening data was field-evaluated to determine if additional sample collection was necessary to adequately define the extent of lead. For those Phase I samples in which the XRF screening exceed 300 ppm for lead, additional samples were collected to determine the minimum amount of asphalt paving that would need to be removed for the excavation effort. These Phase II samples were collected in quadrants within 50-foot square that surround a Phase I sampling point exceedance (e.g., greater than 300 ppm lead on the XRF). A total of 15 Phase II sampling locations were collected as shown on Figure 4.1. A total of 12 of these locations required the sample to be obtained from beneath an asphalt-paved surface.

Upon completion of the boring, each hole was filled with concrete (sakrete variety) from the base of the borehole up to the top of the asphalt pavement. The plugged surface was finished

smooth, and the sample identification number was etched into the concrete surface for future reference.

4.1.1.3 X-Ray Fluorescence

A ThermoScientific XRF analyzer was used to screen soil samples from each boring drilled during the June 2013 investigation. As previously described in Section 4.1.1.1, a representative sample was obtained from the soil interval that was identified by the Parsons geologist as likely to be native soil above the weathered bedrock interface. If native soil was not visible in the soil profile, than the interface between the imported fill and weathered bedrock was obtained. The XRF instrument was used to screen the actual sample that was submitted for laboratory analysis. In some cases where the soil depth allowed it, a second (deeper) screening sample was collected to determine the depth at which elevated lead results were attenuated.

A total of 86 samples were screened using the XRF analyzer from the 78 borings (i.e., seven locations had two screening depths and one location had three screening depths). Additionally, 9 field duplicate samples were also run with the XRF for QA/QC purposes. The results of the XRF field screening analyses are given on **Table 4.1** and **Figure 4.3**. The lead results ranged from below the sample Level of Detection (<LOD in 39 samples) to 4,420.39 ppm at location B34-E250 (0.5-1.0 feet). A total of 12 Phase I samples exceeded the screening threshold of 300 ppm, which prompted the additional investigation at 15 Phase II locations. Eight of the Phase II locations also exceeded the 300 ppm screening threshold as well. These sample points provided ample data to accurately estimate the area that would require excavation; therefore, no additional soil borings were drilled.

The results of the XRF survey confirmed that lead was likely above the critical PCL of 500 mg/kg in at least three regions of the investigation area. The highest concentration of lead was present in the parking lot area around location B34-E250, and is consistent with 2009 historical results from soil sample B34-SS25 (6,680 mg/kg). A second area that was likely to exceed the critical PCL was beneath Tompkins Road in an area that stretched from location B34-I100 northeastward to locations B34-K125, B34-K175, and B34-M150. The third region of concern was the area west of Building 73, beneath Tompkins Road and the southern extent of the paved parking area. Locations B34-M000, B34-M025, B34-K025, B34-I025, B34-G025, and B34-B050 correspond with 2009 historical results B34-SS20 (7,630 mg/kg) and B34-SS21 (1,590 mg/kg), indicating that lead exceedances above the critical PCL would likely be confirmed by laboratory analysis in this area.

4.1.1.4 Soil Sampling Results

A total of 91 soil samples were collected from the 78 soil borings during the Parking Lot Investigation. The results of the XRF screening were used to identify sampling locations that would likely provide sufficient data to determine what areas required remediation. The sample count included nine field duplicates (FD) and four additional samples collected at depth to demonstrate the attenuation of lead concentrations in the bedrock, beneath the native soils (B34-E250, B34-M000, B34-M150, and B34-G295). Lead concentrations from the definitive laboratory analyses ranged between 0.10 mg/kg (B34-K425) to 6,523.8 mg/kg (B34-E250). A

Table 4.1
SWMU B-34 Parking Lot Investigation
XRF Results
June 7-9, 2013

Date/Time	Phase	Sample Location	Depth (ft BGS)	Lead (ppm)	Pb Error (ppm)
6/7/2013 13:02	1	B34-A000	1-1.5	< LOD	12.42
6/7/2013 13:25	1	B34-A050	0.5-1.0	220.64	21.97
6/7/2013 13:37	1	B34-A100	0.5-1.0	245.02	23.19
6/7/2013 13:47	1	B34-A150	0-0.5	152.71	19.47
6/7/2013 13:56	1	B34-A200	0-0.3	40.89	13.7
6/7/2013 14:07	1	B34-A250	0-0.5	< LOD	11.65
6/7/2013 14:16	1	B34-A300	0-0.5	< LOD	11.65
6/7/2013 14:27	1	B34-A350	0-0.5	< LOD	9.77
6/7/2013 15:41	1	B34-C025	0-0.5	87.51	16.72
6/7/2013 15:32	1	B34-C075	0-0.5	170.59	23.4
6/7/2013 15:26	1	B34-C125	0-0.5	83.44	14.74
6/7/2013 15:11	1	B34-C175	0-0.25	< LOD	12.7
6/7/2013 14:58	1	B34-C225	0.5-0.75	24.04	12.32
6/9/2013 13:22	2	B34-C250	0.9-1.2	< LOD	12.63
6/9/2013 14:49	2	B34-C250 FD	0.9-1.2	< LOD	11.11
6/7/2013 14:51	1	B34-C295	1-1.5	79.23	13.35
6/7/2013 14:38	1	B34-C325	0.25-0.75	< LOD	10.84
6/7/2013 14:40	1	B34-C325 FD	0.25-0.75	29.36	11.9
6/9/2013 10:52	2	B34-D238	0.7-1.0	**1296.99**	61.31
6/9/2013 11:05	2	B34-D263	0.4-0.8	**671.4**	39.86
6/9/2013 14:51	2	B34-D313	1.2-1.5	**921.61**	48.87
6/9/2013 13:43	2	B34-D313 FD	1.2-1.5	68.81	16.43
6/7/2013 16:25	1	B34-E000	0.25-0.5	223.05	23.7
6/7/2013 16:33	1	B34-E050	0.9-1.25	< LOD	15.53
6/7/2013 16:46	1	B34-E100	1.0-1.5	143.7	18.69
6/7/2013 16:52	1	B34-E150	0.5-0.75	37.94	12.11
6/7/2013 16:59	1	B34-E200	0.75.1.25	291.34	26.63
6/7/2013 17:01	1	B34-E200 FD	0.75.1.25	166.78	20.6
6/9/2013 10:41	2	B34-E225	0.5-0.75	**799.73**	48.09
6/7/2013 17:09	1	B34-E250	0.5-1.0	**4420.39**	100.04
6/7/2013 17:12	1	B34-E250	1.5-2.0	29.55	12.02
6/7/2013 17:19	1	B34-E300	0.5-0.75	**505.12**	35.46
6/7/2013 17:33	1	B34-E350	0.75-1.0	85.92	16.72
6/7/2013 17:42	1	B34-E400	0.75-1.3	< LOD	13.04
6/7/2013 17:59	1	B34-E450	0.75-1.0	< LOD	13.86
6/9/2013 11:48	2	B34-F038	0.5-0.8	92.99	20.32
6/9/2013 14:55	2	B34-F313	0.75-1.0	30.25	12.59
6/9/2013 13:02	2	B34-G000	0.75-1.0	184.97	33.61
6/8/2013 18:16	1	B34-G025	0.5-0.7	**427.3**	31.55
6/9/2013 11:41	2	B34-G050	0.3-0.45	**352.66**	47.32
6/8/2013 18:00	1	B34-G075	0.5-0.8	30.47	16.25

Table 4.1
SWMU B-34 Parking Lot Investigation
XRF Results
June 7-9, 2013

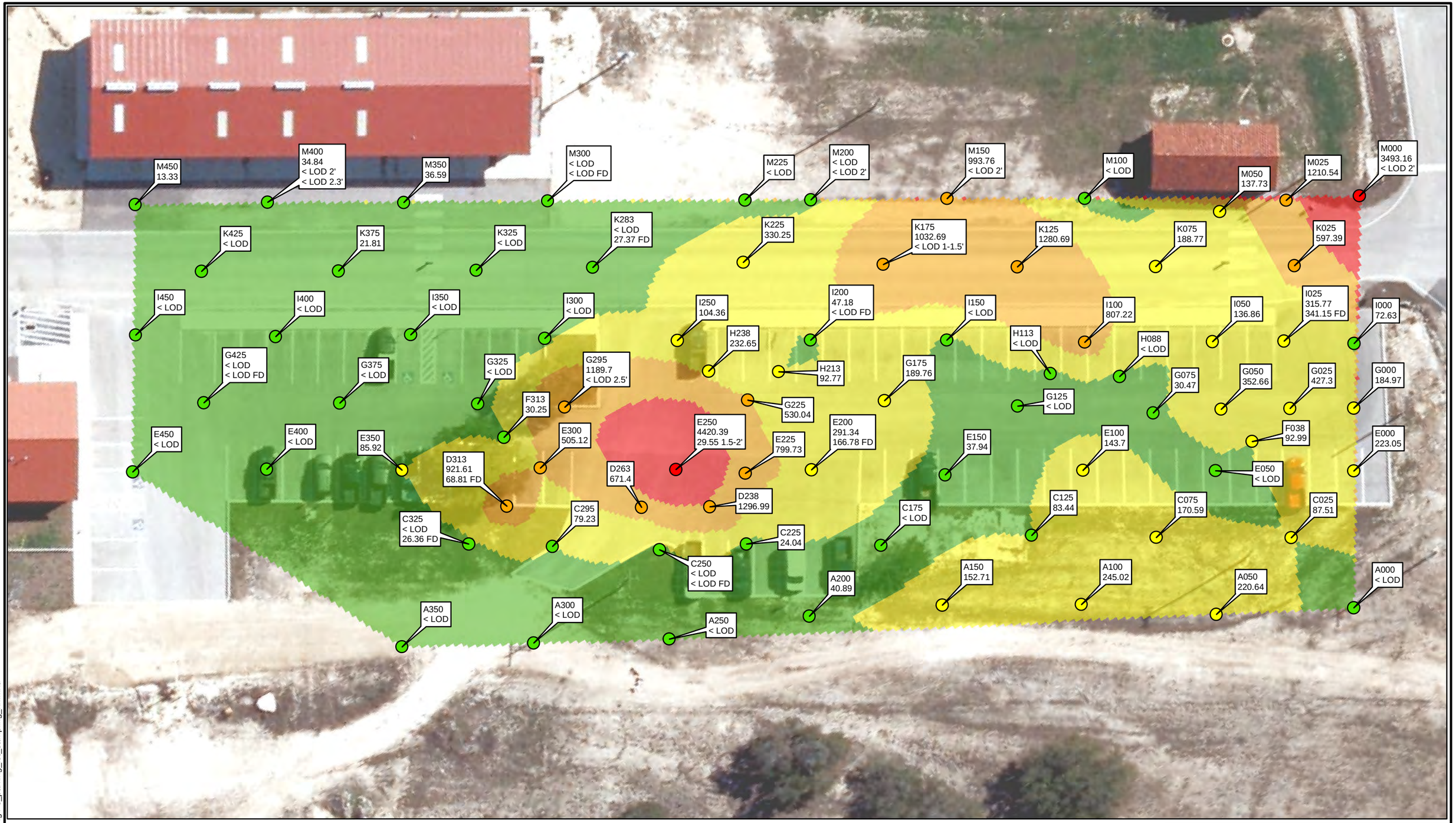
Date/Time	Phase	Sample Location	Depth (ft BGS)	Lead (ppm)	Pb Error (ppm)
6/8/2013 17:50	1	B34-G125	1.0-1.4	< LOD	10.99
6/8/2013 17:40	1	B34-G175	1.1-1.4	189.76	25.27
6/8/2013 17:30	1	B34-G225	0.8-1.1	**530.04**	31.22
6/8/2013 16:48	1	B34-G295	1.1-1.4	**1189.7**	56.6
6/8/2013 16:59	1	B34-G295	2-2.5	< LOD	11.69
6/8/2013 16:34	1	B34-G325	1.0-1.3	< LOD	14.07
6/8/2013 16:23	1	B34-G375	0.8-1.0	< LOD	14.29
6/8/2013 16:07	1	B34-G425	1.1-1.6	< LOD	11.24
6/8/2013 16:09	1	B34-G425 FD	1.1-1.6	< LOD	16.35
6/9/2013 11:29	2	B34-H088	0.6-0.8	< LOD	12.41
6/9/2013 11:21	2	B34-H113	0.6-0.8	< LOD	13.48
6/9/2013 10:13	2	B34-H213	0.7-0.9	92.77	17.21
6/9/2013 10:22	2	B34-H238	1.0-1.4	232.65	22.71
6/9/2013 8:04	1	B34-I000	1.0-1.25	72.63	16.16
6/9/2013 12:02	2	B34-I025	0.2-0.6	**315.77**	26.8
6/9/2013 14:53	2	B34-I025 FD	0.2-0.6	**341.15**	24.55
6/9/2013 8:10	1	B34-I050	0.75-0.85	136.86	17.81
6/9/2013 8:18	1	B34-I100	0.8-1.15	**807.22**	36.19
6/9/2013 8:24	1	B34-I150	1.0-1.3	< LOD	12.17
6/9/2013 8:32	1	B34-I200	1.4-1.6	47.18	13.43
6/9/2013 8:34	1	B34-I200 FD	1.4-1.6	< LOD	13.27
6/9/2013 8:42	1	B34-I250	1.5-1.8	104.36	15.38
6/8/2013 15:53	1	B34-I300	0.75-1.0	< LOD	15.26
6/8/2013 15:41	1	B34-I350	0.75-1.0	< LOD	12.97
6/8/2013 15:30	1	B34-I400	0.75-1.0	< LOD	15.85
6/8/2013 15:12	1	B34-I450	1.0-1.3	< LOD	10.2
6/8/2013 10:39	1	B34-K025	1.1-1.4	**597.39**	39.83
6/8/2013 10:33	1	B34-K075	1.0-1.2	188.77	63.87
6/8/2013 10:26	1	B34-K125	1.0-1.25	**1280.69**	49.81
6/8/2013 10:04	1	B34-K175	1.0-1.4	**1032.69**	43.26
6/8/2013 10:13	1	B34-K175	1.4-1.5	< LOD	14.79
6/8/2013 9:58	1	B34-K225	1.25-1.50	**330.25**	26.33
6/8/2013 9:47	1	B34-K283	1.25-1.50	< LOD	12.52
6/8/2013 9:49	1	B34-K283 FD	1.25-1.50	27.37	10.12
6/8/2013 9:35	1	B34-K325	1.3-1.7	< LOD	17.5
6/8/2013 9:22	1	B34-K375	1.25-1.5	21.81	9.68
6/8/2013 9:13	1	B34-K425	0.25-0.5	< LOD	14.06
6/8/2013 10:48	1	B34-M000	0.75-1.0	**3493.16**	83.98
6/8/2013 10:50	1	B34-M000	1.5-2.0	< LOD	11.54
6/9/2013 12:17	2	B34-M025	0.75-1.0	**1210.54**	52.02

Table 4.1
SWMU B-34 Parking Lot Investigation
XRF Results
June 7-9, 2013

Date/Time	Phase	Sample Location	Depth (ft BGS)	Lead (ppm)	Pb Error (ppm)
6/8/2013 11:09	1	B34-M050	1.0-1.3	137.73	20.86
6/8/2013 11:15	1	B34-M100	0.5-0.75	< LOD	11.58
6/8/2013 11:25	1	B34-M150	0.75-1.0	**993.76**	41.86
6/8/2013 11:27	1	B34-M150	1.6-1.9	< LOD	14
6/8/2013 11:35	1	B34-M200	0.5-0.75	< LOD	12.49
6/8/2013 11:32	1	B34-M200	1.5-2.0	< LOD	18.26
6/8/2013 11:52	1	B34-M225	0.5-0.8	< LOD	13.08
6/8/2013 12:03	1	B34-M300	1.0-1.3	< LOD	12.33
6/8/2013 12:04	1	B34-M300 FD	1.0-1.3	< LOD	12.62
6/8/2013 13:23	1	B34-M350	1.0-1.3	36.59	11.5
6/8/2013 13:28	1	B34-M400	0.5-1.0	34.84	10.8
6/8/2013 13:30	1	B34-M400	1.5-2.0	< LOD	16.59
6/8/2013 13:36	1	B34-M400	2.0-2.3	< LOD	16.14
6/8/2013 13:42	1	B34-M450	0.8-1.1	13.33	8.38

Notes:

ppm Parts Per Million
ft BGS Feet Below Ground Surface
FD Field Duplicate
Indicates Normal and Field Duplicate Pairs
Indicates multiple sample depths from a single location
BOLD XRF lead concentration is above the field screening threshold of 300 ppm



N E S W

50 25 0 50 Feet

June 2013 XRF Locations

Pb Results (ppm)

- < 84.5
- 84.5 - 500
- 500 - 1600
- > 1600

Natural Neighbor Analysis

Interpolated XRF Results for Lead

- 0 - 84.5
- 84.5 - 500
- 500 - 1,600
- > 1,600

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Figure 4.3

SWMU B-34 Parking Lot Investigation
XRF Results for Lead (June 2013)
Camp Stanley Storage Activity

PARSONS

total of 14 samples exceeded the critical PCL of 500 mg/kg. Analytical results are tabulated in **Table 4.2**, and illustrated on **Figure 4.4**.

The laboratory results confirmed that three regions below the paved surfaces exceeded the critical PCL for lead (**Figure 4.5**). Region "A" included five soil borings in excess of the 500 mg/kg critical PCL, and included B34-D238, B34-D263, B34-E225, B34-E250, and B34-G295. B34-D263 and B34-E250 also exceed the critical PCL. Region "B" included the area previously identified during the XRF survey beneath Tompkins Road, and included locations B34-K125, B34-K175, B34-K225, and B34-M150 in excess of the critical PCL. Region "C" is beneath Tompkins Road and the parking lot to the west of Building 73. Three samples (B34-G025, B34-K025, and B34-M025) all exceed the critical PCL. Additionally, location B34-M000 exceeded the critical/industrial PCL.

4.2 Remedial Action

4.2.1 Excavation and Removal

Based upon the XRF and analytical results of the Parking Lot investigation, it was determined that three areas exceeded the remedial closure goal for residential use. As shown on Figure 4.5, these areas were designated Excavation Area A (EXA), Excavation Area B (EXB), and Excavation Area C (EXC). Each of these areas were beneath asphalt pavement below the Building 73/606 parking area and Tompkins Road. Additional "hot spot" treatment excavations were conducted at soil boring location C025 (Excavation Area D [EXD]), and surface soil locations SS46 and SS47 (Excavation Area E [EXE]). Remedial action activities began on June 25, 2013 and were concluded by August 6, 2013.

A total of 17,270 square feet (ft^2) of asphalt was removed from the three excavation area areas at SWMU B-34 by USA Environment, LP (USA) of San Antonio, Texas. Area EXA encompassed nearly 7,150 ft^2 of the central portion of the parking lot. EXB included 6,290 ft^2 of asphalt paving from Tompkins Road, just south of Building 606. Finally, 3,830 ft^2 of asphalt was removed from Tompkins Road and the parking lot in EXC, adjacent to Building 73. The asphalt was sawcut around the existing concrete curbing and sidewalk to preserve and integrate these features in the reconstruction of the site. All removed asphalt was stockpiled on-site for eventual recycling at Templar Asphalt and Concrete Recycling.

Once the asphalt was removed, USA excavated the existing A2 gravel base and underlying native soils until bedrock was encountered. In most areas of the excavations, this depth ranged from 1.5 to 3 feet below grade. Excavated soils were initially stockpiled on-site for analytical profiling and disposition determination. Each excavation area was screened utilizing the XRF analyzer to guide where additional material required removal, or the bedrock needed excavation. Excavated soils were ultimately managed as described in Section 4.4.

To address a lead concentration of 1,303 mg/kg of lead detected at boring location C025, approximately 250 ft^2 of surface soil area was excavated from area EXD to a depth of 1 foot below grade (**Figure 4.6**). The triangular shape of the excavation was dictated by an un-marked communication utility line that was encountered during the excavation.

TABLE 4.2
SWMU B-34 PARKING LOT INVESTIGATION - ANALYTICAL SOIL RESULTS (JUNE 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

	Lead CAS: 7439-92-1	Qualifier	Dilution
Critical PCL:	500		
Sample Locations (Date Collected)/(Depth Interval-ft bgs)			
B34-A000 (07-Jun-2013)/(1-1.5)	**8.6**	F	1
B34-A050 (07-Jun-2013)/(0.5-1)	**160**		1
B34-A100 (07-Jun-2013)/(0.5-1)	**180**		1
B34-A150 (07-Jun-2013)/(0-0.6)	**140**		1
B34-A200 (07-Jun-2013)/(0-0.3)	**40**		1
B34-A250 (07-Jun-2013)/(0-0.6)	**2.5**	F	1
B34-A300 (07-Jun-2013)/(0-0.6)	**5.9**	F	1
B34-A350 (07-Jun-2013)/(0-0.6)	**3.7**	F	1
B34-C025 (07-Jun-2013)/(0-0.6)	**1,300**	M	20
B34-C075 (07-Jun-2013)/(0-0.6)	**230**		1
B34-C125 (07-Jun-2013)/(0-0.5)	**330**		1
B34-C175 (07-Jun-2013)/(0-0.25)	**28**		1
B34-C225 (07-Jun-2013)/(0.5-0.75)	**210**		1
B34-C250 (09-Jun-2013)/(0.9-1.2)	**0.42**	F	1
B34-C250-FD (09-Jun-2013)/(0.9-1.2)	**0.59**	F	1
B34-C295 (07-Jun-2013)/(1-1.5)	**43**		1
B34-C325 (07-Jun-2013)/(0.25-0.75)	**5.1**	F	1
B34-C325-FD (07-Jun-2013)/(0.25-0.75)	**9.7**	F	1
B34-D238 (09-Jun-2013)/(0.7-1)	**1,300**		20
B34-D263 (09-Jun-2013)/(0.4-0.8)	**4,000**		20
B34-D313 (09-Jun-2013)/(1.2-1.5)	**390**	J	1
B34-D313-FD (09-Jun-2013)/(1.2-1.5)	**300**	J	1
B34-E000 (07-Jun-2013)/(0.3-0.6)	**150**		1
B34-E050 (07-Jun-2013)/(0.9-1.25)	**32**		1
B34-E100 (07-Jun-2013)/(1-1.5)	**320**		1
B34-E150 (07-Jun-2013)/(0.5-0.75)	**50**		1
B34-E200 (07-Jun-2013)/(0.75-1.25)	**92**	J	1
B34-E200-FD (07-Jun-2013)/(0.75-1.25)	**240**	J	1
B34-E225 (09-Jun-2013)/(0.5-0.75)	**830**		1
B34-E250 (07-Jun-2013)/(0.5-1)	**6,500**		20
B34-E250 (07-Jun-2013)/(1.5-2)	**21**		1
B34-E300 (07-Jun-2013)/(0.5-0.75)	**120**		1
B34-E350 (07-Jun-2013)/(0.75-1)	**230**		1
B34-E400 (07-Jun-2013)/(0.75-1.3)	**12**		1
B34-E450 (07-Jun-2013)/(0.9-1)	**22**		1
B34-F038 (09-Jun-2013)/(0.5-0.8)	**93**		1
B34-F313 (09-Jun-2013)/(0.75-1)	**370**	M	20
B34-G000 (09-Jun-2013)/(0.75-1)	**220**		1
B34-G025 (08-Jun-2013)/(0.5-0.7)	**160**		1
B34-G050 (09-Jun-2013)/(0.3-0.45)	**330**		1
B34-G075 (08-Jun-2013)/(0.5-0.8)	**50**		1

TABLE 4.2
SWMU B-34 PARKING LOT INVESTIGATION - ANALYTICAL SOIL RESULTS (JUNE 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

	Lead CAS: 7439-92-1	Qualifier	Dilution
Critical PCL:	500		
Sample Locations (Date Collected)/(Depth Interval-ft bgs)			
B34-G125 (08-Jun-2013)/(1-1.4)	**1.6**	F	1
B34-G175 (08-Jun-2013)/(1.1-1.4)	**300**		1
B34-G225 (08-Jun-2013)/(0.8-1.1)	**440**		1
B34-G295 (08-Jun-2013)/(1.1-1.4)	**1,900**		20
B34-G295 (08-Jun-2013)/(2.4-2.7)	**4.3**	F	1
B34-G325 (08-Jun-2013)/(0.1-1.3)	**4.3**	F	1
B34-G375 (08-Jun-2013)/(0.8-1.1)	**27**		1
B34-G425 (08-Jun-2013)/(1.1-1.6)	**10**		1
B34-G425-FD (08-Jun-2013)/(1.1-1.6)	**9.4**	F	1
B34-H088 (09-Jun-2013)/(0.6-0.8)	**0.49**	F	1
B34-H113 (09-Jun-2013)/(0.6-0.8)	**7.9**	F	1
B34-H213 (09-Jun-2013)/(0.7-0.9)	**370**		1
B34-H238 (09-Jun-2013)/(1-1.4)	**470**		1
B34-I000 (09-Jun-2013)/(1-1.25)	**98**		1
B34-I025 (09-Jun-2013)/(0.2-0.6)	**210**	J	1
B34-I025-FD (09-Jun-2013)/(0.2-0.6)	**760**	J	1
B34-I050 (09-Jun-2013)/(0.75-0.85)	**210**		1
B34-I100 (09-Jun-2013)/(0.8-1.15)	**42**		1
B34-I150 (09-Jun-2013)/(1-1.3)	**2.9**	F	1
B34-I200 (09-Jun-2013)/(1.4-1.6)	**49**	J	1
B34-I200-FD (09-Jun-2013)/(1.4-1.6)	**4.0**	F	1
B34-I250 (09-Jun-2013)/(1.5-1.8)	**49**		1
B34-I300 (08-Jun-2013)/(0.75-1)	**3.7**	F	1
B34-I350 (08-Jun-2013)/(0.75-1)	**3.1**	F	1
B34-I400 (08-Jun-2013)/(0.75-1)	**7.7**	F	1
B34-I450 (08-Jun-2013)/(1-1.3)	**2.0**	F	1
B34-K025 (08-Jun-2013)/(1.1-1.4)	**680**		1
B34-K075 (08-Jun-2013)/(1-1.2)	**190**		1
B34-K125 (08-Jun-2013)/(1-1.25)	**1,400**		20
B34-K175 (08-Jun-2013)/(1-1.4)	**1,200**		20
B34-K225 (08-Jun-2013)/(1.25-1.5)	**1,100**		20
B34-K283 (08-Jun-2013)/(1.25-1.5)	**73**		1
B34-K283-FD (08-Jun-2013)/(1.25-1.5)	**63**		1
B34-K325 (08-Jun-2013)/(1.3-1.7)	**25**		1
B34-K375 (08-Jun-2013)/(1.25-1.5)	**14**		1
B34-K425 (08-Jun-2013)/(0.25-0.5)	**0.70**	F	1
B34-M000 (08-Jun-2013)/(0.75-1)	**2,500**		20
B34-M000 (08-Jun-2013)/(1.8-2)	**25**		1
B34-M025 (09-Jun-2013)/(0.75-1)	**1,600**		20
B34-M050 (08-Jun-2013)/(1-1.3)	**330**		1
B34-M100 (08-Jun-2013)/(0.5-0.75)	**100**		1

TABLE 4.2
SWMU B-34 PARKING LOT INVESTIGATION - ANALYTICAL SOIL RESULTS (JUNE 2013)
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

	Lead CAS: 7439-92-1	Qualifier	Dilution
Critical PCL:	500		
Sample Locations (Date Collected)/(Depth Interval-ft bgs)			
B34-M150 (08-Jun-2013)/(0.75-1)	**750**	M	20
B34-M150 (08-Jun-2013)/(1.6-1.9)	**11**		1
B34-M200 (08-Jun-2013)/(0.5-0.75)	**10**		1
B34-M225 (08-Jun-2013)/(0.5-0.8)	**8.8**	F	1
B34-M300 (08-Jun-2013)/(1-1.3)	**11**		1
B34-M300-FD (08-Jun-2013)/(1-1.3)	**9.8**	F	1
B34-M350 (08-Jun-2013)/(1-1.3)	**54**		1
B34-M400 (08-Jun-2013)/(2-2.3)	**14**		1
B34-M450 (08-Jun-2013)/(0.8-1.1)	**13**		1
B34-SP01 (26-Jun-2013)/(0-0)	**11**		1
B34-SP02 (26-Jun-2013)/(0-0)	**9.1**	F	1

NOTES AND DATA QUALIFIERS:

All values are measured in milligrams per kilogram (mg/Kg) unless otherwise noted.

-- Indicates that the metal was not tested for this sample.

(NO QUALIFIER) - Confirmed identification.

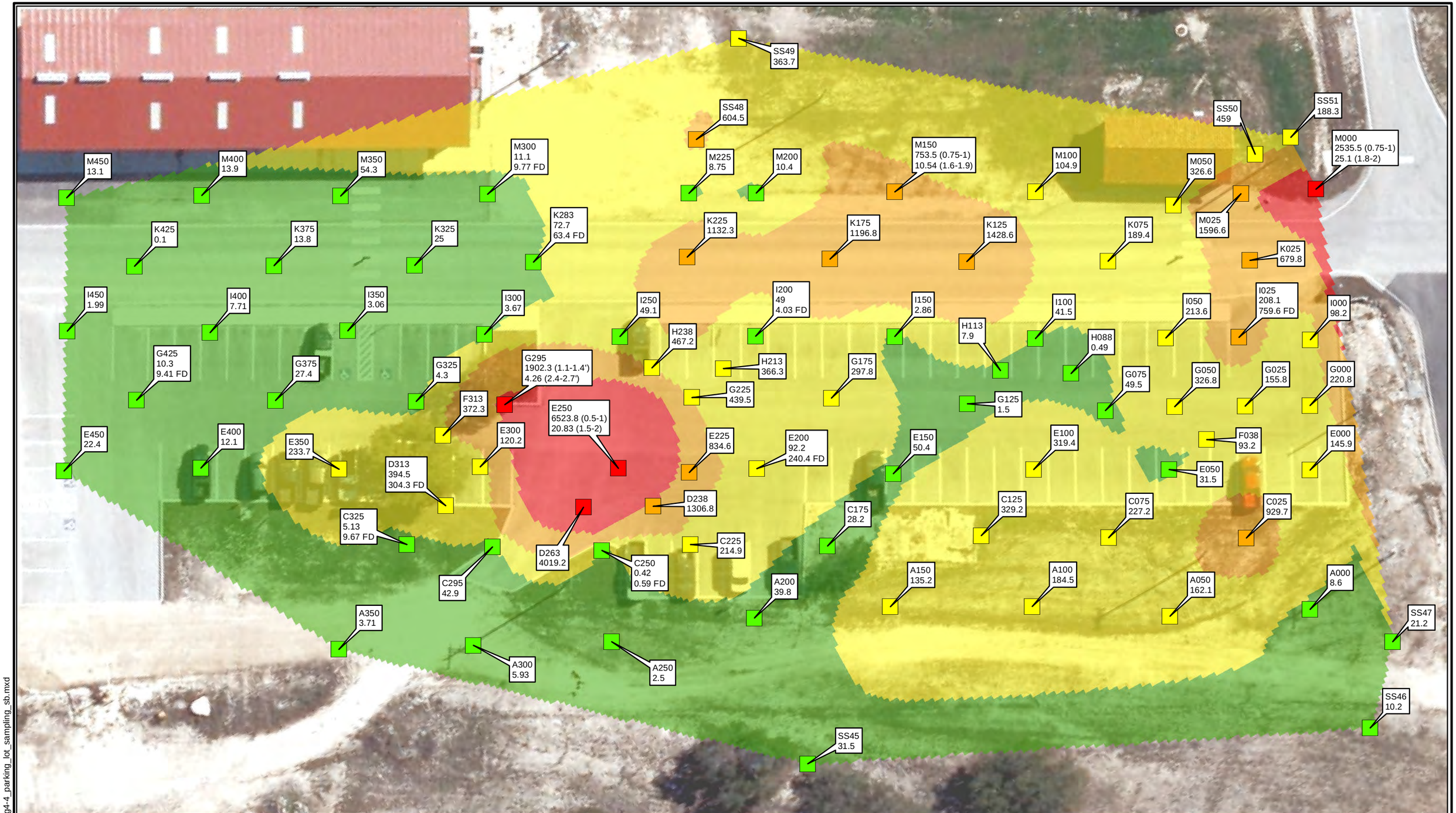
F - Analyte was positively identified, but the quantitation is an estimation above the MDL and below the Reporting Limit (RL).

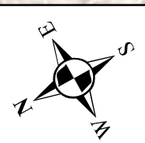
J - Analyte was positively identified, but the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

M = Concentration is estimated due to a matrix effect.

Values shown in **BOLD** indicate detections above the MDL.

Values **HIGHLIGHTED** indicate detections above the critical PCL.





50 25 0 50 Feet

June 2013 Soil Sample
Lead (ppm)
- < 84.5
- 84.5 - 500
- 500 - 1600
- > 1600

Interpolated Soil Results for Lead
- 0 - 84.5
- 84.5 - 500
- 500 - 1,600
- > 1,600

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Figure 4.4

SWMU B-34 Parking Lot Investigation
Lead Analytical Soil Results (June 2013)
Camp Stanley Storage Activity

PARSONS

Excavation Area A (EXA)
Area = 7149 ft^2

Excavation Area B (EXB)
Area = 6281 ft^2

Excavation Area C (EXC)
Area = 3828 ft^2

Excavation Area D (EXD)
Area = 244 ft^2

Excavation Area E (EXE)
Area = 2413 ft^2

N E S W

50 25 0 50 Feet

June 2013 Soil Sample
Lead (ppm)
- < 84.5
- 84.5 - 500
- 500 - 1600
- > 1600

Interpolated Soil Results for Lead
- 0 - 84.5
- 84.5 - 500
- 500 - 1,600
- > 1,600

- Soil Excavation Area
- Water Line
- F — Fiber Optic

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Figure 4.5

SWMU B-34 Areas of Soil Excavation
Camp Stanley Storage Activity

PARSONS

EXB-SW03
794

EXB-BS02
167

EXB-SW02
445

EXB-BS01
77.6

EXB-BS04
67.3

EXB-SW01
216

Excavation Area B (EXB)
Area = 6281 ft^2

EXB-BS03
205

EXB-SW04
47.4

EXC-SW04
126.6

EXC-BS03
175.2

EXC-SW05
222.4

EXC-BS04
57.7

EXC-SW06
74.9

Excavation Area C (EXC)
Area = 3828 ft^2

EXC-SW03
431

EXC-BS06
208.9

EXA-BS02
3.12

EXB-SW05
12.1

EXA-SW01
116.8

EXB-SW06
16.4

EXB-SW07
31.9

EXC-BS02
213

EXC-BS05
35.1

EXA-SW02
14.6

EXC-SW02
124.3

EXC-SW07
5.3

EXA-BS03 (FD)
106.9

Excavation Area A (EXA)
Area = 7149 ft^2

EXA-BS01
266.1

EXC-BS01
144.1

EXC-SW01
148.9

EXA-SW04
56.1

EXA-SW03
16.2

EXA-BS05
5.6

EXA-BS04
25.05

EXA-BS06
5.84

Excavation Area D (EXD)
Area = 244 ft^2

SS52
148.3

SS47
21.2

Excavation Area E (EXE)
Area = 2413 ft^2

SS46
10.2

N E S W

Confirmation Soil Samples
Lead Results in ppm

Soil Excavation Area

50 25 0 50 Feet

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Figure 4.6

SWMU B-34 Areas of Excavation and Confirmation Sampling
Camp Stanley Storage Activity

PARSONS

While not necessary based on surface sample results from SS46 (231.3 mg/kg) and SS47 (417.9 mg/kg of lead), 2,420 ft^2 of surface soil area was excavated from an area west of the parking lot to a depth of 1 foot below grade. Previous XRF results prior to 2013 had indicated that this location may be impacted with lead, so the soils in this area were removed to ensure soil with lead concentrations greater than the critical PCL of 500 mg/kg had been removed.

The total volume of soil excavated from SMWU B-34 is given in **Table 4.3** below:

TABLE 4.3
VOLUME OF MATERIAL REMOVED DURING SWMU B-34 REMEDIATION EFFORT
JUNE – AUGUST 2013

Excavation Area	Surface Type	Surface Area Excavated (ft^2)	Average Depth Removed (ft)	Volume of Asphalt (Yd^3)	Volume of Soil (Yd^3)	Volume of Soil (Yd^3)
EXA	Asphalt	7,150	2	67	463	530
EXB	Asphalt	6,290	3	98	601	699
EXC	Asphalt	3,830	3	60	366	426
EXD	Soil	250	1	-	10	10
EXE	Soil	2,420	1	-	90	90
Total		**19,940**	**2.37**	**225**	**1,530**	**1755**

4.2.2 Confirmation Sampling Results

Upon completion of the remedial activities, confirmation samples were collected to ensure that excavation limits had successfully removed lead concentrations in excess of 500 mg/kg. At excavation areas in excess of 2,500 ft^2, both sidewall (SW) and bottom samples (BS) were collected to confirm that the vertical and horizontal extents of contamination had been removed. The following confirmation samples listed in **Table 4.4** and shown on Figure 4.6 were collected from each excavation. **Figure 4.7** shows a composite map of all confirmation sample locations remaining at the site following all previous investigations and most recent excavations.

At EXA, the average depth of the excavation was 2 feet below grade to the top of bedrock, with an estimated 530 cubic yards (CYs) of material being removed from the subsurface. Six bottom samples and five sidewall samples were collected from the excavation. With the exception of B34-EXA-BS05 (2,231.71 mg/kg) collected on July 3, 2013, all samples met the critical PCL for lead. That vicinity was additionally excavated and re-sampled on July 11, 2013, with a result of 5.58 mg/kg. Four sidewall samples were also collected from EXA on July 3, 2011. All sample results were below the critical PCL for lead. Based upon the confirmation sampling results, the greatest concentration of lead left in place at EXA was 266.08 mg/kg lead at location B34-EXA-BS01.

TABLE 4.4
LEAD CONFIRMATION SAMPLE DATA SUMMARY
SWMU B-34 SITE-SPECIFIC CLOSURE REPORT

Sample ID	Sample Date	COC	Critical PCL[1]		Sample Concentration (mg/kg)
			Pathway	(mg/kg)	
EXCAVATION AREA A (EXA)					
B34-EXA-BS01	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	266.08
B34-EXA-BS02	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	3.12
B34-EXA-BS03	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	48.19
B34-EXA-BS03(FD)	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	106.93
B34-EXA-BS04	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	25.05
B34-EXA-BS05 *Excavated*	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	2231.71
B34-EXA-BS05	**07/11/2013**	**Lead**	**Tier 2 Res Comb Exposure**	**500**	**5.58**
B34-EXA-BS06	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	5.84
B34-EXA-SW01	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	116.77
B34-EXA-SW02	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	14.64
B34-EXA-SW03	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	16.19
B34-EXA-SW04	07/03/2013	Lead	Tier 2 Res Comb Exposure	500	56.07
EXCAVATION AREA B (EXB)					
B34-EXB-BS01	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	77.63
B34-EXB-BS02	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	166.78
B34-EXB-BS03	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	205.42
B34-EXB-BS03(FD)	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	166.74
B34-EXB-BS04	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	67.25
B34-EXB-SW01	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	216.08
B34-EXB-SW02	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	445.19
B34-EXB-SW03	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	793.79[2]
B34-EXB-SW04	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	47.35
B34-EXB-SW05	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	12.1
B34-EXB-SW06	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	16.38
B34-EXB-SW07	07/15/2013	Lead	Tier 2 Res Comb Exposure	500	31.96
EXCAVATION AREA C (EXC)					
B34-EXC-BS01	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	144.12
B34-EXC-BS02	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	212.97
B34-EXC-BS03	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	175.15
B34-EXC-BS04	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	57.65
B34-EXC-BS04(FD)	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	54.37
B34-EXC-BS05	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	35.07
B34-EXC-BS06 *Excavated*	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	672.74
B34-EXC-BS06	**07/16/2013**	**Lead**	**Tier 2 Res Comb Exposure**	**500**	**208.88**
B34-EXC-SW01	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	148.91
B34-EXC-SW02	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	124.29
B34-EXC-SW03	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	430.96
B34-EXC-SW04	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	126.63
B34-EXC-SW05	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	222.36
B34-EXC-SW06	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	74.87
B34-EXC-SW07	07/11/2013	Lead	Tier 2 Res Comb Exposure	500	5.32
EXCAVATION AREA D (EXD)					
B34-SS46 *Excavated*	06/26/2013	Lead	Tier 2 Res Comb Exposure	500	231.29
B34-SS46	**07/16/2013**	**Lead**	**Tier 2 Res Comb Exposure**	**500**	**10.24**
B34-SS47 *Excavated*	06/26/2013	Lead	Tier 2 Res Comb Exposure	500	417.88
B34-SS47	**07/16/2013**	**Lead**	**Tier 2 Res Comb Exposure**	**500**	**21.24**
EXCAVATION AREA E (EXE)					
B34-SS52	07/16/2013	Lead	Tier 2 Res Comb Exposure	500	148.33

Notes:

[1] For all metals except lead, the Critical PCL is determined by using the greater of the CSSA 9 Metals Background value or the Residential Assessment Level (RAL) value. The RAL is determined by using the lower of Tier 1 Residential Groundwater Exposure and Tier 1 Residential Combined Exposure values; TCEQ, TRRP Tier 1 Soil PCLs - 30 acre, Last Revised June 29, 2012. For lead, the Tier 2 Residential Combined Exposure value is used.

[2] This location could not be overexcavated due to the presence of a mission-critical fiber optic line.

Concentrations highlighted indicate detections above the Critical PCL

Sample locations highlighted in green are re-samples after additional excavation to remove lead reported in the previous sample.

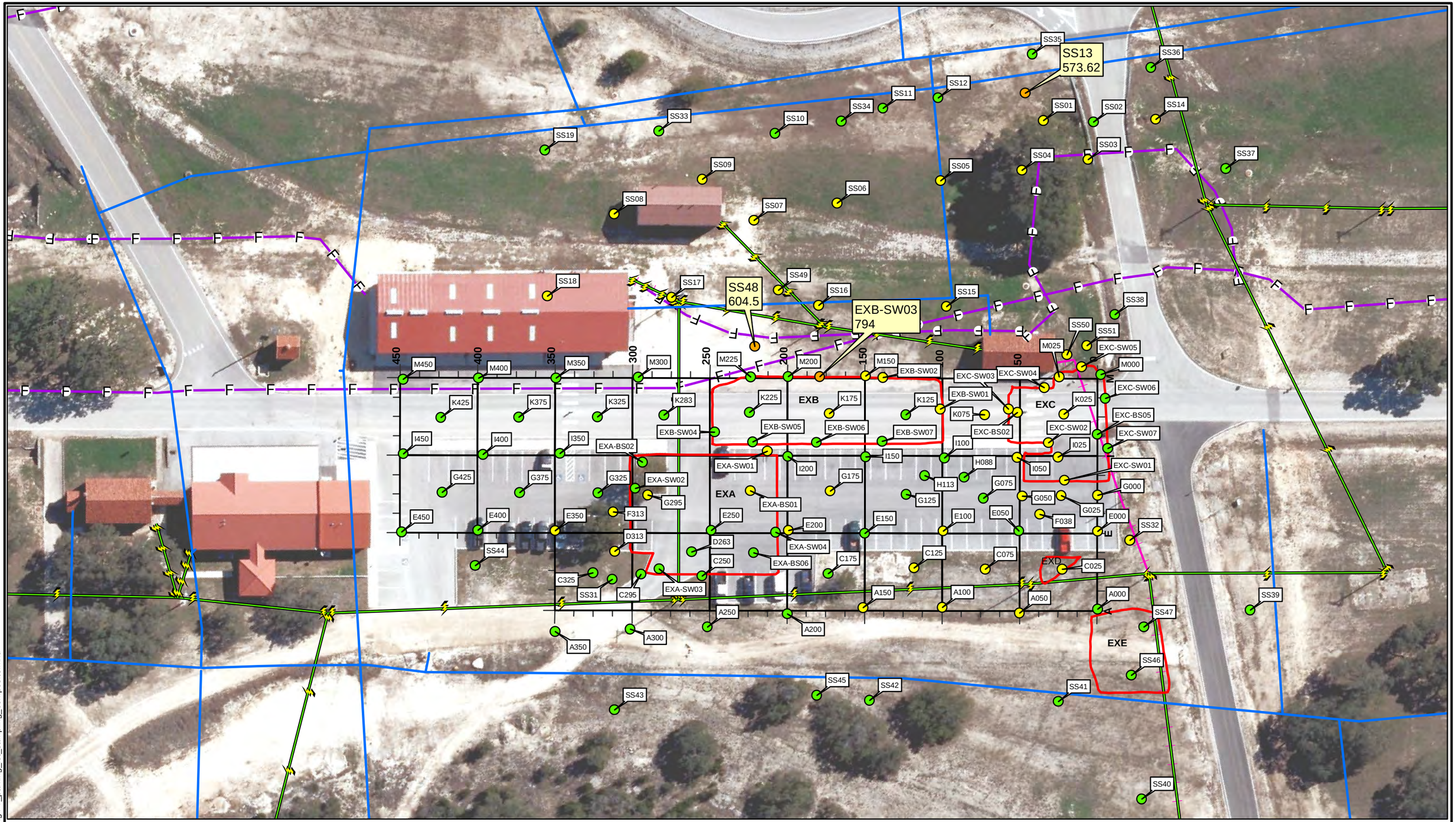

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Figure 4.7

Composite Map of Remaining Soil Sample Locations After Excavation (All Investigations) Camp Stanley Storage Activity

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At EXB, the average depth of the excavation was 3 feet below grade, with an estimated 699 cubic yards of material being removed from the subsurface. Four bottom samples and seven sidewall samples were collected from the excavation. With the exception of B34-EXB-SW03 (793.79 mg/kg) collected on July 15, 2013, all samples met the critical PCL for lead. Because of the presence of a major, mission-critical fiber optic line adjacent to the road, no excavations to the east of the road were undertaken at the request of CSSA. However, the extent of soils above the critical PCL is bounded by prior surface samples approximately 50 feet east of EXB.

At EXC, the average depth of the excavation was 3 feet below grade, with an estimated 426 cubic yards of material being removed from the subsurface. Six bottom samples and seven sidewall samples were collected from the excavation. With the exception of B34-EXC-BS06 (672.74 mg/kg) collected on July 11, 2013, all samples met the critical PCL for lead. That vicinity was additionally excavated and re-sampled on July 16, 2013, with a result of 208.88 mg/kg. Seven sidewall samples were also collected from EXC on July 11, 2011. All sample results were below the critical PCL for lead. Based upon the confirmation sampling results, the greatest concentration of lead left in place at EXC was 430.96 mg/kg lead at location B34-EXC-SW03.

At EXD, approximately 10 cubic yards of soil was excavated to a depth of one foot around soil boring B34-C025, which had a lead concentration of 1,303.1 mg/kg at 6 inches in depth. Upon completion of the excavation and XRF screening, and confirmation sample (B34-SS52) was collected from the base of the excavation. The result of the confirmation sample was 148.33 mg/kg, which is below the critical PCL for lead.

Finally, at EXE, another 90 cubic yards of soil was excavated to a depth of one foot around surface samples B34-SS46 (231.29 mg/kg of lead) and B34-SS47 (417.88 mg/kg of lead), west of the parking lot. Even though the initial samples did not exceed the critical PCL, prior XRF results indicated the potential for an exceedance could exist. Therefore, Parsons excavated one foot to bedrock around the vicinity of these soil sample locations. These locations were re-sampled after the excavation on July 16, 2013 as repeat samples. The results of the confirmation samples were 10.24 mg/kg lead at B34-SS46 and 21.24 mg/kg lead at B34-SS47.

4.3 Upper Confidence Limit Development

All confirmation sample results remaining at the site (i.e., not excavated) were below critical PCLs with the exception of three samples: B34-EXB-SW03 (794 mg/kg), B34-SS13 (570 mg/kg), and B34-SS48 (604.5 mg/kg) that exceeded the critical PCL for lead of 500 mg/kg. As shown on Figure 4.7, B34-EXB-SW03 and B34-SS48 could not be overexcavated due to the presence of a mission-critical fiber optic line in the area. The decision not to excavate the location of B34-SS13 was made for two reasons: 1) it was suspected that the location had already been excavated as a result of prior utility line work in the area; and 2) even if the original soil was still in place at that location, the calculation of a 95% upper confidence limit (UCL) (as discussed below) did not warrant its removal.

Because an individual is assumed to move randomly across an exposure area over time, the spatially averaged soil concentration can be used to estimate the true average contaminant concentration contacted over time (TCEQ 1998). Per TAC §350.79(2)(A), a 95% UCL may be calculated to determine if there is a statistical basis for NFA on a particular COC. A 95% UCL of 154.6 mg/kg was calculated for the lead concentration remaining in site soils using ProUCL

Version 4.1, which does not exceed the critical PCL of 500 mg/kg (**Appendix G**). Therefore, per TAC §350.79(2)(A), further response action for lead is not required at SWMU B-34.

4.4 Waste Characterization and Disposal Activities

Waste characterization efforts were performed in accordance with requirements of CSSA's *RCRA Facility Investigation (RFI) and Interim Measures (IM) Waste Management Plan (WMP) – Revised*, dated May 2006 (approved by TCEQ in August 2006) and the RFI/IM WMP Addendum for SWMU B-34 (Parsons 2013). Waste characterization sample results for excavated soils are included in Appendix D.

Results of waste characterization showed that the impacted media from SWMU B-34 met State of Texas Class 2 non-hazardous criteria (30 TAC §335 Subchapter R). A total of approximately 1,755 CY of material was excavated. Approximately 225 CY of asphalt was transported offsite for recycling at Templar Asphalt and Concrete Recycling. The remaining lead-impacted material, which includes an estimated 1,530 CY of soil, rock, and A2 base material was transported to the East Pasture Berm for reuse, as per TCEQ approval December 20, 2010 (**Appendix H**).

5.0 SUMMARY AND RECOMMENDATIONS

SWMU B-34 is a 4.9-acre site located in the western portion of CSSA's Inner Cantonment approximately 440 yards east of the western CSSA boundary where metals contamination, primarily lead, was identified in shallow soil. The site was originally identified as a SWMU because locomotive maintenance was conducted in the area.

In summary, activities at SWMU B-34 as described in this Site-Specific Closure Report resulted in the following:

- Soils found to have lead concentrations above the Tier 2 Residential PCL (critical PCL) were either excavated from the site or were used to calculate a 95% UCL per TAC §350.79(2)(A) that does not exceed the critical PCL;
- Approximately 1,530 CY of contaminated soil, rock, and A2 base material were excavated and properly managed at the East Pasture Berm;
- Approximately 225 CY of asphalt were transported offsite for recycling;
- Confirmation samples were collected from trench bottoms and sidewalls to confirm all waste had been removed;
- Well CS-MW18-LGR, located at SWMU B-34, has been sampled numerous times since 2002 for VOCs and metals. Trace or very low detections of VOCs at the well have been below any regulatory threshold set forth by the SDWA. The detections are consistent with the basewide detections of solvents in groundwater due to past management practices associated with activities at AOC-65 and SWMU B-3, and are not related to contaminants at SWMU B-34.
- There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at SWMU B-34; and
- SWMU B-34 passes the Tier 1 Ecological Exclusion Criteria Checklist (Appendix B).

This Site-Specific Closure Report was prepared to document the results of the remedial activities performed at SWMU B-34, and to request an NFA decision for the site from TCEQ.

6.0 REFERENCES

Parsons 2002. *SWMU B-34 RCRA Facility Investigation Report*. August 2002. Available online: http://www.stanley.army.mil/Volume1-2/B-34/RFI/TOC.htm

Parsons 2003a. *Final CSSA Base-wide Quality Assurance Project Plan, Version 1.0*. January 2003. Available online: http://www.stanley.army.mil/Volume1-4/TOC.htm

Parsons 2003b. *Final SWMU B-34 RCRA Facility Investigation Report Addendum*. August 2003. Available online: http://www.stanley.army.mil/Volume1-2/B-34/RFI/Addendum/TOC.htm

Parsons 2013. *RFI and Interim Measures Waste Management Plan Addendum at Camp Stanley Storage Activity, Boerne, Texas, Addendum Specific to SWMU B-34*. March 2013.

Science Applications International Corporation (SAIC) 1997. *Building Inventory and Assessment Forms (Final Draft)*, Prepared for U.S. Army Corps of Engineers, Fort Worth District, Contract No. DACA63-95-D-0020, Delivery Order No. 0013. February 28, 1997.

TCEQ 1998. *Use of Statistics for Determining Soil/Groundwater Cleanup Levels under the Risk Reduction Rules*. April 30, 1998.

APPENDIX A
Tier 2 PCL Calculations for Lead

Calculations for Tier 2 $^{GW}Soil_{Ing}$ PCL for Lead (Residential and Commercial/Industrial)
Camp Stanley Storage Activity
Solid Waste Management Unit B-34

A Tier 2 $^{GW}Soil_{Ing}$ protective concentration level (PCL) for Lead was calculated for SWMU B-34, Camp Stanley Storage Area (CSSA), in support of site closure activities conducted in accordance with the Texas Risk Reduction Program (30 Texas Administrative Code (TAC) §350). The PCL equation presented in TCEQ's "*Errata to PCL Equations*" dated March 24, 2000 was used for the calculation of which is provided as **Attachment A**.

Tier 1 default values were used for the calculation, with the following exceptions:

K_d – The soil-water partition coefficient was obtained from Figure: 30 TAC §350.73(e)(1)(A) for a site with clayey soil with a pH greater than 5.

L_2 – The depth from the top of affected soil to the groundwater table was based on the average depth to groundwater obtained from well CS-MW18-LGR (the nearest well to SWMU B-34) from data obtained from September 2002 to December 2012. The data is included in **Attachment B**.

L_1 – The thickness of affected soil was assumed to equal the depth to bedrock as found in the boring log from well CS-MW18-LGR (**Attachment C**). At other sites at the CSSA, lead contamination was not found deeper than 3 feet bgs. Therefore, the use of 8 feet is a conservative assumption.

The use of these site-specific values, as well as an assumption that the groundwater critical PCL is the published Tier 1 PCL for lead of 0.015 mg/L, results in the calculation of a Tier 2 $^{GW}Soil_{Ing}$ PCL for Lead of 8,700 mg/kg.

Since the Tier 2 $^{GW}Soil_{Ing}$ PCL is greater than the Tier 1 Commercial/Industrial $^{Tot}Soil_{Comb}$ PCL (1,600 mg/kg), the Tier 1 Commercial/Industrial $^{Tot}Soil_{Comb}$ PCL will be the critical PCL used to delineate the PCLE zone for lead at SWMU B-34.

Attachment A
Calculations for Tier 2 $^{GW}Soil_{Ing}$ PCL for Lead (Residential and Commercial/Industrial),
Camp Stanley Storage Activity
Solid Waste Management Unit B-34

$$^{GW}Soil_{Ing} = \frac{(Critical\ Groundwater\ PCL) \times LDF}{K_{sw}} \times \frac{L_2}{L_1}$$

Soil to Groundwater PCL Equation from "Errata to PCL Equations" TRRP Guidance, March 24, 2000

$$^{GW}Soil_{Ing} = \frac{0.015 \times 10}{0.00055} \times \frac{254.01}{8.00}$$

$^{GW}Soil_{Ing}$ =	**8716.17**	mg/kg

$$K_{SW} = \frac{\rho_b}{\theta_{ws} + K_d \rho_b + H' \theta_{as}}$$

So that:

$$K_{SW} = \frac{1.67}{0.16 + (1830 \times 1.67) + (0 \times 0.21)}$$

$$K_{SW} = \frac{1.67E+00}{3.06E+03}$$

$$K_{SW} = \mathbf{5.46E-04}$$

When:

Using:

Groundwater Critical PCL:

$^{GW}GW_{Ing}$ =	1.5E-02	mg/L

ρ_b	= Soil bulk density (g/cm^3)	1.67E+00
θ_{ws}	= Volumetric water content of vadose zone soils	1.60E-01
K_d	= Soil-water partition coefficient (K_{oc} x foc)	1.83E+03
K_{oc}	= Soil organic carbon-water partition coefficient	--
foc	= fraction organic carbon	8.00E-03
H'	= Henry's Law Constant	0.00E+00
θ_{as}	= Volumetric air content of vadose zone soils	2.10E-01
LDF	= Lateral Dilution Factor	1.00E+01
L_2	= Depth from top of affected soil to groundwater table (ft)	254.01
L_1	= Thickness of affected soil (ft)	8.0

H' - from Figure: 30 TAC §350.73(e).
K_d - from Figure: 30 TAC §350.73(e)(1)(A) for clayey soil with a pH 5-9.

LDF, ρ_b, θ_{ws}, and θ_{as} use Tier 1 default values from "Errata to PCL Equations" TRRP Guidance, March 24, 2000.

Shaded cells represent compound- and site-specific variables

$^{GW}GW_{Ing}$ = Published Tier 1 PCL (http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html)

L_2 is average depth to groundwater from September 2002 to December 2012 (see attached)
L_1 is based on depth to bedrock (see attached boring log for MW18-LGR)

Attachment B
Summary of Groundwater Elevations
Camp Stanley Storage Activity, Texas

Well ID:	CS-MW18-LGR	
TOC Elevation (ft MSL):	1283.61	
Date	Depth to Groundwater (ft BTOC)	Relative Groundwater Elevation (ft MSL)
9-Sep-02	145.11	1138.50
10-Dec-02	147.95	1135.66
10-Apr-03	149.94	1133.67
16-Jun-03	190.00	1093.61
25-Sep-03	244.54	1039.07
8-Dec-03	285.00	998.61
5-Mar-04	248.30	1035.31
14-Jun-04	159.31	1124.30
17-Sep-04	180.97	1102.64
2-Dec-04	104.35	1179.26
11-Mar-05	111.46	1172.15
6-Jun-05	172.76	1110.85
9-Sep-05	237.63	1045.98
27-Dec-05	306.87	976.74
31-Jan-06	326.17	957.44
13-Mar-06	340.76	942.85
12-Jun-06	342.16	941.45
11-Sep-06	346.97	936.64
18-Dec-06	343.95	939.66
5-Mar-07	345.22	938.39
4-Jun-07	111.09	1172.52
24-Sep-07	110.55	1173.06
10-Dec-07	197.67	1085.94
20-Mar-08	240.89	1042.72
9-Jun-08	293.36	990.25
8-Sep-08	339.16	944.45
8-Dec-08	344.22	939.39
9-Mar-09	346.37	937.24
8-Jun-09	344.84	938.77
8-Sep-09	350.32	933.29
7-Dec-09	236.30	1047.31
5-Mar-10	136.25	1147.36
7-Jun-10	132.85	1150.76
13-Sep-10	148.80	1134.81
6-Dec-10	246.79	1036.82
7-Mar-11	299.52	984.09
8-Jun-11	346.29	937.32
12-Sep-11	349.44	934.17
12-Dec-11	341.39	942.22
14-Mar-12	266.19	1017.42
12-Jun-12	320.95	962.66
10-Sep-12	346.97	936.64
10-Dec-12	342.82	940.79

min	104.35
max	350.32
average	254.01

Attachment C

Well CS-MW18-LGR Boring Log

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DRILLING LOG
CS-MW18-LGR

Project:	740911.04000	**Installation:**	Camp Stanley Storage Activity
Geologist:	J. Skaggs/S. Pearson	**Size and Type of Bit:**	3.97" Continuous Air-Core
Drilling Agency:	Geoprojects International	**Make and Model of Rig:**	Gardner-Denver 1500

Well ID	Interval	Northing (m)	Easting (m)	Ground Level (ft MSL)	TOC (ft MSL)	Start	Stop
CS-MW18-LGR	0-413'	3284664.46	537037.38	1280.62	1283.61	07/16/02	07/29/02

Depth (ft bgs)	PID (ppm)	Recovery	Lithologic Description	Lithology	Discrete Interval GW Sample	Gamma 0 (cps) 150 / Resistivity 0 (ohm-m) 600
0	0	0/8	0.0-8.0' Overdrill.			
-10	0	4.5/5.0	LIMESTONE: 8.0-13.0' Wackestone/packstone, pale yellow 2.5 Y 8/3, mud-filled fracture from 10.3-10.9. Increasing mud matrix towards 13.0'. Bivalve shell fragments moldic vugs and <1 mm pores.			
-15		4/7	LIMESTONE: 13.0-20.0' Mudstone color as above, thin bedding evident, mud from 18.5-19.5 and loss of core. Driller reports void from 14-16' that is taking all cuttings.			
-20	0	4.8/5.0	LIMESTONE: 20.0-25.0' GLEY 2 7/1, mudstone with thin layers of grainstone at 20.2 at 20.4. Sharp contact. Mudstone from 20.4-24.8. Clay with moisture @ 22.1-22.8. Oblique/nearly vertical fractures @ 23.0-24.0. Iron stained.			
-25		5/5	LIMESTONE: 25.0-30.0' As above, grays. Alternating layers of mudstone/packstone with undulating contacts grainstone from 29.3-30.0.			
-30	0	1.2/2.0	LIMESTONE: 30.0-32.0' As above.			
-40	0	8/10	LIMESTONE: 32.0-42.0' As above. Packstone/wackestone, grays, thin laminations. Clay @ 49.0'.			
-45		10/10	LIMESTONE: 42.0-45.7' Mudstone grays (mostly dark) thinly laminated with undulating contacts.			
-50	0		LIMESTONE: 45.7-52.0' Packstone, light and dark grays, massive, some small vugs.			

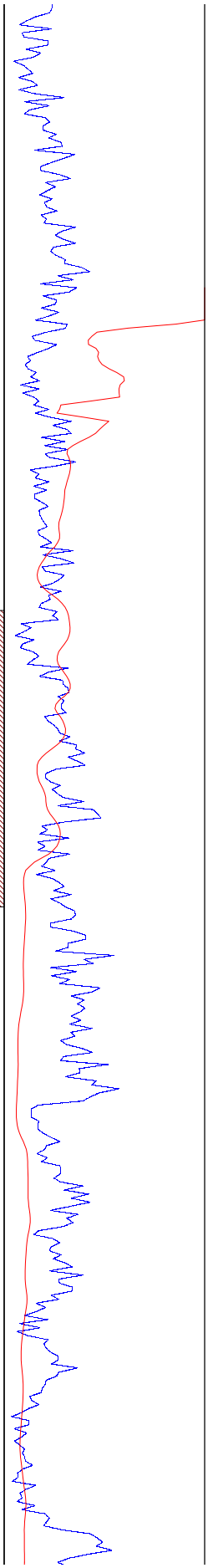
Depth (ft bgs)	PID (ppm)	Recovery	Lithologic Description
-55		10/10	LIMESTONE: 52.0-62.0' Alternating layers of mudstone and wackestone/packstone. Light and dark grays, undulating wavy contacts between beds of various thickness (1 mm - 8 cm).
-60	0		
-65		9.5/10.0	LIMESTONE: 62.0-72.0' As above, grays, soft zones @ 62.5-63.2, packstone at 67.2-68.0.
-70	0		
-75		7.7/10.0	LIMESTONE: 72.0-75.8' As above.
-80	0		LIMESTONE: 75.8-82.0' As above only yellow 2.5 Y 8/6 , vuggy, weathered and broken from 77.5-77.7 and 77.9-78.2. Very hard micrite (yellow). 78.2-78.7' Contact from yellow mushy weathered to dark bluish gray, gradational from 79.2-79.6. Soft massive clay 79.6-79.7. Yellow stained oblique fracture from 74.1-74.4, basal partings along width of core. Vertical fracture in soft zone from 79.2-79.6'.
-85		5.5/10.0	LIMESTONE: 82.0-83.4' Wackestone, light gray, hard crystalline.
			LIMESTONE: 83.4-84.5' Dark gray - charcoal color, GLEY 2 2.5/5 BG, thinly bedded fissile.
			LIMESTONE: 84.5-84.7' Crystalline packstone whitish gray,
-90	0		LIMESTONE: 84.7-92.0' Mush soft and massive wackestone with zones of well cemented grainstone. Lots of loss in this area forams and tube worm fossils.
-95		10/10	LIMESTONE: 92.0-102.0' Packstone, grays, oriented Orbitulina texana hash, occasional 1-2" bivalve wavy bedding transitional contact to grainstone medium grained particles and oriented shell fragments, massive, porous. Iron stained zone @ 96.7', large vug @ 100.6'.
-100	0		
-105		10/10	LIMESTONE: 102.0-112.0' Mudstone/packstone, grays, wavy bedding, oriented shell fragments, small 1-2 cm vugs (few), looks like poorly formed stylolites throughout. Crystalline from 106-107 transitional back to darker gray packstone, large oriented oyster shells @ 111.0-111.3', mottled and convoluted 108.5-108.9'.
-110	0		
-115		10/10	LIMESTONE: 112.0-122.0' Wackestone/packstone, grays, soft mushy zone from 115-116, wavy bedding, vug @ 118.9'. Porous and light greenish, gray GLEY 1 8/10Y (sort of tan) from 119.9-120.3. Hashy in zones with tube worms and turtellas.

Lithology

Discrete Interval GW Sample

Gamma (cps) 0 150

Resistivity (ohm-m) 0 600

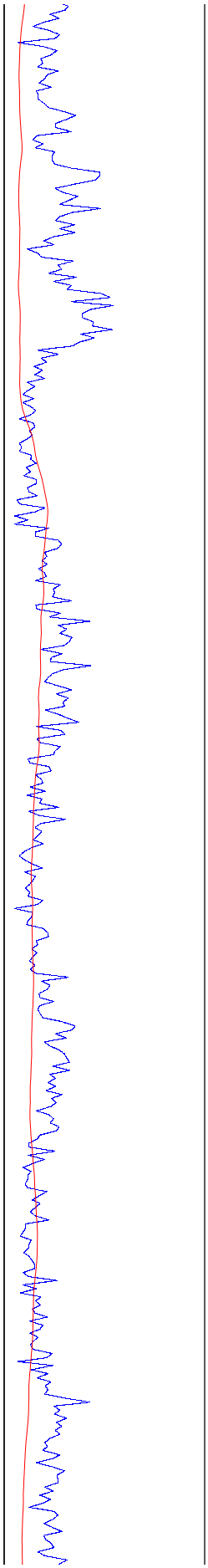


Depth (ft bgs)	PID (ppm)	Recovery	Lithologic Description
-120	0		
-125		10/10	LIMESTONE: 122.0-132.0' As above, grays, mushy zone from 124.8-125.1'. Hard and crystalline from 125.1-126.0. Stylolite at 125.8. Fissile with basal fracture. 129.0-130.4' As above except pale yellow, sharp color contact with no obvious lithology change hard white crystalline @ 130.4-131.0', soft and mushy 129.5-130.5'.
-130	0		
-135		10/10	LIMESTONE: 132.0-142.0' Packstone/grainstone, pale yellow 2.5 Y 8/2 fossiliferous and vuggy. Oysters, pelecypods and gastropods, porous. 137.3-142.0' As above, less vuggy and smaller fossils, hashy with less pores. Slow gradational change to light gray at 141.0-141.5, stylolites @ 142.0.
-140	0		
-145		10/10	LIMESTONE: 142.0-152.0' Wackestone/packstone, light gray and grayish tan zones of 1-2 cm shell clasts, bioturbated throughout with worm burrows. Stylolite cones @ 144.0-144.3, 145.5-145.7, 147.5-147.7 and 149.4-149.6.
-150	0		
-155		10/10	LIMESTONE: 152.0-162.0' Wackestone/packstone, grays, oyster and pelecypods with shell hash, bioturbated, mushy towards 162.0, small 0.5 cm lignite splinters from 152.5-158.0, 1-2 per inch. Small thread-like stylolites starting @ 158.0 and increasing in numbers towards mushy zone @ 162.0.
-160	0		
-165		10/10	LIMESTONE: 162.0-172.0' Packstone, white 2.5 Y 8/1, foram hash with occasional larger shell clast. Some small vugs and occasional lignite splinters. Stylolites @ 162.3, 165.3.
-170	0		
-175		10/10	LIMESTONE: 172.0-182.0' Wackestone/packstone, light bluish gray GLEY 2 7/5B, bioturbated 172-173.5, small 1-5 mm shell fragments (oriented) throughout.

Lithology | Discrete Interval GW Sample

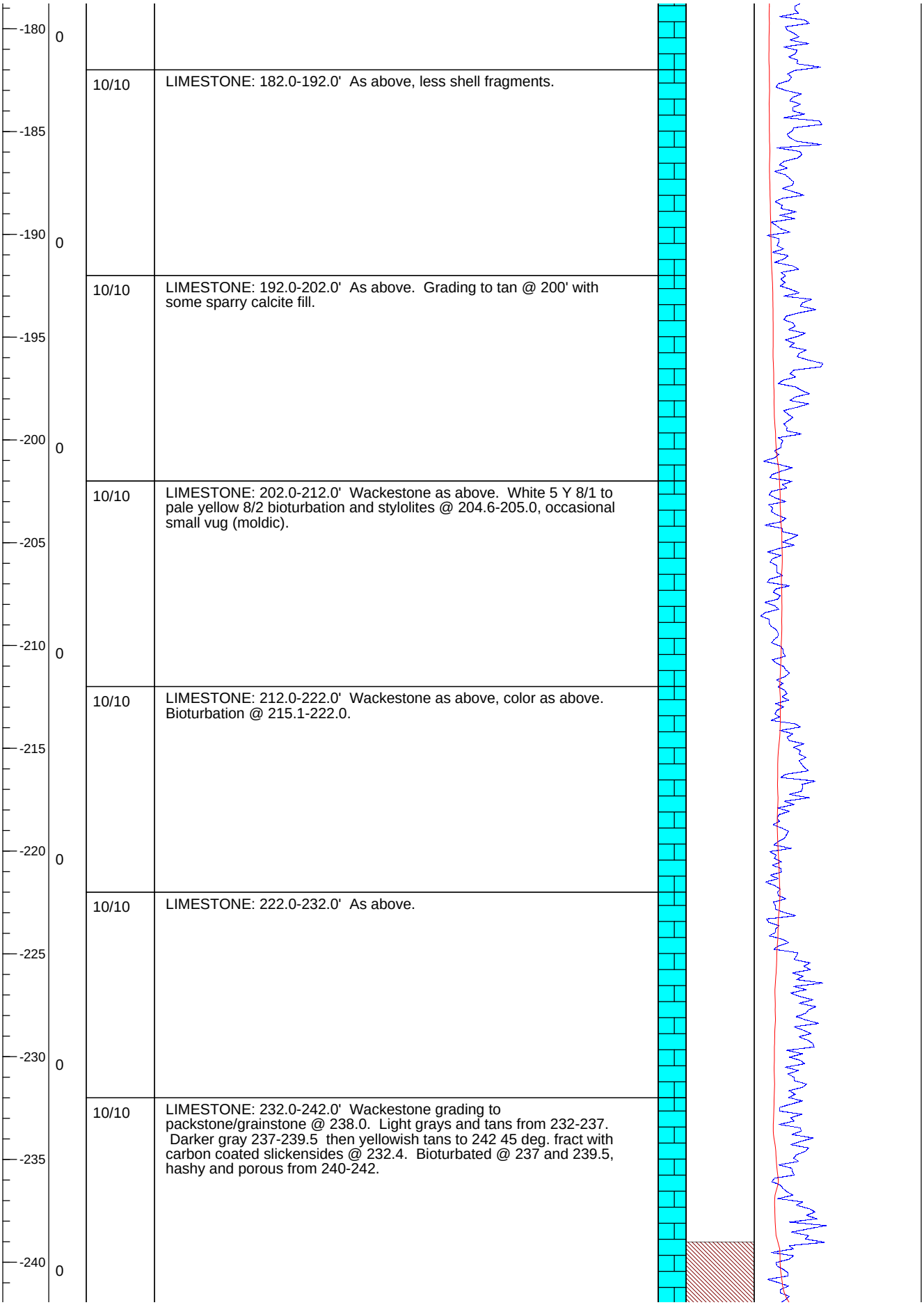
Gamma (cps): 0 – 150

Resistivity (ohm-m): 0 – 600



Depth (ft bgs)	PID (ppm)	Recovery	Lithologic Description
-180	0		
		10/10	LIMESTONE: 182.0-192.0' As above, less shell fragments.
-185			
-190	0		
		10/10	LIMESTONE: 192.0-202.0' As above. Grading to tan @ 200' with some sparry calcite fill.
-195			
-200	0		
		10/10	LIMESTONE: 202.0-212.0' Wackestone as above. White 5 Y 8/1 to pale yellow 8/2 bioturbation and stylolites @ 204.6-205.0, occasional small vug (moldic).
-205			
-210	0		
		10/10	LIMESTONE: 212.0-222.0' Wackestone as above, color as above. Bioturbation @ 215.1-222.0.
-215			
-220	0		
		10/10	LIMESTONE: 222.0-232.0' As above.
-225			
-230	0		
		10/10	LIMESTONE: 232.0-242.0' Wackestone grading to packstone/grainstone @ 238.0. Light grays and tans from 232-237. Darker gray 237-239.5 then yellowish tans to 242 45 deg. fract with carbon coated slickensides @ 232.4. Bioturbated @ 237 and 239.5, hashy and porous from 240-242.
-235			
-240	0		

Lithology | Discrete Interval GW Sample | Gamma (cps) 0 150 | Resistivity (ohm-m) 0 600



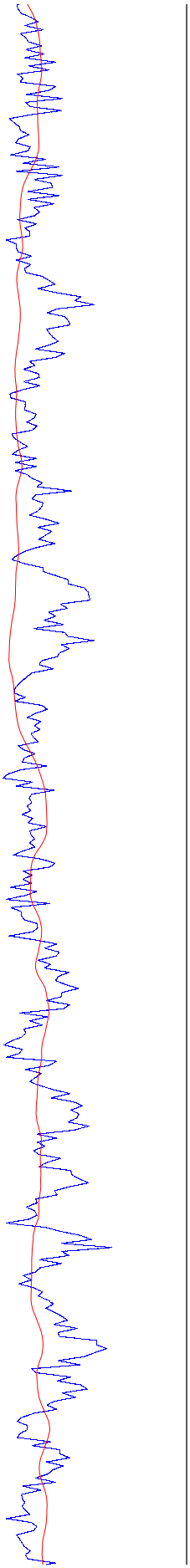
Depth (ft bgs)	PID (ppm)	Recovery	Lithologic Description
-245		10/10	LIMESTONE: 242.0-252.0' Packstone/grainstone, whitish gray to pale yellow stylolites throughout. More of a packstone from 249-252. Bioturbated at 249-252. Bivalve shell fragments throughout. Vuggy with some sparry calcite fill.
-250	0		
-255		10/10	LIMESTONE: 252.0-262.0' As Above grading to mudstone/wackestone at 253.5, light gray hues, bioturbated 1-2 cm shell fragments oriented grading to 253.5 grayish tan, porous with small 1 mm vugs, stylolites @ 261.2.
-260	0		
-265		10/10	LIMESTONE: 262.0-272.0' Alternating zones of packstone/wackestone and mudstone, mottled graying contacts between grays as above.
-270	0		
-275		10/10	LIMESTONE: 272.0-282.0' As above, stylolites @ 273.1, 275.8, 278.5.
-280	0		
-285		10/10	LIMESTONE: 282.0-292.0' Packstone/grainstone, grays and tans, vuggy in zones with sparry calcite crystals, stylolites throughout, large oysters and pelecypods.
-290	0		
-295		10/10	LIMESTONE: 292.0-302.0' As above, wackestone from 300.6-302.
-300	0		
-305		10/10	LIMESTONE: 302.0-312.0' As above with darker grays in bioturbated zones, hashy from 310-312.

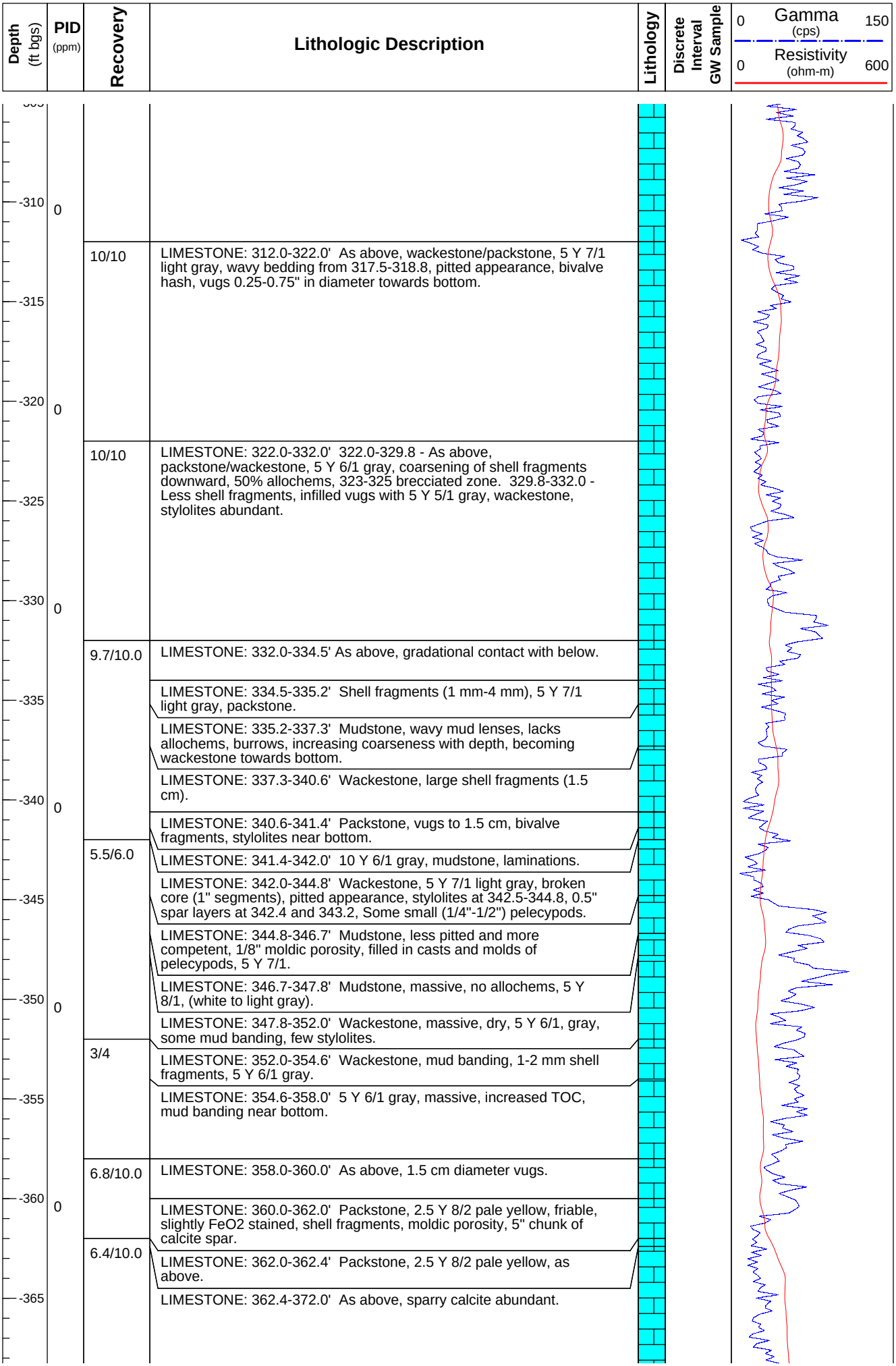
Lithology

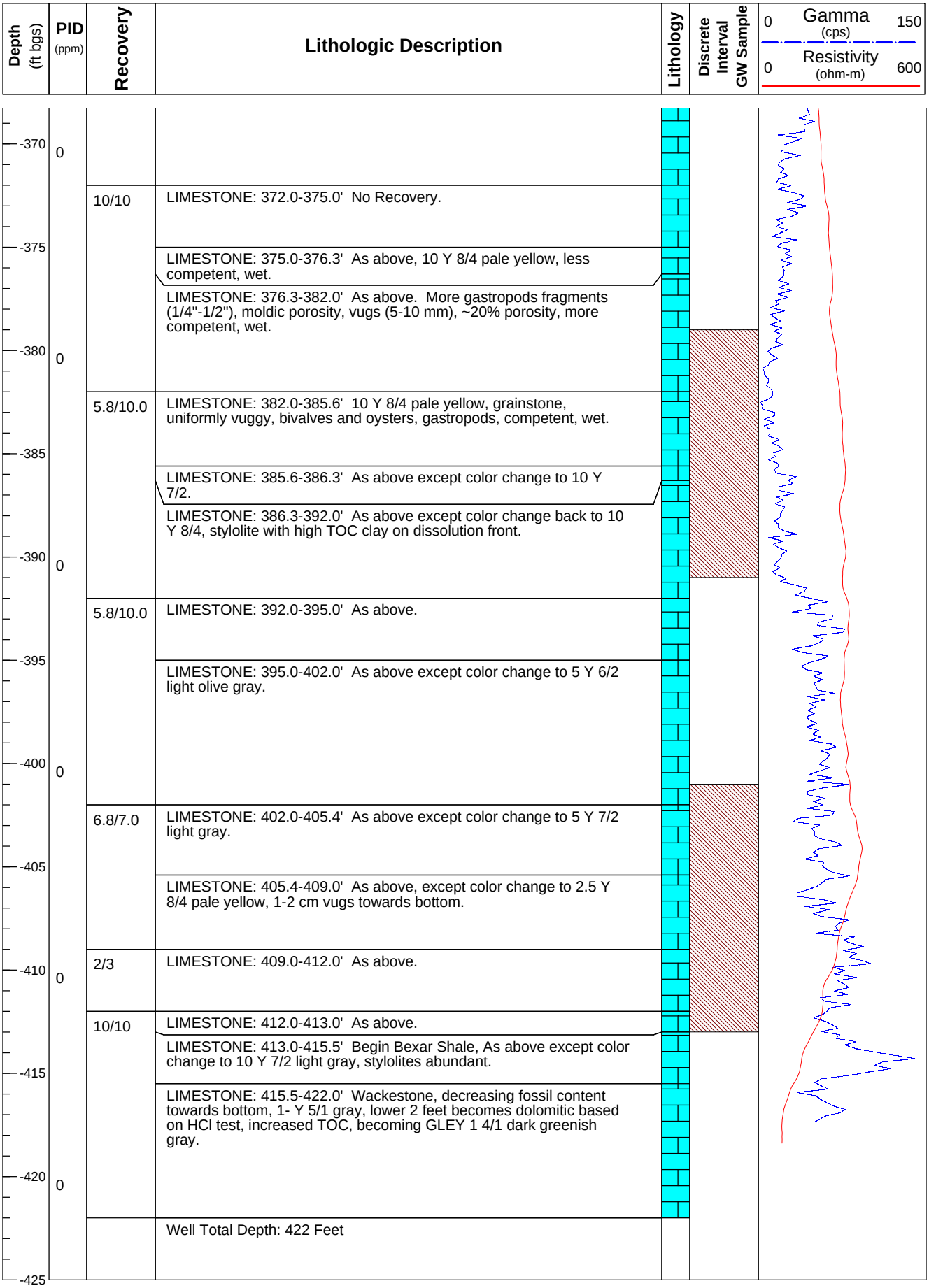
Discrete Interval GW Sample

Gamma (cps): 0 – 150

Resistivity (ohm-m): 0 – 600




Depth (ft bgs)
PID (ppm)
Recovery
Lithologic Description
Lithology
Discrete Interval GW Sample
0 Gamma (cps) 150
0 Resistivity (ohm-m) 600
-310
-315
-320
-325
-330
-335
-340
-345
-350
-355
-360
-365
0
0
0
0
0
0
10/10
LIMESTONE: 312.0-322.0' As above, wackestone/packstone, 5 Y 7/1 light gray, wavy bedding from 317.5-318.8, pitted appearance, bivalve hash, vugs 0.25-0.75" in diameter towards bottom.
10/10
LIMESTONE: 322.0-332.0' 322.0-329.8 - As above, packstone/wackestone, 5 Y 6/1 gray, coarsening of shell fragments downward, 50% allochems, 323-325 brecciated zone. 329.8-332.0 - Less shell fragments, infilled vugs with 5 Y 5/1 gray, wackestone, stylolites abundant.
9.7/10.0
LIMESTONE: 332.0-334.5' As above, gradational contact with below.
LIMESTONE: 334.5-335.2' Shell fragments (1 mm-4 mm), 5 Y 7/1 light gray, packstone.
LIMESTONE: 335.2-337.3' Mudstone, wavy mud lenses, lacks allochems, burrows, increasing coarseness with depth, becoming wackestone towards bottom.
LIMESTONE: 337.3-340.6' Wackestone, large shell fragments (1.5 cm).
LIMESTONE: 340.6-341.4' Packstone, vugs to 1.5 cm, bivalve fragments, stylolites near bottom.
5.5/6.0
LIMESTONE: 341.4-342.0' 10 Y 6/1 gray, mudstone, laminations.
LIMESTONE: 342.0-344.8' Wackestone, 5 Y 7/1 light gray, broken core (1" segments), pitted appearance, stylolites at 342.5-344.8, 0.5" spar layers at 342.4 and 343.2, Some small (1/4"-1/2") pelecypods.
LIMESTONE: 344.8-346.7' Mudstone, less pitted and more competent, 1/8" moldic porosity, filled in casts and molds of pelecypods, 5 Y 7/1.
LIMESTONE: 346.7-347.8' Mudstone, massive, no allochems, 5 Y 8/1, (white to light gray).
LIMESTONE: 347.8-352.0' Wackestone, massive, dry, 5 Y 6/1, gray, some mud banding, few stylolites.
3/4
LIMESTONE: 352.0-354.6' Wackestone, mud banding, 1-2 mm shell fragments, 5 Y 6/1 gray.
LIMESTONE: 354.6-358.0' 5 Y 6/1 gray, massive, increased TOC, mud banding near bottom.
6.8/10.0
LIMESTONE: 358.0-360.0' As above, 1.5 cm diameter vugs.
LIMESTONE: 360.0-362.0' Packstone, 2.5 Y 8/2 pale yellow, friable, slightly FeO2 stained, shell fragments, moldic porosity, 5" chunk of calcite spar.
6.4/10.0
LIMESTONE: 362.0-362.4' Packstone, 2.5 Y 8/2 pale yellow, as above.
LIMESTONE: 362.4-372.0' As above, sparry calcite abundant.


Depth (ft bgs)
PID (ppm)
Recovery
Lithologic Description
Lithology
Discrete Interval GW Sample
Gamma (cps)
0
150
Resistivity (ohm-m)
0
600
-370
-375
-380
-385
-390
-395
-400
-405
-410
-415
-420
-425
0
10/10
LIMESTONE: 372.0-375.0' No Recovery.
LIMESTONE: 375.0-376.3' As above, 10 Y 8/4 pale yellow, less competent, wet.
LIMESTONE: 376.3-382.0' As above. More gastropods fragments (1/4"-1/2"), moldic porosity, vugs (5-10 mm), ~20% porosity, more competent, wet.
5.8/10.0
LIMESTONE: 382.0-385.6' 10 Y 8/4 pale yellow, grainstone, uniformly vuggy, bivalves and oysters, gastropods, competent, wet.
LIMESTONE: 385.6-386.3' As above except color change to 10 Y 7/2.
LIMESTONE: 386.3-392.0' As above except color change back to 10 Y 8/4, stylolite with high TOC clay on dissolution front.
5.8/10.0
LIMESTONE: 392.0-395.0' As above.
LIMESTONE: 395.0-402.0' As above except color change to 5 Y 6/2 light olive gray.
6.8/7.0
LIMESTONE: 402.0-405.4' As above except color change to 5 Y 7/2 light gray.
LIMESTONE: 405.4-409.0' As above, except color change to 2.5 Y 8/4 pale yellow, 1-2 cm vugs towards bottom.
2/3
LIMESTONE: 409.0-412.0' As above.
10/10
LIMESTONE: 412.0-413.0' As above.
LIMESTONE: 413.0-415.5' Begin Bexar Shale, As above except color change to 10 Y 7/2 light gray, stylolites abundant.
LIMESTONE: 415.5-422.0' Wackestone, decreasing fossil content towards bottom, 1- Y 5/1 gray, lower 2 feet becomes dolomitic based on HCl test, increased TOC, becoming GLEY 1 4/1 dark greenish gray.
Well Total Depth: 422 Feet

APPENDIX B

Tier 1 Ecological Exclusion Criteria Checklist

PART I. Affected Property Identification and Background Information

1) Provide a description of the specific area of the response action and the nature of the release. Include estimated acreage of the affected property and the facility property, and a description of the type of facility and/or operation associated with the affected property. Also describe the location of the affected property with respect to the facility property boundaries and public roadways.

Camp Stanley Storage Activity: 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 (see Figure 1.1 of the Closure Report). CSSA has several historical waste sites, including SWMUs, AOCs, and RMUs. The present mission of CSSA is the receipt, storage, issue, and maintenance of ordnance, as well as quality assurance testing and maintenance of military weapons and ammunition. Because of its mission, CSSA has been designated a restricted access facility. No changes to the CSSA mission and/or military activities are expected in the future.

SWMU B-34 is located in a developed industrial area of the Inner Cantonment of CSSA (Figure 1.2 of the Closure Report). The site is covered almost entirely by concrete and asphalt, with a narrow, maintained grassy area along its eastern edge. The original site boundary for SWMU B-34 encompassed approximately 0.5 acre, however subsequent sampling and investigations led to the expansion of the boundary to include 4.9 acres as shown on Figure 2.

Attach available USGS topographic maps and/or aerial or other affected property photographs to this form to depict the affected property and surrounding area. Indicate attachments:

☑ Topo map ☑ Aerial photo ☑ Other

Figure 1.2 of the Closure Report shows the general location of SWMU B-34. Aerial photos of the site and land adjacent to the site are shown on Figure 2.1. A map showing the topography of the site is included as Figure 2.3 of the Closure Report.

2) Identify environmental media known or suspected to contain chemicals of concern (COCs) at the present time. Check all that apply:

Known/Suspected COC Location	Based on sampling data?	
☐ Soil ≤ 5 ft below ground surface	☐ Yes	☑ No
☐ Soil >5 ft below ground surface	☐ Yes	☑ No
☐ Groundwater	☐ Yes	☑ No
☐ Surface Water/Sediments	☐ Yes	☑ No

Explain (previously submitted information may be referenced):

A Lower Glen Rose (LGR) observation well (CS-MW18-LGR) that is associated with the monitoring and detection of groundwater contamination emanating from SWMU B-3 is located in the northern corner of SWMU B-34 (Figure 1.2). Between September 2002 and June 2013, measured water levels at well CS-MW18-LGR have ranged from 104.4 feet below top of casing (ft BTOC) (December 2004) to 350.34 ft BTOC (September 2009). The long-term average water level in this well is 257.52 feet BTOC.

Since 2002, this well has been sampled numerous times for volatile organic compounds (VOCs) and metals. The VOCs methylene chloride, tetrachloroethene (PCE), toluene, and trichloroethene (TCE) have each been detected in CS-MW18-LGR but were reported as "trace" (F-flagged) because the detections were at levels below the reporting limit (RL). The VOC toluene was detected (1.4 µg/L) above the RL in March 2003, but below any regulatory threshold, including maximum contaminant limit (MCLs), secondary standards (SS), or action levels (AL) set forth by the Safe Drinking Water Act (SDWA). This list of VOC compounds is consistent with the basewide detections of solvents in groundwater due to past management practices associated with activities at AOC-65 and SWMU B-3.

Trace (F-flagged) detections of the metals arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc have been detected in CS-MW18-LGR below the RL. Barium has also been detected in the well, at levels above the RL. However none of the barium detections were above the MCL of 2 mg/L. None of the metal concentrations detected in CS-MW18-LGR exceed any regulatory threshold, including MCLs, secondary standards (SS), or action levels (AL) set forth by the Safe Drinking Water Act (SDWA). Tables 2.1 and 2.2 of this Closure Report list the results for VOC and metals detections, respectively, in CS-MW18-LGR.

The nearest perennial water feature within the watershed is the "W-Tank" detention pond, located approximately 3,500 feet south of SWMU B-34. The W-Tank is fed by precipitation. The D-Tank detention pond is located 3,300 feet north of SWMU B-34, but it is part of separate Salado Creek watershed, and therefore is unable to receive drainage runoff from the site. No significant degradation of high quality receiving waters is anticipated from SWMU B-34.

Based on soil samples collected at SWMU B-34, there are no VOCs or SVOCs at the site that exceed their respective PCL (see Appendix D of this Closure Report). Soils with lead concentrations exceeding the critical PCL at the site were excavated and removed or used to calculate a 95% UCL per TAC §350.79(2)(A) that does not exceed the critical PCL. There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at SWMU B-34.

Since all waste and contaminated soil have been removed or meet the 95% UCL per TAC §350.79(2)(A), there can be no impact to groundwater, surface water, or sediment from SWMU B-34.

3) Provide the information below for the nearest surface water body which has become or has the potential to become impacted from migrating COCs via surface water runoff, air deposition, groundwater seepage, etc. Exclude wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit. Also exclude conveyances, decorative ponds, and those portions of process facilities which are:

a. Not in contact with surface waters in the State or other surface waters which are ultimately in contact with surface waters in the State; and

b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

The nearest perennial surface water body, **"W-Tank" detention pond, approximately 3,500 feet** from the affected property **(south of SWMU B-34)**. These water bodies are best described as:

☑ freshwater stream: _____ perennial (has water all year)
_✓_ intermittent (dries up completely for at least 1 week a year) **[only contains water during and immediately after rain events]**
_____ intermittent with perennial pools

☐ freshwater swamp/marsh/wetland

☐ saltwater or brackish marsh/swamp/wetland

☑ reservoir, lake, or **pond (i.e., W-Tank)**; approximate surface acres**: 0.52 acres**

☐ drainage ditch

☐ tidal stream ☐ bay ☐ estuary

☐ other; specify

Is the water body listed as a State classified segment in Appendix C of the current Texas Surface Water Quality Standards; §§307.1 - 307.10?

☐ Yes Segment # _____ Use Classification:

☑ **No**

If the water body is not a State classified segment, identify the first downstream classified segment.

Name:

Upper Leon Creek

Segment #:

Segment 1907 – from a point 100 meters (330 feet) upstream of State Highway 16 northwest of San Antonio in Bexar County to a point 9.0 kilometers (5.6 miles) upstream of Scenic Loop Road north of Helotes in Bexar County.

Use Classification:

Upper Leon Creek is classified as a perennial stream. The designated uses of Segment 1907 are high aquatic life, contact recreation, public water supply, and aquifer protection. No significant degradation of high quality receiving waters is anticipated from SWMU B-34.

All creeks at CSSA are intermittent and only have water during and immediately following rain events.

As necessary, provide further description of surface waters in the vicinity of the affected property:

The nearest perennial water feature within the watershed is the "W-Tank" detention pond, approximately 3,500 feet south of SWMU B-34. The W-Tank is fed by precipitation. The D-Tank detention pond is located 3,300 feet north of SWMU B-34, but it is part of separate Salado Creek watershed, and therefore is unable to receive drainage runoff from the site.

The nearest downgradient classified creek from SWMU B-34 is Upper Leon Creek. Upper Leon Creek is classified as a perennial stream, and is classified under Texas Surface Water Quality Standards as Segment 1907 from a point 330 feet upstream of State Highway 16 northwest of San Antonio in Bexar County to a point 5.6 miles upstream of Scenic Loop Road north of Helotes in Bexar County. The designated uses of Segment 1907 are high aquatic life, contact recreation, public water supply, and aquifer protection. No significant degradation of high quality receiving waters is anticipated from SWMU B-34.

PART II. Exclusion Criteria and Supportive Information

Subpart A. Surface Water/Sediment Exposure

1) Regarding the affected property where a response action is being pursued under the TRRP, have COCs migrated and resulted in a release or imminent threat of release to either surface waters or to their associated sediments via surface water runoff, air deposition, groundwater seepage, etc.? Exclude wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit. Also exclude conveyances, decorative ponds, and those portions of process facilities which are:

a. Not in contact with surface waters in the State or other surface waters which are ultimately in contact with surface waters in the State; and

b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

☐ Yes ☑ No

Explain:

There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at SWMU B-34. Since soils were not found to have concentrations of VOCs, SVOCs, or metals above critical PCLs, there can be no impact to groundwater, surface water, or sediment from SWMU B-34.

The nearest perennial water feature within the watershed is the "W-Tank" detention pond, approximately 3,500 feet south of SWMU B-34. The W-Tank is fed by precipitation.

If the answer is Yes to Subpart A above, the affected property does not meet the exclusion criteria. However, complete the remainder of Part II to determine if there is a complete and/or significant soil exposure pathway, then complete PART III - Qualitative Summary and Certification. If the answer is No, go to Subpart B.

Subpart B. Affected Property Setting

In answering "Yes" to the following question, it is understood that the affected property is not attractive to wildlife or livestock, including threatened or endangered species (i.e., the affected property does not serve as valuable habitat, foraging area, or refuge for ecological communities). (May require consultation with wildlife management agencies.)

1) Is the affected property wholly contained within contiguous land characterized by: pavement, buildings, landscaped area, functioning cap, roadways, equipment storage area, manufacturing or process area, other surface cover or structure, or otherwise disturbed ground?

☑ Yes ☐ No

Explain:

SWMU B-34 is located in a developed industrial area of the Inner Cantonment of CSSA (Figure 2). The site is covered almost entirely by concrete and asphalt, with a narrow, maintained grassy area along its eastern edge.

Several surveys have been conducted at CSSA for threatened and endangered (T&E) species. The only T&E species that have been documented at CSSA are the black-capped vireo (*Vireo atricapillus*) [BCVI] and golden-cheeked warbler (*Dendroica chrysoparia*) [GCWA]. SWMU B-34 is not located within BCVI or GCWA habitat. The nearest potential habitats for local endangered species are approximately 2,100 feet to the southeast. Additional information can be found in the following references:

- **Parsons, 2007. *Final Integrated Natural Resource Management Plan*. Prepared for Camp Stanley Storage Activity, Boerne, Texas. October 2007. Available online: CSSA EE (Volume 1.6, Other Plans and Approaches)**
- **Parsons, 2011. *Final Species and Habitat Distributions of Black-Capped Vireos and Golden-Cheeked Warblers, 2009 Breeding/Nesting Season*. Prepared for Camp Stanley Storage Activity, Boerne, Texas. September 2011. Available online: CSSA EE (Volume 1.6, Other Plans and Approaches)**

If the answer to Subpart B above is Yes, the affected property meets the exclusion criteria, assuming the answer to Subpart A was No. Skip Subparts C and D and complete PART III - Qualitative Summary and Certification. If the answer to Subpart B above is No, go to Subpart C.

Subpart C. Soil Exposure

1) Are COCs which are in the soil of the affected property solely below the first 5 feet beneath ground surface **or** does the affected property have a physical barrier present to prevent exposure of receptors to COCs in surface soil? **Subpart C skipped based on answer to Subpart B.**

☐ Yes ☐ No

Explain:

If the answer to Subpart C above is Yes, the affected property meets the exclusion criteria, assuming the answer to Subpart A was No. Skip Subpart D and complete PART III - Qualitative Summary and Certification. If the answer to Subpart C above is No, proceed to Subpart D.

Subpart D. *De Minimus* Land Area Subpart D skipped based on answer to Subpart B.

In answering "Yes" to the question below, it is understood that all of the following conditions apply:

☐ The affected property is not known to serve as habitat, foraging area, or refuge to threatened/endangered or otherwise protected species. (Will likely require consultation with wildlife management agencies.)

□ Similar but unimpacted habitat exists within a half-mile radius.

□ The affected property is not known to be located within one-quarter mile of sensitive environmental areas (e.g., rookeries, wildlife management areas, preserves). (Will likely require consultation with wildlife management agencies.)

□ There is no reason to suspect that the COCs associated with the affected property will migrate such that the affected property will become larger than one acre.

1) Using human health protective concentration levels as a basis to determine the extent of the COCs, does the affected property consist of one acre or less and does it meet all of the conditions above?

□ Yes □ No

Explain how conditions are met/not met:

If the answer to Subpart D above is Yes, then no further ecological evaluation is needed at this affected property. Assuming the answer to Subpart A was No, Complete PART III - Qualitative Summary and Certification. If the answer to Subpart D above is No, proceed to Tier 2 or 3 or comparable ERA.

PART III. Qualitative Summary and Certification (Complete in all cases).

Attach a brief statement (not to exceed 1 page) summarizing the information you have provided in this form. This summary should include sufficient information to verify that the affected property meets or does not meet the exclusion criteria. The person should make the initial decision regarding the need for further ecological evaluation (i.e., Tier 2 or 3) based upon the results of this checklist. After review, TCEQ will make a final determination on the need for further assessment. **Note that the person has the continuing obligation to re-enter the ERA process if changing circumstances result in the affected property not meeting the Tier 1 exclusion criteria.**

Completed by: Laura Marbury, P.G. *(Typed/Printed Name)*

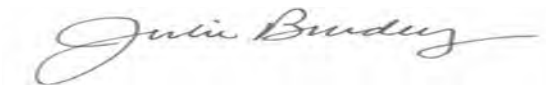
Principal Geologist *(Title)*

November 22, 2013 *(Date)*

I believe that the information submitted is true, accurate, and complete, to the best of my knowledge.

Julie Burdey, P.G. *(Typed/Printed Name of Person)*

Project Manager *(Title of Person)*



(Signature of Person)

APPENDIX C
Site Photographs

Photo 1. Parking Lot Investigation - drilling soil borings (June 2013).

Photo 2. Initiating parking lot excavation (July 2013).

Photo 3. Excavating parking lot (July 2013).

Photo 4. Excavating road area (July 2013).

Photo 5. Large rock removed from excavation (July 2013).

Photo 6. Placing base material (July 2013).

Photo 7. Paving the road in front of Building 73 (August 2013).

Photo 7. Density testing paved road (August 2013).

APPENDIX D
Summary of Results for All Analytes

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB01	N	4.5	5.0	Metals	Arsenic	03/16/2000	2.4	J
RW-B34-SB01	N	4.5	5.0	Metals	Barium	03/16/2000	4.4	F
RW-B34-SB01	N	4.5	5.0	Metals	Cadmium	03/16/2000	0.13	
RW-B34-SB01	N	4.5	5.0	Metals	Chromium	03/16/2000	3.0	F
RW-B34-SB01	N	4.5	5.0	Metals	Copper	03/16/2000	2.2	F
RW-B34-SB01	N	4.5	5.0	Metals	Lead	03/16/2000	1.1	J
RW-B34-SB01	N	4.5	5.0	Metals	Mercury	03/16/2000	< 0.024	U
RW-B34-SB01	N	4.5	5.0	Metals	Nickel	03/16/2000	7.2	F
RW-B34-SB01	N	4.5	5.0	Metals	Zinc	03/16/2000	22	
RW-B34-SB01	N	12	12.5	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SB01	N	12	12.5	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SB01	N	12	12.5	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SB01	N	12	12.5	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	U
RW-B34-SB01	N	12	12.5	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB01	N	12	12.5	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	U
RW-B34-SB01	N	12	12.5	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SB01	N	12	12.5	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SB01	N	12	12.5	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	U
RW-B34-SB01	N	12	12.5	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SB01	N	12	12.5	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SB01	N	12	12.5	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	U
RW-B34-SB01	N	12	12.5	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	U
RW-B34-SB01	N	12	12.5	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB01	N	12	12.5	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SB01	N	12	12.5	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SB01	N	12	12.5	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SB01	N	12	12.5	VOCs	Bromomethane	03/16/2000	< 0.00070	U
RW-B34-SB01	N	12	12.5	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SB01	N	12	12.5	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SB01	N	12	12.5	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	Chloromethane	03/16/2000	< 0.00080	U
RW-B34-SB01	N	12	12.5	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SB01	N	12	12.5	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	U
RW-B34-SB01	N	12	12.5	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SB01	N	12	12.5	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SB01	N	12	12.5	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	U
RW-B34-SB01	N	12	12.5	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SB01	N	12	12.5	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SB01	N	12	12.5	VOCs	Naphthalene	03/16/2000	< 0.0010	U
RW-B34-SB01	N	12	12.5	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SB01	N	12	12.5	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SB01	N	12	12.5	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB01	N	12	12.5	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SB01	N	12	12.5	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SB01	N	12	12.5	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SB01	N	12	12.5	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SB01	N	12	12.5	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	U
RW-B34-SB01	N	12	12.5	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SB01	N	12	12.5	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SB01	N	12	12.5	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SB01	N	12	12.5	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SB01	N	12	12.5	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	2,4-Dinitrotoluene	03/16/2000	< 0.038	U
RW-B34-SB01	N	12	12.5	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SB01	N	12	12.5	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SB01	N	12	12.5	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SB01	N	12	12.5	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	U
RW-B34-SB01	N	12	12.5	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SB01	N	12	12.5	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SB01	N	12	12.5	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SB01	N	12	12.5	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SB01	N	12	12.5	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Benzoic acid	03/16/2000	< 0.020	U
RW-B34-SB01	N	12	12.5	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SB01	N	12	12.5	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SB01	N	12	12.5	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SB01	N	12	12.5	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	14	
RW-B34-SB01	N	12	12.5	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	Fluoranthene	03/16/2000	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB01	N	12	12.5	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SB01	N	12	12.5	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SB01	N	12	12.5	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SB01	N	12	12.5	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SB01	N	12	12.5	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SB01	N	12	12.5	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SB01	N	12	12.5	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SB01	N	12	12.5	Metals	Arsenic	03/16/2000	1.2	J
RW-B34-SB01	N	12	12.5	Metals	Barium	03/16/2000	1.9	F
RW-B34-SB01	N	12	12.5	Metals	Cadmium	03/16/2000	0.22	
RW-B34-SB01	N	12	12.5	Metals	Chromium	03/16/2000	1.6	F
RW-B34-SB01	N	12	12.5	Metals	Copper	03/16/2000	1.4	F
RW-B34-SB01	N	12	12.5	Metals	Lead	03/16/2000	0.90	J
RW-B34-SB01	N	12	12.5	Metals	Mercury	03/16/2000	< 0.024	U
RW-B34-SB01	N	12	12.5	Metals	Nickel	03/16/2000	3.7	F
RW-B34-SB01	N	12	12.5	Metals	Zinc	03/16/2000	23	
RW-B34-SB02	N	3.5	4.0	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	U
RW-B34-SB02	N	3.5	4.0	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB02	N	3.5	4.0	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SB02	N	3.5	4.0	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	3.5	4.0	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SB02	N	3.5	4.0	VOCs	Bromomethane	03/16/2000	< 0.00070	U
RW-B34-SB02	N	3.5	4.0	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SB02	N	3.5	4.0	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SB02	N	3.5	4.0	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	Chloromethane	03/16/2000	< 0.00080	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB02	N	3.5	4.0	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SB02	N	3.5	4.0	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	U
RW-B34-SB02	N	3.5	4.0	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SB02	N	3.5	4.0	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SB02	N	3.5	4.0	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	3.5	4.0	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SB02	N	3.5	4.0	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SB02	N	3.5	4.0	VOCs	Naphthalene	03/16/2000	< 0.0010	U
RW-B34-SB02	N	3.5	4.0	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	3.5	4.0	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SB02	N	3.5	4.0	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SB02	N	3.5	4.0	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SB02	N	3.5	4.0	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SB02	N	3.5	4.0	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SB02	N	3.5	4.0	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	3.5	4.0	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	3.5	4.0	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SB02	N	3.5	4.0	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SB02	N	3.5	4.0	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SB02	N	3.5	4.0	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2,4-Dinitrotoluene	03/16/2000	< 0.038	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	U
RW-B34-SB02	N	3.5	4.0	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SB02	N	3.5	4.0	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SB02	N	3.5	4.0	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB02	N	3.5	4.0	SVOCs	Benzoic acid	03/16/2000	< 0.020	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SB02	N	3.5	4.0	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SB02	N	3.5	4.0	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	0.060	F
RW-B34-SB02	N	3.5	4.0	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Fluoranthene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SB02	N	3.5	4.0	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	3.5	4.0	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SB02	N	3.5	4.0	Metals	Arsenic	03/16/2000	7.2	J
RW-B34-SB02	N	3.5	4.0	Metals	Barium	03/16/2000	110	J
RW-B34-SB02	N	3.5	4.0	Metals	Cadmium	03/16/2000	0.40	
RW-B34-SB02	N	3.5	4.0	Metals	Chromium	03/16/2000	34	
RW-B34-SB02	N	3.5	4.0	Metals	Copper	03/16/2000	22	
RW-B34-SB02	N	3.5	4.0	Metals	Lead	03/16/2000	26	J
RW-B34-SB02	N	3.5	4.0	Metals	Mercury	03/16/2000	< 0.024	U
RW-B34-SB02	N	3.5	4.0	Metals	Nickel	03/16/2000	18	
RW-B34-SB02	N	3.5	4.0	Metals	Zinc	03/16/2000	55	
RW-B34-SB02	N	8.5	9.0	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB02	N	8.5	9.0	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB02	N	8.5	9.0	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SB02	N	8.5	9.0	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	8.5	9.0	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SB02	N	8.5	9.0	VOCs	Bromomethane	03/16/2000	< 0.00070	U
RW-B34-SB02	N	8.5	9.0	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SB02	N	8.5	9.0	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SB02	N	8.5	9.0	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	Chloromethane	03/16/2000	< 0.00080	U
RW-B34-SB02	N	8.5	9.0	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SB02	N	8.5	9.0	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	U
RW-B34-SB02	N	8.5	9.0	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SB02	N	8.5	9.0	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SB02	N	8.5	9.0	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	8.5	9.0	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SB02	N	8.5	9.0	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SB02	N	8.5	9.0	VOCs	Naphthalene	03/16/2000	< 0.0010	U
RW-B34-SB02	N	8.5	9.0	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SB02	N	8.5	9.0	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SB02	N	8.5	9.0	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SB02	N	8.5	9.0	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SB02	N	8.5	9.0	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SB02	N	8.5	9.0	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SB02	N	8.5	9.0	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SB02	N	8.5	9.0	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	U
RW-B34-SB02	N	8.5	9.0	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SB02	N	8.5	9.0	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SB02	N	8.5	9.0	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SB02	N	8.5	9.0	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2,4-Dinitrotoluene	03/16/2000	< 0.038	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB02	N	8.5	9.0	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SB02	N	8.5	9.0	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SB02	N	8.5	9.0	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Benzoic acid	03/16/2000	< 0.020	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SB02	N	8.5	9.0	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SB02	N	8.5	9.0	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	8.2	
RW-B34-SB02	N	8.5	9.0	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Fluoranthene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SB02	N	8.5	9.0	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SB02	N	8.5	9.0	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SB02	N	8.5	9.0	Metals	Arsenic	03/16/2000	0.74	J
RW-B34-SB02	N	8.5	9.0	Metals	Barium	03/16/2000	6.6	M
RW-B34-SB02	N	8.5	9.0	Metals	Cadmium	03/16/2000	0.050	M
RW-B34-SB02	N	8.5	9.0	Metals	Chromium	03/16/2000	4.1	F
RW-B34-SB02	N	8.5	9.0	Metals	Copper	03/16/2000	1.4	F
RW-B34-SB02	N	8.5	9.0	Metals	Lead	03/16/2000	1.6	M
RW-B34-SB02	N	8.5	9.0	Metals	Mercury	03/16/2000	< 0.024	M
RW-B34-SB02	N	8.5	9.0	Metals	Nickel	03/16/2000	2.2	F
RW-B34-SB02	N	8.5	9.0	Metals	Zinc	03/16/2000	12	
RW-B34-SB03	N	0	0.5	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SB03	N	0	0.5	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	N	0	0.5	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	0	0.5	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	0	0.5	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	M
RW-B34-SB03	N	0	0.5	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	0	0.5	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	M
RW-B34-SB03	N	0	0.5	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SB03	N	0	0.5	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SB03	N	0	0.5	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	M
RW-B34-SB03	N	0	0.5	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SB03	N	0	0.5	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SB03	N	0	0.5	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	M
RW-B34-SB03	N	0	0.5	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	M
RW-B34-SB03	N	0	0.5	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	0	0.5	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SB03	N	0	0.5	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	0	0.5	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SB03	N	0	0.5	VOCs	Bromomethane	03/16/2000	< 0.00070	M
RW-B34-SB03	N	0	0.5	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SB03	N	0	0.5	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SB03	N	0	0.5	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	Chloromethane	03/16/2000	< 0.00080	M
RW-B34-SB03	N	0	0.5	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SB03	N	0	0.5	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	M
RW-B34-SB03	N	0	0.5	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	0	0.5	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SB03	N	0	0.5	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	M
RW-B34-SB03	N	0	0.5	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	0	0.5	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SB03	N	0	0.5	VOCs	Naphthalene	03/16/2000	< 0.0010	M
RW-B34-SB03	N	0	0.5	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	0	0.5	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	0	0.5	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SB03	N	0	0.5	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	0	0.5	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SB03	N	0	0.5	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SB03	N	0	0.5	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SB03	N	0	0.5	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	0	0.5	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	M
RW-B34-SB03	N	0	0.5	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SB03	N	0	0.5	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SB03	N	0	0.5	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SB03	N	0	0.5	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB03	N	0	0.5	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	N	0	0.5	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SB03	N	0	0.5	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	M
RW-B34-SB03	N	0	0.5	SVOCs	2,4-Dinitrotoluene	03/16/2000	0.060	F
RW-B34-SB03	N	0	0.5	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SB03	N	0	0.5	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	0	0.5	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	0	0.5	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SB03	N	0	0.5	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SB03	N	0	0.5	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	M
RW-B34-SB03	N	0	0.5	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SB03	N	0	0.5	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SB03	N	0	0.5	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	M
RW-B34-SB03	N	0	0.5	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	M
RW-B34-SB03	N	0	0.5	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SB03	N	0	0.5	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SB03	N	0	0.5	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SB03	N	0	0.5	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Benzoic acid	03/16/2000	< 0.020	M
RW-B34-SB03	N	0	0.5	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SB03	N	0	0.5	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SB03	N	0	0.5	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SB03	N	0	0.5	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	< 0.030	U
RW-B34-SB03	N	0	0.5	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SB03	N	0	0.5	SVOCs	Fluoranthene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SB03	N	0	0.5	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SB03	N	0	0.5	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SB03	N	0	0.5	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SB03	N	0	0.5	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SB03	N	0	0.5	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	0	0.5	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SB03	N	0	0.5	SVOCs	Phenol	03/16/2000	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	N	0	0.5	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SB03	N	0	0.5	Metals	Arsenic	03/16/2000	6.1	J
RW-B34-SB03	N	0	0.5	Metals	Barium	03/16/2000	93	J
RW-B34-SB03	N	0	0.5	Metals	Cadmium	03/16/2000	0.34	
RW-B34-SB03	N	0	0.5	Metals	Chromium	03/16/2000	27	F
RW-B34-SB03	N	0	0.5	Metals	Copper	03/16/2000	26	
RW-B34-SB03	N	0	0.5	Metals	Lead	03/16/2000	64	J
RW-B34-SB03	N	0	0.5	Metals	Mercury	03/16/2000	< 0.024	U
RW-B34-SB03	N	0	0.5	Metals	Nickel	03/16/2000	15	
RW-B34-SB03	N	0	0.5	Metals	Zinc	03/16/2000	64	
RW-B34-SB03	FD	0	0.5	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SB03	FD	0	0.5	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SB03	FD	0	0.5	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SB03	FD	0	0.5	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	M
RW-B34-SB03	FD	0	0.5	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB03	FD	0	0.5	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	M
RW-B34-SB03	FD	0	0.5	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SB03	FD	0	0.5	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SB03	FD	0	0.5	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	M
RW-B34-SB03	FD	0	0.5	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SB03	FD	0	0.5	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SB03	FD	0	0.5	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	M
RW-B34-SB03	FD	0	0.5	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	M
RW-B34-SB03	FD	0	0.5	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB03	FD	0	0.5	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SB03	FD	0	0.5	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SB03	FD	0	0.5	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SB03	FD	0	0.5	VOCs	Bromomethane	03/16/2000	< 0.00070	M
RW-B34-SB03	FD	0	0.5	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SB03	FD	0	0.5	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SB03	FD	0	0.5	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	Chloromethane	03/16/2000	< 0.00080	M
RW-B34-SB03	FD	0	0.5	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SB03	FD	0	0.5	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	M
RW-B34-SB03	FD	0	0.5	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SB03	FD	0	0.5	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SB03	FD	0	0.5	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	M
RW-B34-SB03	FD	0	0.5	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SB03	FD	0	0.5	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SB03	FD	0	0.5	VOCs	Naphthalene	03/16/2000	< 0.0010	M
RW-B34-SB03	FD	0	0.5	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SB03	FD	0	0.5	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SB03	FD	0	0.5	VOCs	o-Xylene	03/16/2000	< 0.00040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	FD	0	0.5	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SB03	FD	0	0.5	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	FD	0	0.5	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SB03	FD	0	0.5	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SB03	FD	0	0.5	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SB03	FD	0	0.5	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SB03	FD	0	0.5	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	M
RW-B34-SB03	FD	0	0.5	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SB03	FD	0	0.5	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SB03	FD	0	0.5	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SB03	FD	0	0.5	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB03	FD	0	0.5	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB03	FD	0	0.5	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SB03	FD	0	0.5	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	M
RW-B34-SB03	FD	0	0.5	SVOCs	2,4-Dinitrotoluene	03/16/2000	< 0.038	U
RW-B34-SB03	FD	0	0.5	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SB03	FD	0	0.5	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SB03	FD	0	0.5	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB03	FD	0	0.5	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SB03	FD	0	0.5	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SB03	FD	0	0.5	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	M
RW-B34-SB03	FD	0	0.5	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SB03	FD	0	0.5	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SB03	FD	0	0.5	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	M
RW-B34-SB03	FD	0	0.5	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	M
RW-B34-SB03	FD	0	0.5	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SB03	FD	0	0.5	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SB03	FD	0	0.5	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SB03	FD	0	0.5	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Benzoic acid	03/16/2000	< 0.020	M
RW-B34-SB03	FD	0	0.5	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SB03	FD	0	0.5	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SB03	FD	0	0.5	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SB03	FD	0	0.5	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	< 0.030	U
RW-B34-SB03	FD	0	0.5	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	FD	0	0.5	SVOCs	Fluoranthene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SB03	FD	0	0.5	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SB03	FD	0	0.5	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SB03	FD	0	0.5	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SB03	FD	0	0.5	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SB03	FD	0	0.5	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SB03	FD	0	0.5	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SB03	FD	0	0.5	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	U
RW-B34-SB03	N	7.5	8.0	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	7.5	8.0	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SB03	N	7.5	8.0	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	7.5	8.0	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SB03	N	7.5	8.0	VOCs	Bromomethane	03/16/2000	< 0.00070	U
RW-B34-SB03	N	7.5	8.0	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SB03	N	7.5	8.0	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SB03	N	7.5	8.0	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	Chloromethane	03/16/2000	< 0.00080	U
RW-B34-SB03	N	7.5	8.0	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SB03	N	7.5	8.0	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	U
RW-B34-SB03	N	7.5	8.0	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	7.5	8.0	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SB03	N	7.5	8.0	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	7.5	8.0	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	N	7.5	8.0	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	7.5	8.0	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SB03	N	7.5	8.0	VOCs	Naphthalene	03/16/2000	< 0.0010	U
RW-B34-SB03	N	7.5	8.0	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	7.5	8.0	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	7.5	8.0	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SB03	N	7.5	8.0	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SB03	N	7.5	8.0	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SB03	N	7.5	8.0	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SB03	N	7.5	8.0	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	7.5	8.0	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	7.5	8.0	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SB03	N	7.5	8.0	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SB03	N	7.5	8.0	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SB03	N	7.5	8.0	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2,4-Dinitrotoluene	03/16/2000	< 0.038	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	U
RW-B34-SB03	N	7.5	8.0	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SB03	N	7.5	8.0	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SB03	N	7.5	8.0	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Benzoic acid	03/16/2000	< 0.020	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SB03	N	7.5	8.0	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SB03	N	7.5	8.0	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Chrysene	03/16/2000	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	N	7.5	8.0	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Fluoranthene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SB03	N	7.5	8.0	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	7.5	8.0	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SB03	N	7.5	8.0	Metals	Arsenic	03/16/2000	2.0	J
RW-B34-SB03	N	7.5	8.0	Metals	Barium	03/16/2000	28	M
RW-B34-SB03	N	7.5	8.0	Metals	Cadmium	03/16/2000	0.090	M
RW-B34-SB03	N	7.5	8.0	Metals	Chromium	03/16/2000	9.1	F
RW-B34-SB03	N	7.5	8.0	Metals	Copper	03/16/2000	8.1	F
RW-B34-SB03	N	7.5	8.0	Metals	Lead	03/16/2000	15	
RW-B34-SB03	N	7.5	8.0	Metals	Mercury	03/16/2000	< 0.024	M
RW-B34-SB03	N	7.5	8.0	Metals	Nickel	03/16/2000	6.0	F
RW-B34-SB03	N	7.5	8.0	Metals	Zinc	03/16/2000	23	
RW-B34-SB03	FD	7.5	8.0	Metals	Arsenic	03/16/2000	2.6	J
RW-B34-SB03	FD	7.5	8.0	Metals	Barium	03/16/2000	22	M
RW-B34-SB03	FD	7.5	8.0	Metals	Cadmium	03/16/2000	0.10	M
RW-B34-SB03	FD	7.5	8.0	Metals	Chromium	03/16/2000	7.2	F
RW-B34-SB03	FD	7.5	8.0	Metals	Copper	03/16/2000	6.0	F
RW-B34-SB03	FD	7.5	8.0	Metals	Lead	03/16/2000	17	M
RW-B34-SB03	FD	7.5	8.0	Metals	Mercury	03/16/2000	< 0.024	M
RW-B34-SB03	FD	7.5	8.0	Metals	Nickel	03/16/2000	4.4	F
RW-B34-SB03	FD	7.5	8.0	Metals	Zinc	03/16/2000	20	
RW-B34-SB03	N	13	13.5	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SB03	N	13	13.5	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	13	13.5	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	13	13.5	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	13	13.5	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	13	13.5	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	13	13.5	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SB03	N	13	13.5	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SB03	N	13	13.5	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	U
RW-B34-SB03	N	13	13.5	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SB03	N	13	13.5	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SB03	N	13	13.5	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	U
RW-B34-SB03	N	13	13.5	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	N	13	13.5	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	U
RW-B34-SB03	N	13	13.5	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	13	13.5	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SB03	N	13	13.5	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	13	13.5	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SB03	N	13	13.5	VOCs	Bromomethane	03/16/2000	< 0.00070	U
RW-B34-SB03	N	13	13.5	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SB03	N	13	13.5	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SB03	N	13	13.5	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	Chloromethane	03/16/2000	< 0.00080	U
RW-B34-SB03	N	13	13.5	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SB03	N	13	13.5	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	U
RW-B34-SB03	N	13	13.5	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SB03	N	13	13.5	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SB03	N	13	13.5	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	13	13.5	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	13	13.5	VOCs	Methylene chloride	03/16/2000	0.0018	F
RW-B34-SB03	N	13	13.5	VOCs	Naphthalene	03/16/2000	< 0.0010	U
RW-B34-SB03	N	13	13.5	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SB03	N	13	13.5	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SB03	N	13	13.5	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SB03	N	13	13.5	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SB03	N	13	13.5	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SB03	N	13	13.5	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SB03	N	13	13.5	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SB03	N	13	13.5	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	U
RW-B34-SB03	N	13	13.5	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SB03	N	13	13.5	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SB03	N	13	13.5	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SB03	N	13	13.5	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SB03	N	13	13.5	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	2,4-Dinitrotoluene	03/16/2000	< 0.038	U
RW-B34-SB03	N	13	13.5	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SB03	N	13	13.5	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SB03	N	13	13.5	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SB03	N	13	13.5	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SB03	N	13	13.5	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	U
RW-B34-SB03	N	13	13.5	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SB03	N	13	13.5	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SB03	N	13	13.5	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SB03	N	13	13.5	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SB03	N	13	13.5	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Benzoic acid	03/16/2000	< 0.020	U
RW-B34-SB03	N	13	13.5	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SB03	N	13	13.5	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SB03	N	13	13.5	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SB03	N	13	13.5	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	4.8	
RW-B34-SB03	N	13	13.5	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	Fluoranthene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SB03	N	13	13.5	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SB03	N	13	13.5	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SB03	N	13	13.5	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SB03	N	13	13.5	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SB03	N	13	13.5	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SB03	N	13	13.5	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SB03	N	13	13.5	Metals	Arsenic	03/16/2000	1.3	J
RW-B34-SB03	N	13	13.5	Metals	Barium	03/16/2000	3.3	F
RW-B34-SB03	N	13	13.5	Metals	Cadmium	03/16/2000	< 0.022	U
RW-B34-SB03	N	13	13.5	Metals	Chromium	03/16/2000	3.0	F
RW-B34-SB03	N	13	13.5	Metals	Copper	03/16/2000	1.5	F
RW-B34-SB03	N	13	13.5	Metals	Lead	03/16/2000	2.1	J
RW-B34-SB03	N	13	13.5	Metals	Mercury	03/16/2000	< 0.024	U
RW-B34-SB03	N	13	13.5	Metals	Nickel	03/16/2000	2.5	F
RW-B34-SB03	N	13	13.5	Metals	Zinc	03/16/2000	6.4	F
RW-B34-SS01	N	0	0.5	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SS01	N	0	0.5	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS01	N	0	0.5	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SS01	N	0	0.5	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SS01	N	0	0.5	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	M
RW-B34-SS01	N	0	0.5	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SS01	N	0	0.5	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	M
RW-B34-SS01	N	0	0.5	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SS01	N	0	0.5	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SS01	N	0	0.5	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	M
RW-B34-SS01	N	0	0.5	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SS01	N	0	0.5	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SS01	N	0	0.5	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	M
RW-B34-SS01	N	0	0.5	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	M
RW-B34-SS01	N	0	0.5	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SS01	N	0	0.5	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SS01	N	0	0.5	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SS01	N	0	0.5	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SS01	N	0	0.5	VOCs	Bromomethane	03/16/2000	< 0.00070	M
RW-B34-SS01	N	0	0.5	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SS01	N	0	0.5	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SS01	N	0	0.5	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	Chloromethane	03/16/2000	< 0.00080	M
RW-B34-SS01	N	0	0.5	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SS01	N	0	0.5	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	M
RW-B34-SS01	N	0	0.5	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SS01	N	0	0.5	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SS01	N	0	0.5	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	M
RW-B34-SS01	N	0	0.5	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SS01	N	0	0.5	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SS01	N	0	0.5	VOCs	Naphthalene	03/16/2000	< 0.0010	M
RW-B34-SS01	N	0	0.5	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SS01	N	0	0.5	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SS01	N	0	0.5	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SS01	N	0	0.5	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	0	0.5	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SS01	N	0	0.5	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SS01	N	0	0.5	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SS01	N	0	0.5	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	0	0.5	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	M
RW-B34-SS01	N	0	0.5	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SS01	N	0	0.5	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SS01	N	0	0.5	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SS01	N	0	0.5	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SS01	N	0	0.5	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS01	N	0	0.5	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SS01	N	0	0.5	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SS01	N	0	0.5	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	M
RW-B34-SS01	N	0	0.5	SVOCs	2,4-Dinitrotoluene	03/16/2000	0.16	F
RW-B34-SS01	N	0	0.5	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SS01	N	0	0.5	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SS01	N	0	0.5	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SS01	N	0	0.5	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SS01	N	0	0.5	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SS01	N	0	0.5	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	M
RW-B34-SS01	N	0	0.5	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SS01	N	0	0.5	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SS01	N	0	0.5	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	M
RW-B34-SS01	N	0	0.5	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	M
RW-B34-SS01	N	0	0.5	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SS01	N	0	0.5	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SS01	N	0	0.5	SVOCs	Benzo(b)fluoranthene	03/16/2000	0.070	F
RW-B34-SS01	N	0	0.5	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Benzoic acid	03/16/2000	< 0.020	M
RW-B34-SS01	N	0	0.5	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SS01	N	0	0.5	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SS01	N	0	0.5	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SS01	N	0	0.5	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	0.060	F
RW-B34-SS01	N	0	0.5	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SS01	N	0	0.5	SVOCs	Fluoranthene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SS01	N	0	0.5	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SS01	N	0	0.5	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SS01	N	0	0.5	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SS01	N	0	0.5	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SS01	N	0	0.5	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SS01	N	0	0.5	SVOCs	Phenanthrene	03/16/2000	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS01	N	0	0.5	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	0	0.5	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SS01	N	0	0.5	Metals	Arsenic	03/16/2000	5.3	J
RW-B34-SS01	N	0	0.5	Metals	Barium	03/16/2000	84	J
RW-B34-SS01	N	0	0.5	Metals	Cadmium	03/16/2000	0.35	
RW-B34-SS01	N	0	0.5	Metals	Chromium	03/16/2000	29	
RW-B34-SS01	N	0	0.5	Metals	Copper	03/16/2000	26	
RW-B34-SS01	N	0	0.5	Metals	Lead	03/16/2000	610	J
RW-B34-SS01	N	0	0.5	Metals	Mercury	03/16/2000	0.040	F
RW-B34-SS01	N	0	0.5	Metals	Nickel	03/16/2000	14	
RW-B34-SS01	N	0	0.5	Metals	Zinc	03/16/2000	85	
RW-B34-SS01	N	4.5	5.0	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	U
RW-B34-SS01	N	4.5	5.0	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SS01	N	4.5	5.0	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SS01	N	4.5	5.0	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SS01	N	4.5	5.0	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SS01	N	4.5	5.0	VOCs	Bromomethane	03/16/2000	< 0.00070	U
RW-B34-SS01	N	4.5	5.0	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SS01	N	4.5	5.0	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SS01	N	4.5	5.0	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	Chloromethane	03/16/2000	< 0.00080	U
RW-B34-SS01	N	4.5	5.0	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SS01	N	4.5	5.0	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	U
RW-B34-SS01	N	4.5	5.0	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SS01	N	4.5	5.0	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SS01	N	4.5	5.0	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	U
RW-B34-SS01	N	4.5	5.0	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SS01	N	4.5	5.0	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SS01	N	4.5	5.0	VOCs	Naphthalene	03/16/2000	< 0.0010	U
RW-B34-SS01	N	4.5	5.0	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SS01	N	4.5	5.0	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS01	N	4.5	5.0	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SS01	N	4.5	5.0	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SS01	N	4.5	5.0	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SS01	N	4.5	5.0	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SS01	N	4.5	5.0	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SS01	N	4.5	5.0	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	U
RW-B34-SS01	N	4.5	5.0	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SS01	N	4.5	5.0	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SS01	N	4.5	5.0	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SS01	N	4.5	5.0	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2,4-Dinitrotoluene	03/16/2000	< 0.038	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	U
RW-B34-SS01	N	4.5	5.0	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SS01	N	4.5	5.0	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SS01	N	4.5	5.0	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Benzoic acid	03/16/2000	< 0.020	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SS01	N	4.5	5.0	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SS01	N	4.5	5.0	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	3.8	
RW-B34-SS01	N	4.5	5.0	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS01	N	4.5	5.0	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Fluoranthene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SS01	N	4.5	5.0	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SS01	N	4.5	5.0	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SS02	N	0	0.5	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SS02	N	0	0.5	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SS02	N	0	0.5	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SS02	N	0	0.5	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	M
RW-B34-SS02	N	0	0.5	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SS02	N	0	0.5	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	M
RW-B34-SS02	N	0	0.5	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SS02	N	0	0.5	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SS02	N	0	0.5	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	M
RW-B34-SS02	N	0	0.5	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SS02	N	0	0.5	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SS02	N	0	0.5	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	M
RW-B34-SS02	N	0	0.5	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	M
RW-B34-SS02	N	0	0.5	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SS02	N	0	0.5	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SS02	N	0	0.5	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SS02	N	0	0.5	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SS02	N	0	0.5	VOCs	Bromomethane	03/16/2000	< 0.00070	M
RW-B34-SS02	N	0	0.5	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SS02	N	0	0.5	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SS02	N	0	0.5	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	Chloromethane	03/16/2000	< 0.00080	M
RW-B34-SS02	N	0	0.5	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SS02	N	0	0.5	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	M
RW-B34-SS02	N	0	0.5	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SS02	N	0	0.5	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SS02	N	0	0.5	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	M

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS02	N	0	0.5	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SS02	N	0	0.5	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SS02	N	0	0.5	VOCs	Naphthalene	03/16/2000	< 0.0010	M
RW-B34-SS02	N	0	0.5	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SS02	N	0	0.5	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SS02	N	0	0.5	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SS02	N	0	0.5	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS02	N	0	0.5	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SS02	N	0	0.5	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SS02	N	0	0.5	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SS02	N	0	0.5	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SS02	N	0	0.5	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	M
RW-B34-SS02	N	0	0.5	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SS02	N	0	0.5	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SS02	N	0	0.5	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SS02	N	0	0.5	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SS02	N	0	0.5	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SS02	N	0	0.5	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SS02	N	0	0.5	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	M
RW-B34-SS02	N	0	0.5	SVOCs	2,4-Dinitrotoluene	03/16/2000	0.10	F
RW-B34-SS02	N	0	0.5	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SS02	N	0	0.5	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SS02	N	0	0.5	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SS02	N	0	0.5	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SS02	N	0	0.5	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SS02	N	0	0.5	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	M
RW-B34-SS02	N	0	0.5	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SS02	N	0	0.5	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SS02	N	0	0.5	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	M
RW-B34-SS02	N	0	0.5	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	M
RW-B34-SS02	N	0	0.5	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SS02	N	0	0.5	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Benzo(a)anthracene	03/16/2000	0.070	F
RW-B34-SS02	N	0	0.5	SVOCs	Benzo(a)pyrene	03/16/2000	0.12	F
RW-B34-SS02	N	0	0.5	SVOCs	Benzo(b)fluoranthene	03/16/2000	0.21	F
RW-B34-SS02	N	0	0.5	SVOCs	Benzo(g,h,i)perylene	03/16/2000	0.060	F
RW-B34-SS02	N	0	0.5	SVOCs	Benzoic acid	03/16/2000	< 0.020	U
RW-B34-SS02	N	0	0.5	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	M
RW-B34-SS02	N	0	0.5	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SS02	N	0	0.5	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SS02	N	0	0.5	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	< 0.030	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS02	N	0	0.5	SVOCs	Chrysene	03/16/2000	0.20	F
RW-B34-SS02	N	0	0.5	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SS02	N	0	0.5	SVOCs	Fluoranthene	03/16/2000	0.12	F
RW-B34-SS02	N	0	0.5	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SS02	N	0	0.5	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SS02	N	0	0.5	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SS02	N	0	0.5	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	0.050	F
RW-B34-SS02	N	0	0.5	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SS02	N	0	0.5	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SS02	N	0	0.5	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SS02	N	0	0.5	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SS02	N	0	0.5	SVOCs	Pyrene	03/16/2000	0.10	F
RW-B34-SS02	N	0	0.5	Metals	Arsenic	03/16/2000	4.2	J
RW-B34-SS02	N	0	0.5	Metals	Barium	03/16/2000	67	J
RW-B34-SS02	N	0	0.5	Metals	Cadmium	03/16/2000	0.28	
RW-B34-SS02	N	0	0.5	Metals	Chromium	03/16/2000	40	F
RW-B34-SS02	N	0	0.5	Metals	Copper	03/16/2000	44	
RW-B34-SS02	N	0	0.5	Metals	Lead	03/16/2000	48	J
RW-B34-SS02	N	0	0.5	Metals	Mercury	03/16/2000	< 0.024	U
RW-B34-SS02	N	0	0.5	Metals	Nickel	03/16/2000	23	
RW-B34-SS02	N	0	0.5	Metals	Zinc	03/16/2000	84	
RW-B34-SS03	N	0	0.5	VOCs	1,1,1,2-Tetrachloroethane	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	1,1,1-Trichloroethane	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	1,1,2,2-Tetrachloroethane	03/16/2000	< 0.00050	U
RW-B34-SS03	N	0	0.5	VOCs	1,1,2-Trichloroethane	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	1,1-Dichloroethane	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	1,1-Dichloroethene	03/16/2000	< 0.00080	U
RW-B34-SS03	N	0	0.5	VOCs	1,1-Dichloropropene	03/16/2000	< 0.00060	U
RW-B34-SS03	N	0	0.5	VOCs	1,2,3-Trichlorobenzene	03/16/2000	< 0.00080	M
RW-B34-SS03	N	0	0.5	VOCs	1,2,3-Trichloropropane	03/16/2000	< 0.0010	U
RW-B34-SS03	N	0	0.5	VOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.00060	M
RW-B34-SS03	N	0	0.5	VOCs	1,2,4-Trimethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	1,2-Dibromo-3-chloropropane	03/16/2000	< 0.0070	U
RW-B34-SS03	N	0	0.5	VOCs	1,2-Dibromoethane (EDB)	03/16/2000	< 0.0013	U
RW-B34-SS03	N	0	0.5	VOCs	1,2-Dichlorobenzene	03/16/2000	< 0.00050	M
RW-B34-SS03	N	0	0.5	VOCs	1,2-Dichloroethane	03/16/2000	< 0.00020	U
RW-B34-SS03	N	0	0.5	VOCs	1,2-Dichloropropane	03/16/2000	< 0.00020	U
RW-B34-SS03	N	0	0.5	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	1,3-Dichlorobenzene	03/16/2000	< 0.0022	M
RW-B34-SS03	N	0	0.5	VOCs	1,3-Dichloropropane	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	1,4-Dichlorobenzene	03/16/2000	< 0.00070	M
RW-B34-SS03	N	0	0.5	VOCs	1-Chlorohexane	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	2,2-Dichloropropane	03/16/2000	< 0.0010	U
RW-B34-SS03	N	0	0.5	VOCs	2-Chlorotoluene	03/16/2000	< 0.00070	U
RW-B34-SS03	N	0	0.5	VOCs	4-Chlorotoluene	03/16/2000	< 0.00060	U
RW-B34-SS03	N	0	0.5	VOCs	Benzene	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	Bromobenzene	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	Bromochloromethane	03/16/2000	< 0.00040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS03	N	0	0.5	VOCs	Bromodichloromethane	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	Bromoform	03/16/2000	< 0.00050	U
RW-B34-SS03	N	0	0.5	VOCs	Bromomethane	03/16/2000	< 0.00070	M
RW-B34-SS03	N	0	0.5	VOCs	Carbon tetrachloride	03/16/2000	< 0.0010	U
RW-B34-SS03	N	0	0.5	VOCs	Chlorobenzene	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	Chloroethane	03/16/2000	< 0.00090	U
RW-B34-SS03	N	0	0.5	VOCs	Chloroform	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	Chloromethane	03/16/2000	< 0.00080	M
RW-B34-SS03	N	0	0.5	VOCs	cis-1,2-Dichloroethene	03/16/2000	< 0.00020	U
RW-B34-SS03	N	0	0.5	VOCs	cis-1,3-Dichloropropene	03/16/2000	< 0.00020	M
RW-B34-SS03	N	0	0.5	VOCs	Dibromochloromethane	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	Dibromomethane	03/16/2000	< 0.0010	U
RW-B34-SS03	N	0	0.5	VOCs	Dichlorodifluoromethane	03/16/2000	< 0.00080	U
RW-B34-SS03	N	0	0.5	VOCs	Ethylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	Hexachlorobutadiene	03/16/2000	< 0.00060	M
RW-B34-SS03	N	0	0.5	VOCs	Isopropylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	m,p-Xylene	03/16/2000	< 0.00080	U
RW-B34-SS03	N	0	0.5	VOCs	Methylene chloride	03/16/2000	< 0.00070	U
RW-B34-SS03	N	0	0.5	VOCs	Naphthalene	03/16/2000	< 0.0010	M
RW-B34-SS03	N	0	0.5	VOCs	n-Butylbenzene	03/16/2000	< 0.00060	U
RW-B34-SS03	N	0	0.5	VOCs	n-Propylbenzene	03/16/2000	< 0.00080	U
RW-B34-SS03	N	0	0.5	VOCs	o-Xylene	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	p-Cymene (p-Isopropyltoluene)	03/16/2000	< 0.00050	U
RW-B34-SS03	N	0	0.5	VOCs	sec-Butylbenzene	03/16/2000	< 0.00040	U
RW-B34-SS03	N	0	0.5	VOCs	Styrene	03/16/2000	< 0.0013	U
RW-B34-SS03	N	0	0.5	VOCs	tert-Butylbenzene	03/16/2000	< 0.00050	U
RW-B34-SS03	N	0	0.5	VOCs	Tetrachloroethene (PCE)	03/16/2000	< 0.00050	U
RW-B34-SS03	N	0	0.5	VOCs	Toluene	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	trans-1,2-Dichloroethene	03/16/2000	< 0.00030	U
RW-B34-SS03	N	0	0.5	VOCs	trans-1,3-Dichloropropene	03/16/2000	< 0.00040	M
RW-B34-SS03	N	0	0.5	VOCs	Trichloroethene (TCE)	03/16/2000	< 0.0010	U
RW-B34-SS03	N	0	0.5	VOCs	Trichlorofluoromethane	03/16/2000	< 0.00090	U
RW-B34-SS03	N	0	0.5	VOCs	Vinyl chloride	03/16/2000	< 0.00080	U
RW-B34-SS03	N	0	0.5	SVOCs	1,2,4-Trichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	1,2-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SS03	N	0	0.5	SVOCs	1,3-Dichlorobenzene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	1,4-Dichlorobenzene	03/16/2000	< 0.030	U
RW-B34-SS03	N	0	0.5	SVOCs	2,4,5-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	2,4,6-Trichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	2,4-Dichlorophenol	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	2,4-Dimethylphenol	03/16/2000	< 0.080	U
RW-B34-SS03	N	0	0.5	SVOCs	2,4-Dinitrophenol	03/16/2000	< 0.030	M
RW-B34-SS03	N	0	0.5	SVOCs	2,4-Dinitrotoluene	03/16/2000	< 0.038	U
RW-B34-SS03	N	0	0.5	SVOCs	2,6-Dinitrotoluene	03/16/2000	< 0.11	U
RW-B34-SS03	N	0	0.5	SVOCs	2-Chloronaphthalene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	2-Chlorophenol	03/16/2000	< 0.030	U
RW-B34-SS03	N	0	0.5	SVOCs	2-Methyl-4,6-dinitrophenol	03/16/2000	< 0.030	U
RW-B34-SS03	N	0	0.5	SVOCs	2-Methylnaphthalene	03/16/2000	< 0.050	U
RW-B34-SS03	N	0	0.5	SVOCs	2-Methylphenol	03/16/2000	< 0.020	U
RW-B34-SS03	N	0	0.5	SVOCs	2-Nitroaniline	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	2-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	3,3'-Dichlorobenzidine	03/16/2000	< 0.020	M
RW-B34-SS03	N	0	0.5	SVOCs	3-Nitroaniline	03/16/2000	< 0.010	U
RW-B34-SS03	N	0	0.5	SVOCs	4-Bromophenyl phenyl ether	03/16/2000	< 0.050	U
RW-B34-SS03	N	0	0.5	SVOCs	4-Chloro-3-methyl phenol	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	4-Chloroaniline	03/16/2000	< 0.040	M
RW-B34-SS03	N	0	0.5	SVOCs	4-Chlorophenyl phenyl ether	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	4-Methylphenol (p-cresol)	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	4-Nitroaniline	03/16/2000	< 0.030	M

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
RW-B34-SS03	N	0	0.5	SVOCs	4-Nitrophenol	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Acenaphthene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Acenaphthylene	03/16/2000	< 0.030	U
RW-B34-SS03	N	0	0.5	SVOCs	Anthracene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Benzo(a)anthracene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Benzo(a)pyrene	03/16/2000	< 0.050	U
RW-B34-SS03	N	0	0.5	SVOCs	Benzo(b)fluoranthene	03/16/2000	< 0.060	U
RW-B34-SS03	N	0	0.5	SVOCs	Benzo(g,h,i)perylene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Benzoic acid	03/16/2000	< 0.020	M
RW-B34-SS03	N	0	0.5	SVOCs	Benzyl alcohol	03/16/2000	< 0.12	U
RW-B34-SS03	N	0	0.5	SVOCs	Benzyl butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	bis(2-Chloroethoxy)methane	03/16/2000	< 0.060	U
RW-B34-SS03	N	0	0.5	SVOCs	bis(2-Chloroethyl)ether	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	bis(2-Chloroisopropyl)ether	03/16/2000	< 0.050	U
RW-B34-SS03	N	0	0.5	SVOCs	bis(2-Ethylhexyl) phthalate	03/16/2000	0.070	F
RW-B34-SS03	N	0	0.5	SVOCs	Chrysene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Dibenzo(a,h)anthracene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Dibenzofuran	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Diethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Dimethyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Di-n-butyl phthalate	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Di-n-octyl phthalate	03/16/2000	< 0.030	U
RW-B34-SS03	N	0	0.5	SVOCs	Fluoranthene	03/16/2000	0.050	F
RW-B34-SS03	N	0	0.5	SVOCs	Fluorene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Hexachlorobenzene	03/16/2000	< 0.050	U
RW-B34-SS03	N	0	0.5	SVOCs	Hexachlorobutadiene	03/16/2000	< 0.060	U
RW-B34-SS03	N	0	0.5	SVOCs	Hexachlorocyclopentadiene	03/16/2000	< 0.030	U
RW-B34-SS03	N	0	0.5	SVOCs	Hexachloroethane	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Indeno(1,2,3-cd)pyrene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Isophorone	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Naphthalene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Nitrobenzene	03/16/2000	< 0.057	U
RW-B34-SS03	N	0	0.5	SVOCs	n-Nitrosodi-n-propylamine	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	n-Nitrosodiphenylamine	03/16/2000	< 0.050	U
RW-B34-SS03	N	0	0.5	SVOCs	Pentachlorophenol	03/16/2000	< 0.030	U
RW-B34-SS03	N	0	0.5	SVOCs	Phenanthrene	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Phenol	03/16/2000	< 0.040	U
RW-B34-SS03	N	0	0.5	SVOCs	Pyrene	03/16/2000	< 0.050	U
RW-B34-SS03	N	0	0.5	Metals	Arsenic	03/16/2000	4.1	J
RW-B34-SS03	N	0	0.5	Metals	Barium	03/16/2000	74	J
RW-B34-SS03	N	0	0.5	Metals	Cadmium	03/16/2000	0.29	
RW-B34-SS03	N	0	0.5	Metals	Chromium	03/16/2000	48	
RW-B34-SS03	N	0	0.5	Metals	Copper	03/16/2000	68	
RW-B34-SS03	N	0	0.5	Metals	Lead	03/16/2000	110	J
RW-B34-SS03	N	0	0.5	Metals	Mercury	03/16/2000	0.070	F
RW-B34-SS03	N	0	0.5	Metals	Nickel	03/16/2000	13	
RW-B34-SS03	N	0	0.5	Metals	Zinc	03/16/2000	100	
B34-SS01	N	0	0	Metals	Barium	03/04/2003	110	
B34-SS01	N	0	0	Metals	Cadmium	03/04/2003	0.95	M
B34-SS01	N	0	0	Metals	Chromium	03/04/2003	22	
B34-SS01	N	0	0	Metals	Copper	03/04/2003	34	M
B34-SS01	N	0	0	Metals	Lead	03/04/2003	180	M
B34-SS01	N	0	0	Metals	Nickel	03/04/2003	14	J
B34-SS01	N	0	0	Metals	Zinc	03/04/2003	86	M
B34-SS02	N	0	0	VOCs	1,1,1,2-Tetrachloroethane	03/04/2003	< 0.00080	U
B34-SS02	N	0	0	VOCs	1,1,1-Trichloroethane	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	1,1,2,2-Tetrachloroethane	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	1,1,2-Trichloroethane	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	1,1-Dichloroethane	03/04/2003	< 0.0010	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS02	N	0	0	VOCs	1,1-Dichloroethene	03/04/2003	< 0.0011	U
B34-SS02	N	0	0	VOCs	1,1-Dichloropropene	03/04/2003	< 0.0012	U
B34-SS02	N	0	0	VOCs	1,2,3-Trichlorobenzene	03/04/2003	< 0.0010	M
B34-SS02	N	0	0	VOCs	1,2,3-Trichloropropane	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	1,2,4-Trichlorobenzene	03/04/2003	< 0.0010	M
B34-SS02	N	0	0	VOCs	1,2,4-Trimethylbenzene	03/04/2003	< 0.0011	U
B34-SS02	N	0	0	VOCs	1,2-Dibromo-3-chloropropane	03/04/2003	< 0.0020	U
B34-SS02	N	0	0	VOCs	1,2-Dibromoethane (EDB)	03/04/2003	< 0.0013	U
B34-SS02	N	0	0	VOCs	1,2-Dichlorobenzene	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	1,2-Dichloroethane	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	1,2-Dichloropropane	03/04/2003	< 0.00070	U
B34-SS02	N	0	0	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/04/2003	< 0.0011	U
B34-SS02	N	0	0	VOCs	1,3-Dichlorobenzene	03/04/2003	< 0.0011	U
B34-SS02	N	0	0	VOCs	1,3-Dichloropropane	03/04/2003	< 0.00070	U
B34-SS02	N	0	0	VOCs	1,4-Dichlorobenzene	03/04/2003	< 0.00080	U
B34-SS02	N	0	0	VOCs	1-Chlorohexane	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	2,2-Dichloropropane	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	2-Chlorotoluene	03/04/2003	< 0.0013	U
B34-SS02	N	0	0	VOCs	4-Chlorotoluene	03/04/2003	< 0.0011	U
B34-SS02	N	0	0	VOCs	Benzene	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	Bromobenzene	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	Bromochloromethane	03/04/2003	< 0.00080	U
B34-SS02	N	0	0	VOCs	Bromodichloromethane	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	Bromoform	03/04/2003	< 0.0011	U
B34-SS02	N	0	0	VOCs	Bromomethane	03/04/2003	< 0.00070	U
B34-SS02	N	0	0	VOCs	Carbon tetrachloride	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	Chlorobenzene	03/04/2003	< 0.00070	U
B34-SS02	N	0	0	VOCs	Chloroethane	03/04/2003	< 0.0015	U
B34-SS02	N	0	0	VOCs	Chloroform	03/04/2003	< 0.00070	U
B34-SS02	N	0	0	VOCs	Chloromethane	03/04/2003	< 0.0015	U
B34-SS02	N	0	0	VOCs	cis-1,2-Dichloroethene	03/04/2003	< 0.00080	U
B34-SS02	N	0	0	VOCs	cis-1,3-Dichloropropene	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	Dibromochloromethane	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	Dibromomethane	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	Dichlorodifluoromethane	03/04/2003	< 0.0018	M
B34-SS02	N	0	0	VOCs	Ethylbenzene	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	Hexachlorobutadiene	03/04/2003	< 0.0011	M
B34-SS02	N	0	0	VOCs	Isopropylbenzene	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	m,p-Xylene	03/04/2003	< 0.0018	U
B34-SS02	N	0	0	VOCs	Methylene chloride	03/04/2003	0.094	J
B34-SS02	N	0	0	VOCs	Naphthalene	03/04/2003	0.0017	M
B34-SS02	N	0	0	VOCs	n-Butylbenzene	03/04/2003	< 0.0010	U
B34-SS02	N	0	0	VOCs	n-Propylbenzene	03/04/2003	< 0.0012	U
B34-SS02	N	0	0	VOCs	o-Xylene	03/04/2003	< 0.00070	U
B34-SS02	N	0	0	VOCs	p-Cymene (p-Isopropyltoluene)	03/04/2003	< 0.0012	U
B34-SS02	N	0	0	VOCs	sec-Butylbenzene	03/04/2003	< 0.0011	U
B34-SS02	N	0	0	VOCs	Styrene	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	tert-Butylbenzene	03/04/2003	< 0.0012	U
B34-SS02	N	0	0	VOCs	Tetrachloroethene (PCE)	03/04/2003	< 0.00080	U
B34-SS02	N	0	0	VOCs	Toluene	03/04/2003	0.045	B
B34-SS02	N	0	0	VOCs	trans-1,2-Dichloroethene	03/04/2003	< 0.00080	U
B34-SS02	N	0	0	VOCs	trans-1,3-Dichloropropene	03/04/2003	< 0.00090	U
B34-SS02	N	0	0	VOCs	Trichloroethene (TCE)	03/04/2003	< 0.0012	U
B34-SS02	N	0	0	VOCs	Trichlorofluoromethane	03/04/2003	< 0.0013	U
B34-SS02	N	0	0	VOCs	Vinyl chloride	03/04/2003	< 0.0034	U
B34-SS02	N	0	0	Metals	Barium	03/04/2003	140	
B34-SS02	N	0	0	Metals	Cadmium	03/04/2003	0.46	M
B34-SS02	N	0	0	Metals	Chromium	03/04/2003	41	
B34-SS02	N	0	0	Metals	Copper	03/04/2003	20	M

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS02	N	0	0	Metals	Lead	03/04/2003	40	M
B34-SS02	N	0	0	Metals	Nickel	03/04/2003	18	J
B34-SS02	N	0	0	Metals	Zinc	03/04/2003	35	M
B34-SS02	FD	0	0	VOCs	1,1,1,2-Tetrachloroethane	03/04/2003	< 0.00080	U
B34-SS02	FD	0	0	VOCs	1,1,1-Trichloroethane	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	1,1,2,2-Tetrachloroethane	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	1,1,2-Trichloroethane	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	1,1-Dichloroethane	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	1,1-Dichloroethene	03/04/2003	< 0.0011	U
B34-SS02	FD	0	0	VOCs	1,1-Dichloropropene	03/04/2003	< 0.0012	U
B34-SS02	FD	0	0	VOCs	1,2,3-Trichlorobenzene	03/04/2003	< 0.0010	M
B34-SS02	FD	0	0	VOCs	1,2,3-Trichloropropane	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	1,2,4-Trichlorobenzene	03/04/2003	< 0.0010	M
B34-SS02	FD	0	0	VOCs	1,2,4-Trimethylbenzene	03/04/2003	< 0.0011	U
B34-SS02	FD	0	0	VOCs	1,2-Dibromo-3-chloropropane	03/04/2003	< 0.0020	U
B34-SS02	FD	0	0	VOCs	1,2-Dibromoethane (EDB)	03/04/2003	< 0.0013	U
B34-SS02	FD	0	0	VOCs	1,2-Dichlorobenzene	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	1,2-Dichloroethane	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	1,2-Dichloropropane	03/04/2003	< 0.00070	U
B34-SS02	FD	0	0	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/04/2003	< 0.0011	U
B34-SS02	FD	0	0	VOCs	1,3-Dichlorobenzene	03/04/2003	< 0.0011	U
B34-SS02	FD	0	0	VOCs	1,3-Dichloropropane	03/04/2003	< 0.00070	U
B34-SS02	FD	0	0	VOCs	1,4-Dichlorobenzene	03/04/2003	< 0.00080	U
B34-SS02	FD	0	0	VOCs	1-Chlorohexane	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	2,2-Dichloropropane	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	2-Chlorotoluene	03/04/2003	< 0.0013	U
B34-SS02	FD	0	0	VOCs	3-Methylpentane	03/04/2003	0.013	T
B34-SS02	FD	0	0	VOCs	4-Chlorotoluene	03/04/2003	< 0.0011	U
B34-SS02	FD	0	0	VOCs	Benzene	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	Bromobenzene	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	Bromochloromethane	03/04/2003	< 0.00080	U
B34-SS02	FD	0	0	VOCs	Bromodichloromethane	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	Bromoform	03/04/2003	< 0.0011	U
B34-SS02	FD	0	0	VOCs	Bromomethane	03/04/2003	< 0.00070	U
B34-SS02	FD	0	0	VOCs	Carbon tetrachloride	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	Chlorobenzene	03/04/2003	< 0.00070	U
B34-SS02	FD	0	0	VOCs	Chloroethane	03/04/2003	< 0.0015	U
B34-SS02	FD	0	0	VOCs	Chloroform	03/04/2003	< 0.00070	U
B34-SS02	FD	0	0	VOCs	Chloromethane	03/04/2003	< 0.0015	U
B34-SS02	FD	0	0	VOCs	cis-1,2-Dichloroethene	03/04/2003	< 0.00080	U
B34-SS02	FD	0	0	VOCs	cis-1,3-Dichloropropene	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	Dibromochloromethane	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	Dibromomethane	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	Dichlorodifluoromethane	03/04/2003	< 0.0018	M
B34-SS02	FD	0	0	VOCs	Ethylbenzene	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	Hexachlorobutadiene	03/04/2003	< 0.0011	M
B34-SS02	FD	0	0	VOCs	Isopropylbenzene	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	m,p-Xylene	03/04/2003	< 0.0018	U
B34-SS02	FD	0	0	VOCs	Methylcyclopentane	03/04/2003	0.013	T
B34-SS02	FD	0	0	VOCs	Methylene chloride	03/04/2003	0.024	J
B34-SS02	FD	0	0	VOCs	Naphthalene	03/04/2003	0.0011	M
B34-SS02	FD	0	0	VOCs	n-Butylbenzene	03/04/2003	< 0.0010	U
B34-SS02	FD	0	0	VOCs	n-Propylbenzene	03/04/2003	< 0.0012	U
B34-SS02	FD	0	0	VOCs	o-Xylene	03/04/2003	< 0.00070	U
B34-SS02	FD	0	0	VOCs	p-Cymene (p-Isopropyltoluene)	03/04/2003	< 0.0012	U
B34-SS02	FD	0	0	VOCs	sec-Butylbenzene	03/04/2003	< 0.0011	U
B34-SS02	FD	0	0	VOCs	Styrene	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	tert-Butylbenzene	03/04/2003	< 0.0012	U
B34-SS02	FD	0	0	VOCs	Tetrachloroethene (PCE)	03/04/2003	< 0.00080	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS02	FD	0	0	VOCs	Toluene	03/04/2003	0.0023	F
B34-SS02	FD	0	0	VOCs	trans-1,2-Dichloroethene	03/04/2003	< 0.00080	U
B34-SS02	FD	0	0	VOCs	trans-1,3-Dichloropropene	03/04/2003	< 0.00090	U
B34-SS02	FD	0	0	VOCs	Trichloroethene (TCE)	03/04/2003	< 0.0012	U
B34-SS02	FD	0	0	VOCs	Trichlorofluoromethane	03/04/2003	< 0.0013	U
B34-SS02	FD	0	0	VOCs	Vinyl chloride	03/04/2003	< 0.0034	U
B34-SS02	FD	0	0	Metals	Barium	03/04/2003	150	
B34-SS02	FD	0	0	Metals	Cadmium	03/04/2003	0.66	M
B34-SS02	FD	0	0	Metals	Chromium	03/04/2003	46	
B34-SS02	FD	0	0	Metals	Copper	03/04/2003	29	M
B34-SS02	FD	0	0	Metals	Lead	03/04/2003	52	M
B34-SS02	FD	0	0	Metals	Nickel	03/04/2003	21	J
B34-SS02	FD	0	0	Metals	Zinc	03/04/2003	45	M
B34-SS03	N	0	0	VOCs	1,1,1,2-Tetrachloroethane	03/04/2003	< 0.00080	U
B34-SS03	N	0	0	VOCs	1,1,1-Trichloroethane	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	1,1,2,2-Tetrachloroethane	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	1,1,2-Trichloroethane	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	1,1-Dichloroethane	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	1,1-Dichloroethene	03/04/2003	< 0.0011	U
B34-SS03	N	0	0	VOCs	1,1-Dichloropropene	03/04/2003	< 0.0012	U
B34-SS03	N	0	0	VOCs	1,2,3-Trichlorobenzene	03/04/2003	< 0.0010	M
B34-SS03	N	0	0	VOCs	1,2,3-Trichloropropane	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	1,2,4-Trichlorobenzene	03/04/2003	< 0.0010	M
B34-SS03	N	0	0	VOCs	1,2,4-Trimethylbenzene	03/04/2003	< 0.0011	U
B34-SS03	N	0	0	VOCs	1,2-Dibromo-3-chloropropane	03/04/2003	< 0.0020	U
B34-SS03	N	0	0	VOCs	1,2-Dibromoethane (EDB)	03/04/2003	< 0.0013	U
B34-SS03	N	0	0	VOCs	1,2-Dichlorobenzene	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	1,2-Dichloroethane	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	1,2-Dichloropropane	03/04/2003	< 0.00070	U
B34-SS03	N	0	0	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/04/2003	< 0.0011	U
B34-SS03	N	0	0	VOCs	1,3-Dichlorobenzene	03/04/2003	< 0.0011	U
B34-SS03	N	0	0	VOCs	1,3-Dichloropropane	03/04/2003	< 0.00070	U
B34-SS03	N	0	0	VOCs	1,4-Dichlorobenzene	03/04/2003	< 0.00080	U
B34-SS03	N	0	0	VOCs	1-Chlorohexane	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	2,2-Dichloropropane	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	2-Chlorotoluene	03/04/2003	< 0.0013	U
B34-SS03	N	0	0	VOCs	4-Chlorotoluene	03/04/2003	< 0.0011	U
B34-SS03	N	0	0	VOCs	Benzene	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	Bromobenzene	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	Bromochloromethane	03/04/2003	< 0.00080	U
B34-SS03	N	0	0	VOCs	Bromodichloromethane	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	Bromoform	03/04/2003	< 0.0011	U
B34-SS03	N	0	0	VOCs	Bromomethane	03/04/2003	< 0.00070	U
B34-SS03	N	0	0	VOCs	Carbon tetrachloride	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	Chlorobenzene	03/04/2003	< 0.00070	U
B34-SS03	N	0	0	VOCs	Chloroethane	03/04/2003	< 0.0015	U
B34-SS03	N	0	0	VOCs	Chloroform	03/04/2003	< 0.00070	U
B34-SS03	N	0	0	VOCs	Chloromethane	03/04/2003	< 0.0015	U
B34-SS03	N	0	0	VOCs	cis-1,2-Dichloroethene	03/04/2003	< 0.00080	U
B34-SS03	N	0	0	VOCs	cis-1,3-Dichloropropene	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	Dibromochloromethane	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	Dibromomethane	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	Dichlorodifluoromethane	03/04/2003	< 0.0018	M
B34-SS03	N	0	0	VOCs	Ethylbenzene	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	Hexachlorobutadiene	03/04/2003	< 0.0011	M
B34-SS03	N	0	0	VOCs	Isopropylbenzene	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	m,p-Xylene	03/04/2003	< 0.0018	U
B34-SS03	N	0	0	VOCs	Methylene chloride	03/04/2003	0.041	J
B34-SS03	N	0	0	VOCs	Naphthalene	03/04/2003	< 0.0010	M

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS03	N	0	0	VOCs	n-Butylbenzene	03/04/2003	< 0.0010	U
B34-SS03	N	0	0	VOCs	n-Propylbenzene	03/04/2003	< 0.0012	U
B34-SS03	N	0	0	VOCs	o-Xylene	03/04/2003	< 0.00070	U
B34-SS03	N	0	0	VOCs	p-Cymene (p-Isopropyltoluene)	03/04/2003	0.0013	F
B34-SS03	N	0	0	VOCs	sec-Butylbenzene	03/04/2003	< 0.0011	U
B34-SS03	N	0	0	VOCs	Styrene	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	tert-Butylbenzene	03/04/2003	< 0.0012	U
B34-SS03	N	0	0	VOCs	Tetrachloroethene (PCE)	03/04/2003	< 0.00080	U
B34-SS03	N	0	0	VOCs	Toluene	03/04/2003	0.0088	B
B34-SS03	N	0	0	VOCs	trans-1,2-Dichloroethene	03/04/2003	< 0.00080	U
B34-SS03	N	0	0	VOCs	trans-1,3-Dichloropropene	03/04/2003	< 0.00090	U
B34-SS03	N	0	0	VOCs	Trichloroethene (TCE)	03/04/2003	< 0.0012	U
B34-SS03	N	0	0	VOCs	Trichlorofluoromethane	03/04/2003	< 0.0013	U
B34-SS03	N	0	0	VOCs	Vinyl chloride	03/04/2003	< 0.0034	U
B34-SS03	N	0	0	Metals	Barium	03/04/2003	70	
B34-SS03	N	0	0	Metals	Cadmium	03/04/2003	0.67	M
B34-SS03	N	0	0	Metals	Chromium	03/04/2003	16	F
B34-SS03	N	0	0	Metals	Copper	03/04/2003	48	M
B34-SS03	N	0	0	Metals	Lead	03/04/2003	240	M
B34-SS03	N	0	0	Metals	Nickel	03/04/2003	9.3	J
B34-SS03	N	0	0	Metals	Zinc	03/04/2003	89	M
B34-SS04	N	0	0	Metals	Barium	03/04/2003	120	
B34-SS04	N	0	0	Metals	Cadmium	03/04/2003	0.72	M
B34-SS04	N	0	0	Metals	Chromium	03/04/2003	47	
B34-SS04	N	0	0	Metals	Copper	03/04/2003	110	M
B34-SS04	N	0	0	Metals	Lead	03/04/2003	370	M
B34-SS04	N	0	0	Metals	Nickel	03/04/2003	15	J
B34-SS04	N	0	0	Metals	Zinc	03/04/2003	170	M
B34-SS05	N	0	0	Metals	Barium	03/04/2003	110	
B34-SS05	N	0	0	Metals	Cadmium	03/04/2003	0.61	M
B34-SS05	N	0	0	Metals	Chromium	03/04/2003	53	
B34-SS05	N	0	0	Metals	Copper	03/04/2003	75	M
B34-SS05	N	0	0	Metals	Lead	03/04/2003	200	M
B34-SS05	N	0	0	Metals	Nickel	03/04/2003	19	J
B34-SS05	N	0	0	Metals	Zinc	03/04/2003	110	M
B34-SS06	N	0	0	Metals	Barium	03/04/2003	130	
B34-SS06	N	0	0	Metals	Cadmium	03/04/2003	0.81	M
B34-SS06	N	0	0	Metals	Chromium	03/04/2003	53	
B34-SS06	N	0	0	Metals	Copper	03/04/2003	79	M
B34-SS06	N	0	0	Metals	Lead	03/04/2003	230	M
B34-SS06	N	0	0	Metals	Nickel	03/04/2003	23	J
B34-SS06	N	0	0	Metals	Zinc	03/04/2003	130	M
B34-SS06	FD	0	0	Metals	Barium	03/04/2003	130	
B34-SS06	FD	0	0	Metals	Cadmium	03/04/2003	0.73	M
B34-SS06	FD	0	0	Metals	Chromium	03/04/2003	45	
B34-SS06	FD	0	0	Metals	Copper	03/04/2003	68	M
B34-SS06	FD	0	0	Metals	Lead	03/04/2003	220	M
B34-SS06	FD	0	0	Metals	Nickel	03/04/2003	22	J
B34-SS06	FD	0	0	Metals	Zinc	03/04/2003	140	M
B34-SS07	N	0	0	Metals	Barium	03/04/2003	21	
B34-SS07	N	0	0	Metals	Cadmium	03/04/2003	0.38	M
B34-SS07	N	0	0	Metals	Chromium	03/04/2003	7.8	F
B34-SS07	N	0	0	Metals	Copper	03/04/2003	14	M
B34-SS07	N	0	0	Metals	Lead	03/04/2003	220	M
B34-SS07	N	0	0	Metals	Nickel	03/04/2003	4.0	J
B34-SS07	N	0	0	Metals	Zinc	03/04/2003	52	M
B34-SS08	N	0	0	Metals	Barium	03/04/2003	97	
B34-SS08	N	0	0	Metals	Cadmium	03/04/2003	0.74	M
B34-SS08	N	0	0	Metals	Chromium	03/04/2003	20	

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS08	N	0	0	Metals	Copper	03/04/2003	22	M
B34-SS08	N	0	0	Metals	Lead	03/04/2003	140	M
B34-SS08	N	0	0	Metals	Nickel	03/04/2003	15	J
B34-SS08	N	0	0	Metals	Zinc	03/04/2003	88	M
B34-SS09	N	0	0	Metals	Barium	03/04/2003	98	
B34-SS09	N	0	0	Metals	Cadmium	03/04/2003	1.3	M
B34-SS09	N	0	0	Metals	Chromium	03/04/2003	24	
B34-SS09	N	0	0	Metals	Copper	03/04/2003	100	M
B34-SS09	N	0	0	Metals	Lead	03/04/2003	210	M
B34-SS09	N	0	0	Metals	Nickel	03/04/2003	16	J
B34-SS09	N	0	0	Metals	Zinc	03/04/2003	170	M
B34-SS10	N	0	0	Metals	Barium	03/04/2003	110	
B34-SS10	N	0	0	Metals	Cadmium	03/04/2003	0.51	M
B34-SS10	N	0	0	Metals	Chromium	03/04/2003	25	
B34-SS10	N	0	0	Metals	Copper	03/04/2003	18	M
B34-SS10	N	0	0	Metals	Lead	03/04/2003	56	M
B34-SS10	N	0	0	Metals	Nickel	03/04/2003	17	J
B34-SS10	N	0	0	Metals	Zinc	03/04/2003	58	M
B34-SS11	N	0	0	Metals	Barium	03/04/2003	80	
B34-SS11	N	0	0	Metals	Cadmium	03/04/2003	0.42	M
B34-SS11	N	0	0	Metals	Chromium	03/04/2003	17	F
B34-SS11	N	0	0	Metals	Copper	03/04/2003	15	M
B34-SS11	N	0	0	Metals	Lead	03/04/2003	48	M
B34-SS11	N	0	0	Metals	Nickel	03/04/2003	13	J
B34-SS11	N	0	0	Metals	Zinc	03/04/2003	42	M
B34-SS12	N	0	0	Metals	Barium	03/04/2003	91	
B34-SS12	N	0	0	Metals	Cadmium	03/04/2003	0.33	M
B34-SS12	N	0	0	Metals	Chromium	03/04/2003	20	
B34-SS12	N	0	0	Metals	Copper	03/04/2003	18	M
B34-SS12	N	0	0	Metals	Lead	03/04/2003	46	M
B34-SS12	N	0	0	Metals	Nickel	03/04/2003	13	J
B34-SS12	N	0	0	Metals	Zinc	03/04/2003	52	M
B34-SS13	N	0	0	VOCs	1,1,1,2-Tetrachloroethane	03/04/2003	< 0.00080	U
B34-SS13	N	0	0	VOCs	1,1,1-Trichloroethane	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	1,1,2,2-Tetrachloroethane	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	1,1,2-Trichloroethane	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	1,1-Dichloroethane	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	1,1-Dichloroethene	03/04/2003	< 0.0011	U
B34-SS13	N	0	0	VOCs	1,1-Dichloropropene	03/04/2003	< 0.0012	U
B34-SS13	N	0	0	VOCs	1,2,3-Trichlorobenzene	03/04/2003	< 0.0010	M
B34-SS13	N	0	0	VOCs	1,2,3-Trichloropropane	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	1,2,4-Trichlorobenzene	03/04/2003	< 0.0010	M
B34-SS13	N	0	0	VOCs	1,2,4-Trimethylbenzene	03/04/2003	< 0.0011	U
B34-SS13	N	0	0	VOCs	1,2-Dibromo-3-chloropropane	03/04/2003	< 0.0020	U
B34-SS13	N	0	0	VOCs	1,2-Dibromoethane (EDB)	03/04/2003	< 0.0013	U
B34-SS13	N	0	0	VOCs	1,2-Dichlorobenzene	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	1,2-Dichloroethane	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	1,2-Dichloropropane	03/04/2003	< 0.00070	U
B34-SS13	N	0	0	VOCs	1,3,5-Trimethylbenzene (Mesitylene)	03/04/2003	< 0.0011	U
B34-SS13	N	0	0	VOCs	1,3-Dichlorobenzene	03/04/2003	< 0.0011	U
B34-SS13	N	0	0	VOCs	1,3-Dichloropropane	03/04/2003	< 0.00070	U
B34-SS13	N	0	0	VOCs	1,4-Dichlorobenzene	03/04/2003	< 0.00080	U
B34-SS13	N	0	0	VOCs	1-Chlorohexane	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	2,2-Dichloropropane	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	2-Chlorotoluene	03/04/2003	< 0.0013	U
B34-SS13	N	0	0	VOCs	4-Chlorotoluene	03/04/2003	< 0.0011	U
B34-SS13	N	0	0	VOCs	Benzene	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	Bromobenzene	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	Bromochloromethane	03/04/2003	< 0.00080	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS13	N	0	0	VOCs	Bromodichloromethane	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	Bromoform	03/04/2003	< 0.0011	U
B34-SS13	N	0	0	VOCs	Bromomethane	03/04/2003	< 0.00070	U
B34-SS13	N	0	0	VOCs	Carbon tetrachloride	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	Chlorobenzene	03/04/2003	< 0.00070	U
B34-SS13	N	0	0	VOCs	Chloroethane	03/04/2003	< 0.0015	U
B34-SS13	N	0	0	VOCs	Chloroform	03/04/2003	< 0.00070	U
B34-SS13	N	0	0	VOCs	Chloromethane	03/04/2003	< 0.0015	U
B34-SS13	N	0	0	VOCs	cis-1,2-Dichloroethene	03/04/2003	< 0.00080	U
B34-SS13	N	0	0	VOCs	cis-1,3-Dichloropropene	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	Dibromochloromethane	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	Dibromomethane	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	Dichlorodifluoromethane	03/04/2003	< 0.0018	M
B34-SS13	N	0	0	VOCs	Ethylbenzene	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	Hexachlorobutadiene	03/04/2003	< 0.0011	M
B34-SS13	N	0	0	VOCs	Isopropylbenzene	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	m,p-Xylene	03/04/2003	< 0.0018	U
B34-SS13	N	0	0	VOCs	Methylene chloride	03/04/2003	0.028	J
B34-SS13	N	0	0	VOCs	Naphthalene	03/04/2003	< 0.0010	M
B34-SS13	N	0	0	VOCs	n-Butylbenzene	03/04/2003	< 0.0010	U
B34-SS13	N	0	0	VOCs	n-Propylbenzene	03/04/2003	< 0.0012	U
B34-SS13	N	0	0	VOCs	o-Xylene	03/04/2003	< 0.00070	U
B34-SS13	N	0	0	VOCs	p-Cymene (p-Isopropyltoluene)	03/04/2003	< 0.0012	U
B34-SS13	N	0	0	VOCs	sec-Butylbenzene	03/04/2003	< 0.0011	U
B34-SS13	N	0	0	VOCs	Styrene	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	tert-Butylbenzene	03/04/2003	< 0.0012	U
B34-SS13	N	0	0	VOCs	Tetrachloroethene (PCE)	03/04/2003	< 0.00080	U
B34-SS13	N	0	0	VOCs	Toluene	03/04/2003	0.0065	B
B34-SS13	N	0	0	VOCs	trans-1,2-Dichloroethene	03/04/2003	< 0.00080	U
B34-SS13	N	0	0	VOCs	trans-1,3-Dichloropropene	03/04/2003	< 0.00090	U
B34-SS13	N	0	0	VOCs	Trichloroethene (TCE)	03/04/2003	< 0.0012	U
B34-SS13	N	0	0	VOCs	Trichlorofluoromethane	03/04/2003	< 0.0013	U
B34-SS13	N	0	0	VOCs	Vinyl chloride	03/04/2003	< 0.0034	U
B34-SS13	N	0	0	Metals	Barium	03/04/2003	150	
B34-SS13	N	0	0	Metals	Cadmium	03/04/2003	0.61	M
B34-SS13	N	0	0	Metals	Chromium	03/04/2003	26	
B34-SS13	N	0	0	Metals	Copper	03/04/2003	150	M
B34-SS13	N	0	0	Metals	Lead	03/04/2003	570	M
B34-SS13	N	0	0	Metals	Nickel	03/04/2003	17	J
B34-SS13	N	0	0	Metals	Zinc	03/04/2003	210	M
B34-SS14	N	0	0	Metals	Barium	03/04/2003	61	
B34-SS14	N	0	0	Metals	Cadmium	03/04/2003	0.51	M
B34-SS14	N	0	0	Metals	Chromium	03/04/2003	16	F
B34-SS14	N	0	0	Metals	Copper	03/04/2003	20	M
B34-SS14	N	0	0	Metals	Lead	03/04/2003	90	M
B34-SS14	N	0	0	Metals	Nickel	03/04/2003	9.8	J
B34-SS14	N	0	0	Metals	Zinc	03/04/2003	60	M
B34-SS01	N	0	0	SVOCs	1,2,4-Trichlorobenzene	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	1,2-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS01	N	0	0	SVOCs	1,3-Dichlorobenzene	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	1,4-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS01	N	0	0	SVOCs	2,4,5-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	2,4,6-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	2,4-Dichlorophenol	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	2,4-Dimethylphenol	03/26/2003	< 0.080	M
B34-SS01	N	0	0	SVOCs	2,4-Dinitrophenol	03/26/2003	< 0.030	M
B34-SS01	N	0	0	SVOCs	2,4-Dinitrotoluene	03/26/2003	< 0.050	M
B34-SS01	N	0	0	SVOCs	2,6-Dinitrotoluene	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	2-Chloronaphthalene	03/26/2003	< 0.040	M

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS01	N	0	0	SVOCs	2-Chlorophenol	03/26/2003	< 0.030	U
B34-SS01	N	0	0	SVOCs	2-Methyl-4,6-dinitrophenol	03/26/2003	< 0.030	U
B34-SS01	N	0	0	SVOCs	2-Methylnaphthalene	03/26/2003	< 0.050	M
B34-SS01	N	0	0	SVOCs	2-Methylphenol	03/26/2003	< 0.020	M
B34-SS01	N	0	0	SVOCs	2-Nitroaniline	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	2-Nitrophenol	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	3,3'-Dichlorobenzidine	03/26/2003	< 0.020	M
B34-SS01	N	0	0	SVOCs	3-Nitroaniline	03/26/2003	< 0.010	M
B34-SS01	N	0	0	SVOCs	4-Bromophenyl phenyl ether	03/26/2003	< 0.050	M
B34-SS01	N	0	0	SVOCs	4-Chloro-3-methyl phenol	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	4-Chloroaniline	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	4-Chlorophenyl phenyl ether	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	4-Methylphenol (p-cresol)	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	4-Nitroaniline	03/26/2003	< 0.030	M
B34-SS01	N	0	0	SVOCs	4-Nitrophenol	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Acenaphthene	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Acenaphthylene	03/26/2003	< 0.030	M
B34-SS01	N	0	0	SVOCs	Anthracene	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Benzo(a)anthracene	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Benzo(a)pyrene	03/26/2003	< 0.050	M
B34-SS01	N	0	0	SVOCs	Benzo(b)fluoranthene	03/26/2003	< 0.060	M
B34-SS01	N	0	0	SVOCs	Benzo(g,h,i)perylene	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	Benzoic acid	03/26/2003	< 0.020	M
B34-SS01	N	0	0	SVOCs	Benzyl alcohol	03/26/2003	< 0.12	M
B34-SS01	N	0	0	SVOCs	Benzyl butyl phthalate	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	bis(2-Chloroethoxy)methane	03/26/2003	< 0.060	U
B34-SS01	N	0	0	SVOCs	bis(2-Chloroethyl)ether	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	bis(2-Chloroisopropyl)ether	03/26/2003	< 0.050	M
B34-SS01	N	0	0	SVOCs	bis(2-Ethylhexyl) phthalate	03/26/2003	< 0.030	M
B34-SS01	N	0	0	SVOCs	Chrysene	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Dibenzo(a,h)anthracene	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	Dibenzofuran	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Diethyl phthalate	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Dimethyl phthalate	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Di-n-butyl phthalate	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	Di-n-octyl phthalate	03/26/2003	< 0.030	M
B34-SS01	N	0	0	SVOCs	Fluoranthene	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Fluorene	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Hexachlorobenzene	03/26/2003	< 0.050	M
B34-SS01	N	0	0	SVOCs	Hexachlorobutadiene	03/26/2003	< 0.060	U
B34-SS01	N	0	0	SVOCs	Hexachlorocyclopentadiene	03/26/2003	< 0.030	U
B34-SS01	N	0	0	SVOCs	Hexachloroethane	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	Indeno(1,2,3-cd)pyrene	03/26/2003	< 0.040	M
B34-SS01	N	0	0	SVOCs	Isophorone	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	Naphthalene	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	Nitrobenzene	03/26/2003	< 0.050	U
B34-SS01	N	0	0	SVOCs	n-Nitrosodi-n-propylamine	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	n-Nitrosodiphenylamine	03/26/2003	< 0.050	M
B34-SS01	N	0	0	SVOCs	Pentachlorophenol	03/26/2003	< 0.030	M
B34-SS01	N	0	0	SVOCs	Phenanthrene	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	Phenol	03/26/2003	< 0.040	U
B34-SS01	N	0	0	SVOCs	Pyrene	03/26/2003	< 0.050	M
B34-SS02	N	0	0	SVOCs	1,2,4-Trichlorobenzene	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	1,2-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS02	N	0	0	SVOCs	1,3-Dichlorobenzene	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	1,4-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS02	N	0	0	SVOCs	2,4,5-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	2,4,6-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	2,4-Dichlorophenol	03/26/2003	< 0.040	M

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS02	N	0	0	SVOCs	2,4-Dimethylphenol	03/26/2003	< 0.080	M
B34-SS02	N	0	0	SVOCs	2,4-Dinitrophenol	03/26/2003	< 0.030	M
B34-SS02	N	0	0	SVOCs	2,4-Dinitrotoluene	03/26/2003	< 0.050	M
B34-SS02	N	0	0	SVOCs	2,6-Dinitrotoluene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	2-Chloronaphthalene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	2-Chlorophenol	03/26/2003	< 0.030	U
B34-SS02	N	0	0	SVOCs	2-Methyl-4,6-dinitrophenol	03/26/2003	< 0.030	U
B34-SS02	N	0	0	SVOCs	2-Methylnaphthalene	03/26/2003	< 0.050	M
B34-SS02	N	0	0	SVOCs	2-Methylphenol	03/26/2003	< 0.020	M
B34-SS02	N	0	0	SVOCs	2-Nitroaniline	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	2-Nitrophenol	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	3,3'-Dichlorobenzidine	03/26/2003	< 0.020	M
B34-SS02	N	0	0	SVOCs	3-Nitroaniline	03/26/2003	< 0.010	M
B34-SS02	N	0	0	SVOCs	4-Bromophenyl phenyl ether	03/26/2003	< 0.050	M
B34-SS02	N	0	0	SVOCs	4-Chloro-3-methyl phenol	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	4-Chloroaniline	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	4-Chlorophenyl phenyl ether	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	4-Methylphenol (p-cresol)	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	4-Nitroaniline	03/26/2003	< 0.030	M
B34-SS02	N	0	0	SVOCs	4-Nitrophenol	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Acenaphthene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Acenaphthylene	03/26/2003	< 0.030	M
B34-SS02	N	0	0	SVOCs	Anthracene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Benzo(a)anthracene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Benzo(a)pyrene	03/26/2003	< 0.050	M
B34-SS02	N	0	0	SVOCs	Benzo(b)fluoranthene	03/26/2003	< 0.060	M
B34-SS02	N	0	0	SVOCs	Benzo(g,h,i)perylene	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	Benzoic acid	03/26/2003	< 0.020	M
B34-SS02	N	0	0	SVOCs	Benzyl alcohol	03/26/2003	< 0.12	M
B34-SS02	N	0	0	SVOCs	Benzyl butyl phthalate	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	bis(2-Chloroethoxy)methane	03/26/2003	< 0.060	U
B34-SS02	N	0	0	SVOCs	bis(2-Chloroethyl)ether	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	bis(2-Chloroisopropyl)ether	03/26/2003	< 0.050	M
B34-SS02	N	0	0	SVOCs	bis(2-Ethylhexyl) phthalate	03/26/2003	< 0.030	M
B34-SS02	N	0	0	SVOCs	Chrysene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Dibenzo(a,h)anthracene	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	Dibenzofuran	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Diethyl phthalate	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Dimethyl phthalate	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Di-n-butyl phthalate	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	Di-n-octyl phthalate	03/26/2003	< 0.030	M
B34-SS02	N	0	0	SVOCs	Fluoranthene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Fluorene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Hexachlorobenzene	03/26/2003	< 0.050	M
B34-SS02	N	0	0	SVOCs	Hexachlorobutadiene	03/26/2003	< 0.060	U
B34-SS02	N	0	0	SVOCs	Hexachlorocyclopentadiene	03/26/2003	< 0.030	U
B34-SS02	N	0	0	SVOCs	Hexachloroethane	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	Indeno(1,2,3-cd)pyrene	03/26/2003	< 0.040	M
B34-SS02	N	0	0	SVOCs	Isophorone	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	Naphthalene	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	Nitrobenzene	03/26/2003	< 0.050	U
B34-SS02	N	0	0	SVOCs	n-Nitrosodi-n-propylamine	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	n-Nitrosodiphenylamine	03/26/2003	< 0.050	M
B34-SS02	N	0	0	SVOCs	Pentachlorophenol	03/26/2003	< 0.030	M
B34-SS02	N	0	0	SVOCs	Phenanthrene	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	Phenol	03/26/2003	< 0.040	U
B34-SS02	N	0	0	SVOCs	Pyrene	03/26/2003	< 0.050	M
B34-SS02	FD	0	0	SVOCs	1,2,4-Trichlorobenzene	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	1,2-Dichlorobenzene	03/26/2003	< 0.030	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS02	FD	0	0	SVOCs	1,3-Dichlorobenzene	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	1,4-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS02	FD	0	0	SVOCs	2,4,5-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	2,4,6-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	2,4-Dichlorophenol	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	2,4-Dimethylphenol	03/26/2003	< 0.080	M
B34-SS02	FD	0	0	SVOCs	2,4-Dinitrophenol	03/26/2003	< 0.030	M
B34-SS02	FD	0	0	SVOCs	2,4-Dinitrotoluene	03/26/2003	< 0.050	M
B34-SS02	FD	0	0	SVOCs	2,6-Dinitrotoluene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	2-Chloronaphthalene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	2-Chlorophenol	03/26/2003	< 0.030	U
B34-SS02	FD	0	0	SVOCs	2-Methyl-4,6-dinitrophenol	03/26/2003	< 0.030	U
B34-SS02	FD	0	0	SVOCs	2-Methylnaphthalene	03/26/2003	< 0.050	M
B34-SS02	FD	0	0	SVOCs	2-Methylphenol	03/26/2003	< 0.020	M
B34-SS02	FD	0	0	SVOCs	2-Nitroaniline	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	2-Nitrophenol	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	3,3'-Dichlorobenzidine	03/26/2003	< 0.020	M
B34-SS02	FD	0	0	SVOCs	3-Nitroaniline	03/26/2003	< 0.010	M
B34-SS02	FD	0	0	SVOCs	4-Bromophenyl phenyl ether	03/26/2003	< 0.050	M
B34-SS02	FD	0	0	SVOCs	4-Chloro-3-methyl phenol	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	4-Chloroaniline	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	4-Chlorophenyl phenyl ether	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	4-Methylphenol (p-cresol)	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	4-Nitroaniline	03/26/2003	< 0.030	M
B34-SS02	FD	0	0	SVOCs	4-Nitrophenol	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Acenaphthene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Acenaphthylene	03/26/2003	< 0.030	M
B34-SS02	FD	0	0	SVOCs	Anthracene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Benzo(a)anthracene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Benzo(a)pyrene	03/26/2003	< 0.050	M
B34-SS02	FD	0	0	SVOCs	Benzo(b)fluoranthene	03/26/2003	< 0.060	M
B34-SS02	FD	0	0	SVOCs	Benzo(g,h,i)perylene	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	Benzoic acid	03/26/2003	< 0.020	M
B34-SS02	FD	0	0	SVOCs	Benzyl alcohol	03/26/2003	< 0.12	M
B34-SS02	FD	0	0	SVOCs	Benzyl butyl phthalate	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	bis(2-Chloroethoxy)methane	03/26/2003	< 0.060	U
B34-SS02	FD	0	0	SVOCs	bis(2-Chloroethyl)ether	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	bis(2-Chloroisopropyl)ether	03/26/2003	< 0.050	M
B34-SS02	FD	0	0	SVOCs	bis(2-Ethylhexyl) phthalate	03/26/2003	< 0.030	M
B34-SS02	FD	0	0	SVOCs	Chrysene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Dibenzo(a,h)anthracene	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	Dibenzofuran	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Diethyl phthalate	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Dimethyl phthalate	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Di-n-butyl phthalate	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	Di-n-octyl phthalate	03/26/2003	< 0.030	M
B34-SS02	FD	0	0	SVOCs	Fluoranthene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Fluorene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Hexachlorobenzene	03/26/2003	< 0.050	M
B34-SS02	FD	0	0	SVOCs	Hexachlorobutadiene	03/26/2003	< 0.060	U
B34-SS02	FD	0	0	SVOCs	Hexachlorocyclopentadiene	03/26/2003	< 0.030	U
B34-SS02	FD	0	0	SVOCs	Hexachloroethane	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	Indeno(1,2,3-cd)pyrene	03/26/2003	< 0.040	M
B34-SS02	FD	0	0	SVOCs	Isophorone	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	Naphthalene	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	Nitrobenzene	03/26/2003	< 0.050	U
B34-SS02	FD	0	0	SVOCs	n-Nitrosodi-n-propylamine	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	n-Nitrosodiphenylamine	03/26/2003	< 0.050	M
B34-SS02	FD	0	0	SVOCs	Pentachlorophenol	03/26/2003	< 0.030	M

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS02	FD	0	0	SVOCs	Phenanthrene	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	Phenol	03/26/2003	< 0.040	U
B34-SS02	FD	0	0	SVOCs	Pyrene	03/26/2003	< 0.050	M
B34-SS03	N	0	0	SVOCs	1,2,4-Trichlorobenzene	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	1,2-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS03	N	0	0	SVOCs	1,3-Dichlorobenzene	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	1,4-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS03	N	0	0	SVOCs	2,4,5-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	2,4,6-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	2,4-Dichlorophenol	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	2,4-Dimethylphenol	03/26/2003	< 0.080	M
B34-SS03	N	0	0	SVOCs	2,4-Dinitrophenol	03/26/2003	< 0.030	M
B34-SS03	N	0	0	SVOCs	2,4-Dinitrotoluene	03/26/2003	< 0.050	M
B34-SS03	N	0	0	SVOCs	2,6-Dinitrotoluene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	2-Chloronaphthalene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	2-Chlorophenol	03/26/2003	< 0.030	U
B34-SS03	N	0	0	SVOCs	2-Methyl-4,6-dinitrophenol	03/26/2003	< 0.030	U
B34-SS03	N	0	0	SVOCs	2-Methylnaphthalene	03/26/2003	< 0.050	M
B34-SS03	N	0	0	SVOCs	2-Methylphenol	03/26/2003	< 0.020	M
B34-SS03	N	0	0	SVOCs	2-Nitroaniline	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	2-Nitrophenol	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	3,3'-Dichlorobenzidine	03/26/2003	< 0.020	M
B34-SS03	N	0	0	SVOCs	3-Nitroaniline	03/26/2003	< 0.010	M
B34-SS03	N	0	0	SVOCs	4-Bromophenyl phenyl ether	03/26/2003	< 0.050	M
B34-SS03	N	0	0	SVOCs	4-Chloro-3-methyl phenol	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	4-Chloroaniline	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	4-Chlorophenyl phenyl ether	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	4-Methylphenol (p-cresol)	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	4-Nitroaniline	03/26/2003	< 0.030	M
B34-SS03	N	0	0	SVOCs	4-Nitrophenol	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Acenaphthene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Acenaphthylene	03/26/2003	< 0.030	M
B34-SS03	N	0	0	SVOCs	Anthracene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Benzo(a)anthracene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Benzo(a)pyrene	03/26/2003	< 0.050	M
B34-SS03	N	0	0	SVOCs	Benzo(b)fluoranthene	03/26/2003	< 0.060	M
B34-SS03	N	0	0	SVOCs	Benzo(g,h,i)perylene	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	Benzoic acid	03/26/2003	< 0.020	M
B34-SS03	N	0	0	SVOCs	Benzyl alcohol	03/26/2003	< 0.12	M
B34-SS03	N	0	0	SVOCs	Benzyl butyl phthalate	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	bis(2-Chloroethoxy)methane	03/26/2003	< 0.060	U
B34-SS03	N	0	0	SVOCs	bis(2-Chloroethyl)ether	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	bis(2-Chloroisopropyl)ether	03/26/2003	< 0.050	M
B34-SS03	N	0	0	SVOCs	bis(2-Ethylhexyl) phthalate	03/26/2003	< 0.030	M
B34-SS03	N	0	0	SVOCs	Chrysene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Dibenzo(a,h)anthracene	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	Dibenzofuran	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Diethyl phthalate	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Dimethyl phthalate	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Di-n-butyl phthalate	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	Di-n-octyl phthalate	03/26/2003	< 0.030	M
B34-SS03	N	0	0	SVOCs	Fluoranthene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Fluorene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Hexachlorobenzene	03/26/2003	< 0.050	M
B34-SS03	N	0	0	SVOCs	Hexachlorobutadiene	03/26/2003	< 0.060	U
B34-SS03	N	0	0	SVOCs	Hexachlorocyclopentadiene	03/26/2003	< 0.030	U
B34-SS03	N	0	0	SVOCs	Hexachloroethane	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	Indeno(1,2,3-cd)pyrene	03/26/2003	< 0.040	M
B34-SS03	N	0	0	SVOCs	Isophorone	03/26/2003	< 0.040	U

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS03	N	0	0	SVOCs	Naphthalene	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	Nitrobenzene	03/26/2003	< 0.050	U
B34-SS03	N	0	0	SVOCs	n-Nitrosodi-n-propylamine	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	n-Nitrosodiphenylamine	03/26/2003	< 0.050	M
B34-SS03	N	0	0	SVOCs	Pentachlorophenol	03/26/2003	< 0.030	M
B34-SS03	N	0	0	SVOCs	Phenanthrene	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	Phenol	03/26/2003	< 0.040	U
B34-SS03	N	0	0	SVOCs	Pyrene	03/26/2003	< 0.050	M
B34-SS13	N	0	0	SVOCs	1,2,4-Trichlorobenzene	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	1,2-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS13	N	0	0	SVOCs	1,3-Dichlorobenzene	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	1,4-Dichlorobenzene	03/26/2003	< 0.030	U
B34-SS13	N	0	0	SVOCs	2,4,5-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	2,4,6-Trichlorophenol	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	2,4-Dichlorophenol	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	2,4-Dimethylphenol	03/26/2003	< 0.080	M
B34-SS13	N	0	0	SVOCs	2,4-Dinitrophenol	03/26/2003	< 0.030	M
B34-SS13	N	0	0	SVOCs	2,4-Dinitrotoluene	03/26/2003	< 0.050	M
B34-SS13	N	0	0	SVOCs	2,6-Dinitrotoluene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	2-Chloronaphthalene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	2-Chlorophenol	03/26/2003	< 0.030	U
B34-SS13	N	0	0	SVOCs	2-Methyl-4,6-dinitrophenol	03/26/2003	< 0.030	U
B34-SS13	N	0	0	SVOCs	2-Methylnaphthalene	03/26/2003	< 0.050	M
B34-SS13	N	0	0	SVOCs	2-Methylphenol	03/26/2003	< 0.020	M
B34-SS13	N	0	0	SVOCs	2-Nitroaniline	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	2-Nitrophenol	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	3,3'-Dichlorobenzidine	03/26/2003	< 0.020	M
B34-SS13	N	0	0	SVOCs	3-Nitroaniline	03/26/2003	< 0.010	M
B34-SS13	N	0	0	SVOCs	4-Bromophenyl phenyl ether	03/26/2003	< 0.050	M
B34-SS13	N	0	0	SVOCs	4-Chloro-3-methyl phenol	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	4-Chloroaniline	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	4-Chlorophenyl phenyl ether	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	4-Methylphenol (p-cresol)	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	4-Nitroaniline	03/26/2003	< 0.030	M
B34-SS13	N	0	0	SVOCs	4-Nitrophenol	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Acenaphthene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Acenaphthylene	03/26/2003	< 0.030	M
B34-SS13	N	0	0	SVOCs	Anthracene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Benzo(a)anthracene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Benzo(a)pyrene	03/26/2003	< 0.050	M
B34-SS13	N	0	0	SVOCs	Benzo(b)fluoranthene	03/26/2003	< 0.060	M
B34-SS13	N	0	0	SVOCs	Benzo(g,h,i)perylene	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	Benzoic acid	03/26/2003	< 0.020	M
B34-SS13	N	0	0	SVOCs	Benzyl alcohol	03/26/2003	< 0.12	M
B34-SS13	N	0	0	SVOCs	Benzyl butyl phthalate	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	bis(2-Chloroethoxy)methane	03/26/2003	< 0.060	U
B34-SS13	N	0	0	SVOCs	bis(2-Chloroethyl)ether	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	bis(2-Chloroisopropyl)ether	03/26/2003	< 0.050	M
B34-SS13	N	0	0	SVOCs	bis(2-Ethylhexyl) phthalate	03/26/2003	< 0.030	M
B34-SS13	N	0	0	SVOCs	Chrysene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Dibenzo(a,h)anthracene	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	Dibenzofuran	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Diethyl phthalate	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Dimethyl phthalate	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Di-n-butyl phthalate	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	Di-n-octyl phthalate	03/26/2003	< 0.030	M
B34-SS13	N	0	0	SVOCs	Fluoranthene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Fluorene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Hexachlorobenzene	03/26/2003	< 0.050	M

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS13	N	0	0	SVOCs	Hexachlorobutadiene	03/26/2003	< 0.060	U
B34-SS13	N	0	0	SVOCs	Hexachlorocyclopentadiene	03/26/2003	< 0.030	U
B34-SS13	N	0	0	SVOCs	Hexachloroethane	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	Indeno(1,2,3-cd)pyrene	03/26/2003	< 0.040	M
B34-SS13	N	0	0	SVOCs	Isophorone	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	Naphthalene	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	Nitrobenzene	03/26/2003	< 0.050	U
B34-SS13	N	0	0	SVOCs	n-Nitrosodi-n-propylamine	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	n-Nitrosodiphenylamine	03/26/2003	< 0.050	M
B34-SS13	N	0	0	SVOCs	Pentachlorophenol	03/26/2003	< 0.030	M
B34-SS13	N	0	0	SVOCs	Phenanthrene	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	Phenol	03/26/2003	< 0.040	U
B34-SS13	N	0	0	SVOCs	Pyrene	03/26/2003	< 0.050	M
B34-SS15	N	0	0	Metals	Barium	02/18/2004	59	M
B34-SS15	N	0	0	Metals	Cadmium	02/18/2004	0.68	
B34-SS15	N	0	0	Metals	Chromium	02/18/2004	13	F
B34-SS15	N	0	0	Metals	Copper	02/18/2004	14	J
B34-SS15	N	0	0	Metals	Lead	02/18/2004	140	
B34-SS15	N	0	0	Metals	Nickel	02/18/2004	7.3	M
B34-SS15	N	0	0	Metals	Zinc	02/18/2004	99	M
B34-SS15	FD	0	0	Metals	Barium	02/18/2004	60	M
B34-SS15	FD	0	0	Metals	Cadmium	02/18/2004	0.66	
B34-SS15	FD	0	0	Metals	Chromium	02/18/2004	13	F
B34-SS15	FD	0	0	Metals	Copper	02/18/2004	23	J
B34-SS15	FD	0	0	Metals	Lead	02/18/2004	150	
B34-SS15	FD	0	0	Metals	Nickel	02/18/2004	7.2	M
B34-SS15	FD	0	0	Metals	Zinc	02/18/2004	120	M
B34-SS16	N	0	0	Metals	Barium	02/18/2004	33	M
B34-SS16	N	0	0	Metals	Cadmium	02/18/2004	0.96	
B34-SS16	N	0	0	Metals	Chromium	02/18/2004	9.9	F
B34-SS16	N	0	0	Metals	Copper	02/18/2004	9.6	J
B34-SS16	N	0	0	Metals	Lead	02/18/2004	260	
B34-SS16	N	0	0	Metals	Nickel	02/18/2004	2.8	M
B34-SS16	N	0	0	Metals	Zinc	02/18/2004	93	M
B34-SS17	N	0	0	Metals	Barium	02/18/2004	57	M
B34-SS17	N	0	0	Metals	Cadmium	02/18/2004	0.74	
B34-SS17	N	0	0	Metals	Chromium	02/18/2004	11	F
B34-SS17	N	0	0	Metals	Copper	02/18/2004	13	J
B34-SS17	N	0	0	Metals	Lead	02/18/2004	330	
B34-SS17	N	0	0	Metals	Nickel	02/18/2004	1.9	M
B34-SS17	N	0	0	Metals	Zinc	02/18/2004	400	M
B34-SS18	N	0	0	Metals	Barium	02/18/2004	41	M
B34-SS18	N	0	0	Metals	Cadmium	02/18/2004	0.89	
B34-SS18	N	0	0	Metals	Chromium	02/18/2004	14	F
B34-SS18	N	0	0	Metals	Copper	02/18/2004	13	J
B34-SS18	N	0	0	Metals	Lead	02/18/2004	300	
B34-SS18	N	0	0	Metals	Nickel	02/18/2004	4.3	M
B34-SS18	N	0	0	Metals	Zinc	02/18/2004	110	M
B34-SS19	N	0	0	Metals	Barium	02/18/2004	89	M
B34-SS19	N	0	0	Metals	Cadmium	02/18/2004	0.63	
B34-SS19	N	0	0	Metals	Chromium	02/18/2004	24	
B34-SS19	N	0	0	Metals	Copper	02/18/2004	16	J
B34-SS19	N	0	0	Metals	Lead	02/18/2004	52	
B34-SS19	N	0	0	Metals	Nickel	02/18/2004	17	M
B34-SS19	N	0	0	Metals	Zinc	02/18/2004	43	M
B34-SS20	N	0	0	Metals	Lead	05/11/2009	7,600	
B34-SS21	N	0	0	Metals	Lead	05/11/2009	1,600	
B34-SS22	N	0	0	Metals	Lead	05/11/2009	180	
B34-SS23	N	0	0	Metals	Lead	05/11/2009	350	

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS24	N	0	0	Metals	Lead	05/11/2009	290	
B34-SS25	N	0	0	Metals	Lead	05/11/2009	6,700	
B34-SS26	N	0	0	Metals	Lead	05/11/2009	230	
B34-SS27	N	0	0	Metals	Lead	05/11/2009	86	
B34-SS28	N	0	0.5	Explosives	1,3,5-Trinitrobenzene	01/12/2012	< 0.075	U
B34-SS28	N	0	0.5	Explosives	1,3-Dinitrobenzene	01/12/2012	< 0.075	U
B34-SS28	N	0	0.5	Explosives	2,4,6-Trinitrotoluene (TNT)	01/12/2012	< 0.075	U
B34-SS28	N	0	0.5	Explosives	2,4-Dinitrotoluene	01/12/2012	< 0.080	U
B34-SS28	N	0	0.5	Explosives	2,6-Dinitrotoluene	01/12/2012	< 0.075	U
B34-SS28	N	0	0.5	Explosives	2-Nitrotoluene	01/12/2012	< 0.075	U
B34-SS28	N	0	0.5	Explosives	3-Nitrotoluene	01/12/2012	< 0.080	U
B34-SS28	N	0	0.5	Explosives	4-Nitrotoluene	01/12/2012	< 0.080	U
B34-SS28	N	0	0.5	Explosives	HMX	01/12/2012	< 0.080	U
B34-SS28	N	0	0.5	Explosives	Nitrobenzene	01/12/2012	< 0.075	U
B34-SS28	N	0	0.5	Explosives	RDX	01/12/2012	< 0.080	U
B34-SS28	N	0	0.5	Explosives	Tetryl	01/12/2012	< 0.075	U
B34-SS28	FD	0	0.5	Explosives	1,3,5-Trinitrobenzene	01/12/2012	< 0.075	U
B34-SS28	FD	0	0.5	Explosives	1,3-Dinitrobenzene	01/12/2012	< 0.075	U
B34-SS28	FD	0	0.5	Explosives	2,4,6-Trinitrotoluene (TNT)	01/12/2012	< 0.075	U
B34-SS28	FD	0	0.5	Explosives	2,4-Dinitrotoluene	01/12/2012	< 0.080	U
B34-SS28	FD	0	0.5	Explosives	2,6-Dinitrotoluene	01/12/2012	< 0.075	U
B34-SS28	FD	0	0.5	Explosives	2-Nitrotoluene	01/12/2012	< 0.075	U
B34-SS28	FD	0	0.5	Explosives	3-Nitrotoluene	01/12/2012	< 0.080	U
B34-SS28	FD	0	0.5	Explosives	4-Nitrotoluene	01/12/2012	< 0.080	U
B34-SS28	FD	0	0.5	Explosives	HMX	01/12/2012	< 0.080	U
B34-SS28	FD	0	0.5	Explosives	Nitrobenzene	01/12/2012	< 0.075	U
B34-SS28	FD	0	0.5	Explosives	RDX	01/12/2012	< 0.080	U
B34-SS28	FD	0	0.5	Explosives	Tetryl	01/12/2012	< 0.075	U
B34-SS29	N	0	0.5	Explosives	1,3,5-Trinitrobenzene	01/12/2012	< 0.075	U
B34-SS29	N	0	0.5	Explosives	1,3-Dinitrobenzene	01/12/2012	< 0.075	U
B34-SS29	N	0	0.5	Explosives	2,4,6-Trinitrotoluene (TNT)	01/12/2012	< 0.075	U
B34-SS29	N	0	0.5	Explosives	2,4-Dinitrotoluene	01/12/2012	< 0.080	U
B34-SS29	N	0	0.5	Explosives	2,6-Dinitrotoluene	01/12/2012	< 0.075	U
B34-SS29	N	0	0.5	Explosives	2-Nitrotoluene	01/12/2012	< 0.075	U
B34-SS29	N	0	0.5	Explosives	3-Nitrotoluene	01/12/2012	< 0.080	U
B34-SS29	N	0	0.5	Explosives	4-Nitrotoluene	01/12/2012	< 0.080	U
B34-SS29	N	0	0.5	Explosives	HMX	01/12/2012	< 0.080	U
B34-SS29	N	0	0.5	Explosives	Nitrobenzene	01/12/2012	< 0.075	U
B34-SS29	N	0	0.5	Explosives	RDX	01/12/2012	< 0.080	U
B34-SS29	N	0	0.5	Explosives	Tetryl	01/12/2012	< 0.075	U
B34-SS30	N	0	0.5	Explosives	1,3,5-Trinitrobenzene	01/12/2012	< 0.075	U
B34-SS30	N	0	0.5	Explosives	1,3-Dinitrobenzene	01/12/2012	< 0.075	U
B34-SS30	N	0	0.5	Explosives	2,4,6-Trinitrotoluene (TNT)	01/12/2012	< 0.075	U
B34-SS30	N	0	0.5	Explosives	2,4-Dinitrotoluene	01/12/2012	< 0.080	U
B34-SS30	N	0	0.5	Explosives	2,6-Dinitrotoluene	01/12/2012	< 0.075	U
B34-SS30	N	0	0.5	Explosives	2-Nitrotoluene	01/12/2012	< 0.075	U
B34-SS30	N	0	0.5	Explosives	3-Nitrotoluene	01/12/2012	< 0.080	U
B34-SS30	N	0	0.5	Explosives	4-Nitrotoluene	01/12/2012	< 0.080	U
B34-SS30	N	0	0.5	Explosives	HMX	01/12/2012	< 0.080	U
B34-SS30	N	0	0.5	Explosives	Nitrobenzene	01/12/2012	< 0.075	U
B34-SS30	N	0	0.5	Explosives	RDX	01/12/2012	< 0.080	U
B34-SS30	N	0	0.5	Explosives	Tetryl	01/12/2012	< 0.075	U
B34-SS31	N	0	0.5	Metals	Lead	01/12/2012	13	
B34-SS32	N	0	0.5	Metals	Lead	01/12/2012	370	
B34-SS33	N	0	0	Metals	Chromium	03/12/2013	19	M
B34-SS33	N	0	0	Metals	Copper	03/12/2013	13	
B34-SS33	N	0	0	Metals	Lead	03/12/2013	49	M
B34-SS33	N	0	0	Metals	Zinc	03/12/2013	42	M
B34-SS33	FD	0	0	Metals	Chromium	03/12/2013	18	F

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS33	FD	0	0	Metals	Copper	03/12/2013	13	
B34-SS33	FD	0	0	Metals	Lead	03/12/2013	44	
B34-SS33	FD	0	0	Metals	Zinc	03/12/2013	38	
B34-SS34	N	0	0	Metals	Chromium	03/12/2013	28	
B34-SS34	N	0	0	Metals	Copper	03/12/2013	13	
B34-SS34	N	0	0	Metals	Lead	03/12/2013	15	
B34-SS34	N	0	0	Metals	Zinc	03/12/2013	45	
B34-SS35	N	0	0	Metals	Chromium	03/12/2013	14	F
B34-SS35	N	0	0	Metals	Copper	03/12/2013	9.9	
B34-SS35	N	0	0	Metals	Lead	03/12/2013	26	
B34-SS35	N	0	0	Metals	Zinc	03/12/2013	33	
B34-SS35	FD	0	0	Metals	Chromium	03/12/2013	16	F
B34-SS35	FD	0	0	Metals	Copper	03/12/2013	12	
B34-SS35	FD	0	0	Metals	Lead	03/12/2013	30	
B34-SS35	FD	0	0	Metals	Zinc	03/12/2013	39	
B34-SS36	N	0	0	Metals	Lead	03/12/2013	33	
B34-SS37	N	0	0	Metals	Lead	03/12/2013	54	
B34-SS38	N	0	0	Metals	Lead	03/12/2013	22	
B34-SS39	N	0	0	Metals	Lead	03/12/2013	42	
B34-SS40	N	0	0	Metals	Lead	03/13/2013	33	
B34-SS41	N	0	0	Metals	Lead	03/13/2013	75	
B34-SS42	N	0	0	Metals	Lead	03/13/2013	47	
B34-SS43	N	0	0	Metals	Lead	03/13/2013	14	
B34-SS44	N	0	0	Metals	Lead	03/13/2013	11	
B34-A000	N	1.0	1.5	Metals	Lead	06/07/2013	8.6	F
B34-A050	N	0.5	1.0	Metals	Lead	06/07/2013	160	
B34-A100	N	0.5	1.0	Metals	Lead	06/07/2013	180	
B34-A150	N	0	0.6	Metals	Lead	06/07/2013	140	
B34-A200	N	0	0.3	Metals	Lead	06/07/2013	40	
B34-A250	N	0	0.6	Metals	Lead	06/07/2013	2.5	F
B34-A300	N	0	0.6	Metals	Lead	06/07/2013	5.9	F
B34-A350	N	0	0.6	Metals	Lead	06/07/2013	3.7	F
B34-C025	N	0	0.6	Metals	Lead	06/07/2013	1,300	M
B34-C075	N	0	0.6	Metals	Lead	06/07/2013	230	
B34-C125	N	0	0.5	Metals	Lead	06/07/2013	330	
B34-C175	N	0	0.25	Metals	Lead	06/07/2013	28	
B34-C225	N	0.5	0.75	Metals	Lead	06/07/2013	210	
B34-C295	N	1.0	1.5	Metals	Lead	06/07/2013	43	
B34-C325	N	0.25	0.75	Metals	Lead	06/07/2013	5.1	F
B34-C325	FD	0.25	0.75	Metals	Lead	06/07/2013	9.7	F
B34-E000	N	0.3	0.6	Metals	Lead	06/07/2013	150	
B34-E050	N	0.9	1.25	Metals	Lead	06/07/2013	32	
B34-E100	N	1.0	1.5	Metals	Lead	06/07/2013	320	
B34-E150	N	0.5	0.75	Metals	Lead	06/07/2013	50	
B34-E200	N	0.75	1.25	Metals	Lead	06/07/2013	92	J
B34-E200	FD	0.75	1.25	Metals	Lead	06/07/2013	240	J
B34-E250	N	0.5	1.0	Metals	Lead	06/07/2013	6,500	
B34-E250	N	1.5	2.0	Metals	Lead	06/07/2013	21	
B34-E300	N	0.5	0.75	Metals	Lead	06/07/2013	120	
B34-E350	N	0.75	1.0	Metals	Lead	06/07/2013	230	
B34-E400	N	0.75	1.3	Metals	Lead	06/07/2013	12	
B34-E450	N	0.9	1.0	Metals	Lead	06/07/2013	22	
B34-G025	N	0.5	0.7	Metals	Lead	06/08/2013	160	
B34-G075	N	0.5	0.8	Metals	Lead	06/08/2013	50	
B34-G125	N	1.0	1.4	Metals	Lead	06/08/2013	1.6	F
B34-G175	N	1.1	1.4	Metals	Lead	06/08/2013	300	
B34-G225	N	0.8	1.1	Metals	Lead	06/08/2013	440	
B34-G295	N	1.1	1.4	Metals	Lead	06/08/2013	1,900	
B34-G295	N	2.4	2.7	Metals	Lead	06/08/2013	4.3	F

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-G325	N	0.1	1.3	Metals	Lead	06/08/2013	4.3	F
B34-G375	N	0.8	1.1	Metals	Lead	06/08/2013	27	
B34-G425	N	1.1	1.6	Metals	Lead	06/08/2013	10	
B34-G425	FD	1.1	1.6	Metals	Lead	06/08/2013	9.4	F
B34-I300	N	0.75	1.0	Metals	Lead	06/08/2013	3.7	F
B34-I350	N	0.75	1.0	Metals	Lead	06/08/2013	3.1	F
B34-I400	N	0.75	1.0	Metals	Lead	06/08/2013	7.7	F
B34-I450	N	1.0	1.3	Metals	Lead	06/08/2013	2.0	F
B34-K025	N	1.1	1.4	Metals	Lead	06/08/2013	680	
B34-K075	N	1.0	1.2	Metals	Lead	06/08/2013	190	
B34-K125	N	1.0	1.25	Metals	Lead	06/08/2013	1,400	
B34-K175	N	1.0	1.4	Metals	Lead	06/08/2013	1,200	
B34-K225	N	1.25	1.5	Metals	Lead	06/08/2013	1,100	
B34-K283	N	1.25	1.5	Metals	Lead	06/08/2013	73	
B34-K283	FD	1.25	1.5	Metals	Lead	06/08/2013	63	
B34-K325	N	1.3	1.7	Metals	Lead	06/08/2013	25	
B34-K375	N	1.25	1.5	Metals	Lead	06/08/2013	14	
B34-K425	N	0.25	0.5	Metals	Lead	06/08/2013	0.70	F
B34-M000	N	0.75	1.0	Metals	Lead	06/08/2013	2,500	
B34-M000	N	1.8	2.0	Metals	Lead	06/08/2013	25	
B34-M050	N	1.0	1.3	Metals	Lead	06/08/2013	330	
B34-M100	N	0.5	0.75	Metals	Lead	06/08/2013	100	
B34-M150	N	0.75	1.0	Metals	Lead	06/08/2013	750	M
B34-M150	N	1.6	1.9	Metals	Lead	06/08/2013	11	
B34-M200	N	0.5	0.75	Metals	Lead	06/08/2013	10	
B34-M225	N	0.5	0.8	Metals	Lead	06/08/2013	8.8	F
B34-M300	N	1.0	1.3	Metals	Lead	06/08/2013	11	
B34-M300	FD	1.0	1.3	Metals	Lead	06/08/2013	9.8	F
B34-M350	N	1.0	1.3	Metals	Lead	06/08/2013	54	
B34-M400	N	2.0	2.3	Metals	Lead	06/08/2013	14	
B34-M450	N	0.8	1.1	Metals	Lead	06/08/2013	13	
B34-C250	N	0.9	1.2	Metals	Lead	06/09/2013	0.42	F
B34-C250	FD	0.9	1.2	Metals	Lead	06/09/2013	0.59	F
B34-D238	N	0.7	1.0	Metals	Lead	06/09/2013	1,300	
B34-D263	N	0.4	0.8	Metals	Lead	06/09/2013	4,000	
B34-D313	N	1.2	1.5	Metals	Lead	06/09/2013	390	J
B34-D313	FD	1.2	1.5	Metals	Lead	06/09/2013	300	J
B34-E225	N	0.5	0.75	Metals	Lead	06/09/2013	830	
B34-F038	N	0.5	0.8	Metals	Lead	06/09/2013	93	
B34-F313	N	0.75	1.0	Metals	Lead	06/09/2013	370	M
B34-G000	N	0.75	1.0	Metals	Lead	06/09/2013	220	
B34-G050	N	0.3	0.45	Metals	Lead	06/09/2013	330	
B34-H088	N	0.6	0.8	Metals	Lead	06/09/2013	0.49	F
B34-H113	N	0.6	0.8	Metals	Lead	06/09/2013	7.9	F
B34-H213	N	0.7	0.9	Metals	Lead	06/09/2013	370	
B34-H238	N	1.0	1.4	Metals	Lead	06/09/2013	470	
B34-I000	N	1.0	1.25	Metals	Lead	06/09/2013	98	
B34-I025	N	0.2	0.6	Metals	Lead	06/09/2013	210	J
B34-I025	FD	0.2	0.6	Metals	Lead	06/09/2013	760	J
B34-I050	N	0.75	0.85	Metals	Lead	06/09/2013	210	
B34-I100	N	0.8	1.15	Metals	Lead	06/09/2013	42	
B34-I150	N	1.0	1.3	Metals	Lead	06/09/2013	2.9	F
B34-I200	N	1.4	1.6	Metals	Lead	06/09/2013	49	J
B34-I200	FD	1.4	1.6	Metals	Lead	06/09/2013	4.0	F
B34-I250	N	1.5	1.8	Metals	Lead	06/09/2013	49	
B34-M025	N	0.75	1.0	Metals	Lead	06/09/2013	1,600	
B34-SP01	N	0	0	Metals	Lead	06/26/2013	11	
B34-SP02	N	0	0	Metals	Lead	06/26/2013	9.1	F
B34-SS45	N	0	0.5	Metals	Lead	06/26/2013	31	

Appendix D - SWMU B-34 Soil Samples Collected as of July 16, 2013 (all results mg/kg)								
LOCID	SACODE	SBD	SED	Analysis_Group	Analyte	Date_Sampled	Result	Flag
B34-SS46	N	0	0.5	Metals	Lead	06/26/2013	230	
B34-SS46	N	1.0	1.0	Metals	Lead	07/16/2013	10	
B34-SS47	N	0	0.5	Metals	Lead	06/26/2013	420	
B34-SS47	N	1.0	1.0	Metals	Lead	07/16/2013	21	
B34-SS48	N	0	0.5	Metals	Lead	06/26/2013	600	
B34-SS49	N	0	0.5	Metals	Lead	06/26/2013	360	
B34-SS50	N	0	0.5	Metals	Lead	06/26/2013	460	
B34-SS51	N	0	0.5	Metals	Lead	06/26/2013	200	M
B34-SS51	FD	0	0.5	Metals	Lead	06/26/2013	190	
B34-SS52	N	0	0	Metals	Lead	07/16/2013	150	
B34-EXA-BS01	N	0	0	Metals	Lead	07/03/2013	270	J
B34-EXA-BS02	N	0	0	Metals	Lead	07/03/2013	3.1	F
B34-EXA-BS03	N	0	0	Metals	Lead	07/03/2013	48	J
B34-EXA-BS03	FD	0	0	Metals	Lead	07/03/2013	110	J
B34-EXA-BS04	N	0	0	Metals	Lead	07/03/2013	25	M
B34-EXA-BS05	N	0	0	Metals	Lead	07/03/2013	2,200	J
B34-EXA-BS05	N	1.5	1.5	Metals	Lead	07/11/2013	5.6	F
B34-EXA-BS06	N	0	0	Metals	Lead	07/03/2013	5.8	F
B34-EXA-SW01	N	0	0	Metals	Lead	07/03/2013	120	J
B34-EXA-SW02	N	0	0	Metals	Lead	07/03/2013	15	J
B34-EXA-SW03	N	0	0	Metals	Lead	07/03/2013	16	J
B34-EXA-SW04	N	0	0	Metals	Lead	07/03/2013	56	J
B34-EXC-BS01	N	0	0	Metals	Lead	07/11/2013	140	
B34-EXC-BS02	N	0	0	Metals	Lead	07/11/2013	210	
B34-EXC-BS03	N	0	0	Metals	Lead	07/11/2013	180	
B34-EXC-BS04	N	0	0	Metals	Lead	07/11/2013	58	
B34-EXC-BS04	FD	0	0	Metals	Lead	07/11/2013	54	
B34-EXC-BS05	N	0	0	Metals	Lead	07/11/2013	35	
B34-EXC-BS06	N	0	0	Metals	Lead	07/11/2013	670	
B34-EXC-BS06	N	3.0	3.0	Metals	Lead	07/16/2013	210	
B34-EXC-SW01	N	0	0	Metals	Lead	07/11/2013	150	
B34-EXC-SW02	N	0	0	Metals	Lead	07/11/2013	120	
B34-EXC-SW03	N	0	0	Metals	Lead	07/11/2013	430	
B34-EXC-SW04	N	0	0	Metals	Lead	07/11/2013	130	
B34-EXC-SW05	N	0	0	Metals	Lead	07/11/2013	220	
B34-EXC-SW06	N	0	0	Metals	Lead	07/11/2013	75	
B34-EXC-SW07	N	0	0	Metals	Lead	07/11/2013	5.3	F
B34-EXB-BS01	N	0	0	Metals	Lead	07/15/2013	78	
B34-EXB-BS02	N	0	0	Metals	Lead	07/15/2013	170	
B34-EXB-BS03	N	0	0	Metals	Lead	07/15/2013	210	
B34-EXB-BS03	FD	0	0	Metals	Lead	07/15/2013	170	
B34-EXB-BS04	N	0	0	Metals	Lead	07/15/2013	67	
B34-EXB-SW01	N	0	0	Metals	Lead	07/15/2013	220	
B34-EXB-SW02	N	0	0	Metals	Lead	07/15/2013	450	
B34-EXB-SW03	N	0	0	Metals	Lead	07/15/2013	790	
B34-EXB-SW04	N	0	0	Metals	Lead	07/15/2013	47	
B34-EXB-SW05	N	0	0	Metals	Lead	07/15/2013	12	
B34-EXB-SW06	N	0	0	Metals	Lead	07/15/2013	16	
B34-EXB-SW07	N	0	0	Metals	Lead	07/15/2013	32	

Qualifiers and Notes:

B - The analyte was found in an associated blank above one half the reporting limit (RL), as well as in the sample.

F - Analyte was positively identified, but the quantitation is an estimation above the method detection limit (MDL) and below the 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.

T - Tentatively Identified Compound (TIC).

U - Analyte not detected.

< - Analyte was not detected above the indicated MDL.

mg/kg - milligrams per kilogram

APPENDIX E
Waste Characterization Sampling Results

Appendix E - SWMU B-34 Waste Characterization Samples

SAMPLE ID:		B34-WC01		B34-WC02		B34-WC03		B34-WC04	
DATE SAMPLED:		2/18/2004		2/18/2004		2/18/2004		10/6/2010	
LAB SAMPLE ID:		AP66110		AP66111		AP66112		AY23834	
	Units								
Petroleum Hydrocarbons - TX1005									
Petroleum Hydrocarbons C6 - C12	µg/kg	14,500	U	14,500	U	14,500	U		
Petroleum Hydrocarbons C12 - C36	µg/kg	**37,000**	F	**45,000**	F	**76,000**			
Petroleum Hydrocarbons C6 - C28	µg/kg							14,500	U
TCLP Metals - SW6010B/SW7470A									
Antimony	mg/L	**0.21**	J	**0.22**	J	**0.22**	J	**0.0050**	F
Arsenic	mg/L	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Barium	mg/L	**0.53**	J	**0.71**	J	**0.77**	J	**0.67**	
Beryllium	mg/L	**0.0028**	F	**0.0029**	F	**0.0027**	F	0.00020	U
Cadmium	mg/L	**0.0032**	F	**0.0040**	F	**0.0067**	F	0.00030	U
Chromium	mg/L	**0.019**	J	**0.019**	J	**0.019**	J	0.0010	U
Lead	mg/L	**0.014**	F	**0.048**	J	**0.13**	J	0.0012	U
Mercury	mg/L	**0.00014**	F	0.000010	U	0.000010	U	0.00010	U
Nickel	mg/L	0.0010	U	0.0010	U	0.0010	U	**0.016**	
Selenium	mg/L	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Silver	mg/L	**0.014**	J	**0.014**	J	**0.014**	J	**0.0078**	F

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.

APPENDIX F
Data Verification Summary Report

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers soil samples and the associated field quality control (QC) sample collected from Camp Stanley Storage Activity (CSSA) on January 12, 2012. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

66693

Samples were tested for explosives and selected metals. Not all samples were tested for both parameters.

There was one pair of parent/field duplicate (FD) samples collected as field QC sample.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 recommended range is 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

LEAD

General

The metal portion of this SDG consisted of two (2) soil samples. Both samples were collected on January 12, 2012 and were analyzed for total lead only.

The lead analyses were performed using USEPA SW846 Method 6010B. Both samples in this SDG were analyzed following the procedures outlined in the CSSA

QAPP. Both samples were prepared and analyzed within the holding time required by the method.

The lead samples were digested in one batch and were analyzed undiluted.

Accuracy

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

The LCS recovery was within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analysis involved 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 samples in this SDG were analyzed following the COC and the analytical procedures described in the CSSA QAPP. Both samples were prepared and analyzed within the holding times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- All three ICVs were prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution tests (DT) were analyzed on sample B34-SS31.

B34-SS31

Metal	%D	Criteria
Lead	**20**	%D ≤ 10

- Post digestion spikes (PDS) were analyzed on the same samples as the DT.

B34-SS31

Metal	%R	Criteria, %R
Lead	81	75 - 125

There were one method blank (MB) and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of lead 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.

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

EXPLOSIVES

General

This data package consisted of four (4) soil samples including one FD. All samples were collected on January 12, 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 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 and the surrogate spikes.

All LCS and surrogate spike recoveries were within acceptance criteria.

Precision

Precision was evaluated based on the %RPD of parent/FD results. Sample B34-SS28 was collected in duplicate.

Neither parent nor FD had explosives detected at reporting limits; 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 laboratory blanks 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 samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers soil samples and one equipment blank (EB) collected from Camp Stanley Storage Activity (CSSA) on March 12 and 13, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

70153

Samples were tested for metals.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 recommended range of 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

METALS

General

This SDG consisted of fourteen (14) soil samples and one EB collected on March 12 and 13, 2013 and were analyzed for chromium, copper, lead, and zinc or for lead only. There were two sets of parent/field duplicate (FD) and one set of matrix spike/matrix spike duplicate (MS/MSD).

The metal analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in batch #175893 and EB was digested in batch #175894.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the two laboratory control sample (LCS) and MS//MSD. Sample B34-SS33 was designated as the parent sample for MS and MSD analyses.

The LCS recoveries were within acceptance criteria.

B34-SS33

Metals	MS, %R	MSD, %R	Criteria, %R
Chromium	(82)	73	
Copper	(92)	(87)	75-125
Lead	58	42	
Zinc	68	62	

( ) indicates the %R was compliant.

Precision

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

All %RPDs of MS/MSD were compliant.

Sample B34-SS33 and B34-SS35 were collected in duplicate.

B34-SS33

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Chromium	18.8	18.4	2.2	
Copper	13.32	12.90	3.2	≤ 20
Lead	49.14	44.39	10	
Zinc	42.1	38.4	9.2	

B34-SS35

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Chromium	13.7F	16.5	19	
Copper	9.90	11.86	18	≤ 20
Lead	26.18	30.18	14	
Zinc	32.7	38.9	17	

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 and EB for cross contamination of samples during sample collection and 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 times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-SS33. The DT was not applicable for zinc due to the low concentration of the sample.

Metals	%D	Criteria, %D
Chromium	4.3	
Copper	8.8	≤ 10
Lead	5.8	

- Post digestion spike (PDS) was analyzed on the same sample as the DT.

B34-SS33

Metal	%R	Criteria, %R
Zinc	79	75 - 125

There were one method blank, one EB and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of metals 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.

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers 42 soil samples and associated quality control (QC) samples collected from Camp Stanley Storage Activity (CSSA) on June 7, 8, and 9, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

70943

Samples were tested for lead only. There were three set of matrix spike/matrix spike duplicate (MS/MSD) and three pairs of parent/field duplicate (FD) samples collected as the field QC samples.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 3.0°C which was within the recommended range of 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

LEAD

General

This SDG consisted of forty-two (42) soil samples collected on June 7, 8, and 9, 2013 and were analyzed for lead only. There were three sets of parent/FD and three sets of matrix spike/matrix spike duplicate (MS/MSD).

The metal analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in three batches #178597, 178598, and 178599.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the three laboratory control sample (LCS) and three sets of MS//MSD. Samples B34-M150(0.75-1), B34-I150, and B34-F313 were designated as the parents sample for MS and MSD analyses.

All three LCS recoveries were within acceptance criteria.

B34-M150(0.75-1)

Metal	MS, %R	MSD, %R	Criteria, %R
Lead	622	401	75-125

Lead concentration of the parent sample was significantly greater than the spiked amount, >17 times, which caused unusually high %Rs.

B34-I150

Metal	MS, %R	MSD, %R	Criteria, %R
Lead	102	125	75-125

B34-F313

Metal	MS, %R	MSD, %R	Criteria, %R
Lead	0	0	75-125

Lead concentration of the parent sample was significantly greater than the spiked amount, >8 times, which caused unusually high %Rs.

"M" flags were applied to the parent sample results of B34-M150(0.75-1) and B34-F313.

Precision

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

All three %RPDs of MS/MSD were compliant.

Samples B34-I025, B34-D313, and B34-C325 were collected in duplicate.

B34-I025

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	208.05	759.60	114	≤ 20

B34-D313

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	394.52	304.31	26	≤ 20

"J" flags were applied to both parent and FD sample of the above listed two pairs.

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	5.13F	9.67F	61	≤ 20

"F" flags were already applied to both parent and FD samples, no additional flagging are needed.

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 times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-M150(0.75-1).

Metal	%D	Criteria, %D
Lead	3.86	≤ 10

- Second set of DT analysis was performed with sample B34-I150. DT was not applicable due to the parent sample concentration.

- Post digestion spike (PDS) was analyzed on B34-I150.

Metal	%R	Criteria, %R
Lead	69.3	75 - 125

Since "F" flag has already been applied to the parent sample result, there won't be any additional flag due to this non-compliant %R.

- Third set of DT analysis was performed with sample B34-F313.

Metal	%D	Criteria, %D
Lead	5.95	≤ 10

There were three method blanks and several calibration blanks associated with the lead analyses in this SDG. All blanks were free of lead 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.

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers 28 soil samples, one equipment blank (EB), and associated quality control (QC) samples collected from Camp Stanley Storage Activity (CSSA) on June 7, 8, and 9, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

70944

Samples were tested for lead only. There were one set of matrix spike/matrix spike duplicate (MS/MSD) and three pairs of parent/field duplicate (FD) samples collected as the field QC samples.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 two coolers. The coolers were received by the laboratory both at a temperature of 3.0°C which was within the recommended range of 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

LEAD

General

This SDG consisted of twenty-eight (28) soil samples and one (1) EB collected on June 7, 8, and 9, 2013 and were analyzed for lead only. There were three sets of parent/FD and one set of MS/MSD.

The metal analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in two batches #178855 and #178856; EB was digested in batch #178667.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the three laboratory control sample (LCS) and one set of MS//MSD. Samples B34-C025 was designated as the parents sample for MS and MSD analyses.

All three LCS recoveries were within acceptance criteria.

B34-C025

Metal	MS, %R	MSD, %R	Criteria, %R
Lead	0	0	75-125

Lead concentration of the parent sample was significantly greater than the spiked amount, >26 times, which caused unusually high %Rs.

"M" flag was applied to the lead result of B34-C025.

Precision

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

The %RPD of MS/MSD was compliant.

Samples B34-E200, B34-C250, and B34-G425 were collected in duplicate.

B34-E200

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	92.17	240.40	89	≤ 20

"J" flags were applied to both parent and FD sample of the above listed samples.

B34-C250

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	0.42F	0.59F	34	≤ 20

"F" flags have already been applied to both results, no additional flags are needed.

B34-G425

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	10.27	9.41F	8.7	≤ 20

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 times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-C025

Metal	%D	Criteria, %D
Lead	2.04	≤ 10

There were three method blanks and several calibration blanks associated with the lead analyses in this SDG. All blanks were free of lead 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.

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers 21 soil samples and associated quality control (QC) samples collected from Camp Stanley Storage Activity (CSSA) on June 8 and 9, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

70945

Samples were tested for lead only. There were one set of matrix spike/matrix spike duplicate (MS/MSD) and three pairs of parent/field duplicate (FD) samples collected as the field QC samples.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 two coolers. The coolers were received by the laboratory both at a temperature of 3.0°C which was within the recommended range of 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

LEAD

General

This SDG consisted of twenty-eight (21) soil samples on June 8 and 9, 2013 and were analyzed for lead only. There were three sets of parent/FD and one set of MS/MSD.

The metal analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in three batches #178865 and #178866.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the two laboratory control sample (LCS) and one set of MS/MSD. Samples B34-G125 was designated as the parents sample for MS and MSD analyses.

All three LCS recoveries were within acceptance criteria.

B34-G125

Metal	MS, %R	MSD, %R	Criteria, %R
Lead	74.7	75.8	75-125

"M" flag was applied to the lead result of B34-G125 by laboratory, but removed by Parsons data validator due to minor exceedance of the MS %R.

Precision

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

The %RPD of MS/MSD was compliant.

Samples B34-I200, B34-M300, and B34-K283 were collected in duplicate.

B34-I200

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	48.99	4.03F	170	≤ 20

"J" flags were applied to the parent sample result of the above listed samples. "F" flag was already applied to the FD results, no additional flags were applied.

B34-M300

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	11.11	9.77F	13	≤ 20

B34-K283

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	72.74	63.36	13	≤ 20

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 times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-G125. However, it was not applicable due to the parent sample result.
- Post digestion spike (PDS) was performed with the same sample.

Metal	%R	Criteria, %R
Lead	74.2	75 - 125

No flag was applied to the parent sample result due to minor exceedance.

- Second set of DT analysis was performed with sample B34-H113.

Metal	%D	Criteria, %D
Lead	32.1	≤10

- PDS was analyzed on B34-H113.

Metal	%R	Criteria, %R
Lead	75.8	75 - 125

There were two method blanks and several calibration blanks associated with the lead analyses in this SDG. All blanks were free of lead 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.

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers 10 soil samples and associated quality control (QC) samples collected from Camp Stanley Storage Activity (CSSA) on June 26, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

71088

Samples were tested for lead and two samples were also analyzed for total petroleum hydrocarbons (TPHs). There were one set of matrix spike/matrix spike duplicate (MS/MSD) and one pair of parent/field duplicate (FD) samples collected as the field QC samples.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 two coolers. The coolers were received by the laboratory both at a temperature of 1.5°C which was slightly below the recommended range of 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

LEAD

General

This SDG consisted of ten (10) soil samples on June 26, 2013 analyzed for lead only. There were one set of parent/FD and one set of MS/MSD.

The metal analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in analytical batch #179055.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the laboratory control sample (LCS) and one set of MS/MSD. Samples B34-SS51 was designated as the parent sample for MS and MSD analyses.

All three LCS recoveries were within acceptance criteria.

B34-SS51

Metal	MS, %R	MSD, %R	Criteria, %R
Lead	69.8	43.6	75-125

"M" flag was applied to the lead result of B34-SS51 by laboratory.

Precision

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

The %RPD of MS/MSD was compliant.

Sample B34-SS51 was collected in duplicate.

B34-SS51

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	199.22	188.29	5.6	≤ 20

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 times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.

- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-SS51. However, %D was 24.8% which exceeded the 10% limit.
- Post digestion spike (PDS) was performed with the same sample.

Metal	%R	Criteria, %R
Lead	79.7	75 - 125

There were one method blank and several calibration blanks associated with the lead analyses in this SDG. All blanks were free of lead 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.

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

TOTAL PETROLEUM HYDROCARBONS

This data package consisted of two (2) soil samples. Both samples were collected on June 26, 2013 and were analyzed for TPH, $C_6 - C_{28}$.

The TPH analyses were performed using TX1005 method. Both samples were analyzed in one analytical batch under one set of initial calibration (ICAL) curve. Both samples were analyzed following the procedures outlined in the CSSA QAPP and TX1005. Both samples were prepared and analyzed within the holding time required by the method.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the LCS, LCS duplicate (LCSD), and two surrogates.

LCS, LCSD, and all surrogates have %Rs met the acceptance criteria.

Precision

Precision was evaluated based on the %RPD of LCS and LCSD. The %RPD was 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 and TX1005;

- Comparing actual analytical procedures to those described in the CSSA QAPP and TX1005;
- Evaluating holding time; and
- Examining laboratory blank for cross contamination of samples during analysis.

The samples in this data package were analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0 and TX1005. 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.
- All continuing calibration verification (CCV) criteria were met.

There was one MB associated with the TPH analyses in this SDG. The blank was non-detect for TPH.

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 TPH result for the two samples in this SDG was considered usable. The completeness for this SDG is 100%, which meets the minimum acceptance criteria of 95%.

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers 12 soil samples and associated quality control (QC) samples collected from Camp Stanley Storage Activity (CSSA) on July 3rd, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

71113

Eleven samples were tested for lead only. One of the samples was also analyzed for TCLP-silver, arsenic, barium, cadmium, chromium, lead, and selenium. There were one set parent/field duplicate (FD) samples and one set of matrix spike/matrix spike duplicate (MS/MSD) collected as the field QC samples.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 two coolers. The coolers were received by the laboratory both at a temperature of 3.0°C which was within the recommended range of 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

The TCLP results were only reviewed, but not validated.

MEALS

General

This SDG consisted of twelve (12) soil samples on July 3rd, 2013. Eleven samples analyzed for lead only. One sample was analyzed for TCLP-arsenic, barium, cadmium, chromium, lead, and selenium. There were one set of parent/FD and one set of MS/MSD.

The metal analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in analytical batch #179188.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the laboratory control sample (LCS) and MS/MSD. Sample B34-EXA-BS04 was designated as the parent sample for MS/MSD analyses.

The LCS recovery was within acceptance criteria.

Precision

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

Sample B34-EXA-BS03 was collected in duplicate.

B34-EXA-BS03

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	48.19	106.93	76	≤ 20

"J" flags were applied to all lead soil results in this SDG unless "M" or "F" flag had already been assigned.

B34-EXA-BS04

Metal	MS, %R	MSD, %R	Criteria, %R
Lead	55	215	75 - 125

"M" flag was applied to the parent sample result.

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 times required by the method.

- All instrument tune criteria were met.

- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-EXA-BS04. However, %D was 30.9% which exceeded the 10% limit.
- Post digestion spike (PDS) was performed with the same sample.

Metal	%R	Criteria, %R
Lead	67.4	75 - 125

"M" flag was already applied to the parent sample result, no additional flag is needed.

There were one method blank and several calibration blanks associated with the lead analyses in this SDG. All blanks were free of lead 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.

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers 15 soil samples and associated quality control (QC) samples collected from Camp Stanley Storage Activity (CSSA) on July 11, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

71154

Samples were tested for lead. There were one set parent/field duplicate (FD) samples collected as the field QC samples.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 two coolers. The coolers were received by the laboratory both at a temperature of 2.0°C which was within the recommended range of 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

LEAD

General

This SDG consisted of fifteen (15) soil samples on July 11, 2013 and were analyzed for lead only. There was one set of parent/FD.

The lead analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in analytical batch #179353.

Accuracy

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

The LCS recovery was within acceptance criteria.

Precision

Precision was evaluated based on the relative percent difference, %RPD, of parent/FD.

Sample B34-EXC-BS04 was collected in duplicate.

B34-EXC-BS04

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	57.65	54.37	5.9	≤ 20

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 times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-EXC-SW01. However, %D was 13.1% which exceeded the 10% limit.

- Post digestion spike (PDS) was performed with the same sample.

Metal	%R	Criteria, %R
Lead	87.7	75 - 125

There were one method blank and several calibration blanks associated with the lead analyses in this SDG. All blanks were free of lead 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.

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers 12 soil samples and associated quality control (QC) samples collected from Camp Stanley Storage Activity (CSSA) on July 15, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

71172

Samples were tested for lead. There was one set parent/field duplicate (FD) samples collected as the field QC samples.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 recommended range of 2-6° C.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

LEAD

General

This SDG consisted of twelve (12) soil samples on July 15, 2013 and were analyzed for lead only. There was one set of parent/FD.

The lead analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in analytical batch #179462.

Accuracy

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

The LCS recovery was within acceptance criteria.

Precision

Precision was evaluated based on the relative percent difference, %RPD, of parent/FD.

Sample B34-EXB-BS03 was collected in duplicate.

B34-EXB-BS03

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	205.42	166.74	21	≤ 20

There were no flags applied due to the 1% exceedance.

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 times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-EXB-SW06. However, %D was 21.4% which exceeded the 10% limit.

- Post digestion spike (PDS) was performed with the same sample.

Metal	%R	Criteria, %R
Lead	76.0	75 - 125

There were one method blank and several calibration blanks associated with the lead analyses in this SDG. All blanks were free of lead 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.

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from B34

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers four soil samples collected from Camp Stanley Storage Activity (CSSA) on July 16, 2013. The samples in the following Sample Delivery Group (SDG) included samples collected from B34:

71181

Samples were tested for lead. There were no field QC samples involved in this SDG.

All samples were collected by Parsons and analyzed by Agriculture & Priority Pollutants Laboratories, Inc. (APPL) in Clovis, California, 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 slightly below the recommended range of 2-6° C. No flags were applied.

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 packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; COC forms and the cooler receipt checklist. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the CSSA QAPP, Version 1.0, were met.

LEAD

General

This SDG consisted of four (4) soil samples on July 16, 2013 and were analyzed for lead only.

The lead analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP within the holding time required by the method.

All soil samples were digested in analytical batch #179497.

Accuracy

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

The LCS recovery was within acceptance criteria.

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 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 times required by the method.

- All instrument tune criteria were met.
- All initial calibration criteria were met.
- All calibration verification criteria were met.
- The initial calibration verification sample was prepared using a secondary source.
- All second source verification criteria were met.
- All interference check criteria were met.
- All internal standard criteria were met.
- Dilution test (DT) was analyzed on sample B34-EXC-BS06. However, %D was 10.9% which exceeded the 10% limit.
- Post digestion spike (PDS) was performed with the same sample.

Metal	%R	Criteria, %R
Lead	80.7	75 - 125

There were one method blank and several calibration blanks associated with the lead analyses in this SDG. All blanks were free of lead 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.

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

APPENDIX G
Upper Confidence Limit Calculations

General UCL Statistics for Full Data Sets		
User Selected Options		
From File	WorkSheet.wst	
Full Precision	OFF	
Confidence Coefficient	95%	
Number of Bootstrap Operations	2000	

Lead

General Statistics

Number of Valid Observations	155	Number of Distinct Observations	146

Raw Statistics		**Log-transformed Statistics**	
Minimum	0.1	Minimum of Log Data	-2.303
Maximum	794	Maximum of Log Data	6.677
Mean	130.2	Mean of log Data	3.951
Median	56	SD of log Data	1.687
SD	148.7		
Std. Error of Mean	11.95		
Coefficient of Variation	1.142		
Skewness	1.62		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.203	Lilliefors Test Statistic	0.0907
Lilliefors Critical Value	0.0712	Lilliefors Critical Value	0.0712
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	150	95% H-UCL	321.2
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	396.9
95% Adjusted-CLT UCL (Chen-1995)	151.6	97.5% Chebyshev (MVUE) UCL	477.4
95% Modified-t UCL (Johnson-1978)	150.3	99% Chebyshev (MVUE) UCL	635.3
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.655	**Data Follow Appr. Gamma Distribution at 5% Significance Level**	
Theta Star	198.9		
MLE of Mean	130.2		
MLE of Standard Deviation	161		
nu star	203		
Approximate Chi Square Value (.05)	171	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0485	95% CLT UCL	149.9
Adjusted Chi Square Value	170.7	95% Jackknife UCL	150
		95% Standard Bootstrap UCL	149.7
Anderson-Darling Test Statistic	0.848	95% Bootstrap-t UCL	152.4
Anderson-Darling 5% Critical Value	0.804	95% Hall's Bootstrap UCL	150.8
Kolmogorov-Smirnov Test Statistic	0.0773	95% Percentile Bootstrap UCL	150.3
Kolmogorov-Smirnov 5% Critical Value	0.0787	95% BCA Bootstrap UCL	152.8
Data follow Appr. Gamma Distribution at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	182.3
		97.5% Chebyshev(Mean, Sd) UCL	204.8
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	249.1
95% Approximate Gamma UCL	154.6		
95% Adjusted Gamma UCL	154.8		
Potential UCL to Use		Use 95% Approximate Gamma UCL	154.6

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

APPENDIX H

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 Engineeriong 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 !