RELEASE INVESTIGATION REPORT

RANGE MANAGEMENT UNIT 2
CAMP STANLEY STORAGE ACTIVITY

Prepared for:

Camp Stanley Storage Activity
Boerne, Texas

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November 2011

EXECUTIVE SUMMARY

Range Management Unit (RMU) 2 is located in the southeastern portion of the Inner Cantonment Area, approximately 600 yards north of the southern CSSA boundary, and is approximately 1.1 acres in size. The site consists of a flat area that contained miscellaneous spent ammunition, presumably from the site's previous usage as a small pistol range. In June and August 2011, contaminated soil above Tier 1 Protective Concentration Levels (PCLs) from in and around RMU-2 was removed and properly disposed. This Release Investigation Report (RIR) requests No Further Action (NFA) at RMU-2.

In summary, activities at RMU-2 as described in this RIR showed the following results:

- Four rounds of excavation, removal, and confirmation sampling were performed at RMU-2.
- The contaminants of concern (COCs) identified above soil background concentrations at RMU-2 were metals cadmium, copper, lead, and zinc, and the explosive compounds 2,4-dinitrotoluene (2,4-DNT) and methyl-2,4,6-trinitrophenylnitramine (tetryl). Areas of metal contamination exceeding Tier 1 PCLs were excavated and removed from the site or were used to calculate a 95% upper confidence limit (UCL) per TAC §350.79(2)(A) that does not exceed the Tier 1 PCL. The area of explosives contamination exceeding Tier 1 PCLs were excavated and removed from the site.

From the information summarized above and presented in this report, the results of the investigations at RMU-2 meet the three criteria as described in Texas Commission on Environmental Quality (TCEQ) (2003) guidance *Determining Which Releases are Subject to the Texas Risk Reduction Program (TRRP)*. Thus, the following criteria were met:

- Soils found to have COC concentrations above the Tier 1 PCLs 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 Tier 1 PCL.
- There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at RMU-2. Soils found to have concentrations of metals above PCLs were excavated and removed or used to calculate a 95% UCL, and soils found to have concentrations of explosives above PCLs were excavated and removed, so there will be no future impact to groundwater, surface water, or sediment from RMU-2.
- RMU-2 passes the Tier 1 Ecological Exclusion Criteria Checklist (**Appendix B**).

Because these three criteria are met, RMU-2 is not subject to TRRP. Therefore, this RIR was prepared to document the results and a NFA decision is requested from the TCEQ.

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ACRONYMS AND ABBREVIATIONS

2,4-DNT	2,4-Dinitrotoulene
AOC	Area of Concern
APPL	Agriculture & Priority Pollutants Laboratory, Inc.
BS	Bexar Shale
BTOC	below top of casing
CC	Cow Creek
COC	contaminant of concern
CSSA	Camp Stanley Storage Activity
CY	cubic yard
DQO	Data Quality Objective
EE	Environmental Encyclopedia
FSP	Field Sampling Plan
ft	feet
$^{GW}Soil_{Ing}$	soil to groundwater ingestion pathway (PCL)
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
PIMS	Phosphate Induced Material Stabilization
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
SAP	Sampling and Analysis Plan
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCLP	toxicity characteristic leaching procedure
tetryl	Methyl-2,4,6-Trinitrophenylnitramine
$^{Tot}Soil_{Comb}$	combined soil (PCL)

TPH	total petroleum hydrocarbon
TRRP	Texas Risk Reduction Program
UCL	upper confidence limit
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 provide investigations and environmental services for waste sites located at Camp Stanley Storage Activity (CSSA) in Boerne, Texas (**Figure 1**). This contract includes characterization of selected waste disposal sites and preparation of appropriate documentation, including a Release Investigation Report (RIR) for Range Management Unit (RMU) 2 (**Figure 2**). RMU-2 is located in the southeast portion of the Inner Cantonment area, approximately 600 yards north of the southern CSSA boundary. The site covers approximately 1.1 acres. This work was performed in accordance with 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) of the Texas Commission on Environmental Quality (TCEQ). This RIR was prepared following TCEQ reporting and documentation requirements for releases that do not trigger applicability to the TRRP rule.

This report describes environmental investigation activities at RMU-2. Work included x-ray fluorescence (XRF) analysis of soils; environmental sampling; excavation and removal of impacted soil; waste characterization and confirmatory sampling and 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 RIR. Section 2 provides historical background information for CSSA and for RMU-2. Section 3 describes the objectives and rationale for preparing an RIR for RMU-2 and the findings from environmental investigations for the site. The groundwater and surface water for CSSA and the area near RMU-2 are also described in Section 3. Section 4 summarizes the findings from completing the Tier 1 Ecological Exclusion Criteria Checklist, which is included as an appendix to this RIR. Section 5 summarizes the overall findings and recommendations for the site. All figures and tables are provided at the end of this RIR (pages 9-23). References cited in this report can be found in the CSSA Environmental Encyclopedia (EE) (Volume 1-1, Bibliography) at www.stanley.army.mil.

2.0 HISTORICAL BACKGROUND

2.1 CAMP STANLEY STORAGE ACTIVITY

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

The land where CSSA is located was used for ranching and agriculture until the 1900s. During 1906 and 1907, six tracts of land were purchased by the U.S. Government and designated the Leon Springs Military Reservation. The land included campgrounds and cavalry shelters.

In October 1917, the installation was re-designated Camp Stanley. Extensive construction was started during World War I to provide housing for temporary cantonments and support facilities. In 1931, the installation was selected as an ammunition depot, and construction of standard magazines and igloo magazines began in 1938. Land was also used to test, fire and overhaul ammunition components. As a result of these historic activities, CSSA has several historical waste sites, including Solid Waste Management Units (SWMUs), Areas of Concern (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.

2.2 RMU-2

2.2.1 Overview

RMU-2 was identified as an RMU based on a 1953 map of CSSA (**Figure 3**). According to interviews and records, RMU-2 was used as a small pistol range from the 1960s through the 1980s. A field survey conducted in 1997 indicated miscellaneous spent ammunition was present at the site, including shot that contained lead. Investigation of the site began in 2011 with an x-ray fluorescence (XRF) survey and the collection of soil samples. Results of these previous investigations are provided in Section 2.2.3.

The analytical results for contaminants of concern (COCs) remaining at the site are discussed in Section 3.1. A series of historical aerial photos of the sites are shown on Figure 3 and photographs showing investigation, excavation, and removal activities at the sites are provided in **Appendix A**. The history of the sites and previous investigations at the sites are discussed below.

2.2.2 Setting, Size, and Description

RMU-2 is located in the southeastern portion of the Inner Cantonment Area, approximately 1,700 yards north of the southern CSSA boundary. RMU-2 covers approximately 1.1 acres. The site consists of a flat area that contains miscellaneous spent ammunition, presumably from the site's past usage as a small pistol firing range. Additional background information on RMU-2 can be found in the CSSA EE (Volume 3-2, RMU-2).

2.2.3 Potential Contaminant Sources, Chemicals of Concern, and Previous Investigations

Eleven soil samples were collected at RMU-2 in March 2011 and analyzed for metals and explosives. Cadmium, copper, lead, zinc and the explosive compounds 2,4-dinitrotoluene (2,4-DNT) and methyl-2,4,6-trinitrophenylnitramine (tetryl) were detected above Tier 1 protective concentration levels (PCLs). Results of this investigation are included in **Table 1**.

An XRF survey was conducted in June 2011 to gather field screening data indicating the presence of metals above Tier 1 PCLs in surface soils in order to confirm the area of excavation. Lead and zinc XRF results have shown a strong statistical correlation with laboratory-verified samples so these metals were used as the indicators. Sample locations and results for the XRF survey are shown in **Figure 4**. XRF analytical results showed that only lead was detected above Tier 1 levels (84.5 milligrams per kilogram [mg/kg]). During the XRF survey, the site was visually inspected for signs of past trenching or waste disposal activities. No such evidence was encountered.

3.0 OBJECTIVES OF RIR FOR RMU-2

In accordance with TCEQ (2003) guidance, *Determining Which Releases are Subject to TRRP* (www.tceq.state.tx.us/assets/public/remediation/trrp/releasesTRRPrev.pdf), an RIR can be performed for a site when results of an investigation lead to the following conclusions:

- Concentrations of chemicals detected at the site do not exceed Tier 1 residential soil action levels;
- There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at the site; and
- The site passes the Tier 1 Ecological Exclusion Criteria Checklist (the completed checklist is provided in **Appendix B**).

When these three criteria are met for a site, the release is not subject to TRRP. For such sites, an RIR can be submitted to document the results and a No Further Action (NFA) decision can be requested from the TCEQ.

As referred to in the criteria listed above, the Tier 1 residential soil action levels are provided by TCEQ and were selected following TCEQ guidance (TCEQ, 2007). The most current action levels were used (May 2011). These action levels are referred to as PCLs and are selected for each chemical detected at the site (i.e., COCs). The PCLs are based on the general size of the site, which is also referred to as the "source area" size. If the source area is greater than 0.5 acre, then the source area is assumed to be 30 acres. Thus, the soil action levels for RMU-2 are based on a 30-acre source area. The PCL is then selected based on the lower of the two PCLs listed for either (1) the total soil combined pathway ($^{Tot}Soil_{Comb}$) (i.e., exposure to a COC from incidental ingestion, dermal contact, inhalation of volatiles and particulates, and vegetable consumption); or (2) the soil to groundwater pathway ($^{GW}Soil_{Ing}$) (i.e., soil-to-groundwater leaching of a COC to groundwater, where the PCL is the highest concentration of COC allowed in soil to be protective of Class 1 or Class 2 groundwater).

Also based on the TCEQ guidance, if the background level or the method quantification limit (MQL) is a higher concentration than the PCL, then the higher of the background or MQL is used as the action level. Based on the metals that are most common to past activities at CSSA, TCEQ has approved background concentrations for nine metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, and zinc). The statistically calculated and TCEQ-approved background metal concentrations are shown in Table 1, and are also available

in the CSSA EE (Volume 2, Background Metals Levels). Note that the PCLs for five of the nine metals are based on the background concentrations (these five metals are arsenic, barium, cadmium, lead, and mercury).

3.1 FIELD ACTIVITIES AND INVESTIGATIONS

A summary of the cleanup confirmation results at the site are shown in Table 1 (detected compounds only) and **Appendix C** (all analytes), and the confirmation soil sampling locations are shown on **Figures 5a-e**. Waste characterization results for samples collected from stockpiled soil excavated as part of this effort are shown in **Appendix F**. The data verification summary report for the sampling and analytical results is provided in **Appendix D**. Sample locations for soils remaining at the site are shown on Figure 5e. The clearance areas where soils were excavated and removed are also shown on Figure 5e. Waste characterization sampling and off-post removal activities are described in Section 3.1.3. Additional information about past activities and investigations at the site can be found in the CSSA EE (Volume 1-3, RMU-2).

3.1.1 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.

The CSSA QAPP (1) was prepared for use by contractors that perform environmental services at CSSA to ensure that the data are scientifically valid and defensible; (2) establishes the analytical protocols and documentation requirements to ensure that the samples are collected and analyzed, and that the data are reviewed and validated in a specified manner; and (3) provides detailed guidance for using the Data Quality Objective (DQO) process for specific investigations. The CSSA QAPP and delivery/task order specific Field Sampling Plans (FSP) constitute the CSSA Sampling and Analysis Plan (SAP). The SAP defines data quality for a specific project. Information regarding post-wide and site-specific plans and TCEQ correspondence can be found in the CSSA EE (Volume 1-1, Correspondence).

Following the CSSA-specific plans, the investigative soil analyses for RMU-2 were performed using U.S. Environmental Protection Agency (USEPA) *Test Methods for Evaluating Solid Waste* (SW-846): Method 8260B (volatile organic compounds [VOCs]); Method 8270C (semi-volatile organic compounds [SVOCs]); Method 8330 (explosives); and Method 6010 (arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, and zinc). Prior to soil/waste disposal, waste characterization samples were collected from the excavated material and analyzed for TCLP metals (Methods SW1311/6010B and SW1311/7470A). All samples were sent to Agriculture & Priority Pollutants Laboratory, Inc. (APPL) for analyses.

3.1.2 Excavation, Removal, and Confirmation Sampling at RMU-2

To address contaminated soils at RMU-2, four phases of excavation, removal, and confirmation sampling took place between June 1, 2011 and September 14, 2011. The final excavation extent was an area approximately 2.3 acres in size, approximately 400 feet (ft) long (east to west), and approximately 250 ft wide (north to south). The site was excavated to a depth ranging from 0.5 to 3 ft. Following completion of each phase of excavation, all excavated areas were sampled and the results are shown in Table 1. All samples were analyzed for metals, and bottom samples were analyzed for metals, VOCs, SVOCs, and explosives.

Excavation activities were initiated on June 1, 2011. During this period, approximately 2,150 CY of soil were excavated from the site. All excavation activities were conducted by USA Environmental, under the supervision of a Parsons Construction Manager. The initial excavated area was approximately 0.5 acre in size, approximately 210 feet (ft) long (northwest to southeast), and ranged from about 110 ft wide near the center to about 280 ft wide toward the southeast end, as shown on Figure 5a. The site was excavated to a depth of approximately two ft.

Based on confirmation sample results, a second round of excavation at RMU-2 was initiated on August 1, 2011 to remove lead contamination to the northeast of the original excavation boundary (Figure 5b). Approximately 1,350 CY of soil were removed from the new excavation area in order to remove soil with lead concentrations above the Tier 1 PCL of 84.5 mg/kg.

Further confirmation sampling and analysis was performed following the completion of the second round of excavation. One sample location (SS62, Figure 5c) exceeded the Tier 1 PCL for 2,4-DNT (0.0026 mg/kg) with a concentration of 0.10 mg/kg, and multiple sample locations still exceeded the Tier 1 PCL for lead (Table 1).

A third round of excavation was initiated on August 24, 2011 to excavate four areas with lead and 2,4-DNT exceedances. Approximately 2,160 CY of soil were removed from the third round of excavation (Figure 5c). On August 30, 2011, six more confirmation samples were collected. Three of these samples (SS70, SS73, and SS74; shown on Figure 5d) still exceeded the Tier 1 PCL for lead.

The areas around samples SS70 and SS74 were overexcavated between September 12, 2011 and September 14, 2011. Approximately 380 CY of soil were removed from the fourth round of excavation (Figure 5d). On September 13, 2011, final confirmation sampling was conducted at RMU-2 (Figure 5e).

Per TAC §350.79(2)(A), a 95% upper confidence limit (UCL) may be calculated to determine if there is a statistical basis for no further action on a particular COC. A 95% UCL of 71.53 mg/kg was calculated for the lead concentrations remaining in site soils, which does not exceed the Tier 1 PCL of 84.5 mg/kg (**Appendix G**). Following completion of the excavation, confirmation samples from the bottoms and sidewalls of the excavated areas were sampled and the results are shown in Table 1.

3.1.3 Waste Characterization and Off-Post 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 RMU-2, dated May 2011. Waste characterization sample results for excavated soils are included in Appendix F.

Excavated material was stockpiled along and adjacent to the excavation site during the excavation. Stockpiles with potentially high lead concentrations were treated with Phosphate Induced Metal Stabilization (PIMS) to reduce the average leaching of the lead-contaminated soil prior to waste characterization. Additionally, stockpiled soil which was considered hazardous after waste characterization was also treated with PIMS. All treated soil was mixed with PIMS at a ratio of 20,000 pounds PIMS to 200 CY soil. Results of final waste characterization showed that the impacted and treated soil media from RMU-2 met State of Texas Class 2 non-hazardous criteria (30 TAC §335 Subchapter R). Approximately 6,490 CY of excavated soil was moved to the East Pasture berm for reuse, as per TCEQ approval December 20, 2010 (**Appendix E**).

3.2 SITE GEOLOGY/HYDROGEOLOGY

Based on the sampling results and the geological and hydrogeological characteristics of the site, surface water and groundwater have not been affected by historical activities at RMU-2. A description of the geology and hydrogeology of the area is provided below. Additional information on geology, hydrology and physiography at CSSA are also available in the CSSA EE (Volume 1-1, Background Information Report).

3.2.1 CSSA Geology/Hydrogeology

The Lower Glen Rose (LGR) is the uppermost geologic stratum in the CSSA area. The LGR is a massive, fossiliferous, vuggy limestone that grades upward into thin beds of limestone, marl, and shale. The LGR is approximately 300-330 ft thick in the CSSA area and is underlain by the Bexar Shale (BS) facies of the Hensell Sand, which is estimated to be from 60 to 150 ft thick under the CSSA area. The BS consists of silty dolomite, marl, calcareous shale, and shaley limestone. The geologic strata dip approximately 1 to 2 degrees to the south-southeast at CSSA.

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 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 ft (CSSA EE, Volume 5, Hydrogeologic Report). In general, groundwater at CSSA flows in a northeast to southwest direction. However, local flow gradient may vary depending on rainfall, recharge, and possibly well pumping.

3.2.2 RMU-2 Groundwater and Surface Water

No site-specific information regarding groundwater is available. However, between March 2007 and March 2011, measured water levels at Well CS-MW23-LGR, which is located approximately 2,000 ft west of the site, have ranged from 95.15 ft below top of casing (BTOC) (September 2007) to 347.9 ft BTOC (September 2009). Groundwater samples have been collected from this well and analyzed for metals and VOCs since June 2007. Mercury has been detected slightly over the maximum contaminant levels (MCLs) (0.002 mg/kg) on one occasion (June 2007). Since 2007, mercury has only exceeded the RL on one occasion (June 2009) and has not exceeded the MCL since 2007. Given that no mercury was detected above background at RMU-2, it is very unlikely that this site is the source of the mercury detection. No other analytes have exceeded action levels or MCLs.

The closest surface water body to RMU-2 is an unnamed tributary approximately 670 ft downgradient of the site (**Figure 6**). The tributary drains to the Upper Leon Creek, located approximately 1,700 ft south of RMU-2. At this point along the unnamed tributary, the distance to Upper Leon Creek is 2,100 ft.

The nearest classified creek downgradient from RMU-2 is Upper Leon Creek. The creek is classified as a perennial stream, and only contains water immediately following a rain event. Upper Leon Creek is classified under Texas Surface Water Quality Standards as Segment 1907 from a point 330 ft 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 RMU-2.

4.0 TIER 1 ECOLOGICAL EXCLUSION CRITERIA CHECKLIST

In accordance with TCEQ (2003) guidance, an RIR is submitted when the results of an investigation lead to a conclusion that COCs do not exceed Tier 1 residential soil action levels and there is no evidence of other affected media. The site must also pass the Tier 1 Ecological

Exclusion Criteria Checklist. The checklist must be completed as part of the RIR for a site. The completed checklist is provided in Appendix B. Results show that the site passes the checklist and that there are no ecological exposure pathways of concern at RMU-2. Thus, based on the absence of any complete or significant ecological exposure pathways, RMU-2 may be excluded from further ecological assessment.

5.0 SUMMARY AND RECOMMENDATIONS

RMU-2 is located in the southeastern portion of the Inner Cantonment Area, approximately 600 yards north of the southern CSSA boundary. RMU-2 covers approximately 1.1 acres. The site consists of a flat area that contains miscellaneous spent ammunition, presumably from the site's prior usage as a small pistol range.

In summary, activities at RMU-2 as described in this RIR showed the following results:

- Four rounds of excavation, removal, and confirmation sampling were performed at RMU-2.
- The COCs identified above soil background concentrations at RMU-2 were metals cadmium, copper, lead, and zinc, and the explosive compounds 2,4-DNT and tetryl. Areas of metal contamination exceeding Tier 1 PCLs were excavated and removed from the site or were used to calculate a 95% upper confidence limit (UCL) per TAC §350.79(2)(A) that does not exceed the Tier 1 PCL. The area of explosives contamination exceeding Tier 1 PCLs were excavated and removed from the site.
- Over 6,490 CY of contaminated soil were excavated, treated with PIMS if necessary, and properly disposed of at the East Pasture berm.
- Confirmation samples were collected from trench bottoms and sidewalls to confirm all waste had been removed.

From the information summarized above and presented in this report, the results of the investigations at RMU-2 meet the three criteria as described in TCEQ (2003) guidance *Determining Which Releases are Subject to the TRRP*. Thus, the following criteria were met:

- Soils found to have COC concentrations above the Tier 1 PCLs 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 Tier 1 PCL.
- RMU-2 passes the Tier 1 Ecological Exclusion Criteria Checklist (Appendix B).
- COC concentrations remaining in soil at RMU-2 were all below their respective Tier 1 residential PCLs or the calculated 95% UCL for lead, both of which are protective of groundwater. Therefore, no other media (surface water, sediment, or groundwater) have been affected, nor will be affected in the future, by the site.

Because these three criteria are met, RMU-2 is not subject to TRRP. Therefore, this RIR was prepared to document the results and a NFA decision is requested from the TCEQ.

TABLES AND FIGURES

Table 1. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Semi-Volatile Organics																																		Explosives		
	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	Dibenzo(a,h)anthracene CAS: 53-70-3	Qualifier	Dilution	Fluoranthene CAS: 206-44-0	Qualifier	Dilution	Indeno(1,2,3-cd)pyrene CAS: 193-39-5	Qualifier	Dilution	Phenanthrene CAS: 85-01-8	Qualifier	Dilution	Pyrene CAS: 129-00-0	Qualifier	Dilution	2,4-Dinitrotoluene CAS: 121-14-2	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																					
Residential Combined Exposure[1]	**5.60E+00**	c		**5.60E-01**	c		**5.70E+00**	c		**1.80E+03**	n		**4.30E+01**	c		**5.60E+02**	c		**5.50E-01**	c		2.30E+03	n		**5.70E+00**	c		1.70E+03	n		1.70E+03	n		6.90E+00	c	
Residential Groundwater Exposure[2]	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	7.60E+00	c		**9.60E+02**	n	>S	8.70E+01	c		**2.10E+02**	n		**5.60E+02**	n	>S	**2.70E-03**	c	
TCEQ-Approved Background Values																																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																					
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			**0.38**	F	1
RMU2-SS09 (01-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS13 (02-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS14 (02-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS16 (02-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	**0.080**	F	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS17 (03-Jun-2011)	**0.090**	F	1	**0.13**	F	1	**0.25**	F	1	**0.12**	F	1	0.030	U	1	**0.12**	F	1	**0.070**	F	1	**0.21**	F	1	**0.15**	F	1	**0.080**	F	1	**0.19**	F	1	0.080	U	1
RMU2-SS18 (03-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS21 (06-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	**0.13**	F	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS23 (06-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	**0.11**	F	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.080	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--		

Table 1. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Semi-Volatile Organics																																		Explosives		
	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	Dibenzo(a,h)anthracene CAS: 53-70-3	Qualifier	Dilution	Fluoranthene CAS: 206-44-0	Qualifier	Dilution	Indeno(1,2,3-cd)pyrene CAS: 193-39-5	Qualifier	Dilution	Phenanthrene CAS: 85-01-8	Qualifier	Dilution	Pyrene CAS: 129-00-0	Qualifier	Dilution	2,4-Dinitrotoluene CAS: 121-14-2	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																																					
Residential Combined Exposure[1]	**5.60E+00**	c		**5.60E-01**	c		**5.70E+00**	c		**1.80E+03**	n		**4.30E+01**	c		**5.60E+02**	c		**5.50E-01**	c		2.30E+03	n		**5.70E+00**	c		1.70E+03	n		1.70E+03	n		6.90E+00	c	
Residential Groundwater Exposure[2]	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	7.60E+00	c		**9.60E+02**	n	>S	8.70E+01	c		**2.10E+02**	n		**5.60E+02**	n	>S	**2.70E-03**	c	
TCEQ-Approved Background Values																																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			0.080	U	1
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--			--			--			--			--			--		

Table 1. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Metals																																	
	Arsenic CAS: 7440-38-2	Qualifier	Dilution	Barium CAS: 7440-39-3	Qualifier	Dilution	Cadmium CAS: 7440-43-9	Qualifier	Dilution	Chromium CAS: 7440-47-3	Qualifier	Dilution	Copper CAS: 7440-50-8	Qualifier	Dilution	Lead CAS: 7439-92-1	Qualifier	Dilution	Mercury CAS: 7439-97-6	Qualifier	Dilution	Nickel CAS: 7440-02-0	Qualifier	Dilution	Zinc CAS: 7440-66-6	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																		
Residential Combined Exposure[1]	2.40E+01	n		8.10E+03	n		5.20E+01	n		2.70E+04	n		5.50E+02	n		5.00E+02	n		2.10E+00	n		8.30E+02	n		9.90E+03	n	
Residential Groundwater Exposure[2]	2.50E+00	m	>S	2.20E+02	m	>S	7.50E-01	m	>S	**1.20E+03**	m	>S	**5.20E+02**	a	>S	1.50E+00	a	>S	3.90E-03	m		**7.90E+01**	n	>S	**1.20E+03**	n	>S
TCEQ-Approved Background Values																																		
CSSA 9 Metals Background Concentration[3]	**19.6**	††		**300**	†††		**3**	††		40.2	††		23.2	††		**84.5**	††		**0.77**	††		35.5	††		73.2	††	
Sample Locations (Date Collected)																																		
RMU2-BOT01 (01-Mar-2011)	**3.6**	F	1	**13**		1	0.030	UJ	1	**3.6**	F	1	**2.8**		1	**560**		1	**0.020**	F	1	**4.1**		1	**9.1**		1
RMU2-BOT02 (01-Mar-2011)	**4.2**	F	1	**25**		1	0.030	UJ	1	**6.0**	F	1	**4.7**		1	**390**		1	**0.020**	F	1	**6.0**		1	**11**		1
RMU2-BOT03 (01-Mar-2011)	**3.0**	F	1	**13**		1	0.030	UJ	1	**2.6**	F	1	**7.2**		1	**2,000**		20	**0.030**	F	1	**4.1**		1	**9.6**		1
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			**0.66**	F	1	--			--			--		
RMU2-SS01 (01-Mar-2011)	**5.4**	F	1	**27**		1	0.030	UJ	1	**5.9**	F	1	**4.9**		1	**210**		1	**0.040**	F	1	**6.1**		1	**36**		1
RMU2-SS02 (01-Mar-2011)	**5.5**	F	1	**40**		1	0.030	UJ	1	**7.7**	F	1	**10**		1	**2,900**		20	**0.040**	F	1	**7.6**		1	**36**		1
RMU2-SS03 (01-Mar-2011)	**5.5**	M	1	**44**	M	1	0.030	M	1	**10**	M	1	**12**	M	1	**6,200**	M	100	**0.030**	F	1	**8.3**	M	1	**24**	M	1
RMU2-SS04 (01-Mar-2011)	**6.5**	F	1	**44**		1	0.030	UJ	1	**8.6**	F	1	**81**		1	**8,200**		100	**0.050**	F	1	**8.6**		1	**44**		1
RMU2-SS05 (01-Mar-2011)	**5.1**	F	1	**76**		1	0.030	UJ	1	**11**	F	1	**22**		1	**1,600**		20	**0.090**	F	1	**9.5**		1	**55**		1
RMU2-SS06 (01-Mar-2011)	**4.8**	F	1	**24**		1	0.030	UJ	1	**4.9**	F	1	**7.0**		1	**31,000**		250	**0.030**	F	1	**5.7**		1	**25**		1
RMU2-SS07 (01-Mar-2011)	**3.4**	F	1	**14**		1	0.030	UJ	1	**3.3**	F	1	**3.5**	J	1	**210**	J	1	0.010	U	1	**3.9**		1	**16**	J	1
RMU2-SS07-DUP (01-Mar-2011)	**3.5**	F	1	**14**		1	0.030	UJ	1	**3.2**	F	1	**8.9**	J	1	**600**	J	1	**0.020**	F	1	**4.0**		1	**31**	J	1
RMU2-SS08 (01-Mar-2011)	**4.3**	F	1	**31**		1	**3.1**	J	1	**7.5**	F	1	**53**		1	**730**		1	**0.030**	F	1	**6.9**		1	**120**		1
RMU2-SS09 (01-Jun-2011)	**2.0**	F	1	**4.5**		1	0.030	UJ	1	**1.1**	F	1	**3.0**		1	**2.9**	F	1	**0.020**	F	1	**2.5**		1	**7.8**	J	1
RMU2-SS09-DUP (01-Jun-2011)	**2.2**	F	1	**5.3**		1	0.030	UJ	1	**1.2**	F	1	**2.9**		1	**6.3**	F	1	0.010	U	1	**2.6**		1	**14**	J	1
RMU2-SS10 (02-Jun-2011)	**4.6**	F	1	**39**		1	0.030	UJ	1	**11**	F	1	**11**		1	**65**		1	**0.040**	F	1	**9.6**		1	**20**		1
RMU2-SS12 (02-Jun-2011)	**1.8**	F	1	**6.8**		1	0.030	UJ	1	**1.1**	F	1	**4.3**		1	**5.4**	F	1	**0.020**	F	1	**2.6**		1	**7.5**		1
RMU2-SS13 (02-Jun-2011)	**3.1**	F	1	**15**		1	0.030	UJ	1	**3.5**	F	1	**6.7**		1	**220**		1	**0.070**	F	1	**4.2**		1	**21**		1
RMU2-SS14 (02-Jun-2011)	**4.5**	F	1	**34**		1	0.030	UJ	1	**8.7**	F	1	**8.5**		1	**16,000**		100	**0.060**	F	1	**9.2**		1	**21**		1
RMU2-SS15 (02-Jun-2011)	**3.1**	F	1	**19**		1	0.030	UJ	1	**4.4**	F	1	**5.5**		1	**59**		1	**0.040**	F	1	**5.1**		1	**10**		1
RMU2-SS16 (02-Jun-2011)	**2.8**	F	1	**15**		1	0.030	UJ	1	**3.3**	F	1	**4.1**		1	**170**		1	**0.030**	F	1	**4.2**		1	**11**		1
RMU2-SS17 (03-Jun-2011)	**2.6**	F	1	**8.7**		1	0.030	UJ	1	**1.8**	F	1	**2.6**		1	**290**		1	**0.020**	F	1	**2.9**		1	**9.4**		1
RMU2-SS18 (03-Jun-2011)	**4.7**	F	1	**45**		1	0.030	UJ	1	**9.7**	F	1	**6.2**		1	**140**		1	**0.10**		1	**9.6**		1	**30**		1
RMU2-SS19 (03-Jun-2011)	**4.0**	F	1	**24**		1	0.030	UJ	1	**5.2**	F	1	**4.7**		1	**460**		1	**0.080**	F	1	**6.3**		1	**14**		1
RMU2-SS20 (03-Jun-2011)	**4.5**	F	1	**30**		1	0.030	UJ	1	**7.6**	F	1	**6.8**		1	**740**		1	**0.060**	F	1	**7.8**		1	**24**		1
RMU2-SS21 (06-Jun-2011)	**5.9**	M	1	**30**	M	1	0.030	M	1	**11**	M	1	**8.4**	M	1	**28**	M	1	**0.050**	F	1	**11**	M	1	**19**	M	1
RMU2-SS22 (06-Jun-2011)	**4.1**	F	1	**13**	J	1	0.030	U	1	**4.5**	F	1	**3.5**		1	**49**		1	**0.040**	F	1	**6.3**		1	**14**		1
RMU2-SS23 (06-Jun-2011)	**5.5**	F	1	**130**	J	1	0.030	U	1	**22**		1	**16**		1	**16**		1	**0.060**	F	1	**22**		1	**36**		1
RMU2-SS23-DUP (06-Jun-2011)	**6.3**	F	1	**100**	J	1	0.030	U	1	**18**	F	1	**14**		1	**14**		1	**0.050**	F	1	**19**		1	**31**		1
RMU2-SS24 (06-Jun-2011)	**5.1**	F	1	**35**	J	1	0.030	U	1	**10**	F	1	**8.1**		1	**7.4**	F	1	**0.040**	F	1	**10**		1	**26**		1
RMU2-SS25 (06-Jun-2011)	**5.3**	F	1	**23**	J	1	0.030	U	1	**9.7**	F	1	**7.2**		1	**13**		1	**0.050**	F	1	**10**		1	**16**		1
RMU2-SS26 (06-Jun-2011)	**5.4**	F	1	**18**	J	1	0.030	U	1	**7.3**	F	1	**4.2**		1	**21**		1	**0.040**	F	1	**9.0**		1	**14**		1
RMU2-SS27 (06-Jun-2011)	**3.7**	F	1	**9.5**	J	1	0.030	U	1	**2.6**	F	1	**2.7**		1	**21**		1	**0.040**	F	1	**5.6**		1	**11**		1
RMU2-SS28 (06-Jun-2011)	**4.7**	F	1	**25**	J	1	0.030	U	1	**8.5**	F	1	**5.8**		1	**16**		1	**0.030**	F	1	**8.9**		1	**19**		1
RMU2-SS29 (07-Jun-2011)	**1.9**	F	1	**4.6**		1	0.030	UJ	1	**0.70**	F	1	**0.72**	F	1	**1.7**	F	1	0.010	U	1	**1.8**	F	1	**12**		1
RMU2-SS30 (08-Jun-2011)	**2.4**	F	1	**6.0**		1	0.030	UJ	1	**0.60**	F	1	**0.50**	F	1	**170**		1	0.010	U	1	**2.2**		1	**6.8**		1
RMU2-SS31 (08-Jun-2011)	**1.8**	F	1	**7.9**		1	0.030	UJ	1	**1.2**	F	1	**0.83**	F	1	**28**		1	0.010	U	1	**2.3**		1	**8.7**		1
RMU2-SS31-DUP (08-Jun-2011)	**1.9**	F	1	**6.5**		1	0.030	UJ	1	**0.80**	F	1	**0.69**	F	1	**29**		1	0.010	U	1	**2.1**		1	**8.2**		1
RMU2-SS32 (08-Jun-2011)	**4.2**	F	1	**45**		1	0.030	U	1	**8.2**	F	1	**5.8**		1	**69**		1	--			**8.4**		1	**12**	J	1
RMU2-SS33 (08-Jun-2011)	**2.2**	F	1	**20**		1	0.030	U	1	**4.6**	F	1	**4.1**		1	**44**		1	--			**5.4**		1	**8.5**	J	1
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			**8,300**		100	--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			**260**		1	--			--			--		
RMU2-SS36 (08-Jun-2011)	**3.9**	F	1	**34**		1	0.030	U	1	**9.1**	F	1	**5.9**		1	**44**		1	--			**8.7**		1	**11**	J	1

Table 1. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Metals																																	
	Arsenic CAS: 7440-38-2	Qualifier	Dilution	Barium CAS: 7440-39-3	Qualifier	Dilution	Cadmium CAS: 7440-43-9	Qualifier	Dilution	Chromium CAS: 7440-47-3	Qualifier	Dilution	Copper CAS: 7440-50-8	Qualifier	Dilution	Lead CAS: 7439-92-1	Qualifier	Dilution	Mercury CAS: 7439-97-6	Qualifier	Dilution	Nickel CAS: 7440-02-0	Qualifier	Dilution	Zinc CAS: 7440-66-6	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																		
Residential Combined Exposure[1]	2.40E+01	n		8.10E+03	n		5.20E+01	n		2.70E+04	n		5.50E+02	n		5.00E+02	n		2.10E+00	n		8.30E+02	n		9.90E+03	n	
Residential Groundwater Exposure[2]	2.50E+00	m	>S	2.20E+02	m	>S	7.50E-01	m	>S	**1.20E+03**	m	>S	**5.20E+02**	a	>S	1.50E+00	a	>S	3.90E-03	m		**7.90E+01**	n	>S	**1.20E+03**	n	>S
TCEQ-Approved Background Values																																		
CSSA 9 Metals Background Concentration[3]	**19.6**	††		**300**	†††		**3**	††		40.2	††		23.2	††		**84.5**	††		**0.77**	††		35.5	††		73.2	††	
Sample Locations (Date Collected)																																		
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			**420**		1	--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			**580**		1	--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			**45**	J	1	--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			**59,000**	M	500	--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			**78,000**	J	###	--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			**430**	J	1	--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			**140**	J	1	--			--			--		
RMU2-SS43 (08-Jun-2011)	**6.6**	F	1	**69**		1	**0.25**	F	1	**16**	F	1	**11**		1	**110**	J	1	--			**13**		1	**26**	J	1
RMU2-SS44 (08-Jun-2011)	**4.6**	F	1	**43**		1	0.030	U	1	**12**	F	1	**6.6**		1	**250**	J	1	--			**9.6**		1	**17**	J	1
RMU2-SS45 (08-Jun-2011)	**3.9**	F	1	**38**		1	0.030	U	1	**9.7**	F	1	**6.6**		1	**55**	J	1	--			**8.8**		1	**12**	J	1
RMU2-SS46 (08-Jun-2011)	**1.7**	F	1	**20**		1	0.030	U	1	**4.3**	F	1	**2.8**		1	**95**	J	1	--			**4.0**		1	**9.1**	J	1
RMU2-SS47 (16-Jun-2011)	**1.1**	F	1	**9.8**		1	0.030	U	1	**4.1**	F	1	**1.8**	F	1	**23**		1	--			**3.0**		1	**12**	J	1
RMU2-SS48 (16-Jun-2011)	**11**	F	1	**120**		1	**0.25**	F	1	**31**		1	**14**		1	**110**		1	--			**24**		1	**46**	J	1
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			**350**		1	--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			**2,800**		20	--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			**88**	J	1	--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			**110**	J	1	--			--			--		
RMU2-SS52 (16-Jun-2011)	**4.7**	F	1	**40**		1	0.030	U	1	**12**	F	1	**7.6**		1	**48**		1	--			**10**		1	**21**	J	1
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			**41**		1	--			--			--		
RMU2-SS54 (16-Jun-2011)	**7.8**	F	1	**130**		1	**0.38**	F	1	**29**		1	**14**		1	**36**		1	--			**20**		1	**43**	J	1
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			**160**		1	--			--			--		
RMU2-SS56 (16-Jun-2011)	**5.9**	F	1	**76**		1	**0.27**	F	1	**21**		1	**9.6**		1	**75**		1	--			**15**		1	**36**	J	1
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	**1.3**	F	1	**5.0**		1	0.030	UJ	1	**2.5**	F	1	**0.78**	F	1	**2.1**	F	1	0.010	U	1	**2.9**		1	**7.6**	J	1
RMU2-SS65 (16-Aug-2011)	**6.1**	F	1	**55**		1	0.030	UJ	1	**14**	F	1	**7.3**		1	**14,000**	J	100	**0.040**	F	1	**11**		1	**30**	J	1
RMU2-SS65-DUP (16-Aug-2011)	**6.1**	F	1	**53**		1	0.030	UJ	1	**14**	F	1	**6.3**		1	**5,600**	J	50	**0.040**	F	1	**11**		1	**25**	J	1
RMU2-SS66 (16-Aug-2011)	**4.3**	F	1	**19**		1	0.030	UJ	1	**6.0**	F	1	**4.1**		1	**59**	J	1	**0.020**	F	1	**6.3**		1	**16**	J	1
RMU2-SS67 (16-Aug-2011)	**4.4**	F	1	**42**		1	0.030	UJ	1	**10**	F	1	**4.6**		1	**200**	J	1	**0.030**	F	1	**8.4**		1	**20**	J	1
RMU2-SS68 (16-Aug-2011)	**5.1**	F	1	**43**		1	0.030	UJ	1	**10**	F	1	**4.8**		1	**86**	J	1	**0.060**	F	1	**8.7**		1	**29**	J	1
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			**66**	J	1	--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			**170,000**	J	###	--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			**3.0**	F	1	--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			**19**		1	--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			**150**		1	--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			**1,700**		20	--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			**16**	J	1	--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			**31**	J	1	--			--			--		

NOTES:

† TCEQ, TRRP Tier 1 Soil PCLs (Last Revised: May 24, 2011).

†† CSSA Soil Background Concentrations. Second Revision, Evaluation of Background Metals Concentrations in Soils and Bedrock at CSSA. February 2002. Values from Table 3.3.

††† Texas-Specific median background concentration.

PCLs and CSSA background values coded in this table as [1, 2, 3].

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

[3] CSSA Soil Background Concentrations.

PCLs are shown in **blue** font.

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

c = carcinogenic.

n = noncarcinogenic.

m = primary MCL-based.

a = EPA Action Level-based.

>S = solubility limit exceeded during calculation.

na = not applicable.

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.

UJ - Analyte was not detected above the indicated RL; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

M = Concentration is estimated due to a matrix effect.

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

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

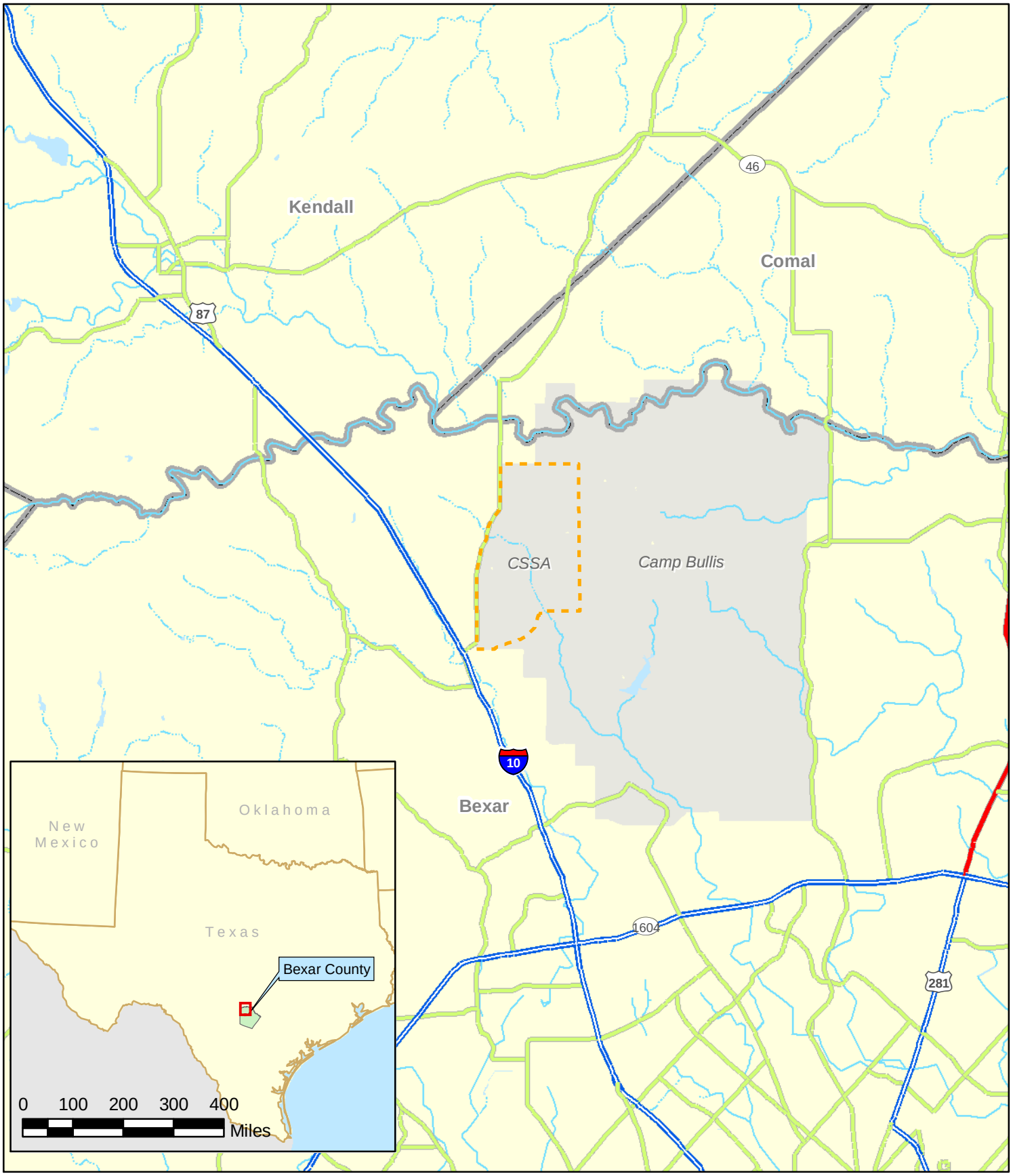

Figure 1

CSSA Location Map
Camp Stanley Storage Activity

PARSONS

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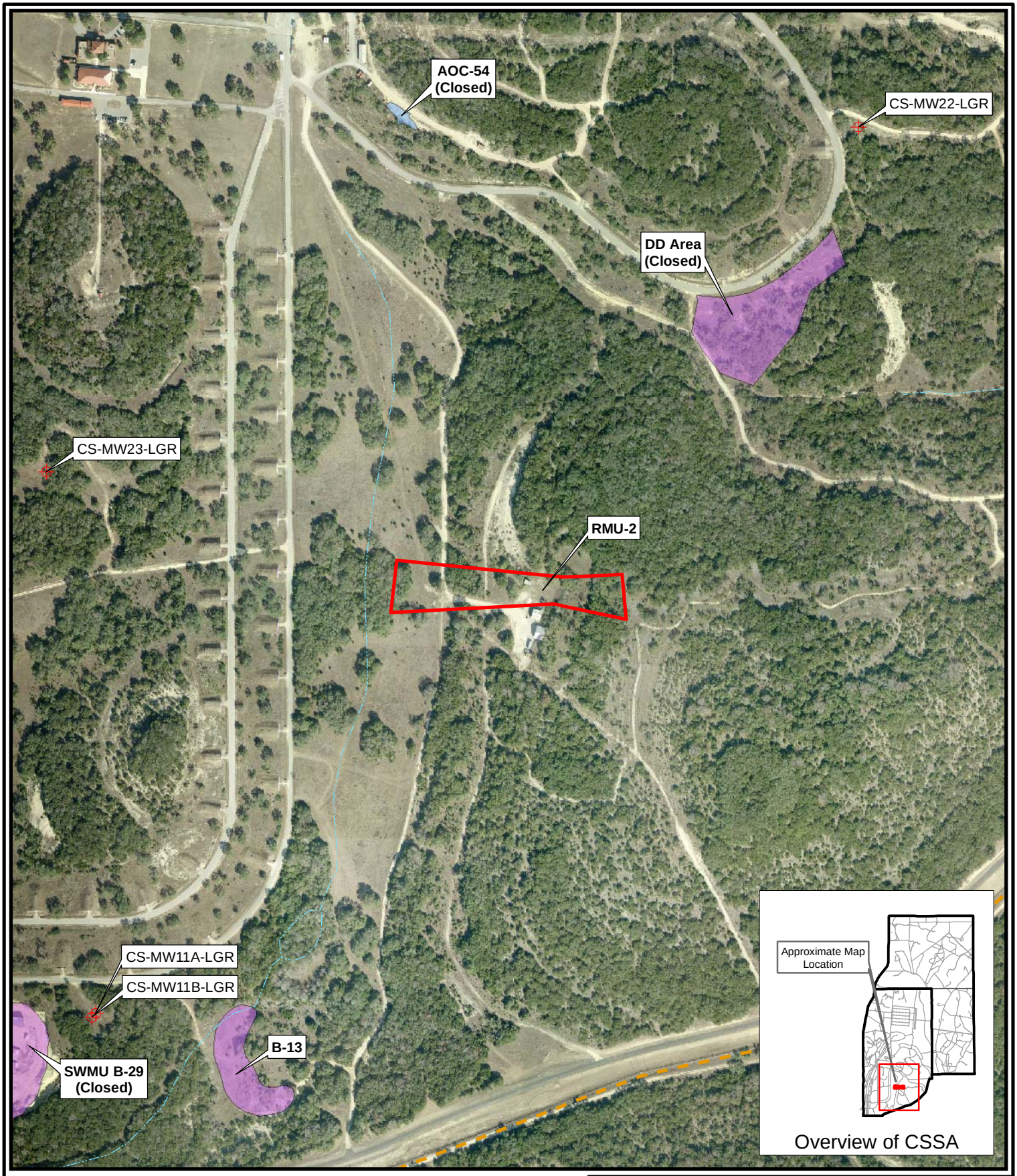

Aerial Photo Date: 2009

N
W E
S

500 250 0 500 Feet

Monitoring Well
RMU-2
AOC Boundary
SWMU Boundary
Stream
CSSA Outer Fence Line

Figure 2

RMU-2
Site Location Map
Camp Stanley Storage Activity

PARSONS

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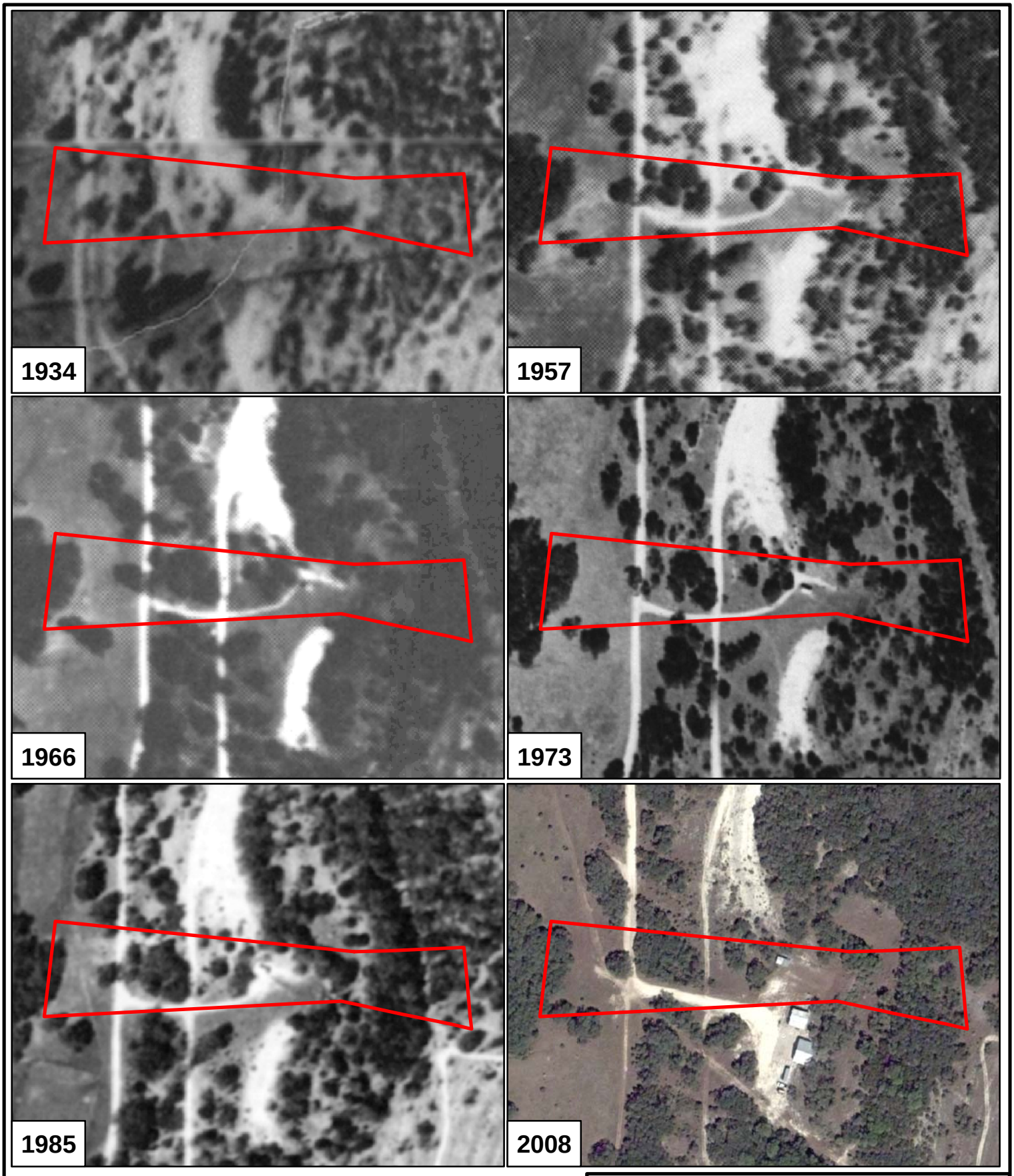

N
W E
S

RMU-2

0 137.5 275 550
Feet

Figure 3

RMU-2
Aerial Photographs
Camp Stanley Storage Activity

PARSONS

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Aerial Photo Date: 2009

N
W E
S

0 30 60 120
Feet

× XRF Sample Location (Results in mg/kg)

RMU-2 Boundary

Figure 4

RMU-2
XRF Sampling Results
Camp Stanley Storage Activity

PARSONS

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Aerial Photo Date: 2009

N
W E
S

0 25 50 100 Feet

RMU-2 Boundary

Initial Excavation Boundary, June 1 - 8, 2011

RMU-2 Soil Samples

Pre-excavation Samples

(Red symbol indicates an exceedance of the Tier 1 PCL. Exceeding concentrations are indicated above.)

Figure 5a

RMU-2 Pre-excavation Sampling and Initial Excavation Boundary

Camp Stanley Storage Activity

PARSONS

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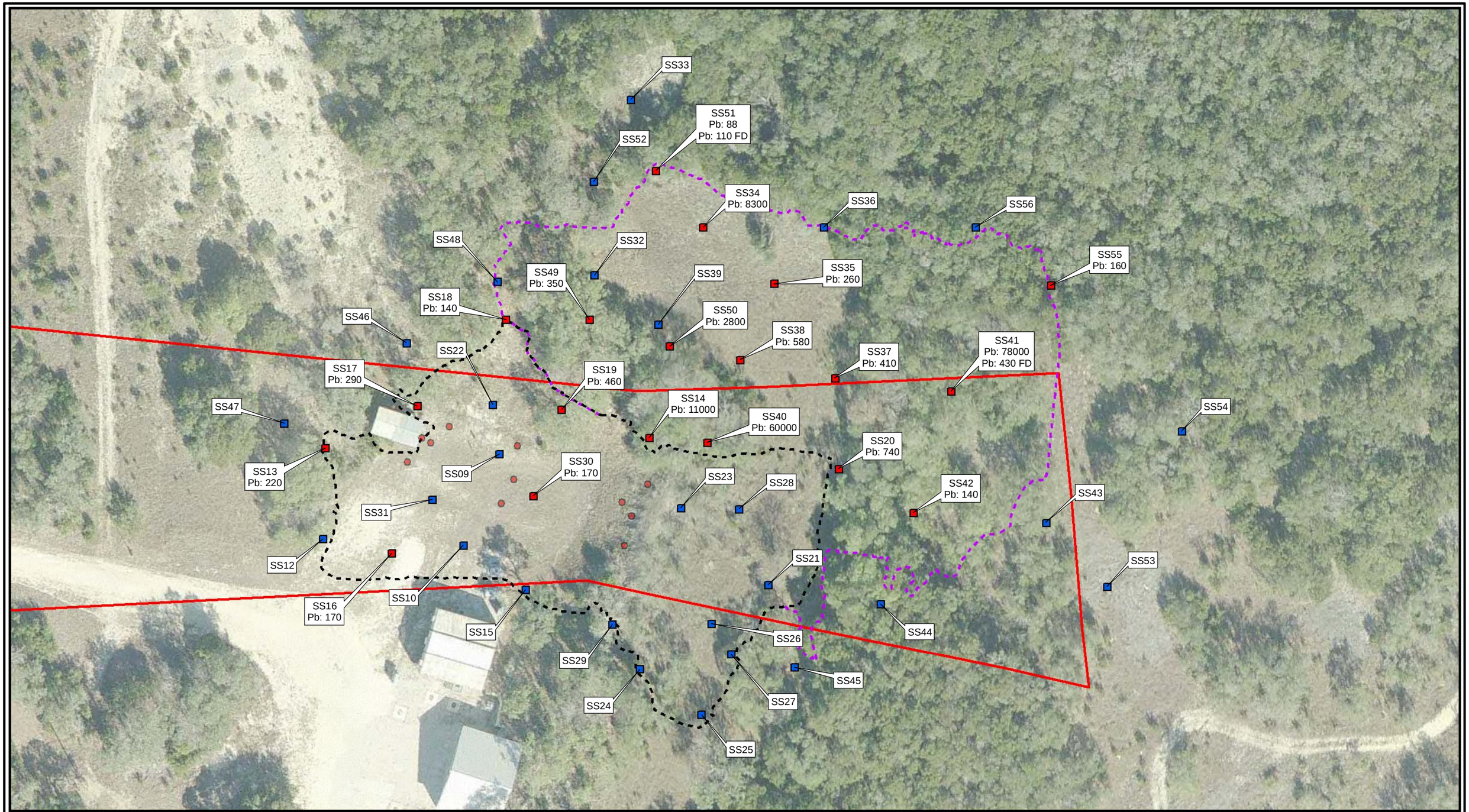

Aerial Photo Date: 2009

N
W E
S

0 25 50 100 Feet

RMU-2 Boundary

Initial Excavation Boundary, June 1 - 8, 2011

Second Phase Excavation Boundary, August 1 - 16, 2011

RMU-2 Soil Samples

First Phase Sample

Pre-excavation Sample

(Red symbol indicates an exceedance of the Tier 1 PCL. Exceeding concentrations are indicated above.)

Figure 5b

RMU-2 First Phase Confirmation Sampling and Second Phase Excavation Boundary

Camp Stanley Storage Activity

PARSONS

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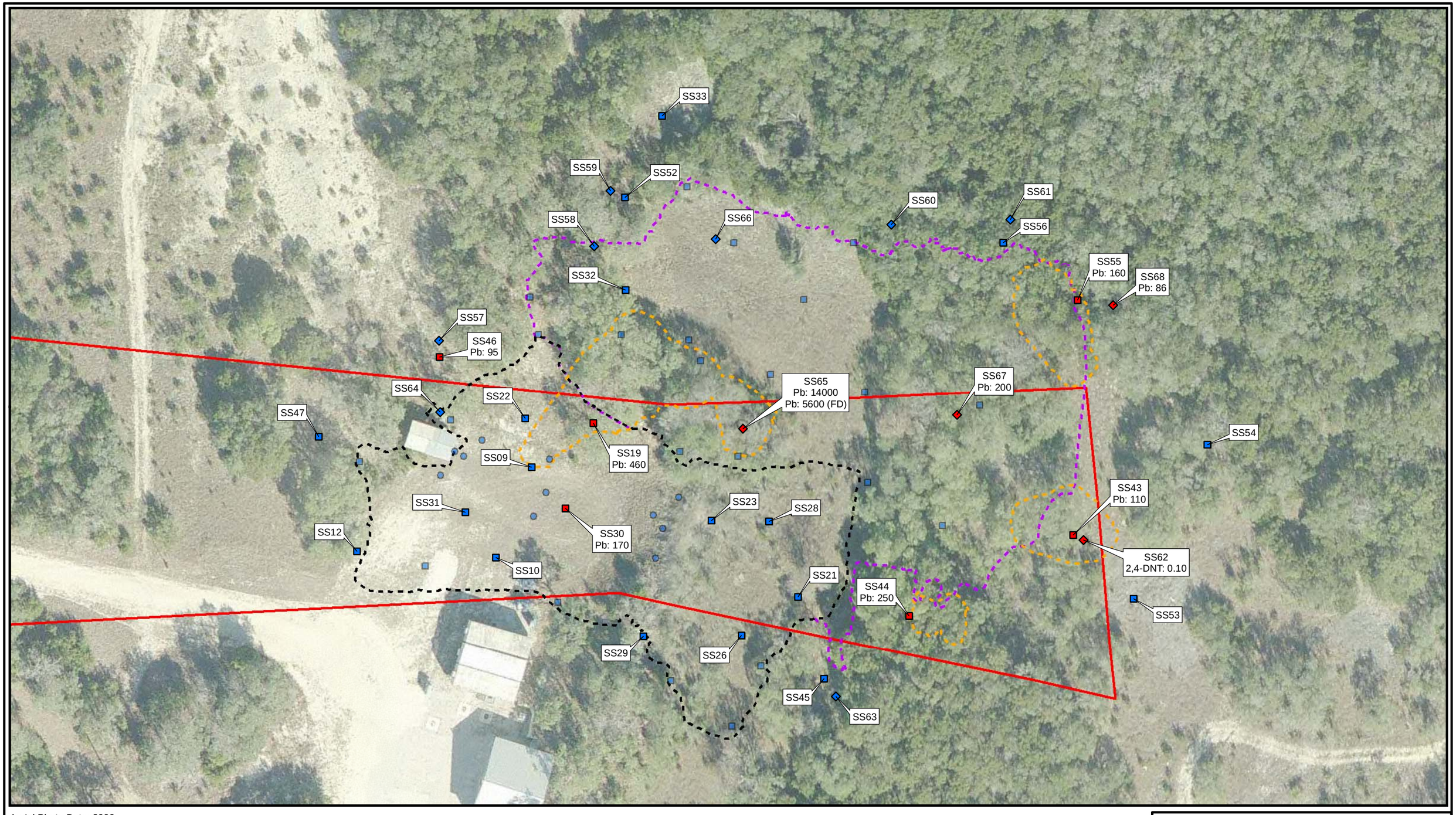

Aerial Photo Date: 2009

N
W E
S

0 25 50 100 Feet

RMU-2 Boundary
Initial Excavation Boundary, June 1 - 8, 2011
Second Phase Excavation Boundary, August 1 - 16, 2011
Third Phase Excavation Boundary, August 24 - 25, 2011

RMU-2 Soil Samples
Second Phase Sample
First Phase Sample
Pre-excavation Sample
(Red symbol indicates an exceedance of the Tier 1 PCL. Exceeding concentrations are indicated above.)

Figure 5c

RMU-2
Second Phase Confirmation Sampling and Third Phase Excavation Boundary
Camp Stanley Storage Activity

PARSONS

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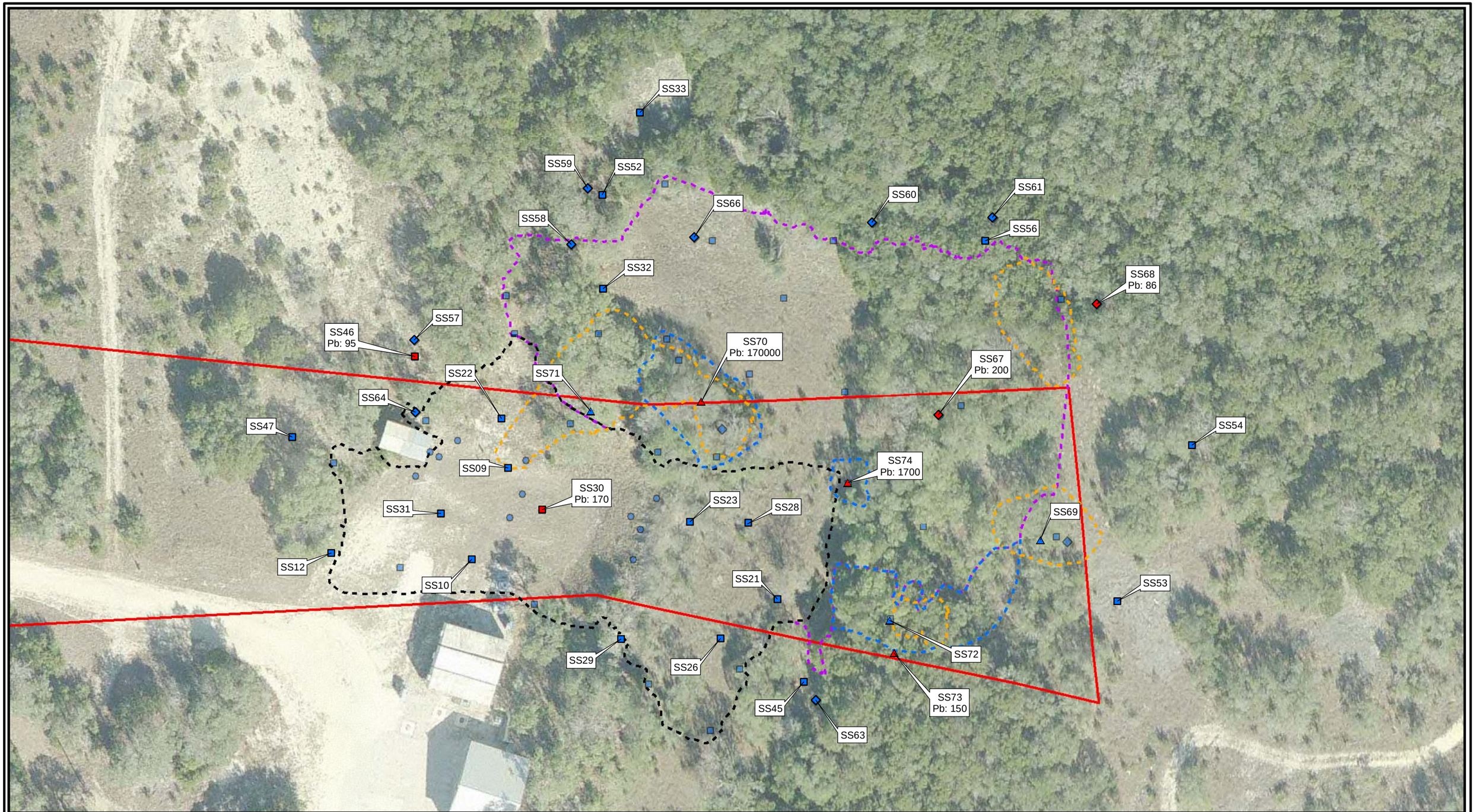

Aerial Photo Date: 2009

N
W E
S

0 25 50 100 Feet

RMU-2 Boundary
Initial Excavation Boundary, June 1 - 8, 2011
Second Phase Excavation Boundary, August 1 - 16, 2011
Third Phase Excavation Boundary, August 24 - 25, 2011
Fourth Phase Excavation Boundary, September 12 - 14, 2011

RMU-2 Soil Samples

- Third Phase Sample
- Second Phase Sample
- First Phase Sample
- Pre-Excavation Sample

(Red symbol indicates an exceedance of the Tier 1 PCL. Exceeding concentrations are indicated above.)

Figure 5d

RMU-2
Third Phase Confirmation Sampling and Fourth Phase Excavation Boundary
Camp Stanley Storage Activity

PARSONS

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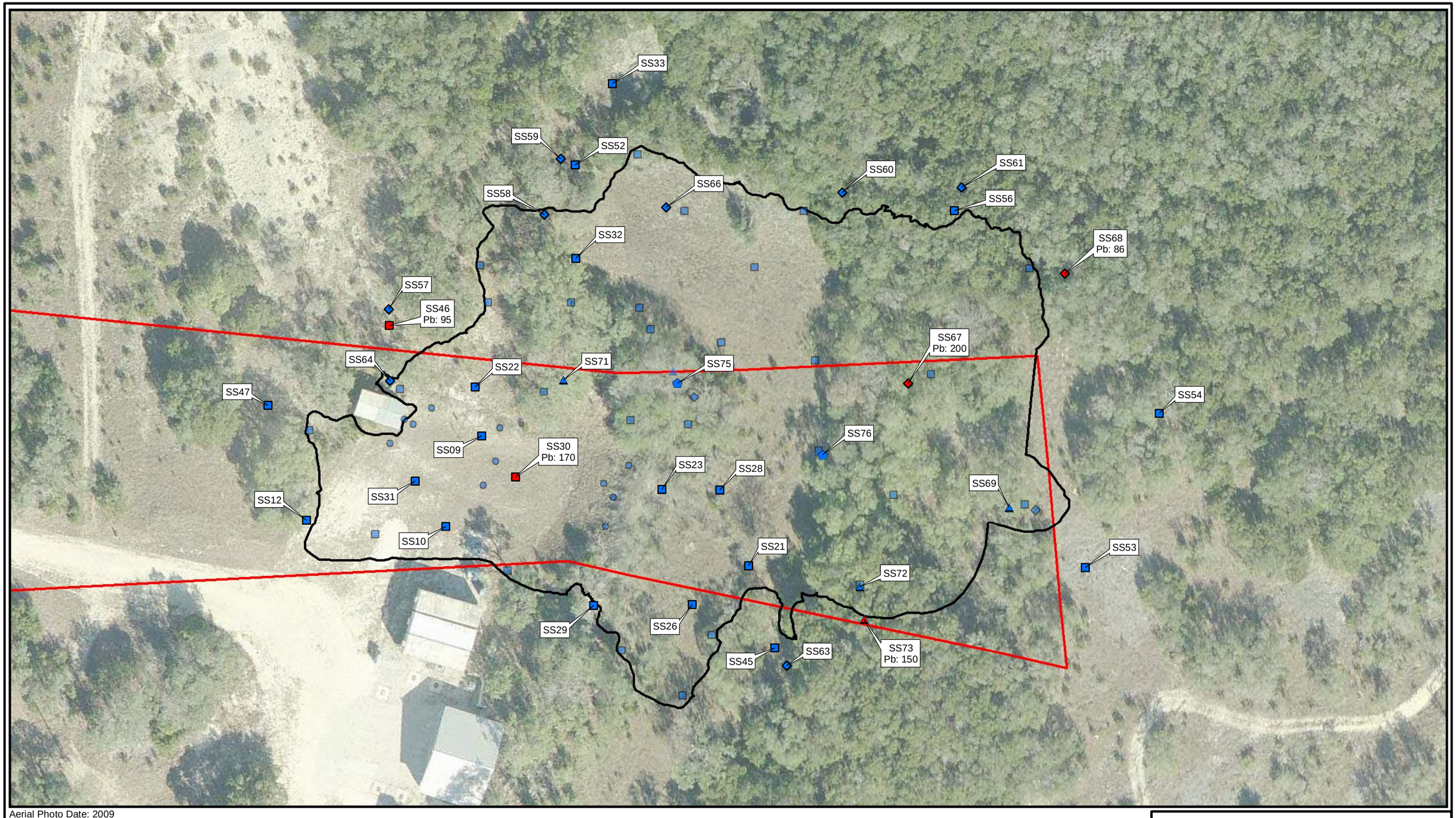

Aerial Photo Date: 2009

N
W E
S

0 25 50 100 Feet

RMU-2 Boundary
Total Excavation Area

RMU-2 Soil Samples

- Fourth Phase Sample
- Third Phase Sample
- Second Phase Sample
- First Phase Sample
- Pre-Excavation Sample

(Red symbol indicates an exceedance of the Tier 1 PCL. Exceeding concentrations are indicated above.)

Figure 5e

RMU-2
Third Phase Confirmation Sampling
and Fourth Phase Excavation Boundary
Camp Stanley Storage Activity

PARSONS

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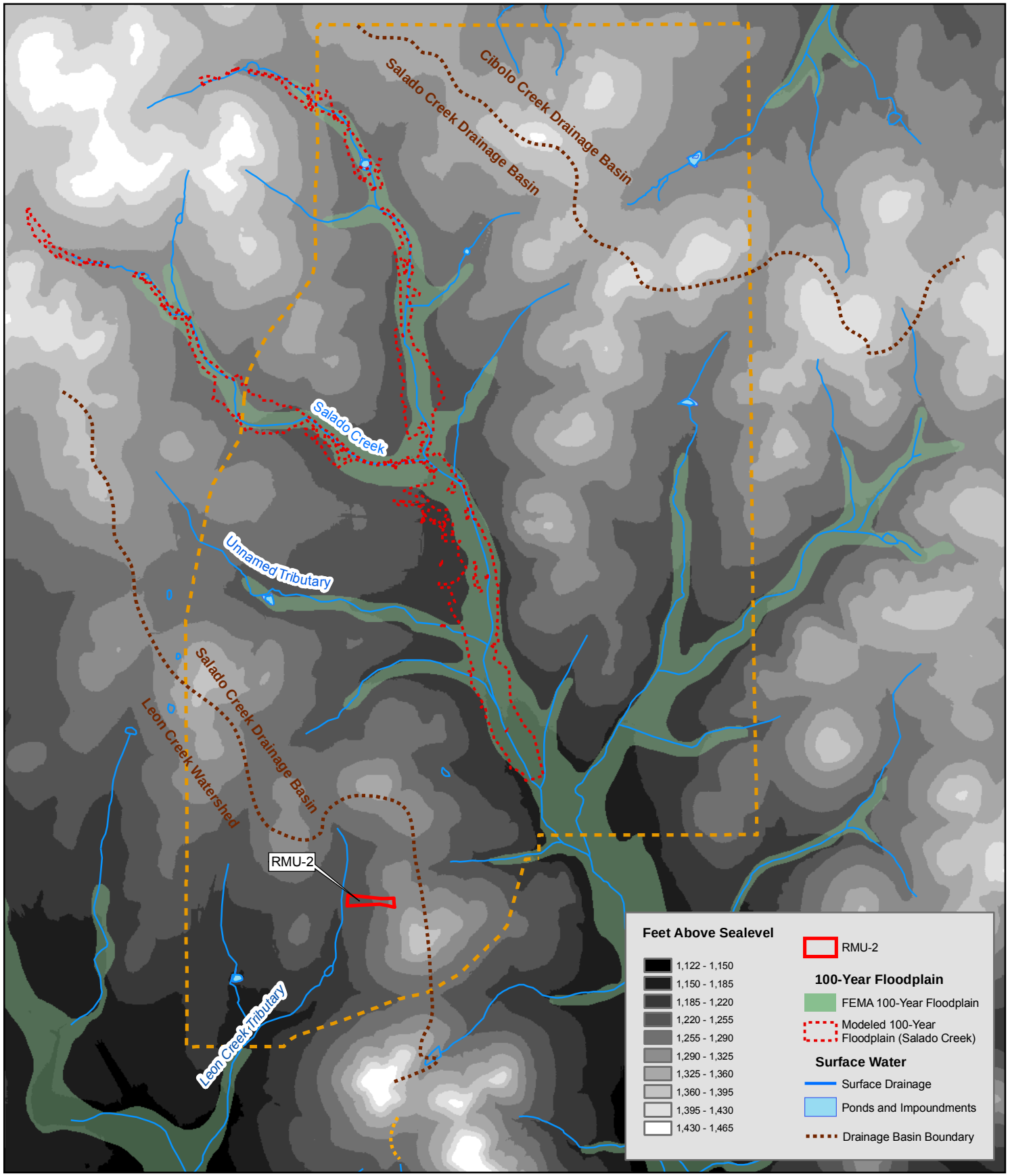

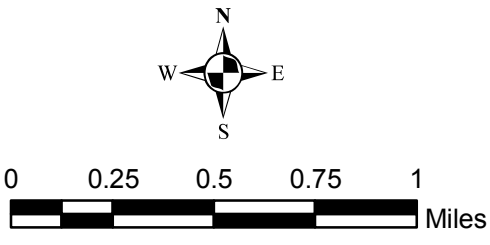

Figure 6

RMU-2 Topography, Surface Water, and Floodplains Camp Stanley Storage Activity

PARSONS

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APPENDIX A

Site Photographs

Photo 1. RMU-2 prior to excavation, looking west (June 2011).

Photo 2. RMU-2 berm prior to excavation, looking south (June 2011).

Photo 3. Initial excavation at RMU-2, looking east (June 2011).

Photo 4. Preparation for excavation on top of berm at RMU-2, looking west (June 2011).

Photo 5. Excavation on top of berm at RMU-2, looking south (June 2011).

Photo 6. RMU-2 Berm after excavation, looking east (June 2011).

Photo 7. SS19 area at RMU-2 after overexcavation, looking north (August 2011).

Photo 8. SS67 area at RMU-2 after overexcavation, looking east (August 2011).

Photo 9. SS65 and SS70 area at RMU-2 after overexcavation, looking west (August 2011).

Photo 10. Mixing PIMS with excavated soil at RMU-2, looking west (June 2011).

Photo 11. Adding water to excavated soil for dust control, looking east (June 2011).

Photo 12. Soil sampling at RMU-2, looking north (June 2011).

APPENDIX B

Tier 1 Ecological Exclusion Criteria Checklist

Figure: 30 TAC §350.77(b)

TIER 1: Exclusion Criteria Checklist

This exclusion criteria checklist is intended to aid the person and the TNRCC in determining whether or not further ecological evaluation is necessary at an affected property where a response action is being pursued under the Texas Risk Reduction Program (TRRP). Exclusion criteria refer to those conditions at an affected property which preclude the need for a formal ecological risk assessment (ERA) because there are **incomplete or insignificant ecological exposure pathways** due to the nature of the affected property setting and/or the condition of the affected property media. This checklist (and/or a Tier 2 or 3 ERA or the equivalent) must be completed by the person for all affected property subject to the TRRP. The person should be familiar with the affected property but need not be a professional scientist in order to respond, although some questions will likely require contacting a wildlife management agency (i.e., Texas Parks and Wildlife Department or U.S. Fish and Wildlife Service). The checklist is designed for general applicability to all affected property; however, there may be unusual circumstances which require professional judgement in order to determine the need for further ecological evaluation (e.g., cave-dwelling receptors). In these cases, the person is strongly encouraged to contact TNRCC before proceeding.

Besides some preliminary information, the checklist consists of three major parts, **each of which must be completed unless otherwise instructed.** PART I requests affected property identification and background information. PART II contains the actual exclusion criteria and supportive information. PART III is a qualitative summary statement and a certification of the information provided by the person. **Answers should reflect existing conditions and should not consider future remedial actions at the affected property.** Completion of the checklist should lead to a logical conclusion as to whether further evaluation is warranted. Definitions of terms used in the checklist have been provided and users are strongly encouraged to familiarize themselves with these definitions before beginning the checklist.

Name of Facility:

Camp Stanley Storage Activity (CSSA), Boerne, Texas.

Affected Property Location:

RMU-2 is located in the southeast portion of the Inner Cantonment area (see Figure 2 of this RIR). The site lies approximately 600 yards north of the southern CSSA boundary and is approximately 1.1 acres in size.

Mailing Address:

Camp Stanley Storage Activity
25800 Ralph Fair Road
Boerne, TX 78015

TNRCC Case Tracking #s:

Water Customer No.: CN602728206.
Air Customer No.: CN600126262.

Solid Waste Registration #s:

Texas Solid Waste Registration No.: 69026.

Voluntary Cleanup Program #: **Not applicable.**

EPA I.D. #s:

USEPA Identification No.: TX2210020739.

Figure: 30 TAC §350.77(b)

Definitions[1]

Affected property - The entire area (i.e., on-site and off-site; including all environmental media) which contains releases of chemicals of concern at concentrations equal to or greater than the assessment level applicable for residential land use and groundwater classification.

Assessment level - A critical protective concentration level for a chemical of concern used for affected property assessments where the human health protective concentration level is established under a Tier 1 evaluation as described in §350.75(b) of this title (relat0ing to Tiered Human Health Protective Concentration Level Evaluation), except for the protective concentration level for the soil-to-groundwater exposure pathway which may be established under Tier 1, 2, or 3 as described in §350.75(i)(7) of this title, and ecological protective concentration levels which are developed, when necessary, under Tier 2 and/or 3 in accordance with §350.77(c) and/or (d), respectively, of this title (relating to Ecological Risk Assessment and Development of Ecological Protective Concentration Levels).

Bedrock - The solid rock (i.e., consolidated, coherent, and relatively hard naturally formed material that cannot normally be excavated by manual methods alone) that underlies gravel, soil or other surficial material.

Chemical of concern - Any chemical that has the potential to adversely affect ecological or human receptors due to its concentration, distribution, and mode of toxicity. Depending on the program area, chemicals of concern may include the following: solid waste, industrial solid waste, municipal solid waste, and hazardous waste as defined in Texas Health and Safety Code, §361.003, as amended; hazardous constituents as listed in 40 Code of Federal Regulations Part 261, Appendix VIII, as amended; constituents on the groundwater monitoring list in 40 Code of Federal Regulations Part 264, Appendix IX, as amended; constituents as listed in 40 CFR Part 258 Appendices I and II, as amended; pollutant as defined in Texas Water Code, §26.001, as amended; hazardous substance as defined in Texas Health and Safety Code, §361.003, as amended, and the Texas Water Code §26.263, as amended; regulated substance as defined in Texas Water Code §26.342, as amended and §334.2 of this title (relating to Definitions), as amended; petroleum product as defined in Texas Water Code §26.342, as amended and §334.122(b)(12) of this title (relating to Definitions for ASTs), as amended; other substances as defined in Texas Water Code §26.039(a), as amended; and daughter products of the aforementioned constituents.

Community - An assemblage of plant and animal populations occupying the same habitat in which the various species interact via spatial and trophic relationships (e.g., a desert community or a pond community).

Complete exposure pathway - An exposure pathway where a human or ecological receptor is exposed to a chemical of concern via an exposure route (e.g., incidental soil ingestion, inhalation of volatiles and particulates, consumption of prey, etc).

De minimus - The description of an area of affected property comprised of one acre or less where the ecological risk is considered to be insignificant because of the small extent of contamination, the absence of protected species, the availability of similar unimpacted habitat nearby, and the lack of adjacent sensitive environmental areas.

Ecological protective concentration level - The concentration of a chemical of concern at the point of exposure within an exposure medium (e.g., soil, sediment, groundwater, or surface water) which is determined in accordance with §350.77(c) or (d) of this title (relating to Ecological Risk Assessment and Development of Ecological Protective Concentration Levels) to be protective for ecological receptors. These concentration levels are primarily intended to be protective for more mobile or wide-ranging ecological receptors and, where appropriate, benthic invertebrate communities within the waters in the state. These concentration levels are not intended to be directly protective of receptors with limited mobility or range (e.g., plants, soil invertebrates, and small rodents), particularly those residing within active areas of a facility, unless these receptors are threatened/endangered species or unless

[1]These definitions were taken from 30 TAC §350.4 and may have both ecological and human health applications. For the purposes of this checklist, it is understood that only the ecological applications are of concern.

impacts to these receptors result in disruption of the ecosystem or other unacceptable consequences for the more mobile or wide-ranging receptors (e.g., impacts to an off-site grassland habitat eliminate rodents which causes a desirable owl population to leave the area).

Ecological risk assessment - The process that evaluates the likelihood that adverse ecological effects may occur or are occurring as a result of exposure to one or more stressors; however, as used in this context, only chemical stressors (i.e., COCs) are evaluated.

Environmental medium - A material found in the natural environment such as soil (including non-waste fill materials), groundwater, air, surface water, and sediments, or a mixture of such materials with liquids, sludges, gases, or solids, including hazardous waste which is inseparable by simple mechanical removal processes, and is made up primarily of natural environmental material.

Exclusion criteria - Those conditions at an affected property which preclude the need to establish a protective concentration level for an ecological exposure pathway because the exposure pathway between the chemical of concern and the ecological receptors is not complete or is insignificant.

Exposure medium - The environmental medium or biologic tissue in which or by which exposure to chemicals of concern by ecological or human receptors occurs.

Facility - The installation associated with the affected property where the release of chemicals of concern occurred.

Functioning cap - A low permeability layer or other approved cover meeting its design specifications to minimize water infiltration and chemical of concern migration, and prevent ecological or human receptor exposure to chemicals of concern, and whose design requirements are routinely maintained.

Landscaped area - An area of ornamental, or introduced, or commercially installed, or manicured vegetation which is routinely maintained.

Off-site property (off-site) - All environmental media which is outside of the legal boundaries of the on-site property.

On-site property (on-site) - All environmental media within the legal boundaries of a property owned or leased by a person who has filed a self-implementation notice or a response action plan for that property or who has become subject to such action through one of the agency's program areas for that property.

Physical barrier - Any structure or system, natural or manmade, that prevents exposure or prevents migration of chemicals of concern to the points of exposure.

Point of exposure - The location within an environmental medium where a receptor will be assumed to have a reasonable potential to come into contact with chemicals of concern. The point of exposure may be a discrete point, plane, or an area within or beyond some location.

Protective concentration level - The concentration of a chemical of concern which can remain within the source medium and not result in levels which exceed the applicable human health risk-based exposure limit or ecological protective concentration level at the point of exposure for that exposure pathway.

Release - Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, with the exception of:

(A) A release that results in an exposure to a person solely within a workplace, concerning a claim that the person may assert against the person's employer;

(B) An emission from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine;

(C) A release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. §2011 et seq.), if the release is subject to requirements concerning financial protection established by the Nuclear Regulatory Commission under §170 of that Act;

(D) For the purposes of the environmental response law §104, as amended, or other response action, a release of source, by-product, or special nuclear material from a processing site designated under §102(a)(1) or §302(a) of the Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. §7912 and §7942), as amended; and

(E) The normal application of fertilizer.

Sediment - Non-suspended particulate material lying below surface waters such as bays, the ocean, rivers, streams, lakes, ponds, or other similar surface water body (including intermittent streams). Dredged sediments which have been removed from below surface water bodies and placed on land shall be considered soils.

Sensitive environmental areas - Areas that provide unique and often protected habitat for wildlife species. These areas are typically used during critical life stages such as breeding, hatching, rearing of young, and overwintering. Examples include critical habitat for threatened and endangered species, wilderness areas, parks, and wildlife refuges.

Source medium - An environmental medium containing chemicals of concern which must be removed, decontaminated and/or controlled in order to protect human health and the environment. The source medium may be the exposure medium for some exposure pathways.

Stressor - Any physical, chemical, or biological entity that can induce an adverse response; however, as used in this context, only chemical entities apply.

Subsurface soil - For human health exposure pathways, the portion of the soil zone between the base of surface soil and the top of the groundwater-bearing unit(s). For ecological exposure pathways, the portion of the soil zone between 0.5 feet and 5 feet in depth.

Surface cover - A layer of artificially placed utility material (e.g., shell, gravel).

Surface soil - For human health exposure pathways, the soil zone extending from ground surface to 15 feet in depth for residential land use and from ground surface to 5 feet in depth for commercial/industrial land use; or to the top of the uppermost groundwater-bearing unit or bedrock, whichever is less in depth. For ecological exposure pathways, the soil zone extending from ground surface to 0.5 feet in depth.

Surface water - Any water meeting the definition of surface water in the state as defined in §307.3 of this title (relating to Abbreviations and Definitions), as amended.

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 of the RIR). 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.

RMU-2: RMU-2 is located in the southeast portion of the Inner Cantonment area. The site lies approximately 600 yards north of the southern CSSA boundary and covers approximately 1.1 acres. Prior to the excavation activities described herein, the area was open and covered by grass. Some low brush, oak, and juniper trees had grown up in areas around the site.

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

Aerial photos of the site and land adjacent to the site are shown on Figure 3 of the RIR. Figure 2 of the RIR shows the general location of RMU-2.

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?	
☐ **NO** – Soil ≤ 5 ft below ground surface	☐ Yes	☐ √No
☐ **NO** – Soil >5 ft below ground surface	☐ Yes	☐ √No
☐ **NO** – Groundwater	☐ Yes	☐ √No
☐ **NO** – Surface Water/Sediments	☐ Yes	☐ √No

Explain (previously submitted information may be referenced):

Based on soil samples collected at RMU-2, there are no VOCs or SVOCs at the sites (see Appendix C of this RIR). Explosive compound concentrations exceeding Tier 1 PCLs at the site were excavated and removed. Metal concentrations exceeding Tier 1 PCLs 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 Tier 1 PCL. There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at RMU-2. Over the past 10 years, there have been samples collected from the closest well to RMU-2 (well CS-MW23-LGR located approximately 2,000 ft west of the site) and analyzed for metals and VOCs since June 2007. Mercury has been detected slightly over the MCL (0.002 mg/kg) on one occasion (June 2007). Since 2007, mercury has only exceeded the RL on one occasion (June 2009) and has not exceeded the MCL since 2007. Given that no mercury was detected above background at RMU-2, it is very unlikely that this site is the source of the mercury detection. No other analytes have exceeded action levels or MCLs. Additionally, since soils found to have concentrations of COCs above their PCLs

were excavated and removed or used to calculate a 95% that does not exceed the Tier 1 PCL, there will be no impact to groundwater, surface water, or sediment from RMU-2.

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 surface water body, **an unnamed tributary that drains to Upper Leon Creek**, is **approximately 670 ft** from the affected property **(west of RMU-2)**. The water body is best described as a:

☐ freshwater stream: _____ perennial (has water all year)

__√__intermittent (dries up completely for at least 1 week a year) **[only has 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; approximate surface 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 ft) 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 RMU-2.

All creeks at CSSA are intermittent and only have water during and immediately following rain events. Refer to Section 3.2.2 of the RIR.

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

The closest perennial surface water body to RMU-2 is an unnamed tributary approximately 670 ft west of the site. The tributary drains to Upper Leon Creek, located approximately 1,700 ft to the south of RMU-2. At this point along the unnamed tributary, the distance to Upper Leon Creek is 2,100 ft.

The nearest classified creek that is downgradient from RMU-2 is Upper Leon Creek. The creek is classified as a perennial stream. Upper Leon Creek is classified under Texas Surface Water Quality Standards as Segment 1907 from a point 330 ft 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 RMU-2.

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 RMU-2. Since soils found to have explosive concentrations above their PCLs were excavated and removed and soils found to have concentrations of metals above their PCLs were excavated and removed or used to calculate a 95% UCL per TAC §350.79(2)(A) that does not exceed the Tier 1 PCL, there will be no impact to groundwater, surface water, or sediment from RMU-2.

The closest surface water body to RMU-2 is an unnamed tributary approximately 670 ft west of the site. This creek, and all other creeks at CSSA, are intermittent and only contain water during and immediately following rain events.

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:

In accordance with conditions set forth in the CSSA Programmatic Biological Opinion (PBO) by the US Fish and Wildlife Service in 2007, CSSA conducts biennial enumeration surveys (occurring every two years) for two special status bird species, the black-capped vireo (*Vireo atricapillus*) and golden-cheeked warbler (*Dendroica chrysoparia*). Based on the survey conducted in 2009, RMU-2 is located in "potential habitat" which is defined "areas with suitable habitat characteristics based on life-history descriptions that appear suitable for occupation by either the black-capped vireo or the golden-cheeked warbler." 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, 2009. *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 2009. 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?

☐ √Yes **See explanation** ☐ No

Explain:

Soils at the site found to have metals concentrations above their PCLs were excavated and removed from the site or used to calculate a 95% UCL per TAC §350.79(2)(A) that does not exceed the Tier 1 PCL. Soils found to have the explosive compounds above their PCLs were also excavated and removed from the site.

There is no evidence of other affected or threatened environmental media (groundwater, surface water, or sediment) at RMU-2. Since soils found to have concentrations of COCs above their PCLs were excavated and removed or used to calculate a 95% UCL, there will be no impact to groundwater, surface water, or sediment in the area.

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 answers to Subparts A and C.**

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, TNRCC 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 15, 2011 *(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)

November 15, 2011 *(Date Signed)*

APPENDIX C

Confirmation Sample Results for All Analytes at RMU-2

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Volatile Organics																																									
	1,1,1,2-Tetrachloroethane CAS: 630-20-6	Qualifier	Dilution	1,1,1-Trichloroethane CAS: 71-55-6	Qualifier	Dilution	1,1,2,2-Tetrachloroethane CAS: 79-34-5	Qualifier	Dilution	1,1,2-Trichloroethane CAS: 79-00-5	Qualifier	Dilution	1,1-Dichloroethane CAS: 75-34-3	Qualifier	Dilution	1,1-Dichloroethene CAS: 75-35-4	Qualifier	Dilution	1,1-Dichloropropene CAS: 563-58-6	Qualifier	Dilution	1,2,3-Trichlorobenzene CAS: 87-61-6	Qualifier	Dilution	1,2,3-Trichloropropane CAS: 96-18-4	Qualifier	Dilution	1,2,4-Trichlorobenzene CAS: 120-82-1	Qualifier	Dilution	1,2,4-Trimethylbenzene CAS: 95-63-6	Qualifier	Dilution	1,2-Dibromo-3-chloropropane CAS: 96-12-8	Qualifier	Dilution	1,2-Dibromoethane (EDB) CAS: 106-93-4	Qualifier	Dilution	1,2-Dichlorobenzene CAS: 95-50-1	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																										
Residential Combined Exposure[1]	3.90E+01	c		3.20E+04	n		3.00E+01	c		1.00E+01	c		8.80E+03	n		1.60E+03	n		2.60E+01	c		8.70E+01	n		2.00E-01	c		7.00E+01	n		7.90E+01	n		8.00E-02	c		4.30E-01	c		3.90E+02	n	
Residential Groundwater Exposure[2]	**7.10E-01**	c		**8.10E-01**	m		**1.20E-02**	c		**1.00E-02**	m		**9.20E+00**	n		**2.50E-02**	m		**6.70E-02**	c		**1.30E+01**	n		**2.70E-04**	c		**2.40E+00**	m		**2.40E+01**	n		**8.70E-04**	m		**1.00E-04**	m		**8.90E+00**	m	
TCEQ-Approved Background Values																																										
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																										
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS14 (02-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS17 (03-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS18 (03-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.00080	M	1	0.00090	M	1	0.00090	M	1	0.00090	M	1	0.0010	U	1	0.0011	M	1	0.0012	M	1	0.0010	M	1	0.0010	M	1	0.0010	M	1	0.0011	M	1	0.0020	M	1	0.0013	M	1	0.0010	M	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0011	U	1	0.0012	U	1	0.0010	U	1	0.0010	U	1	0.0010	U	1	0.0011	U	1	0.0020	U	1	0.0013	U	1	0.0010	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

Volatile Organics

	1,1,1,2-Tetrachloroethane CAS: 630-20-6	Qualifier	Dilution	1,1,1-Trichloroethane CAS: 71-55-6	Qualifier	Dilution	1,1,2,2-Tetrachloroethane CAS: 79-34-5	Qualifier	Dilution	1,1,2-Trichloroethane CAS: 79-00-5	Qualifier	Dilution	1,1-Dichloroethane CAS: 75-34-3	Qualifier	Dilution	1,1-Dichloroethene CAS: 75-35-4	Qualifier	Dilution	1,1-Dichloropropene CAS: 563-58-6	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	3.90E+01	c		3.20E+04	n		3.00E+01	c		1.00E+01	c		8.80E+03	n		1.60E+03	n		2.60E+01	c	
Residential Groundwater Exposure[2]	**7.10E-01**	c		**8.10E-01**	m		**1.20E-02**	c		**1.00E-02**	m		**9.20E+00**	n		**2.50E-02**	m		**6.70E-02**	c	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

	1,2,3-Trichlorobenzene CAS: 87-61-6	Qualifier	Dilution	1,2,3-Trichloropropane CAS: 96-18-4	Qualifier	Dilution	1,2,4-Trichlorobenzene CAS: 120-82-1	Qualifier	Dilution	1,2,4-Trimethylbenzene CAS: 95-63-6	Qualifier	Dilution	1,2-Dibromo-3-chloropropane CAS: 96-12-8	Qualifier	Dilution	1,2-Dibromoethane (EDB) CAS: 106-93-4	Qualifier	Dilution	1,2-Dichlorobenzene CAS: 95-50-1	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	8.70E+01	n		2.00E-01	c		7.00E+01	n		7.90E+01	n		8.00E-02	c		4.30E-01	c		3.90E+02	n	
Residential Groundwater Exposure[2]	**1.30E+01**	n		**2.70E-04**	c		**2.40E+00**	m		**2.40E+01**	n		**8.70E-04**	m		**1.00E-04**	m		**8.90E+00**	m	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

Volatile Organics

	1,2-Dichloroethane CAS: 107-06-2	Qualifier	Dilution	1,2-Dichloropropane CAS: 78-87-5	Qualifier	Dilution	1,3,5-Trimethylbenzene (Mesitylene) CAS: 108-67-8	Qualifier	Dilution	1,3-Dichlorobenzene CAS: 541-73-1	Qualifier	Dilution	1,3-Dichloropropane CAS: 142-28-9	Qualifier	Dilution	1,4-Dichlorobenzene CAS: 106-46-7	Qualifier	Dilution	1-Chlorohexane CAS: 544-10-5	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	6.40E+00	c		3.10E+01	n		5.90E+01	n		6.20E+01	n		2.60E+01	c		2.50E+02	c		2.30E+03	n	
Residential Groundwater Exposure[2]	**6.90E-03**	m		**1.10E-02**	m		**2.70E+01**	n		**3.40E+00**	n		**3.20E-02**	c		**1.10E+00**	m		**2.00E+01**	n	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS14 (02-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS17 (03-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS18 (03-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.0010	U	1	0.00070	M	1	0.0011	M	1	0.0011	M	1	0.00070	M	1	0.00080	M	1	0.00090	M	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.0010	U	1	0.00070	U	1	0.0011	U	1	0.0011	U	1	0.00070	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--		

	2,2-Dichloropropane CAS: 594-20-7	Qualifier	Dilution	2-Chlorotoluene CAS: 95-49-8	Qualifier	Dilution	4-Chlorotoluene CAS: 106-43-4	Qualifier	Dilution	Benzene CAS: 71-43-2	Qualifier	Dilution	Bromobenzene CAS: 108-86-1	Qualifier	Dilution	Bromochloromethane CAS: 74-97-5	Qualifier	Dilution	Bromodichloromethane CAS: 75-27-4	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	3.10E+01	n		1.10E+03	n		1.60E+03	n		6.90E+01	c		2.80E+02	n		3.30E+03	n		9.80E+01	c	
Residential Groundwater Exposure[2]	**6.00E-02**	c		**4.50E+00**	n		**5.40E+00**	n		**1.30E-02**	m		**1.20E+00**	n		**1.50E+00**	n		**3.30E-02**	c	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS14 (02-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS17 (03-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS18 (03-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.0010	U	1	0.0013	M	1	0.0011	M	1	0.00090	M	1	0.00090	M	1	0.00080	M	1	0.00090	M	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.0010	U	1	0.0013	U	1	0.0011	U	1	0.00090	U	1	0.00090	U	1	0.00080	U	1	0.00090	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Volatile Organics																				
	1,2-Dichloroethane CAS: 107-06-2	Qualifier	Dilution	1,2-Dichloropropane CAS: 78-87-5	Qualifier	Dilution	1,3,5-Trimethylbenzene (Mesitylene) CAS: 108-67-8	Qualifier	Dilution	1,3-Dichlorobenzene CAS: 541-73-1	Qualifier	Dilution	1,3-Dichloropropane CAS: 142-28-9	Qualifier	Dilution	1,4-Dichlorobenzene CAS: 106-46-7	Qualifier	Dilution	1-Chlorohexane CAS: 544-10-5	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	6.40E+00	c		3.10E+01	n		5.90E+01	n		6.20E+01	n		2.60E+01	c		2.50E+02	c		2.30E+03	n	
Residential Groundwater Exposure[2]	**6.90E-03**	m		**1.10E-02**	m		**2.70E+01**	n		**3.40E+00**	n		**3.20E-02**	c		**1.10E+00**	m		**2.00E+01**	n	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

	Volatile Organics																				
	2,2-Dichloropropane CAS: 594-20-7	Qualifier	Dilution	2-Chlorotoluene CAS: 95-49-8	Qualifier	Dilution	4-Chlorotoluene CAS: 106-43-4	Qualifier	Dilution	Benzene CAS: 71-43-2	Qualifier	Dilution	Bromobenzene CAS: 108-86-1	Qualifier	Dilution	Bromochloromethane CAS: 74-97-5	Qualifier	Dilution	Bromodichloromethane CAS: 75-27-4	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	3.10E+01	n		1.10E+03	n		1.60E+03	n		6.90E+01	c		2.80E+02	n		3.30E+03	n		9.80E+01	c	
Residential Groundwater Exposure[2]	**6.00E-02**	c		**4.50E+00**	n		**5.40E+00**	n		**1.30E-02**	m		**1.20E+00**	n		**1.50E+00**	n		**3.30E-02**	c	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Volatile Organics																																									
	Bromoform CAS: 75-25-2	Qualifier	Dilution	Bromomethane CAS: 74-83-9	Qualifier	Dilution	Carbon tetrachloride CAS: 56-23-5	Qualifier	Dilution	Chlorobenzene CAS: 108-90-7	Qualifier	Dilution	Chloroethane CAS: 75-00-3	Qualifier	Dilution	Chloroform CAS: 67-66-3	Qualifier	Dilution	Chloromethane CAS: 74-87-3	Qualifier	Dilution	cis-1,2-Dichloroethene CAS: 156-59-2	Qualifier	Dilution	cis-1,3-Dichloropropene CAS: 10061-01-5	Qualifier	Dilution	Dibromochloromethane CAS: 124-48-1	Qualifier	Dilution	Dibromomethane CAS: 74-95-3	Qualifier	Dilution	Dichlorodifluoromethane CAS: 75-71-8	Qualifier	Dilution	Ethylbenzene CAS: 100-41-4	Qualifier	Dilution	Hexachlorobutadiene CAS: 87-68-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																										
Residential Combined Exposure[1]	2.80E+02	c		2.90E+01	n		2.30E+01	c		3.20E+02	n		2.30E+04	n		8.00E+00	c		8.40E+01	c		1.20E+02	n		7.80E+00	n		7.20E+01	c		4.20E+01	n		7.50E+02	n		5.30E+03	n		1.20E+01	c	
Residential Groundwater Exposure[2]	**3.20E-01**	c		**6.50E-02**	n		**3.10E-02**	m		**5.50E-01**	m		**1.50E+01**	n		**5.10E-01**	n		**2.00E-01**	c		**1.20E-01**	m		**3.30E-03**	c		**2.50E-02**	c		**5.60E-01**	c		**1.20E+02**	n		**3.80E+00**	m		**1.60E+00**	c	
TCEQ-Approved Background Values																																										
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																										
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS14 (02-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS17 (03-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS18 (03-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.0011	M	1	0.00070	M	1	0.0010	M	1	0.00070	M	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	M	1	0.00090	M	1	0.00090	M	1	0.0010	U	1	0.0018	M	1	0.0010	M	1	0.0011	M	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.0011	U	1	0.00070	U	1	0.0010	U	1	0.00070	U	1	0.0015	U	1	0.00070	U	1	0.0015	U	1	0.00080	U	1	0.00090	U	1	0.00090	U	1	0.0010	U	1	0.0018	U	1	0.0010	U	1	0.0011	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Volatile Organics																				
	Bromoform CAS: 75-25-2	Qualifier	Dilution	Bromomethane CAS: 74-83-9	Qualifier	Dilution	Carbon tetrachloride CAS: 56-23-5	Qualifier	Dilution	Chlorobenzene CAS: 108-90-7	Qualifier	Dilution	Chloroethane CAS: 75-00-3	Qualifier	Dilution	Chloroform CAS: 67-66-3	Qualifier	Dilution	Chloromethane CAS: 74-87-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	2.80E+02	c		2.90E+01	n		2.30E+01	c		3.20E+02	n		2.30E+04	n		8.00E+00	c		8.40E+01	c	
Residential Groundwater Exposure[2]	**3.20E-01**	c		**6.50E-02**	n		**3.10E-02**	m		**5.50E-01**	m		**1.50E+01**	n		**5.10E-01**	n		**2.00E-01**	c	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

	Volatile Organics																				
	cis-1,2-Dichloroethene CAS: 156-59-2	Qualifier	Dilution	cis-1,3-Dichloropropene CAS: 10061-01-5	Qualifier	Dilution	Dibromochloromethane CAS: 124-48-1	Qualifier	Dilution	Dibromomethane CAS: 74-95-3	Qualifier	Dilution	Dichlorodifluoromethane CAS: 75-71-8	Qualifier	Dilution	Ethylbenzene CAS: 100-41-4	Qualifier	Dilution	Hexachlorobutadiene CAS: 87-68-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	1.20E+02	n		7.80E+00	n		7.20E+01	c		4.20E+01	n		7.50E+02	n		5.30E+03	n		1.20E+01	c	
Residential Groundwater Exposure[2]	**1.20E-01**	m		**3.30E-03**	c		**2.50E-02**	c		**5.60E-01**	c		**1.20E+02**	n		**3.80E+00**	m		**1.60E+00**	c	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Volatile Organics																																									
	Isopropylbenzene CAS: 98-82-8	Qualifier	Dilution	m,p-Xylene CAS: 179601-23-1	Qualifier	Dilution	Methylene chloride CAS: 75-09-2	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	n-Butylbenzene CAS: 104-51-8	Qualifier	Dilution	n-Propylbenzene CAS: 103-65-1	Qualifier	Dilution	o-Xylene CAS: 95-47-6	Qualifier	Dilution	p-Cymene (p-Isopropyltoluene) CAS: 99-87-6	Qualifier	Dilution	sec-Butylbenzene CAS: 135-98-8	Qualifier	Dilution	Styrene CAS: 100-42-5	Qualifier	Dilution	tert-Butylbenzene CAS: 98-06-6	Qualifier	Dilution	Tetrachloroethene (PCE) CAS: 127-18-4	Qualifier	Dilution	Toluene CAS: 108-88-3	Qualifier	Dilution	trans-1,2-Dichloroethene CAS: 156-60-5	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																										
Residential Combined Exposure[1]	3.00E+03	n		na			2.60E+02	c		1.20E+02	n		3.30E+03	n		1.60E+03	n		2.90E+04	n		8.20E+03	n		3.30E+03	n		4.30E+03	n		3.30E+03	n		9.40E+01	c		5.40E+03	n		3.70E+02	n	
Residential Groundwater Exposure[2]	**1.70E+02**	n		na			**6.50E-03**	m		**1.60E+01**	n		**7.60E+01**	n		**2.20E+01**	n		**3.50E+01**	m		**1.20E+02**	n		**4.20E+01**	n		**1.60E+00**	m		**5.00E+01**	n		**2.50E-02**	m		**4.10E+00**	m		**2.50E-01**	m	
TCEQ-Approved Background Values																																										
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																										
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS14 (02-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS17 (03-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS18 (03-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.0010	M	1	0.0018	M	1	0.0013	M	1	0.0010	M	1	0.0010	M	1	0.0012	M	1	0.00070	M	1	0.0012	M	1	0.0011	M	1	0.00090	M	1	0.0012	M	1	0.00080	M	1	0.0010	M	1	0.00080	U	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.0010	U	1	0.0018	U	1	0.0013	U	1	0.0010	U	1	0.0010	U	1	0.0012	U	1	0.00070	U	1	0.0012	U	1	0.0011	U	1	0.00090	U	1	0.0012	U	1	0.00080	U	1	0.0010	U	1	0.00080	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Volatile Organics																																									
	Isopropylbenzene CAS: 98-82-8	Qualifier	Dilution	m,p-Xylene CAS: 179601-23-1	Qualifier	Dilution	Methylene chloride CAS: 75-09-2	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	n-Butylbenzene CAS: 104-51-8	Qualifier	Dilution	n-Propylbenzene CAS: 103-65-1	Qualifier	Dilution	o-Xylene CAS: 95-47-6	Qualifier	Dilution	p-Cymene (p-Isopropyltoluene) CAS: 99-87-6	Qualifier	Dilution	sec-Butylbenzene CAS: 135-98-8	Qualifier	Dilution	Styrene CAS: 100-42-5	Qualifier	Dilution	tert-Butylbenzene CAS: 98-06-6	Qualifier	Dilution	Tetrachloroethene (PCE) CAS: 127-18-4	Qualifier	Dilution	Toluene CAS: 108-88-3	Qualifier	Dilution	trans-1,2-Dichloroethene CAS: 156-60-5	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																																										
Residential Combined Exposure[1]	3.00E+03	n		na			2.60E+02	c		1.20E+02	n		3.30E+03	n		1.60E+03	n		2.90E+04	n		8.20E+03	n		3.30E+03	n		4.30E+03	n		3.30E+03	n		9.40E+01	c		5.40E+03	n		3.70E+02	n	
Residential Groundwater Exposure[2]	**1.70E+02**	n		na			**6.50E-03**	m		**1.60E+01**	n		**7.60E+01**	n		**2.20E+01**	n		**3.50E+01**	m		**1.20E+02**	n		**4.20E+01**	n		**1.60E+00**	m		**5.00E+01**	n		**2.50E-02**	m		**4.10E+00**	m		**2.50E-01**	m	
TCEQ-Approved Background Values																																										
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																										
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Volatile Organics												Semi-Volatile Organics																													
	trans-1,3-Dichloropropene CAS: 10061-02-6	*Qualifier*	*Dilution*	*Trichloroethene (TCE) CAS: 79-01-6*	*Qualifier*	*Dilution*	*Trichlorofluoromethane CAS: 75-69-4*	*Qualifier*	*Dilution*	*Vinyl chloride CAS: 75-01-4*	*Qualifier*	*Dilution*	*1,2,4-Trichlorobenzene CAS: 120-82-1*	*Qualifier*	*Dilution*	*1,2-Dichlorobenzene CAS: 95-50-1*	*Qualifier*	*Dilution*	*1,3-Dichlorobenzene CAS: 541-73-1*	*Qualifier*	*Dilution*	*1,4-Dichlorobenzene CAS: 106-46-7*	*Qualifier*	*Dilution*	*2,4,5-Trichlorophenol CAS: 95-95-4*	*Qualifier*	*Dilution*	*2,4,6-Trichlorophenol CAS: 88-06-2*	*Qualifier*	*Dilution*	*2,4-Dichlorophenol CAS: 120-83-2*	*Qualifier*	*Dilution*	*2,4-Dimethylphenol CAS: 105-67-9*	*Qualifier*	*Dilution*	*2,4-Dinitrophenol CAS: 51-28-5*	*Qualifier*	*Dilution*	*2,4-Dinitrotoluene CAS: 121-14-2*	*Qualifier*	*Dilution*
Tier 1 Soil PCLs - 30 acre†																																										
Residential Combined Exposure[1]	2.60E+01	c		6.80E+01	n		2.50E+04	n		3.40E+00	c		7.00E+01	n		3.90E+02	n		6.20E+01	n		2.50E+02	c		6.70E+03	n		6.70E+01	n		2.00E+02	n		1.30E+03	n		1.30E+02	n		6.90E+00	c	
Residential Groundwater Exposure[2]	**1.80E-02**	c		**1.70E-02**	m		**6.40E+01**	n		**1.10E-02**	m		**2.40E+00**	m		**8.90E+00**	m		**3.40E+00**	n		**1.10E+00**	m		**1.70E+01**	n		**8.70E-02**	n		**1.80E-01**	n		**1.60E+00**	n		**4.70E-02**	n		**2.70E-03**	c	
TCEQ-Approved Background Values																																										
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																										
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS14 (02-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS17 (03-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS18 (03-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.00090	M	1	0.0012	M	1	0.0013	M	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.00090	U	1	0.0012	U	1	0.0013	U	1	0.0013	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.080	U	1	0.030	U	1	0.050	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Volatile Organics														
	trans-1,3-Dichloropropene CAS: 10061-02-6	Qualifier	Dilution	Trichloroethene (TCE) CAS: 79-01-6	Qualifier	Dilution	Trichlorofluoromethane CAS: 75-69-4	Qualifier	Dilution	Vinyl chloride CAS: 75-01-4	Qualifier	Dilution	1,2,4-Trichlorobenzene CAS: 120-82-1	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†															
Residential Combined Exposure[1]	2.60E+01	c		6.80E+01	n		2.50E+04	n		3.40E+00	c		7.00E+01	n	
Residential Groundwater Exposure[2]	**1.80E-02**	c		**1.70E-02**	m		**6.40E+01**	n		**1.10E-02**	m		**2.40E+00**	m	
TCEQ-Approved Background Values															
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na		
Sample Locations (Date Collected)															
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--		

	Semi-Volatile Organics																										
	1,2-Dichlorobenzene CAS: 95-50-1	Qualifier	Dilution	1,3-Dichlorobenzene CAS: 541-73-1	Qualifier	Dilution	1,4-Dichlorobenzene CAS: 106-46-7	Qualifier	Dilution	2,4,5-Trichlorophenol CAS: 95-95-4	Qualifier	Dilution	2,4,6-Trichlorophenol CAS: 88-06-2	Qualifier	Dilution	2,4-Dichlorophenol CAS: 120-83-2	Qualifier	Dilution	2,4-Dimethylphenol CAS: 105-67-9	Qualifier	Dilution	2,4-Dinitrophenol CAS: 51-28-5	Qualifier	Dilution	2,4-Dinitrotoluene CAS: 121-14-2	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																											
Residential Combined Exposure[1]	3.90E+02	n		6.20E+01	n		2.50E+02	c		6.70E+03	n		6.70E+01	n		2.00E+02	n		1.30E+03	n		1.30E+02	n		6.90E+00	c	
Residential Groundwater Exposure[2]	**8.90E+00**	m		**3.40E+00**	n		**1.10E+00**	m		**1.70E+01**	n		**8.70E-02**	n		**1.80E-01**	n		**1.60E+00**	n		**4.70E-02**	n		**2.70E-03**	c	
TCEQ-Approved Background Values																											
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																											
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Semi-Volatile Organics																																						
	2,6-Dinitrotoluene CAS: 606-20-2	Qualifier	Dilution	2-Chloronaphthalene CAS: 91-58-7	Qualifier	Dilution	2-Chlorophenol CAS: 95-57-8	Qualifier	Dilution	2-Methyl-4,6-dinitrophenol CAS: 534-52-1	Qualifier	Dilution	2-Methylnaphthalene CAS: 91-57-6	Qualifier	Dilution	2-Methylphenol CAS: 95-48-7	Qualifier	Dilution	2-Nitroaniline CAS: 88-74-4	Qualifier	Dilution	2-Nitrophenol CAS: 88-75-5	Qualifier	Dilution	3,3'-Dichlorobenzidine CAS: 91-94-1	Qualifier	Dilution	3-Nitroaniline CAS: 99-09-2	Qualifier	Dilution	4-Bromophenyl phenyl ether CAS: 101-55-3	Qualifier	Dilution	4-Chloro-3-methyl phenol CAS: 59-50-7	Qualifier	Dilution	4-Chloroaniline CAS: 106-47-8	Qualifier	Dilution	4-Chlorophenyl phenyl ether CAS: 7005-72-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																																							
Residential Combined Exposure[1]	6.90E+00	c		5.00E+03	n		4.10E+02	n		6.70E+00	n		2.50E+02	n		3.30E+03	n		1.10E+01	n		1.30E+02	n		1.00E+01	c		1.20E+01	n		2.70E-01	c		3.30E+02	n		2.30E+01	c		1.50E-01	c	
Residential Groundwater Exposure[2]	**2.40E-03**	c		**3.30E+02**	n		**8.20E-01**	n		**2.30E-03**	n		**8.50E+00**	n		**3.60E+00**	n		**1.10E-02**	n		**6.70E-02**	n		**3.10E-02**	c		**1.30E-02**	n		**1.80E-01**	c		**2.30E+00**	n		**1.00E-02**	c		**1.60E-02**	c	
TCEQ-Approved Background Values																																							
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																							
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS14 (02-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS17 (03-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS18 (03-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.040	U	1	0.040	U	1	0.030	U	1	0.030	U	1	0.050	U	1	0.020	U	1	0.040	U	1	0.040	U	1	0.020	U	1	0.010	U	1	0.050	U	1	0.040	U	1	0.040	U	1	0.040	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

Semi-Volatile Organics

	2,6-Dinitrotoluene CAS: 606-20-2	Qualifier	Dilution	2-Chloronaphthalene CAS: 91-58-7	Qualifier	Dilution	2-Chlorophenol CAS: 95-57-8	Qualifier	Dilution	2-Methyl-4,6-dinitrophenol CAS: 534-52-1	Qualifier	Dilution	2-Methylnaphthalene CAS: 91-57-6	Qualifier	Dilution	2-Methylphenol CAS: 95-48-7	Qualifier	Dilution	2-Nitroaniline CAS: 88-74-4	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	6.90E+00	c		5.00E+03	n		4.10E+02	n		6.70E+00	n		2.50E+02	n		3.30E+03	n		1.10E+01	n	
Residential Groundwater Exposure[2]	**2.40E-03**	c		**3.30E+02**	n		**8.20E-01**	n		**2.30E-03**	n		**8.50E+00**	n		**3.60E+00**	n		**1.10E-02**	n	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

	2-Nitrophenol CAS: 88-75-5	Qualifier	Dilution	3,3'-Dichlorobenzidine CAS: 91-94-1	Qualifier	Dilution	3-Nitroaniline CAS: 99-09-2	Qualifier	Dilution	4-Bromophenyl phenyl ether CAS: 101-55-3	Qualifier	Dilution	4-Chloro-3-methyl phenol CAS: 59-50-7	Qualifier	Dilution	4-Chloroaniline CAS: 106-47-8	Qualifier	Dilution	4-Chlorophenyl phenyl ether CAS: 7005-72-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	1.30E+02	n		1.00E+01	c		1.20E+01	n		2.70E-01	c		3.30E+02	n		2.30E+01	c		1.50E-01	c	
Residential Groundwater Exposure[2]	**6.70E-02**	n		**3.10E-02**	c		**1.30E-02**	n		**1.80E-01**	c		**2.30E+00**	n		**1.00E-02**	c		**1.60E-02**	c	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Semi-Volatile Organics																																									
	4-Methylphenol (p-cresol) CAS: 106-44-5	Qualifier	Dilution	4-Nitroaniline CAS: 100-01-6	Qualifier	Dilution	4-Nitrophenol CAS: 100-02-7	Qualifier	Dilution	Acenaphthene CAS: 83-32-9	Qualifier	Dilution	Acenaphthylene CAS: 208-96-8	Qualifier	Dilution	Anthracene CAS: 120-12-7	Qualifier	Dilution	Benzo(a)anthracene CAS: 56-55-3	Qualifier	Dilution	Benzo(a)pyrene CAS: 50-32-8	Qualifier	Dilution	Benzo(b)fluoranthene CAS: 205-99-2	Qualifier	Dilution	Benzo(g,h,i)perylene CAS: 191-24-2	Qualifier	Dilution	Benzoic acid CAS: 65-85-0	Qualifier	Dilution	Benzyl alcohol CAS: 100-51-6	Qualifier	Dilution	Benzyl butyl phthalate CAS: 85-68-7	Qualifier	Dilution	bis(2-Chloroethoxy)methane CAS: 111-91-1	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																										
Residential Combined Exposure[1]	3.30E+02	n		1.90E+02	n		1.30E+02	n		3.00E+03	n		3.80E+03	n		1.80E+04	n		**5.60E+00**	c		**5.60E-01**	c		**5.70E+00**	c		**1.80E+03**	n		2.70E+05	n		6.70E+03	n		1.60E+03	c		2.50E+00	c	
Residential Groundwater Exposure[2]	**3.20E-01**	n		**5.40E-02**	c		**5.00E-02**	n		**1.20E+02**	n		**2.00E+02**	n		**3.40E+03**	n	>S	8.90E+00	c		3.80E+00	m		3.00E+01	c		2.30E+04	n	>S	**9.50E+01**	n		**2.90E+00**	n		**1.30E+02**	c		**5.90E-03**	c	
TCEQ-Approved Background Values																																										
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																										
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS14 (02-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS17 (03-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	**0.090**	F	1	**0.13**	F	1	**0.25**	F	1	**0.12**	F	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS18 (03-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	M	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1	0.040	U	1	0.020	U	1	0.12	U	1	0.040	U	1	0.060	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

Semi-Volatile Organics

	4-Methylphenol (p-cresol) CAS: 106-44-5	Qualifier	Dilution	4-Nitroaniline CAS: 100-01-6	Qualifier	Dilution	4-Nitrophenol CAS: 100-02-7	Qualifier	Dilution	Acenaphthene CAS: 83-32-9	Qualifier	Dilution	Acenaphthylene CAS: 208-96-8	Qualifier	Dilution	Anthracene CAS: 120-12-7	Qualifier	Dilution	Benzo(a)anthracene CAS: 56-55-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	3.30E+02	n		1.90E+02	n		1.30E+02	n		3.00E+03	n		3.80E+03	n		1.80E+04	n		**5.60E+00**	c	
Residential Groundwater Exposure[2]	**3.20E-01**	n		**5.40E-02**	c		**5.00E-02**	n		**1.20E+02**	n		**2.00E+02**	n		**3.40E+03**	n	>S	8.90E+00	c	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

	Benzo(a)pyrene CAS: 50-32-8	Qualifier	Dilution	Benzo(b)fluoranthene CAS: 205-99-2	Qualifier	Dilution	Benzo(g,h,i)perylene CAS: 191-24-2	Qualifier	Dilution	Benzoic acid CAS: 65-85-0	Qualifier	Dilution	Benzyl alcohol CAS: 100-51-6	Qualifier	Dilution	Benzyl butyl phthalate CAS: 85-68-7	Qualifier	Dilution	bis(2-Chloroethoxy)methane CAS: 111-91-1	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																					
Residential Combined Exposure[1]	**5.60E-01**	c		**5.70E+00**	c		**1.80E+03**	n		2.70E+05	n		6.70E+03	n		1.60E+03	c		2.50E+00	c	
Residential Groundwater Exposure[2]	3.80E+00	m		3.00E+01	c		2.30E+04	n	>S	**9.50E+01**	n		**2.90E+00**	n		**1.30E+02**	c		**5.90E-03**	c	
TCEQ-Approved Background Values																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na		
Sample Locations (Date Collected)																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Semi-Volatile Organics																																									
	bis(2-Chloroethyl)ether CAS: 111-44-4	Qualifier	Dilution	bis(2-Chloroisopropyl)ether CAS: 108-60-1	Qualifier	Dilution	bis(2-Ethylhexyl) phthalate CAS: 117-81-7	Qualifier	Dilution	Chrysene CAS: 218-01-9	Qualifier	Dilution	Dibenzo(a,h)anthracene CAS: 53-70-3	Qualifier	Dilution	Dibenzofuran CAS: 132-64-9	Qualifier	Dilution	Diethyl phthalate CAS: 84-66-2	Qualifier	Dilution	Dimethyl phthalate CAS: 131-11-3	Qualifier	Dilution	Di-n-butyl phthalate CAS: 84-74-2	Qualifier	Dilution	Di-n-octyl phthalate CAS: 117-84-0	Qualifier	Dilution	Fluoranthene CAS: 206-44-0	Qualifier	Dilution	Fluorene CAS: 86-73-7	Qualifier	Dilution	Hexachlorobenzene CAS: 118-74-1	Qualifier	Dilution	Hexachlorobutadiene CAS: 87-68-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																																										
Residential Combined Exposure[1]	1.40E+00	c		4.10E+01	c		**4.30E+01**	c		**5.60E+02**	c		**5.50E-01**	c		2.70E+02	n		5.30E+04	n		5.30E+04	n		6.20E+03	n		**2.60E+03**	n		2.30E+03	n		2.30E+03	n		1.00E+00	c		1.20E+01	c	
Residential Groundwater Exposure[2]	**1.10E-03**	c		**9.50E-02**	c		8.20E+01	m		7.70E+02	c	>S	7.60E+00	c		**1.70E+01**	n		**7.80E+01**	n		**3.10E+01**	n		**1.70E+03**	n		1.00E+06	n	>S	**9.60E+02**	n	>S	**1.50E+02**	n		**5.60E-01**	m		**1.60E+00**	c	
TCEQ-Approved Background Values																																										
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																										
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS09 (01-Jun-2011)	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS13 (02-Jun-2011)	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS14 (02-Jun-2011)	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS16 (02-Jun-2011)	0.040	U	1	0.050	U	1	**0.080**	F	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS17 (03-Jun-2011)	0.040	U	1	0.050	U	1	0.030	U	1	**0.12**	F	1	**0.070**	F	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	**0.21**	F	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS18 (03-Jun-2011)	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS21 (06-Jun-2011)	0.040	U	1	0.050	U	1	**0.13**	F	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS23 (06-Jun-2011)	0.040	U	1	0.050	U	1	**0.11**	F	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.060	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Semi-Volatile Organics														
	bis(2-Chloroethyl)ether CAS: 111-44-4	Qualifier	Dilution	bis(2-Chloroisopropyl)ether CAS: 108-60-1	Qualifier	Dilution	bis(2-Ethylhexyl) phthalate CAS: 117-81-7	Qualifier	Dilution	Chrysene CAS: 218-01-9	Qualifier	Dilution	Dibenzo(a,h)anthracene CAS: 53-70-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†															
Residential Combined Exposure[1]	1.40E+00	c		4.10E+01	c		**4.30E+01**	c		**5.60E+02**	c		**5.50E-01**	c	
Residential Groundwater Exposure[2]	**1.10E-03**	c		**9.50E-02**	c		8.20E+01	m		7.70E+02	c	>S	7.60E+00	c	
TCEQ-Approved Background Values															
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na		
Sample Locations (Date Collected)															
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--		

	Semi-Volatile Organics														
	Dibenzofuran CAS: 132-64-9	Qualifier	Dilution	Diethyl phthalate CAS: 84-66-2	Qualifier	Dilution	Dimethyl phthalate CAS: 131-11-3	Qualifier	Dilution	Di-n-butyl phthalate CAS: 84-74-2	Qualifier	Dilution	Di-n-octyl phthalate CAS: 117-84-0	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†															
Residential Combined Exposure[1]	2.70E+02	n		5.30E+04	n		5.30E+04	n		6.20E+03	n		**2.60E+03**	n	
Residential Groundwater Exposure[2]	**1.70E+01**	n		**7.80E+01**	n		**3.10E+01**	n		**1.70E+03**	n		1.00E+06	n	>S
TCEQ-Approved Background Values															
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na		
Sample Locations (Date Collected)															
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--		
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--		
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--		

	Semi-Volatile Organics														
	Fluoranthene CAS: 206-44-0	Qualifier	Dilution	Fluorene CAS: 86-73-7	Qualifier	Dilution	Hexachlorobenzene CAS: 118-74-1	Qualifier	Dilution	Hexachlorobutadiene CAS: 87-68-3	Qualifier	Dilution			
Tier 1 Soil PCLs - 30 acre†															
Residential Combined Exposure[1]	2.30E+03	n		2.30E+03	n		1.00E+00	c		1.20E+01	c				
Residential Groundwater Exposure[2]	**9.60E+02**	n	>S	**1.50E+02**	n		**5.60E-01**	m		**1.60E+00**	c				
TCEQ-Approved Background Values															
CSSA 9 Metals Background Concentration[3]	na			na			na			na					
Sample Locations (Date Collected)															
RMU2-SS37 (08-Jun-2011)	--			--			--			--					
RMU2-SS38 (08-Jun-2011)	--			--			--			--					
RMU2-SS39 (08-Jun-2011)	--			--			--			--					
RMU2-SS40 (08-Jun-2011)	--			--			--			--					
RMU2-SS41 (08-Jun-2011)	--			--			--			--					
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--					
RMU2-SS42 (08-Jun-2011)	--			--			--			--					
RMU2-SS43 (08-Jun-2011)	--			--			--			--					
RMU2-SS44 (08-Jun-2011)	--			--			--			--					
RMU2-SS45 (08-Jun-2011)	--			--			--			--					
RMU2-SS46 (08-Jun-2011)	--			--			--			--					
RMU2-SS47 (16-Jun-2011)	--			--			--			--					
RMU2-SS48 (16-Jun-2011)	--			--			--			--					
RMU2-SS49 (16-Jun-2011)	--			--			--			--					
RMU2-SS50 (16-Jun-2011)	--			--			--			--					
RMU2-SS51 (16-Jun-2011)	--			--			--			--					
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--					
RMU2-SS52 (16-Jun-2011)	--			--			--			--					
RMU2-SS53 (16-Jun-2011)	--			--			--			--					
RMU2-SS54 (16-Jun-2011)	--			--			--			--					
RMU2-SS55 (16-Jun-2011)	--			--			--			--					
RMU2-SS56 (16-Jun-2011)	--			--			--			--					
RMU2-SS57 (10-Aug-2011)	--			--			--			--					
RMU2-SS58 (10-Aug-2011)	--			--			--			--					
RMU2-SS59 (10-Aug-2011)	--			--			--			--					
RMU2-SS60 (10-Aug-2011)	--			--			--			--					
RMU2-SS61 (10-Aug-2011)	--			--			--			--					
RMU2-SS62 (10-Aug-2011)	--			--			--			--					
RMU2-SS63 (10-Aug-2011)	--			--			--			--					
RMU2-SS64 (16-Aug-2011)	--			--			--			--					
RMU2-SS65 (16-Aug-2011)	--			--			--			--					
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--					
RMU2-SS66 (16-Aug-2011)	--			--			--			--					
RMU2-SS67 (16-Aug-2011)	--			--			--			--					
RMU2-SS68 (16-Aug-2011)	--			--			--			--					
RMU2-SS69 (31-Aug-2011)	--			--			--			--					
RMU2-SS70 (31-Aug-2011)	--			--			--			--					
RMU2-SS71 (31-Aug-2011)	--			--			--			--					
RMU2-SS72 (30-Aug-2011)	--			--			--			--					
RMU2-SS73 (30-Aug-2011)	--			--			--			--					
RMU2-SS74 (30-Aug-2011)	--			--			--			--					
RMU2-SS75 (13-Sep-2011)	--			--			--			--					
RMU2-SS76 (13-Sep-2011)	--			--			--			--					

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Semi-Volatile Organics																																		Explosives					
	Hexachlorocyclopentadiene CAS: 77-47-4	Qualifier	Dilution	Hexachloroethane CAS: 67-72-1	Qualifier	Dilution	Indeno(1,2,3-cd)pyrene CAS: 193-39-5	Qualifier	Dilution	Isophorone CAS: 78-59-1	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	Nitrobenzene CAS: 98-95-3	Qualifier	Dilution	n-Nitrosodi-n-propylamine CAS: 621-64-7	Qualifier	Dilution	n-Nitrosodiphenylamine CAS: 86-30-6	Qualifier	Dilution	Pentachlorophenol CAS: 87-86-5	Qualifier	Dilution	Phenanthrene CAS: 85-01-8	Qualifier	Dilution	Phenol CAS: 108-95-2	Qualifier	Dilution	Pyrene CAS: 129-00-0	Qualifier	Dilution	1,3,5-Trinitrobenzene CAS: 99-35-4	Qualifier	Dilution	1,3-Dinitrobenzene CAS: 99-65-0	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																																								
Residential Combined Exposure[1]	**7.20E+00**	n		6.70E+01	n		**5.70E+00**	c		4.90E+03	c		1.20E+02	n		3.40E+01	c		4.00E-01	c		5.70E+02	c		7.30E-01	c		1.70E+03	n		2.00E+04	n		1.70E+03	n		2.00E+03	n		6.70E+00	n	
Residential Groundwater Exposure[2]	9.60E+00	m		**9.20E-01**	n		8.70E+01	c		**1.50E+00**	c		**1.60E+01**	n		**1.80E-01**	n		**1.80E-04**	c		**1.40E+00**	c		**9.20E-03**	m		**2.10E+02**	n		**9.60E+00**	n		**5.60E+02**	n	>S	**9.10E-01**	n		**3.80E-03**	n	
TCEQ-Approved Background Values																																								
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																								
RMU2-BOT01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-BOT02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-BOT03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS02 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS03 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS04 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS05 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS06 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS07 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS07-DUP (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS08 (01-Mar-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS09 (01-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS10 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS12 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS13 (02-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS14 (02-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS15 (02-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS16 (02-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS17 (03-Jun-2011)	0.030	U	1	0.040	U	1	**0.15**	F	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	**0.080**	F	1	0.040	U	1	**0.19**	F	1	0.075	U	1	0.075	U	1
RMU2-SS18 (03-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS19 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS20 (03-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS21 (06-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	M	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS22 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS23 (06-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.030	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.040	U	1	0.050	U	1	0.030	U	1	0.040	U	1	0.040	U	1	0.050	U	1	0.075	U	1	0.075	U	1
RMU2-SS24 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS25 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS26 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS27 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS28 (06-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS29 (07-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS30 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS31 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS31-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Semi-Volatile Organics																																				Explosives					
	Hexachlorocyclopentadiene CAS: 77-47-4	Qualifier	Dilution	Hexachloroethane CAS: 67-72-1	Qualifier	Dilution	Indeno(1,2,3-cd)pyrene CAS: 193-39-5	Qualifier	Dilution	Isophorone CAS: 78-59-1	Qualifier	Dilution	Naphthalene CAS: 91-20-3	Qualifier	Dilution	Nitrobenzene CAS: 98-95-3	Qualifier	Dilution	n-Nitrosodi-n-propylamine CAS: 621-64-7	Qualifier	Dilution	n-Nitrosodiphenylamine CAS: 86-30-6	Qualifier	Dilution	Pentachlorophenol CAS: 87-86-5	Qualifier	Dilution	Phenanthrene CAS: 85-01-8	Qualifier	Dilution	Phenol CAS: 108-95-2	Qualifier	Dilution	Pyrene CAS: 129-00-0	Qualifier	Dilution	1,3,5-Trinitrobenzene CAS: 99-35-4	Qualifier	Dilution	1,3-Dinitrobenzene CAS: 99-65-0	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																																										
Residential Combined Exposure[1]	**7.20E+00**	n		6.70E+01	n		**5.70E+00**	c		4.90E+03	c		1.20E+02	n		3.40E+01	c		4.00E-01	c		5.70E+02	c		7.30E-01	c		1.70E+03	n		2.00E+04	n		1.70E+03	n		2.00E+03	n		6.70E+00	n	
Residential Groundwater Exposure[2]	9.60E+00	m		**9.20E-01**	n		8.70E+01	c		**1.50E+00**	c		**1.60E+01**	n		**1.80E-01**	n		**1.80E-04**	c		**1.40E+00**	c		**9.20E-03**	m		**2.10E+02**	n		**9.60E+00**	n		**5.60E+02**	n	>S	**9.10E-01**	n		**3.80E-03**	n	
TCEQ-Approved Background Values																																										
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																																										
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS64 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS65 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS65-DUP (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS66 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS67 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS68 (16-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS69 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			0.075	U	1	0.075	U	1
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

Explosives

	2,4,6-Trinitrotoluene (TNT) CAS: 118-96-7	Qualifier	Dilution	2,4-Dinitrotoluene CAS: 121-14-2	Qualifier	Dilution	2,6-Dinitrotoluene CAS: 606-20-2	Qualifier	Dilution	2-Nitrotoluene CAS: 88-72-2	Qualifier	Dilution	3-Nitrotoluene CAS: 99-08-1	Qualifier	Dilution	4-Nitrotoluene CAS: 99-99-0	Qualifier	Dilution	HMX CAS: 2691-41-0	Qualifier	Dilution	Nitrobenzene CAS: 98-95-3	Qualifier	Dilution	RDX CAS: 121-82-4	Qualifier	Dilution	Tetryl CAS: 479-45-8	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†																														
Residential Combined Exposure[1]	3.30E+01	n		6.90E+00	c		6.90E+00	c		2.10E+01	c		6.70E+02	n		2.70E+02	n		1.60E+03	n		3.40E+01	c		4.30E+01	c		2.70E+02	n	
Residential Groundwater Exposure[2]	**8.60E-02**	n		**2.70E-03**	c		**2.40E-03**	c		**1.60E-02**	c		**9.20E-01**	n		**2.20E-01**	c		**1.20E+00**	n		**1.80E-01**	n		**1.80E-02**	c		**5.50E-01**	n	
TCEQ-Approved Background Values																														
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na		
Sample Locations (Date Collected)																														
RMU2-BOT01 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-BOT02 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-BOT03 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--		
RMU2-SS01 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS02 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS03 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS04 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS05 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS06 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS07 (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS07-DUP (01-Mar-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS08 (01-Mar-2011)	0.075	U	1	**0.38**	F	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS09 (01-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS09-DUP (01-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS10 (02-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS12 (02-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS13 (02-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS14 (02-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS15 (02-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS16 (02-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS17 (03-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS18 (03-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS19 (03-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS20 (03-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS21 (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS22 (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS23 (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS23-DUP (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS24 (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS25 (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS26 (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS27 (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS28 (06-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS29 (07-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS30 (08-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS31 (08-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS31-DUP (08-Jun-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1
RMU2-SS32 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--		
RMU2-SS33 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--		
RMU2-SS34 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--		
RMU2-SS36 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--		

Metals

	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
Tier 1 Soil PCLs - 30 acre†												
Residential Combined Exposure[1]	2.40E+01	n		8.10E+03	n		5.20E+01	n		2.70E+04	n	
Residential Groundwater Exposure[2]	2.50E+00	m	>S	2.20E+02	m	>S	7.50E-01	m	>S	**1.20E+03**	m	>S
TCEQ-Approved Background Values												
CSSA 9 Metals Background Concentration[3]	**19.6**	††		**300**	†††		**3**	††		40.2	††	
Sample Locations (Date Collected)												
RMU2-BOT01 (01-Mar-2011)	**3.6**	F	1	**13**		1	0.030	UJ	1	**3.6**	F	1
RMU2-BOT02 (01-Mar-2011)	**4.2**	F	1	**25**		1	0.030	UJ	1	**6.0**	F	1
RMU2-BOT03 (01-Mar-2011)	**3.0**	F	1	**13**		1	0.030	UJ	1	**2.6**	F	1
RMU2-ROCK1 (08-Jun-2011)	--			--			--			--		
RMU2-SS01 (01-Mar-2011)	**5.4**	F	1	**27**		1	0.030	UJ	1	**5.9**	F	1
RMU2-SS02 (01-Mar-2011)	**5.5**	F	1	**40**		1	0.030	UJ	1	**7.7**	F	1
RMU2-SS03 (01-Mar-2011)	**5.5**	M	1	**44**	M	1	0.030	M	1	**10**	M	1
RMU2-SS04 (01-Mar-2011)	**6.5**	F	1	**44**		1	0.030	UJ	1	**8.6**	F	1
RMU2-SS05 (01-Mar-2011)	**5.1**	F	1	**76**		1	0.030	UJ	1	**11**	F	1
RMU2-SS06 (01-Mar-2011)	**4.8**	F	1	**24**		1	0.030	UJ	1	**4.9**	F	1
RMU2-SS07 (01-Mar-2011)	**3.4**	F	1	**14**		1	0.030	UJ	1	**3.3**	F	1
RMU2-SS07-DUP (01-Mar-2011)	**3.5**	F	1	**14**		1	0.030	UJ	1	**3.2**	F	1
RMU2-SS08 (01-Mar-2011)	**4.3**	F	1	**31**		1	**3.1**	J	1	**7.5**	F	1
RMU2-SS09 (01-Jun-2011)	**2.0**	F	1	**4.5**		1	0.030	UJ	1	**1.1**	F	1
RMU2-SS09-DUP (01-Jun-2011)	**2.2**	F	1	**5.3**		1	0.030	UJ	1	**1.2**	F	1
RMU2-SS10 (02-Jun-2011)	**4.6**	F	1	**39**		1	0.030	UJ	1	**11**	F	1
RMU2-SS12 (02-Jun-2011)	**1.8**	F	1	**6.8**		1	0.030	UJ	1	**1.1**	F	1
RMU2-SS13 (02-Jun-2011)	**3.1**	F	1	**15**		1	0.030	UJ	1	**3.5**	F	1
RMU2-SS14 (02-Jun-2011)	**4.5**	F	1	**34**		1	0.030	UJ	1	**8.7**	F	1
RMU2-SS15 (02-Jun-2011)	**3.1**	F	1	**19**		1	0.030	UJ	1	**4.4**	F	1
RMU2-SS16 (02-Jun-2011)	**2.8**	F	1	**15**		1	0.030	UJ	1	**3.3**	F	1
RMU2-SS17 (03-Jun-2011)	**2.6**	F	1	**8.7**		1	0.030	UJ	1	**1.8**	F	1
RMU2-SS18 (03-Jun-2011)	**4.7**	F	1	**45**		1	0.030	UJ	1	**9.7**	F	1
RMU2-SS19 (03-Jun-2011)	**4.0**	F	1	**24**		1	0.030	UJ	1	**5.2**	F	1
RMU2-SS20 (03-Jun-2011)	**4.5**	F	1	**30**		1	0.030	UJ	1	**7.6**	F	1
RMU2-SS21 (06-Jun-2011)	**5.9**	M	1	**30**	M	1	0.030	M	1	**11**	M	1
RMU2-SS22 (06-Jun-2011)	**4.1**	F	1	**13**	J	1	0.030	U	1	**4.5**	F	1
RMU2-SS23 (06-Jun-2011)	**5.5**	F	1	**130**	J	1	0.030	U	1	**22**		1
RMU2-SS23-DUP (06-Jun-2011)	**6.3**	F	1	**100**	J	1	0.030	U	1	**18**	F	1
RMU2-SS24 (06-Jun-2011)	**5.1**	F	1	**35**	J	1	0.030	U	1	**10**	F	1
RMU2-SS25 (06-Jun-2011)	**5.3**	F	1	**23**	J	1	0.030	U	1	**9.7**	F	1
RMU2-SS26 (06-Jun-2011)	**5.4**	F	1	**18**	J	1	0.030	U	1	**7.3**	F	1
RMU2-SS27 (06-Jun-2011)	**3.7**	F	1	**9.5**	J	1	0.030	U	1	**2.6**	F	1
RMU2-SS28 (06-Jun-2011)	**4.7**	F	1	**25**	J	1	0.030	U	1	**8.5**	F	1
RMU2-SS29 (07-Jun-2011)	**1.9**	F	1	**4.6**		1	0.030	UJ	1	**0.70**	F	1
RMU2-SS30 (08-Jun-2011)	**2.4**	F	1	**6.0**		1	0.030	UJ	1	**0.60**	F	1
RMU2-SS31 (08-Jun-2011)	**1.8**	F	1	**7.9**		1	0.030	UJ	1	**1.2**	F	1
RMU2-SS31-DUP (08-Jun-2011)	**1.9**	F	1	**6.5**		1	0.030	UJ	1	**0.80**	F	1
RMU2-SS32 (08-Jun-2011)	**4.2**	F	1	**45**		1	0.030	U	1	**8.2**	F	1
RMU2-SS33 (08-Jun-2011)	**2.2**	F	1	**20**		1	0.030	U	1	**4.6**	F	1
RMU2-SS34 (08-Jun-2011)	--			--			--			--		
RMU2-SS35 (08-Jun-2011)	--			--			--			--		
RMU2-SS36 (08-Jun-2011)	**3.9**	F	1	**34**		1	0.030	U	1	**9.1**	F	1

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Explosives																																	Metals																							
	2,4,6-Trinitrotoluene (TNT) CAS: 118-96-7	Qualifier	Dilution	2,4-Dinitrotoluene CAS: 121-14-2	Qualifier	Dilution	2,6-Dinitrotoluene CAS: 606-20-2	Qualifier	Dilution	2-Nitrotoluene CAS: 88-72-2	Qualifier	Dilution	3-Nitrotoluene CAS: 99-08-1	Qualifier	Dilution	4-Nitrotoluene CAS: 99-99-0	Qualifier	Dilution	HMX CAS: 2691-41-0	Qualifier	Dilution	Nitrobenzene CAS: 98-95-3	Qualifier	Dilution	RDX CAS: 121-82-4	Qualifier	Dilution	Tetryl CAS: 479-45-8	Qualifier	Dilution	Arsenic CAS: 7440-38-2	Qualifier	Dilution	Barium CAS: 7440-39-3	Qualifier	Dilution	Cadmium CAS: 7440-43-9	Qualifier	Dilution	Chromium CAS: 7440-47-3	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre[†]																																																							
Residential Combined Exposure[1]	3.30E+01	n		6.90E+00	c		6.90E+00	c		2.10E+01	c		6.70E+02	n		2.70E+02	n		1.60E+03	n		3.40E+01	c		4.30E+01	c		2.70E+02	n		2.40E+01	n		8.10E+03	n		5.20E+01	n		2.70E+04	n	
Residential Groundwater Exposure[2]	**8.60E-02**	n		**2.70E-03**	c		**2.40E-03**	c		**1.60E-02**	c		**9.20E-01**	n		**2.20E-01**	c		**1.20E+00**	n		**1.80E-01**	n		**1.80E-02**	c		**5.50E-01**	n		2.50E+00	m	>S	2.20E+02	m	>S	7.50E-01	m	>S	**1.20E+03**	m	>S
TCEQ-Approved Background Values																																																					
CSSA 9 Metals Background Concentration[3]	na			na			na			na			na			na			na			na			na			na			**19.6** ††			**300** †††			**3** ††			40.2 ††		
Sample Locations (Date Collected)																																																					
RMU2-SS37 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS38 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS39 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS40 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS41 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS42 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS43 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**6.6**	F	1	**69**		1	**0.25**	F	1	**16**	F	1
RMU2-SS44 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**4.6**	F	1	**43**		1	0.030	U	1	**12**	F	1
RMU2-SS45 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**3.9**	F	1	**38**		1	0.030	U	1	**9.7**	F	1
RMU2-SS46 (08-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**1.7**	F	1	**20**		1	0.030	U	1	**4.3**	F	1
RMU2-SS47 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**1.1**	F	1	**9.8**		1	0.030	U	1	**4.1**	F	1
RMU2-SS48 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**11**	F	1	**120**		1	**0.25**	F	1	**31**		1
RMU2-SS49 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS50 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS51 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS52 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**4.7**	F	1	**40**		1	0.030	U	1	**12**	F	1
RMU2-SS53 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS54 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**7.8**	F	1	**130**		1	**0.38**	F	1	**29**		1
RMU2-SS55 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS56 (16-Jun-2011)	--			--			--			--			--			--			--			--			--			--			**5.9**	F	1	**76**		1	**0.27**	F	1	**21**		1
RMU2-SS57 (10-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	**1.3**	F	1	**5.0**		1	0.030	UJ	1	**2.5**	F	1
RMU2-SS65 (16-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	**6.1**	F	1	**55**		1	0.030	UJ	1	**14**	F	1
RMU2-SS65-DUP (16-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	**6.1**	F	1	**53**		1	0.030	UJ	1	**14**	F	1
RMU2-SS66 (16-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	**4.3**	F	1	**19**		1	0.030	UJ	1	**6.0**	F	1
RMU2-SS67 (16-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	**4.4**	F	1	**42**		1	0.030	UJ	1	**10**	F	1
RMU2-SS68 (16-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	**5.1**	F	1	**43**		1	0.030	UJ	1	**10**	F	1
RMU2-SS69 (31-Aug-2011)	0.075	U	1	0.080	U	1	0.075	U	1	0.075	U	1	0.080	U	1	0.080	U	1	0.080	U	1	0.075	U	1	0.080	U	1	0.075	U	1	--			--			--			--			--		
RMU2-SS70 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS71 (31-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS72 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS73 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS74 (30-Aug-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS75 (13-Sep-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		
RMU2-SS76 (13-Sep-2011)	--			--			--			--			--			--			--			--			--			--			--			--			--			--			--		

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Metals																	
	Copper CAS: 7440-50-8	Qualifier	Dilution	Lead CAS: 7439-92-1	Qualifier	Dilution	Mercury CAS: 7439-97-6	Qualifier	Dilution	Nickel CAS: 7440-02-0	Qualifier	Dilution	Zinc CAS: 7440-66-6	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†															
Residential Combined Exposure[1]	5.50E+02	n		5.00E+02	n		2.10E+00	n		8.30E+02	n		9.90E+03	n	
Residential Groundwater Exposure[2]	**5.20E+02**	a	>S	1.50E+00	a	>S	3.90E-03	m		**7.90E+01**	n	>S	**1.20E+03**	n	>S
TCEQ-Approved Background Values															
CSSA 9 Metals Background Concentration[3]	23.2	††		**84.5**	††		**0.77**	††		35.5	††		73.2	††	
Sample Locations (Date Collected)															
RMU2-BOT01 (01-Mar-2011)	**2.8**		1	**560**		1	**0.020**	F	1	**4.1**		1	**9.1**		1
RMU2-BOT02 (01-Mar-2011)	**4.7**		1	**390**		1	**0.020**	F	1	**6.0**		1	**11**		1
RMU2-BOT03 (01-Mar-2011)	**7.2**		1	**2,000**		20	**0.030**	F	1	**4.1**		1	**9.6**		1
RMU2-ROCK1 (08-Jun-2011)	--			**0.66**	F	1	--			--			--		
RMU2-SS01 (01-Mar-2011)	**4.9**		1	**210**		1	**0.040**	F	1	**6.1**		1	**36**		1
RMU2-SS02 (01-Mar-2011)	**10**		1	**2,900**		20	**0.040**	F	1	**7.6**		1	**36**		1
RMU2-SS03 (01-Mar-2011)	**12**	M	1	**6,200**	M	100	**0.030**	F	1	**8.3**	M	1	**24**	M	1
RMU2-SS04 (01-Mar-2011)	**81**		1	**8,200**		100	**0.050**	F	1	**8.6**		1	**44**		1
RMU2-SS05 (01-Mar-2011)	**22**		1	**1,600**		20	**0.090**	F	1	**9.5**		1	**55**		1
RMU2-SS06 (01-Mar-2011)	**7.0**		1	**31,000**		250	**0.030**	F	1	**5.7**		1	**25**		1
RMU2-SS07 (01-Mar-2011)	**3.5**	J	1	**210**	J	1	0.010	U	1	**3.9**		1	**16**	J	1
RMU2-SS07-DUP (01-Mar-2011)	**8.9**	J	1	**600**	J	1	**0.020**	F	1	**4.0**		1	**31**	J	1
RMU2-SS08 (01-Mar-2011)	**53**		1	**730**		1	**0.030**	F	1	**6.9**		1	**120**		1
RMU2-SS09 (01-Jun-2011)	**3.0**		1	**2.9**	F	1	**0.020**	F	1	**2.5**		1	**7.8**	J	1
RMU2-SS09-DUP (01-Jun-2011)	**2.9**		1	**6.3**	F	1	0.010	U	1	**2.6**		1	**14**	J	1
RMU2-SS10 (02-Jun-2011)	**11**		1	**65**		1	**0.040**	F	1	**9.6**		1	**20**		1
RMU2-SS12 (02-Jun-2011)	**4.3**		1	**5.4**	F	1	**0.020**	F	1	**2.6**		1	**7.5**		1
RMU2-SS13 (02-Jun-2011)	**6.7**		1	**220**		1	**0.070**	F	1	**4.2**		1	**21**		1
RMU2-SS14 (02-Jun-2011)	**8.5**		1	**16,000**		100	**0.060**	F	1	**9.2**		1	**21**		1
RMU2-SS15 (02-Jun-2011)	**5.5**		1	**59**		1	**0.040**	F	1	**5.1**		1	**10**		1
RMU2-SS16 (02-Jun-2011)	**4.1**		1	**170**		1	**0.030**	F	1	**4.2**		1	**11**		1
RMU2-SS17 (03-Jun-2011)	**2.6**		1	**290**		1	**0.020**	F	1	**2.9**		1	**9.4**		1
RMU2-SS18 (03-Jun-2011)	**6.2**		1	**140**		1	**0.10**		1	**9.6**		1	**30**		1
RMU2-SS19 (03-Jun-2011)	**4.7**		1	**460**		1	**0.080**	F	1	**6.3**		1	**14**		1
RMU2-SS20 (03-Jun-2011)	**6.8**		1	**740**		1	**0.060**	F	1	**7.8**		1	**24**		1
RMU2-SS21 (06-Jun-2011)	**8.4**	M	1	**28**	M	1	**0.050**	F	1	**11**	M	1	**19**	M	1
RMU2-SS22 (06-Jun-2011)	**3.5**		1	**49**		1	**0.040**	F	1	**6.3**		1	**14**		1
RMU2-SS23 (06-Jun-2011)	**16**		1	**16**		1	**0.060**	F	1	**22**		1	**36**		1
RMU2-SS23-DUP (06-Jun-2011)	**14**		1	**14**		1	**0.050**	F	1	**19**		1	**31**		1
RMU2-SS24 (06-Jun-2011)	**8.1**		1	**7.4**	F	1	**0.040**	F	1	**10**		1	**26**		1
RMU2-SS25 (06-Jun-2011)	**7.2**		1	**13**		1	**0.050**	F	1	**10**		1	**16**		1
RMU2-SS26 (06-Jun-2011)	**4.2**		1	**21**		1	**0.040**	F	1	**9.0**		1	**14**		1
RMU2-SS27 (06-Jun-2011)	**2.7**		1	**21**		1	**0.040**	F	1	**5.6**		1	**11**		1
RMU2-SS28 (06-Jun-2011)	**5.8**		1	**16**		1	**0.030**	F	1	**8.9**		1	**19**		1
RMU2-SS29 (07-Jun-2011)	**0.72**	F	1	**1.7**	F	1	0.010	U	1	**1.8**	F	1	**12**		1
RMU2-SS30 (08-Jun-2011)	**0.50**	F	1	**170**		1	0.010	U	1	**2.2**		1	**6.8**		1
RMU2-SS31 (08-Jun-2011)	**0.83**	F	1	**28**		1	0.010	U	1	**2.3**		1	**8.7**		1
RMU2-SS31-DUP (08-Jun-2011)	**0.69**	F	1	**29**		1	0.010	U	1	**2.1**		1	**8.2**		1
RMU2-SS32 (08-Jun-2011)	**5.8**		1	**69**		1	--			**8.4**		1	**12**	J	1
RMU2-SS33 (08-Jun-2011)	**4.1**		1	**44**		1	--			**5.4**		1	**8.5**	J	1
RMU2-SS34 (08-Jun-2011)	--			**8,300**		100	--			--			--		
RMU2-SS35 (08-Jun-2011)	--			**260**		1	--			--			--		
RMU2-SS36 (08-Jun-2011)	**5.9**		1	**44**		1	--			**8.7**		1	**11**	J	1

Appendix C. Summary of Chemical Constituents Remaining in Soils at RMU-2

	Metals																	
	Copper CAS: 7440-50-8	Qualifier	Dilution	Lead CAS: 7439-92-1	Qualifier	Dilution	Mercury CAS: 7439-97-6	Qualifier	Dilution	Nickel CAS: 7440-02-0	Qualifier	Dilution	Zinc CAS: 7440-66-6	Qualifier	Dilution
Tier 1 Soil PCLs - 30 acre†															
Residential Combined Exposure[1]	5.50E+02	n		5.00E+02	n		2.10E+00	n		8.30E+02	n		9.90E+03	n	
Residential Groundwater Exposure[2]	**5.20E+02**	a	>S	1.50E+00	a	>S	3.90E-03	m		**7.90E+01**	n	>S	**1.20E+03**	n	>S
TCEQ-Approved Background Values															
CSSA 9 Metals Background Concentration[3]	23.2	††		**84.5**	††		**0.77**	††		35.5	††		73.2	††	
Sample Locations (Date Collected)															
RMU2-SS37 (08-Jun-2011)	--			**420**		1	--			--			--		
RMU2-SS38 (08-Jun-2011)	--			**580**		1	--			--			--		
RMU2-SS39 (08-Jun-2011)	--			**45**	J	1	--			--			--		
RMU2-SS40 (08-Jun-2011)	--			**59,000**	M	500	--			--			--		
RMU2-SS41 (08-Jun-2011)	--			**78,000**	J	###	--			--			--		
RMU2-SS41-DUP (08-Jun-2011)	--			**430**	J	1	--			--			--		
RMU2-SS42 (08-Jun-2011)	--			**140**	J	1	--			--			--		
RMU2-SS43 (08-Jun-2011)	**11**		1	**110**	J	1	--			**13**		1	**26**	J	1
RMU2-SS44 (08-Jun-2011)	**6.6**		1	**250**	J	1	--			**9.6**		1	**17**	J	1
RMU2-SS45 (08-Jun-2011)	**6.6**		1	**55**	J	1	--			**8.8**		1	**12**	J	1
RMU2-SS46 (08-Jun-2011)	**2.8**		1	**95**	J	1	--			**4.0**		1	**9.1**	J	1
RMU2-SS47 (16-Jun-2011)	**1.8**	F	1	**23**		1	--			**3.0**		1	**12**	J	1
RMU2-SS48 (16-Jun-2011)	**14**		1	**110**		1	--			**24**		1	**46**	J	1
RMU2-SS49 (16-Jun-2011)	--			**350**		1	--			--			--		
RMU2-SS50 (16-Jun-2011)	--			**2,800**		20	--			--			--		
RMU2-SS51 (16-Jun-2011)	--			**88**	J	1	--			--			--		
RMU2-SS51-DUP (16-Jun-2011)	--			**110**	J	1	--			--			--		
RMU2-SS52 (16-Jun-2011)	**7.6**		1	**48**		1	--			**10**		1	**21**	J	1
RMU2-SS53 (16-Jun-2011)	--			**41**		1	--			--			--		
RMU2-SS54 (16-Jun-2011)	**14**		1	**36**		1	--			**20**		1	**43**	J	1
RMU2-SS55 (16-Jun-2011)	--			**160**		1	--			--			--		
RMU2-SS56 (16-Jun-2011)	**9.6**		1	**75**		1	--			**15**		1	**36**	J	1
RMU2-SS57 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS58 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS59 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS60 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS61 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS62 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS63 (10-Aug-2011)	--			--			--			--			--		
RMU2-SS64 (16-Aug-2011)	**0.78**	F	1	**2.1**	F	1	0.010	U	1	**2.9**		1	**7.6**	J	1
RMU2-SS65 (16-Aug-2011)	**7.3**		1	**14,000**	J	100	**0.040**	F	1	**11**		1	**30**	J	1
RMU2-SS65-DUP (16-Aug-2011)	**6.3**		1	**5,600**	J	50	**0.040**	F	1	**11**		1	**25**	J	1
RMU2-SS66 (16-Aug-2011)	**4.1**		1	**59**	J	1	**0.020**	F	1	**6.3**		1	**16**	J	1
RMU2-SS67 (16-Aug-2011)	**4.6**		1	**200**	J	1	**0.030**	F	1	**8.4**		1	**20**	J	1
RMU2-SS68 (16-Aug-2011)	**4.8**		1	**86**	J	1	**0.060**	F	1	**8.7**		1	**29**	J	1
RMU2-SS69 (31-Aug-2011)	--			**66**	J	1	--			--			--		
RMU2-SS70 (31-Aug-2011)	--			**170,000**	J	###	--			--			--		
RMU2-SS71 (31-Aug-2011)	--			**3.0**	F	1	--			--			--		
RMU2-SS72 (30-Aug-2011)	--			**19**		1	--			--			--		
RMU2-SS73 (30-Aug-2011)	--			**150**		1	--			--			--		
RMU2-SS74 (30-Aug-2011)	--			**1,700**		20	--			--			--		
RMU2-SS75 (13-Sep-2011)	--			**16**	J	1	--			--			--		
RMU2-SS76 (13-Sep-2011)	--			**31**	J	1	--			--			--		

NOTES:

† TCEQ, TRRP Tier 1 Soil PCLs (Last Revised: May 24, 2011).

†† CSSA Soil Background Concentrations. Second Revision, Evaluation of Background Metals Concentrations in Soils and Bedrock at CSSA. February 2002. Values from Table 3.3.

††† Texas-Specific median background concentration.

PCLs and CSSA background values coded in this table as [1, 2, 3].

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

[3] CSSA Soil Background Concentrations.

PCLs are shown in **blue** font.

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

c = carcinogenic.

n = noncarcinogenic.

m = primary MCL-based.

a = EPA Action Level-based.

>S = solubility limit exceeded during calculation.

na = not applicable.

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.

UJ - Analyte was not detected above the indicated RL; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

M = Concentration is estimated due to a matrix effect.

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

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

APPENDIX D

Data Verification Summary Report

DATA VERIFICATION SUMMARY REPORT

for samples collected from RMU2

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) samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on June 1st, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64791

Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), explosives, and metals. Not all samples were analyzed for all parameters.

Field QC samples collected in association with this SDG included one trip blank (TB) and one filed duplicate (FD).

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 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.

ICP METALS

General

The ICP metals portion of this SDG consisted of two (2) soil samples. Both samples were collected on June 1st, 2011 and were analyzed for arsenic, barium, cadmium, chromium, copper, lead, nickel and zinc.

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

The ICP metals samples were digested in one batch.

Accuracy

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

All LCS recoveries were within acceptance criteria.

Precision

Precision was evaluated based on the relative percent difference (%RPD) of the parent and FD sample results. Sample RMU2-SS09 was collected in duplicate.

The %RPD of parent and FD exceeded the criteria for lead and zinc. "J" flags were applied to the two metal results of all samples collected on June 1st, 2011 from RUM2 site.

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blank for cross contamination of samples during sample 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.
- Both ICV 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 test (DT) was analyzed on sample RMU2-SS09 FD. The DT was only applicable for barium since all other metals were not detected in the parent sample at a concentration of 50 times the MDL or greater. Barium did not meet the %D requirement the DT, as follows:

RMU2-SS09 FD

Metal	%D	Criteria
Barium	**37**	%D ≤ 10

- A post digestion spike (PDS) was analyzed on the same samples as the DT. All metals met criteria in the PDS except cadmium:

RMU2-SS09 FD

Metal	%R	Criteria
Arsenic	81	75-125%
Barium	80	
Cadmium	**62**	
Chromium	77	
Copper	85	
Nickel	77	
Lead	78	
Zinc	**68**	

"J" flags were applied to all cadmium and zinc results in this SDG.

There were one method blank (MB) and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of any 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 results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of two (2) soil samples. Both samples were collected on June 1st, 2011 and were analyzed for mercury.

The mercury analyses were performed using USEPA SW846 Method 7471A and 7471A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The mercury samples were prepared in one analytical batch.

Accuracy

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

The LCS recovery was within acceptance criteria.

Precision

Precision was evaluated based on the %RPD of the parent and FD sample results. Sample RMU2-SS09 was collected in duplicate.

Neither of the two results were detected at or above reporting limit (RL); therefore, the %RPD calculation was not applicable.

Representativeness

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

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

Both 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 initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

VOLATILES

General

This data package consisted of two (2) soil samples and one (1) TB. The samples were collected on June 1st, 2011 and were analyzed for a full list of VOCs.

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

Accuracy

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

All LCSs and surrogate spike recoveries were within acceptance criteria for all three batches.

Precision

Precision was evaluated based on the %RPD of the parent and FD sample results. Sample RMU2-SS09 was collected in duplicate.

None of the VOCs were detected at or above the RL, therefore, the %RPD calculation was not applicable.

Representativeness

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

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

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

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- All three LCS samples were prepared with a secondary source standard. 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 three MBs, one TB, and few calibration blanks associated with the VOC analyses in this SDG. All blanks were non-detect for all target VOCs at RLs.

Completeness

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

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

SEMI-VOLATILES

General

This data package consisted of two (2) soil samples which were collected on June 1st, 2011 and were analyzed for a full list of SVOCs.

The SVOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8270C. The samples were analyzed in one analytical batch under one set of initial calibration (ICAL) curves. All samples were analyzed following the procedures

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

Accuracy

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

All LCS and surrogate spike recoveries were within acceptance criteria.

Precision

Precision was evaluated based on the %RPD of the parent and FD sample results. Sample RMU2-SS09 was collected in duplicate.

None of the target SVOCs were detected at or above the RL, therefore, the %RPD calculation was not applicable.

Representativeness

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

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

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

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- 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.
- All internal standard criteria were met.

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of two (2) soil samples which were collected on June 1st, 2011 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 the parent and FD sample results. Sample RMU2-SS09 was collected in duplicate.

None of the target explosives were detected in the parent and FD samples, therefore, the %RPD calculation was not applicable.

Representativeness

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

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

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

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- 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 few 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 RMU2

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) under Environmental Protection Support, Investigations, and Treatability Studies on June 2nd, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64818

Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), explosives, and metals. Another group of waste characterization samples were analyzed for TCLP-RCRA 8 metals.

Only one field QC sample, trip blank (TB), was collected.

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 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.

ICP METALS

General

The ICP metals portion of this SDG consisted of six (6) soil samples and four (4) waste characterization soil samples. All samples were collected on June 2nd, 2011. Regular soil samples were analyzed for arsenic, barium, cadmium, chromium, copper, lead, nickel, and zinc. Waste characterization

samples were analyzed for TCLP- arsenic, barium, cadmium, chromium, lead, nickel, selenium, and silver.

The ICP metals analyses were performed using USEPA SW846 Method 6010B and SW1311/6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The ICP metals samples were digested in three batches, one for soil and the other two for TCLP extract. Lead in sample RMU2-SS14 required a 100 fold dilution due to the high concentration of lead.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the three laboratory control samples (LCS), one for soil and two for TCLP-extract.

All LCS recoveries were within acceptance criteria.

Precision

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

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.
- Both ICV 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 test (DT) was analyzed on sample RMU2-SS12 (sample was included in SDG 64818). The DT was only applicable for barium since all other metals were not detected in the parent sample at a concentration of 50 times the MDL or greater. Barium did not meet the %D requirement the DT, as follows:

RMU2-SS12

Metal	%D	Criteria

Barium	**54**	%D ≤ 10

- A post digestion spike (PDS) was analyzed on the same samples as the DT. All metals met criteria in the PDS except cadmium:

RMU2-SS12

Metal	%R	Criteria
Arsenic	87	75-125%
Barium	83	
Cadmium	**62**	
Chromium	78	
Copper	86	
Nickel	79	
Lead	82	
Zinc	76	

"J" flags were applied to all cadmium results in this SDG.

There were three method blanks (MBs) and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of any 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 results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of six (6) soil samples and four (4) waste characterization samples. All samples were collected on June 2nd, 2011 and were analyzed for mercury.

The mercury analyses were performed using USEPA SW846 Method 7471A and 1311/7470A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The mercury samples were prepared in three analytical batches, one for soil and two for TCLP extract.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the three LCSs.

All LCS recoveries were within acceptance criteria.

Precision

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

Representativeness

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

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

The 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 initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

VOLATILES

General

This data package consisted of three (3) soil samples and one (1) TB. The samples were collected on June 2nd, 2011 and were analyzed for a full list of VOCs.

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

Accuracy

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

All LCSs and surrogate spike recoveries were within acceptance criteria for all three batches.

Precision

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

Representativeness

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

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

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

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- All three LCS samples were prepared with a secondary source. All second source verification criteria were met except one LCS for the water batch had %D of 21% for bromomethane which was 1% higher than the 10% criteria. Since this compound was not detected in the associated TB under the possible high biased condition, no flag was needed
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

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

Completeness

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

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

SEMI-VOLATILES

General

This data package consisted of three (3) soil samples. The samples were collected on June 2nd, 2011 and were analyzed for a full list of SVOCs.

The SVOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8270C. The samples were analyzed in one analytical batch under one set of initial calibration (ICAL) curve. 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 could not be evaluated due to the lack of duplicate analysis in this SDG.

Representativeness

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

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

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

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

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of six (6) soil samples. All samples were collected on June 2nd, 2011 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 could not be measured due to the lack of duplicate analysis in this SDG.

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during sample 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 few 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 RMU2

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) samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on June 3rd, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64821

Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), explosives, and metals. Not all samples were analyzed for all parameters.

Field QC samples collected in association with this SDG included one trip blank (TB) and one equipment blank (EB).

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 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.

ICP METALS

General

The ICP metals portion of this SDG consisted of four (4) soil samples and one (1) EB. All samples were collected on June 3rd, 2011 and were analyzed for arsenic, barium, cadmium, chromium, copper, lead, nickel and zinc.

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

The ICP metals samples were digested in two batches, one soil and the other one for water.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the two laboratory control samples (LCS), one for soil and one for water.

All LCS recoveries were within acceptance criteria.

Precision

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

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 equipment blank 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.
- Both ICV 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 test (DT) was analyzed on sample RMU2-SS12 (sample was included in SDG 64818). The DT was only applicable for barium since all other metals were not detected in the parent sample at a concentration of 50 times the MDL or greater. Barium did not meet the %D requirement the DT, as follows:

RMU2-SS12

Metal	%D	Criteria
Barium	**54**	%D ≤ 10

- A post digestion spike (PDS) was analyzed on the same samples as the DT. All metals met criteria in the PDS except cadmium:

RMU2-SS12

Metal	%R	Criteria
Arsenic	87	75-125%
Barium	83	
Cadmium	**62**	
Chromium	78	
Copper	86	
Nickel	79	
Lead	82	
Zinc	76	

"J" flags were applied to all cadmium results in this SDG.

There were two method blanks (MBs), one EB and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of any target metals at or above the RL. Barium and zinc were detected in the EB at level close to method detection levels. Comparing to the concentration of these two metals in all four soil samples, there was no impact to the data quality.

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

MERCURY

General

The mercury portion of this SDG consisted of four (4) soil samples and one EB. All samples were collected on June 3rd, 2011 and were analyzed for mercury.

The mercury analyses were performed using USEPA SW846 Method 7471A and 7470A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The mercury samples were prepared in two analytical batches, one for soil and one for water.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the two LCSs.

Both LCS recoveries were within acceptance criteria.

Precision

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

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blanks 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 initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

VOLATILES

General

This data package consisted of two (2) soil samples, one (1) EB and one (1) TB. The samples were collected on June 3rd, 2011 and were analyzed for a full list of VOCs.

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

Accuracy

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

All LCSs and surrogate spike recoveries were within acceptance criteria for all three batches.

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

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

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

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

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- All three LCS samples were prepared with a secondary source. All second source verification criteria were met except one LCS for the water batch had %D of 21% for bromomethane which was 1% higher than the 10% criteria. Since this compound was not detected in the associated water sample under the possible high biased condition, no flag was needed
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

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

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

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

SEMI-VOLATILES

General

This data package consisted of two (2) soil samples and one (1) EB. The samples were collected on June 3rd, 2011 and were analyzed for a full list of SVOCs.

The SVOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8270C. The samples were analyzed in two analytical batches under two sets of initial calibration (ICAL) curves. All samples were analyzed following the

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

Accuracy

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

All LCSs and surrogate spike recoveries were within acceptance criteria.

Precision

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

Representativeness

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

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

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

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

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of four (4) soil samples and one EB. All samples were collected on June 3rd, 2011 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 two analytical batches under two sets of initial calibration (ICAL) curves. All samples were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method. All samples were analyzed undiluted.

Accuracy

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

All LCS and surrogate spike recoveries were within acceptance criteria.

Precision

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

Representativeness

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

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

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

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

There were two MBs, one EB, and few 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 RMU2

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) samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on June 6, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64825

Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), explosives, and metals. Not all samples were analyzed for all parameters.

Field QC samples collected in association with this SDG included one trip blank (TB), one pair of matrix spike/matrix spike duplicate (MS/MSD), and one field duplicate (FD).

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 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.

ICP METALS

General

The ICP metals portion of this SDG consisted of eight (8) soil samples, one (1) pair of MS/MSD, and one (1) FD. All samples were collected on June 6, 2011 and were analyzed for arsenic, barium, cadmium, chromium, copper, lead, nickel and zinc. Also included were two waste characterization samples which were tested for TCLP-metals.

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

The ICP metals samples were digested in two batches, one soil and the other one for TCLP extract.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the two laboratory control samples (LCSs), one for soil and one for TCLP extract, and MS/MSD. Sample RMU2-SS21 was designated as the parent sample for MS/MSD analyses.

All LCS recoveries were within acceptance criteria for both batches.

All %R failed to meet the 75-125% in the MS and/or MSD results. "M" flags were applied to all metal results of the parent sample.

Precision

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

Sample RMU-SS23 was collected in duplicate. %RPD was applicable when both parent and FD sample have concentration reported greater than reporting limit.

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Barium	129.4	104.0	22	
Chromium	22.2	18.1	20	
Copper	15.73	14.49	8.2	≤ 20
Lead	16.24	13.66	17	
Nickel	22.02	18.64	17	
Zinc	35.6	30.7	15	

"J" flags were applied to all barium results of non-waste characterization samples in this SDG.

All %RPDs of MS/MSD met the 20% RPD criteria.

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.
- Both ICV 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 test (DT) was analyzed on sample RMU2-SS21. The DT was only applicable for barium, chromium, nickel and lead since all other metals were not detected in the parent sample at a concentration of 50 times the MDL or greater. All metals listed below did not meet the %D requirement the DT, as follows:

RMU2-SS21

Metal	%D	Criteria
Barium	**21**	%D ≤ 10
Chromium	**18**	
Nickel	**17**	
Lead	**14**	

- A post digestion spike (PDS) was analyzed on the same samples as the DT. All metals met criteria in the PDS:

RMU2-SS21

Metal	%R	Criteria
Arsenic	86	75-125%
Barium	83	
Cadmium	80	
Chromium	83	
Copper	91	
Nickel	84	
Lead	83	
Zinc	82	

There were two method blanks (MBs) and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of any 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 results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of eight (8) soil samples, one (1) pair of MS/MSD, and one (1) FD. All samples were collected on June 6, 2011 and were analyzed for mercury. There were two waste characterization samples which were analyzed for TCLP-mercury.

The mercury analyses were performed using USEPA SW846 Method 7471A and 7470A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The mercury samples were prepared in two analytical batches, one for soil and one for TCLP extract.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the two LCSs and MS/MSD.

Both LCS recoveries were within acceptance criteria.

Both MS and MSD had acceptable %Rs.

Precision

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

Sample RMU-SS23 was collected in duplicate. %RPD was compliant.
%RPD of MS and MSD results is also 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 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 initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

VOLATILES

General

This data package consisted of three (3) soil samples and one (1) TB. The samples were collected on June 6, 2011 and were analyzed for a full list of VOCs.

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

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the three LCSs and the surrogate spikes. MS/MSD were performed with sample RMU2-SS21.

All LCSs %Rs were within acceptance criteria for all three batches.

All four surrogates were recovered higher than the control limits in sample RMU2-SS21. Since parent sample had no VOC detected under this possible high biased analysis process, no additional flags were needed.

Majority compounds failed to meet the %R requirements in the MS and/or MSD analyses. "M" flags were applied to all parent sample results by the lab.

Precision

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

Sample RMU-SS23 was collected in duplicate. %RPD calculation was not applicable for the parent and FD sample results since all VOCs were non-detected in both samples.
"M" flags were applied to all compounds with non-compliant %RPD of the MS/MSD results.

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 TB for cross contamination of samples during sample collection and analysis.

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

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

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

Completeness

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

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

SEMI-VOLATILES

General

This data package consisted of three (2) soil samples. The samples were collected on June 6, 2011 and were analyzed for a full list of SVOCs.

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

Accuracy

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

All LCS and surrogate spike recoveries were within acceptance criteria.

Benzoic acid and pentachlorophenol had lower than control limits of %Rs in the MS and MSD analyses. "M" flags were applied to the parent sample results of these two compounds.

Precision

Precision was evaluated based on the %RPD of parent/FD and MS/MSD results.

All %RPDs of parent/FD and MS/MSD were compliant.

None of the target compounds were detected in both parent and FD samples.

Representativeness

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

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

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

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

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of eight (8) soil samples and one FD. All samples were collected on June 6, 2011 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, MS, MSD, and the surrogate spikes.

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

It should be noted that %R of the RDX in the MS analysis was 64.8% with control limits of 65 – 142%. Parsons data validator removed the "M" flag applied to the parent sample result by the lab.

Precision

Precision was evaluated based on the %RPD of MS/MSD and parent/FD sample results.

All %RPDs of MS/MSD results were compliant.

None of the target compounds were detected in the parent and FD set of sample RMU2-SS23.

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blank for cross contamination of samples during sample 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.
- Both LCSs were prepared with a secondary source. All second source verification criteria were met.
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

There were one MB and few 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 RMU2

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers soil, rock, waste characterization samples and the associated field quality control (QC) sample collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on June 7 and 8, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64849

Soil and rock samples were analyzed for explosives, and metals. Not all samples were analyzed for all parameters. Another group of waste characterization samples were analyzed for TCLP-RCRA 8 metals.

There were two field duplicate (FD) samples and one set of matrix spike/matrix spike duplicate (MS/MSD) samples were included as 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 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.

ICP METALS

General

The ICP metals portion of this SDG consisted of twenty one (20) soil samples, one (1) rock sample and four (4) waste characterization soil samples. All samples were collected on June 7 and 8, 2011. Regular soil and rock samples were analyzed for arsenic, barium, cadmium, chromium, copper, lead,

nickel, and zinc or lead only. Waste characterization samples were analyzed for TCLP- arsenic, barium, cadmium, chromium, lead, nickel, selenium, and silver.

The ICP metals analyses were performed using USEPA SW846 Method 6010B and SW1311/6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The ICP metals samples were digested in three batches, two for soil/rock and the one for TCLP extract. Lead in sample RMU2-SS34 required a 100 fold dilution, RMU2-SS40 required a 500 fold dilution, and RMU2-SS41 required a 1000 fold dilution due to the high concentration of lead. All other samples and metals were analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the three laboratory control samples (LCS), two for soil and one for TCLP-extract, and MS/MSD results. Sample RMU2-SS40 was designated as the parent sample for MS and MSD analyses. The parent sample was analyzed for lead only, according to Chain of Custody (COC).

All LCS recoveries were within acceptance criteria.

Due to significantly high concentration of lead in the RMU2-SS40 comparing to the spiked amount in the MS/MSD analyses (more than 1000 times), the %R of both MS/MSD failed to meet the 75-125% criteria. "M" flag was applied to the parent sample result.

Precision

Precision was evaluated based on the %RPD of the MS/MSD results and two sets of parent/FD sample results. Samples RMU2-SS31 and sample RMU2-SS41 were collected in duplicate.

%RPD of the MS/MSD met the criteria.

%RPD calculation of the parent and FD results is only applicable when both concentrations are greater than reporting limits.

RMU2-SS31

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Barium	7.9	6.5	19	
Lead	27.77	29.39	5.6	≤20
Nickel	2.28	2.10	8.2	
Zinc	8.7	8.2	5.9	

RMU2-SS41

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	78301.20	426.23	198	≤20

"J" flags were applied to both parent and FD sample results.

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.
- 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 test (DT) was analyzed on sample RMU2-SS40 for lead only. Lead did not meet the %D requirement:

RMU2-SS40

Metal	%D	Criteria
Lead	**30**	%D ≤ 10

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

RMU2-SS40

Metal	%R	Criteria, %R
Lead	**38**	75 - 125

"J" flags were applied to all samples in the same analytical batch as RMU40-SS40.

- Another DT was analyzed on sample RMU2-SS29. The DT was only applicable for barium since all other metals were not detected in the parent sample at a concentration of 50 times the MDL or greater. Barium met the %D requirement the DT, as follows:

RMU2-SS29

Metal	%D	Criteria
Barium	6.0	%D ≤ 10

- A PDS was analyzed on the same samples as the DT. All metals met criteria in the PDS except cadmium:

RMU2-SS29

Metal	%R	Criteria, %R
Arsenic	85	75-125%
Cadmium	**68**	
Chromium	81	
Copper	90	
Nickel	80	

Lead	82	
Zinc	88	

"J" flags were applied to all cadmium results of samples in the same analytical batch as RMU2-SS29.

There were three method blanks (MBs) and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of any 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 results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of four (4) soil samples and four (4) waste characterization samples. All samples were collected on June 7 and 8, 2011 and were analyzed for mercury.

The mercury analyses were performed using USEPA SW846 Method 7471A and 1311/7470A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The mercury samples were prepared in two analytical batches, one for soil and one for TCLP extract.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the two LCSs.

Both LCS recoveries were within acceptance criteria.

Precision

Precision was evaluated based on the %RPD of parent and FD. Sample RMU2-SS31 was collected in duplicate. Neither parent or FD has mercury 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 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 initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICVs were prepared using a secondary source.

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of four (4) soil samples. All samples were collected on June 7 and 8, 2011 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 and FD. Sample RMU2-SS31 was collected in duplicate. Neither parent or 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 RMU2

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers seven soil samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on June 8, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64849 Addendum

These seven soil samples were originally analyzed for explosives and lead. Parsons requested APPL to add arsenic, barium, cadmium, chromium, copper, nickel and zinc to samples RMU2-SS32, SS33, SS36, SS43, SS44, SS45, and SS46. There were no field quality control samples involved in these seven 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 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.

ICP METALS

General

The ICP metals portion of this SDG consisted of seven (7) soil samples. All samples were collected on June 8, 2011. These samples were analyzed for arsenic, barium, cadmium, chromium, copper, nickel, and zinc.

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

The ICP metals samples were digested in one batch. All samples were analyzed undiluted.

Accuracy

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

All LCS recoveries were within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analyses in these 7 samples.

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blank for cross contamination of samples during sample 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 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 RMU2-SS56 which was logged in SDG 64921, for arsenic, barium, chromium, copper and nickel only.

RMU2-SS56

Metal	%D	Criteria
Arsenic	**27**	%D ≤ 10
Barium	**15**	
Chromium	**17**	
Copper	10	
Nickel	**19**	

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

RMU2-SS56

Metal	%R	Criteria, %R
Arsenic	75	75 - 125
Barium	**74**	
Cadmium	75	
Chromium	76	
Nickel	78	
Zinc	**68**	

"J" flags were applied to zinc results of all samples in this SDG. "J" flags applied to the barium results were removed by Parsons' data validator due to minor exceedance.

There were one method blank and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of any 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 results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

DATA VERIFICATION SUMMARY REPORT

for samples collected from RMU2

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) under Environmental Protection Support, Investigations, and Treatability Studies on June 16, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64921

Samples were analyzed for lead.

Only one field duplicate (FD) sample was collected.

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 3.5°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

This SDG consisted of ten (10) soil samples and one FD soil sample. All samples were collected on June 16, 2011. All samples in this SDG were analyzed for lead by SW6010B following the QC requirements outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

All samples were digested in one analytical batch. Lead in sample RMU2-SS50 required a 20 fold dilution due to the high concentration of lead. All other samples were analyzed without any dilutions.

Accuracy

Accuracy was evaluated using the percent recovery 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 the parent and FD sample results. Sample RMU2-SS51 was collected in duplicate.

RMU2-SS51

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	88.20	112.81	24%	≤20

"J" flags were applied to all lead results 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 (ICV) were met.
- All calibration verification criteria were met.
- The ICV 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 RMU2-SS56.

RMU2-SS56

Metal	%D	Criteria
Lead	7.3	%D ≤ 10

- The post digestion spike (PDS) was not needed.

There were one method blank (MB) 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 RMU2

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) under Environmental Protection Support, Investigations, and Treatability Studies on June 16, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64921

Samples were analyzed for lead.

Only one field duplicate (FD) sample was collected.

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 3.5°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

This SDG consisted of ten (10) soil samples and one FD soil sample. All samples were collected on June 16, 2011. All samples in this SDG were analyzed for lead by SW6010B following the QC requirements outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

All samples were digested in one analytical batch. Lead in sample RMU2-SS50 required a 20 fold dilution due to the high concentration of lead. All other samples were analyzed without any dilutions.

Accuracy

Accuracy was evaluated using the percent recovery 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 the parent and FD sample results. Sample RMU2-SS51 was collected in duplicate.

RMU2-SS51

Metal	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Lead	88.20	112.81	24%	≤20

"J" flags were applied to all lead results 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 (ICV) were met.
- All calibration verification criteria were met.
- The ICV 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 RMU2-SS56.

RMU2-SS56

Metal	%D	Criteria
Lead	7.3	%D ≤ 10

- The post digestion spike (PDS) was not needed.

There were one method blank (MB) 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 RMU2

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers five soil samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on June 16, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

64921 Addendum

These samples were originally analyzed for lead. Parsons requested lab to add arsenic, barium, cadmium, chromium, copper, nickel and zinc to RMU2-SS47, 48, 52, 54 and 56.

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 3.5°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.

ICP-AES Metals

General

The addendum of this SDG consisted of five (5) soil samples which were collected on June 16, 2011. All samples in this SDG were analyzed for arsenic, barium, cadmium, chromium, copper, nickel and zinc by SW6010B following the QC requirements outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

All samples were digested in one analytical batch. All samples were analyzed without any dilutions.

Accuracy

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

All LCS recoveries were within acceptance criteria.

Precision

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

Representativeness

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

- Comparing the COC procedures to those described in the 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 (ICV) were met.
- All calibration verification criteria were met.
- The ICV 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 RMU2-SS56 for arsenic, barium, chromium, copper and nickel.

RMU2-SS56

Metal	%D	Criteria
Arsenic	**27**	%D ≤ 10
Barium	**15**	
Chromium	**17**	
Copper	10	
Nickel	**19**	

- The post digestion spike (PDS) was performed with the same sample for arsenic, barium, cadmium, chromium, nickel and zinc.

RMU2-SS56

Metal	%R	Criteria, %R

Arsenic	75	75-125
Barium	**74**	
Cadmium	75	
Chromium	76	
Nickel	78	
Zinc	**68**	

"J" flags were applied to all zinc results of this SDG. "J" flags applied to the barium results were removed by Parsons' data validator due to minor exceedance.

There were one method blank (MB) and several calibration blanks associated with the metal analyses in this SDG. All blanks were free of target metals at or above the RLs.

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 RMU4

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) samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on June 23rd, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU4:

64984

Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), explosives, and metals. Not all samples were analyzed for all parameters.

Field QC samples collected in association with this SDG included one set of matrix spike/matrix spike duplicate (MS/MSD) for all analyses. The trip blank for this SDG was logged in under SDG 64983. The trip blank was analyzed for VOC analysis only.

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 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.

ICP METALS

General

The ICP metals portion of this SDG consisted of five (5) soil samples and one set of MS/MSD. All samples were collected on June 23rd, 2011 and were analyzed for arsenic, barium, cadmium, chromium, copper, lead, nickel and zinc.

The ICP metals analyses were performed using USEPA SW846 Method 6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method. Sample RMU4-SS01 was diluted 100 times for lead analysis. Sample RMU4-SS04 was diluted 50 times for lead and nickel and 200 times for copper. All other samples/analyses were performed without any dilution.

All ICP metals samples were digested in one batch.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the laboratory control sample (LCS) and MS/MSD. Sample RMU4-SS05 was designated for the MS/MSD analyses on the Chain of Custody (COC).

All LCS recoveries were within acceptance criteria.

All non-compliant %Rs for MS/MSD are listed below:

RMU4-SS05

Metals	MS, %R	MSD, %R	Criteria, %R
Arsenic	62	65	
Barium	63	73	
Cadmium	63	65	
Chromium	68	(77)	75 - 125
Copper	62	67	
Lead	15	127	
Nickel	63	68	
Zinc	58	64	

( ) indicates the %R was compliant.

"M" flags were applied to parent sample results.

Precision

Precision was evaluated based on the relative percent difference (%RPD) of the MS/MSD results. All %RPDs of MS/MSD were compliant except lead had %RPD of 42% which exceeded the 20% criteria. "M" flag has already been applied to the lead result of the parent sample due to accuracy issue discussed above, therefore, no additional flagging is 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 blank 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 (ICV) were met.
- All continuing calibration verification (CCV) criteria were met.
- The ICV 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 RMU4-SS05. The DT was only applicable for all metals except arsenic and cadmium since these two metals were not detected in the parent sample at a concentration of 50 times the MDL or greater.

RMU4-SS05

Metal	%D	Criteria
Barium	**15**	%D ≤ 10
Chromium	**23**	
Copper	**12**	
Nickel	**21**	
Lead	**20**	
Zinc	**20**	

- A post digestion spike (PDS) was analyzed on the same samples as the DT. All metals met criteria in the PDS:

RMU2-SS09 FD

Metal	%R	Criteria
Arsenic	92	75-125%
Barium	91	
Cadmium	87	
Chromium	92	
Copper	97	
Nickel	90	
Lead	82	
Zinc	85	

There were one method blank (MB) and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of any 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 results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of five (5) soil samples. Those samples were collected on June 23rd, 2011 and were analyzed for mercury.

The mercury analyses were performed using USEPA SW846 Method 7471A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The mercury samples were prepared in one analytical batch.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS, MS and MSD results. Sample RMU4-SS05 was designated for the MS and MSD analyses on the COC.

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

Precision

Precision was evaluated based on the %RPD of the MS and MSD results.
%RPD of MS and MSD 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 cross contamination of samples during sample analysis.

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

- All initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

VOLATILES

General

This data package consisted of one (1) soil sample. This sample was collected on June 23rd, 2011 and was analyzed for a full list of VOCs.

The VOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8260B. The samples were analyzed under one set of ICAL. This sample was analyzed undiluted following the procedures outlined in the CSSA QAPP, prepared and analyzed within the holding time required by the method.

Accuracy

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

All LCS and surrogate spike recoveries were within acceptance criteria.

There were forty-six compounds with non-compliant %Rs in the MS and/or MSD analyses, "M" flags have been applied to the associated parent sample results.

Precision

Precision was evaluated based on the %RPDs of the MS and MSD results.

There were twenty-five compounds with non-compliant %RPDs between MS and MSD results, "M" flags have already been applied to the parent sample results due to accuracy issues discussed above.

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 TB (which was logged under SDG 64983) for cross contamination of samples during sample collection and analysis.

This sample was analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0. This sample was 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 standard. All second source verification criteria were met.
- All ICV criteria were met.

- All CCV criteria were met.

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

Completeness

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

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

SEMI-VOLATILES

General

This data package consisted of one (1) soil sample which was collected on June 23rd 2011 and were analyzed for a full list of SVOCs.

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

Accuracy

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

All LCS and surrogate spike recoveries were within acceptance criteria.

The only non-compliant %Rs of the MS and MSD analyses were benzoic acid, “M” flag was applied to the parent sample result of this compound.

Precision

Precision was evaluated based on the %RPD of the MS and MSD results.
The only compound with non-compliant %RPD of the MS and MSD is benzoic acid. Since “M” has already been added to the parent sample result, no additional flagging is required.

Representativeness

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

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

This sample was 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 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 ICV criteria were met.
- All CCV criteria were met.
- All internal standard criteria were met.

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of one (1) soil sample which was collected on June 23rd, 2011 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. This sample was analyzed under one set of ICAL curves. This sample was analyzed following the procedures outlined in the CSSA QAPP, prepared and analyzed undiluted within the holding time required by the method.

Accuracy

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

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

Precision

Precision was evaluated based on the %RPD of the MS and MSD results.
All %RPDs were compliant for MS and MSD.

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and

- Examining laboratory blank for cross contamination of samples during sample analysis.

The sample in this data package was analyzed following the COC and the analytical procedures described in the CSSA QAPP, Version 1.0. This sample was prepared and analyzed 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 ICV criteria were met.
- All CCV criteria were met.

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

Completeness

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

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from RMU2

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers soil samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on August 10, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

65370

Samples were analyzed for explosives and TCLP-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 2.0°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; 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.

TCLP-ICP METALS

General

The ICP metals portion of this SDG consisted of three (3) soil samples. All samples were collected on August 10, 2011 and were analyzed for TCLP-arsenic, barium, cadmium, chromium, lead, selenium, and silver.

The ICP TCLP-metals analyses were performed using USEPA SW846 Method 1311/6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All 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 laboratory control sample (LCS).

All LCS recoveries were within acceptance criteria for both batches.

Precision

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

Representativeness

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

- Comparing the COC procedures to those described in the 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.

There were one method blank (MB) and several calibration blanks associated with the ICP analyses in this SDG. All blanks were free of any 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 TCLP-ICP results for the samples in this SDG were considered usable. The completeness for the TCLP-ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

TCLP-MERCURY

General

The mercury portion of this SDG consisted of three (3) soil samples. All samples were collected on August 10, 2011 and were analyzed for TCLP-mercury.

The mercury analyses were performed using USEPA SW846 Method 1311/7470A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

Accuracy

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

Precision

Precision could not be measured 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. All samples were prepared and analyzed within the holding times required by the method.

- All initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of seven (7) soil samples. All samples were collected on August 10, 2011 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 could not be evaluated due to the lack of duplicate analyses.

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blank for cross contamination of samples during sample 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 few 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 RMU2

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers soil samples and associated field quality control (QC) sample collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on August 15 and 16, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

65416

Samples were analyzed for explosives, total metals, and TCLP-metals. There was one field duplicate (FD) sample included 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 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.

ICP METALS

General

The ICP metals portion of this SDG consisted of one (1) soil sample for TCLP metals and six (6) soil samples for total metals. The TCLP sample was collected on August 15, 2011 and the rest of samples (for total metals) were collected on August 16, 2011. TCLP metals included arsenic, barium, cadmium, chromium, lead, selenium, and silver. Total metals included arsenic, barium, cadmium, chromium, copper, lead, nickel, and zinc.

The ICP TCLP-metals analyses were performed using USEPA SW846 Method 1311/6010B and total metals were determined by SW6010B. All samples in this SDG were analyzed following the

procedures outlined in the CSSA QAPP. All 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 two laboratory control samples (LCSs).

All LCS recoveries were within acceptance criteria for both batches.

Precision

Precision was evaluated by relative percent difference (%RPD) or the parent and FD samples. Sample RMU2-SS65 was collected in duplicate. %RPD calculation is only applicable when both concentrations are greater than the reporting limit.

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Barium	54.6	53.3	2.4	
Copper	7.29	6.32	14	≤ 20
Lead	13591	5601	**83**	
Nickel	11.40	11.14	1.8	
Zinc	29.5	24.6	18	

The discrepancy of lead result might be contributed by some pieces of lead in the soil. "J" flags were applied to all total lead results 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.

- The dilution test was performed with a CSSA sample B27-SW84 in SDG 65430. This test was only applicable for barium, chromium and nickel;

Metals	%D	Criteria, %D
Barium	2.41	
Chromium	0.39	≤ 10
Nickel	4.81	

- The post dilution spike analysis was performed with the same sample for all other target metals:

Metals	%R	Criteria, %R
Arsenic	80	
Cadmium	**70**	
Copper	84	75 - 125
Lead	**73**	
Zinc	**70**	

The "J" flags applied to the lead results were removed by Parsons' data validator due to minor exceedance. However, J flags were applied to lead for the non-compliant FD %RPD.

There were two method blanks (MBs) and several calibration blanks associated with the ICP analyses in this SDG. All blanks were 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 results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of six (6) soil samples for total mercury and one (1) soil sample for TCLP-mercury. The TCLP sample was collected on August 15, 2011 and all other samples were collected on August 16, 2011.

The mercury analyses were performed using USEPA SW846 Method 1311/7470A and total mercury analyses were performed with SW7471A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the two LCSs. Both %Rs were compliant.

Precision

Precision was evaluated using the %RPD of the parent and FD sample results. Sample RMU2-SS65 was collected in duplicate. Both results were less than the reporting limit.

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 initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of six (6) soil samples including one FD. All samples were collected on August 16, 2011 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 by comparing parent and FD sample results. Sample RMU2-SS65 was collected in duplicate. None of the target explosive compounds were detected in parent or FD sample.

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blank for cross contamination of samples during sample 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 few 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 B27, RMU2, and WWTP

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) samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on August 30, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from B27, RMU2, and WWTP:

65549

Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), explosives, and total metals.

Not all samples in this SDG were analyzed for all parameters.

Field QC samples collected in association with this SDG included one trip blank (TB) for VOCs and one set of parent and field duplicate (FD). Not all QC samples were analyzed for all parameters.

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. Both coolers were received by the laboratory at a temperature of 2.5°C which was within the 2 – 6 degree recommended.

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.

ICP METALS

General

The ICP metals portion of this SDG consisted of eight (8) soil samples and one FD. All samples were collected on August 17, 2011 and were analyzed for arsenic, barium, cadmium, chromium, copper, lead, nickel and zinc.

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

The ICP metals samples were digested in one digestion batch.

Accuracy

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

All LCS recoveries were within acceptance criteria.

Precision

Precision was evaluated based on the relative percent difference (%RPD) of the parent/FD results.
Sample B27-SW83 was collected in duplicate.
%RPD calculation is applicable when both parent and FD sample results are greater than reporting limits (RLs).

B27-SW83

Metals	Parent, mg/kg	FD, mg/kg	%RPD	Criteria, %RPD
Barium	35.4	36.4	2.8	
Copper	24.27	15.69	**43**	
Lead	27.38	36.83	**29**	≤ 20
Nickel	17.28	9.28	**60**	
Zinc	48.7	50.5	3.6	

"J" flags were applied to copper, lead, and nickel results of all samples in this SDG.

Representativeness

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

- Comparing the COC procedures to those described in the 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 ICV 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.
- The dilution test (DT) was performed on sample B27-SW84 and it was applicable for barium, chromium, and nickel:

B27-SW84

Metals	%D	Criteria, %D
Barium	2.41	
Chromium	0.39	≤10
Nickel	4.81	

- A PDS was analyzed on the same samples as the DT.

B27-SW84

Metals	%R	Criteria, %R
Arsenic	80	
Cadmium	**70**	
Copper	84	
Lead	**73**	75-125
Zinc	**70**	

Parsons data validator removed the "J" flags applied to all lead results in this SDG due to minor exceedances. However, lead was already flagged "J" for non-compliant FD RPD.
There were one method blank and several continuing calibration blanks involved in this SDG. All results were compliant.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.
All ICP results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of eight (8) soil samples and one FD. All samples were collected on August 17, 2011 and were analyzed for mercury.

The mercury analyses were performed using USEPA SW846 Method 7471A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

The mercury samples were prepared in one analytical batch.

Accuracy

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

The LCS recovery was within acceptance criteria.

Precision

Precision was evaluated based on the %RPD of the parent/FD sample results. Sample B27-SW83 was collected in duplicate.

Both parent and FD samples have no detection of mercury at the reporting limit level.

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

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

Completeness

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

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

VOLATILES

General

This data package consisted of two (2) soil samples and one (1) TB. These samples were collected on August 17, 2011 and were analyzed for a full list of VOCs.

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

Accuracy

Accuracy was evaluated using the %R obtained from the three LCSs and the surrogate spikes.

All LCSs recoveries were within acceptance criteria.

Surrogate 4-bromofluorobenzene had %R of 63% for sample B27-SS18. The extract was re-injected (waiting for lab's response)

Precision

Precision could not be evaluated due to the lack of duplicate analyses 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 and TB for cross contamination of samples during sample collection and analysis.

All samples 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 three LCSs were prepared with a secondary source standard. All second source verification criteria were met.
- All ICV criteria were met.
- All CCV criteria were met.
- Internal standard, 1,4-dichlorobenzene-d4, recovered low in both samples and both runs. This caused possible high biased results. Since none of the VOCs were detected above the reporting limit, no flag or corrective action is needed.

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

Completeness

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

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

SEMI-VOLATILES

General

This data package consisted of two (2) soil samples. These samples were collected on August 17, 2011 and were analyzed for a full list of SVOCs.

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

Accuracy

Accuracy was evaluated using the %R obtained from the LCS and the surrogate spikes.

All LCS and surrogate spike recoveries were within acceptance criteria.

Precision

Precision could not be evaluated due to the lack of duplicate analyses 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 blank for cross contamination of samples during sample analysis.

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

- All instrument performance check criteria were met.
- All initial calibration criteria were met.
- 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.
- All internal standard criteria were met.

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

Completeness

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

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

EXPLOSIVES

General

This data package consisted of two (2) soil samples. Both samples were collected on August 17, 2011 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. 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

Due to the lack of duplicate analyses involved in this SDG, precision could not be measured.

Representativeness

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

- Comparing the COC procedures to those described in the CSSA QAPP;
- Comparing actual analytical procedures to those described in the CSSA QAPP;
- Evaluating holding times; and
- Examining laboratory blank for cross contamination of samples during sample 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 few 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 RMU2

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers two waste characterization soil samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on August 17, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

65431

Samples were analyzed for TCLP-metals including arsenic, barium, cadmium, chromium, lead, selenium and silver.

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 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; 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.

ICP TCLP-METALS

General

This SDG consisted of two (2) soil samples for TCLP metals. The TCLP samples were collected on August 17, 2011. TCLP metals included arsenic, barium, cadmium, chromium, lead, selenium, and silver.

The ICP TCLP-metals analyses were performed using USEPA SW846 Method 1311/6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All 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 laboratory control sample (LCS).

All LCS recoveries were within acceptance criteria.

Precision

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

Representativeness

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

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

The 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.

There were one method blank (MB) and several calibration blanks associated with the ICP TCLP analyses in this SDG. All blanks were 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 TCLP metal results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of two (2) soil samples for TCLP mercury. These samples were collected on August 17.

The mercury analyses were performed using USEPA SW846 Method 1311/7470A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS. The %R was compliant.

Precision

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

Representativeness

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

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

The 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 initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

DATA VERIFICATION SUMMARY REPORT

for samples collected from RMU2

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Tammy Chang
Parsons - Austin

INTRODUCTION

The following data verification summary report covers three waste characterization soil samples collected from Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on August 18, 2011. The samples in the following Sample Delivery Group (SDG) included samples collected from RMU2:

65457

Samples were analyzed for TCLP-metals including arsenic, barium, cadmium, chromium, lead, selenium and silver.

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 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; 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.

ICP TCLP-METALS

General

This SDG consisted of three (3) soil samples for TCLP metals. The TCLP samples were collected on August 18, 2011. TCLP metals included arsenic, barium, cadmium, chromium, lead, selenium, and silver.

The ICP TCLP-metals analyses were performed using USEPA SW846 Method 1311/6010B. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All 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 laboratory control sample (LCS).

All LCS recoveries were within acceptance criteria.

Precision

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

Representativeness

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

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

The 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.

There were one method blank (MB) and several calibration blanks associated with the ICP TCLP analyses in this SDG. All blanks were 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 TCLP metal results for the samples in this SDG were considered usable. The completeness for the ICP portion of this SDG is 100%, which meets the minimum acceptance criteria of 90%.

MERCURY

General

The mercury portion of this SDG consisted of three (3) soil samples for TCLP mercury. These samples were collected on August 18.

The mercury analyses were performed using USEPA SW846 Method 1311/7470A. All samples in this SDG were analyzed following the procedures outlined in the CSSA QAPP. All samples were prepared and analyzed within the holding time required by the method.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS. The %R was compliant.

Precision

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

Representativeness

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

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

The 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 initial calibration criteria were met.
- All calibration verification criteria were met.
- All second source verification criteria were met. Both ICV were prepared using a secondary source.

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

Completeness

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

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

DATA VERIFICATION SUMMARY REPORT

for RMU-2 samples collected from

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Katherine LaPierre
Parsons - Austin

INTRODUCTION

The following data verification summary report covers soil samples and one waste characterization sample collected from RMU-2 at Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on August 31, 2011. The samples were assigned to the following Sample Delivery Group (SDG):

65566

The samples in this SDG were analyzed for the parameters noted in the following table. No field quality control (QC) samples were collected in association with this SDG. 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. The samples in this SDG were shipped to the laboratory in one cooler. The cooler was received by the laboratory at a temperature of 2.0ºC, which was within the 2-6ºC range recommended by the CSSA QAPP.

SAMPLE IDs AND REQUESTED PARAMETERS

Sample ID	Matrix	Explosives	Lead	TCLP Metals
RMU2-SS69	S	X	X	
RMU2-SS70	S		X	
RMU2-SS71	S		X	
RMU2-WC25	S			X

S = Soil

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.

EXPLOSIVES

General

The explosives portion of this SDG consisted of one (1) soil sample. The sample was collected on August 31, 2011 and was analyzed for the full list of explosives as specified in the Work Plan.

The explosives analyses were performed according to the United States Environmental Protection Agency (USEPA) SW846 Method 8330B. The sample in this SDG was analyzed following the procedures outlined in the laboratory Standard Operation Procedure (SOP) which was approved by USACE. The sample was prepared and analyzed within the holding time required by the method.

The explosives sample was extracted in one batch (#159085). The sample was analyzed in one batch under a single initial calibration (ICAL). The analysis was performed undiluted.

Accuracy

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

All LCS and surrogate spike recoveries were within acceptance criteria.

Precision

Precision could not be evaluated for the explosives portion of this SDG because no duplicate analyses were performed.

Representativeness

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

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

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

- All initial calibration criteria were met.
- All secondary source verification criteria were met.
- All initial calibration verification (ICV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.

There was one method blank associated with the explosives analyses in this SDG. All target explosives were non-detect in the method blank.

Completeness

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

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

LEAD

General

The lead portion of this SDG consisted of three (3) soil samples. The samples were collected on August 31, 2011 and were analyzed for lead.

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

The samples for lead analyses were digested in one batch (#159013). The samples were analyzed in one batch under a single ICAL. Sample RMU2-SS70 required a 5000x dilution due to the high concentration of lead present. All other analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS sample.

The LCS recovery for lead was within acceptance criteria.

Precision

Precision could not be evaluated for the lead portion of this SDG because no duplicate analyses were performed.

Representativeness

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

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

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

- All instrument initial calibration criteria were met.
- Lead met criteria in the low-level check standard.
- All second source criteria were met. The ICV samples were prepared using a secondary source.

- All CCV criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The dilution test (DT) was performed on sample RMU2-SS71 but was not applicable since lead was not detected in the parent sample at a concentration of 50 times the MDL or greater.
- The post digestion spike (PDS) was performed on the same sample as the DT. Lead failed to meet criteria in the DT, as follows:

Metal	%R	Criteria
Lead	72	75 – 125%

The lead results for all samples in this SDG were flagged "J" as estimated due to the non-compliant PDS results.

There was one method blank and several calibration blanks associated with the lead analyses in this SDG. All blanks were non-detect for lead.

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. Therefore, the completeness for the lead portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

TCLP METALS

General

The TCLP metals portion of this SDG consisted of one (1) soil sample. The sample was collected on August 31, 2011. The sample was prepared using Toxicity Characteristic Leaching Procedure (TCLP) method USEPA SW1311. The leachate was then analyzed for the standard list of TCLP metals which included arsenic, barium, cadmium, chromium, lead, selenium, and silver. The TCLP metals analyses were performed using USEPA SW846 Method 6010B. The sample was analyzed following the procedures outlined in the Work Plan. The sample was prepared and analyzed within the holding time required by the method and the Work Plan.

The sample for TCLP metals was digested in one batch (#159025). The sample was analyzed in one batch under a single ICAL. The sample was analyzed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS sample.

All LCS recoveries were within acceptance criteria.

Precision

Precision could not be evaluated for the TCLP metals portion of this SDG because no duplicate analyses were performed.

Representativeness

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

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

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

- All instrument initial calibration criteria were met.
- All metals met criteria in the low-level check standards.
- All second source criteria were met. The ICV samples were prepared using a secondary source.
- All CCV criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The DT/PDS analysis was not applicable for TCLP.

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

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.
All TCLP metals results for the samples in this SDG were considered usable. Therefore, the completeness for the TCLP metals portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

TCLP MERCURY

General

The mercury portion of this SDG consisted of one (1) soil sample. The sample was collected on August 31, 2011. The sample was prepared using TCLP method USEPA SW1311. The leachate was then analyzed for mercury using USEPA Method SW7470A.

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

The mercury sample was digested in one batch (#159009). The sample was analyzed in a one batch under a single ICAL. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS sample.

The LCS recovery for mercury was within acceptance criteria.

Precision

Precision could not be evaluated for mercury because no duplicate analyses were performed.

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.

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

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

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

DATA VERIFICATION SUMMARY REPORT

for RMU-2 samples collected from

CAMP STANLEY STORAGE ACTIVITY

BOERNE, TEXAS

Data Verification by: Katherine LaPierre
Parsons - Austin

INTRODUCTION

The following data verification summary report covers soil samples and waste characterization samples collected from RMU-2 at Camp Stanley Storage Activity (CSSA) under Environmental Protection Support, Investigations, and Treatability Studies on September 13, 2011. The samples were assigned to the following Sample Delivery Group (SDG):

65669

The samples in this SDG were analyzed for the parameters noted in the following table. No field quality control (QC) samples were collected in association with this SDG. 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. The samples in this SDG were shipped to the laboratory in one cooler. The cooler was received by the laboratory at a temperature of 2.5ºC, which was within the 2-6ºC range recommended by the CSSA QAPP.

SAMPLE IDs AND REQUESTED PARAMETERS

Sample ID	Matrix	Lead	TCLP Metals
RMU2-SS75	S	X	
RMU2-SS76	S	X	
RMU2-WC26	S		X
RMU2-WC27	S		X

S = Soil

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.

LEAD

General

The lead portion of this SDG consisted of two (2) soil samples. The samples were collected on September 13, 2011 and were analyzed for lead.

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

The samples for lead were digested in one batch (#159317). The samples were analyzed in one batch under a single ICAL. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS sample.

The LCS recovery for lead was within acceptance criteria.

Precision

Precision could not be evaluated for the lead portion of this SDG because no duplicate analyses were performed.

Representativeness

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

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

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

- All instrument initial calibration criteria were met.
- Lead met criteria in the low-level check standard.
- All second source criteria were met. The ICV sample was prepared using a secondary source.
- All CCV criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The dilution test (DT) was performed on sample RMU2-SS76. Lead failed to meet criteria in the DT, as follows:

Metal	%D	Criteria
Lead	21	%D ≤ 10

- The post digestion spike (PDS) was performed on the same sample as the DT. Lead

failed to meet criteria in the DT, as follows:

Metal	%R	Criteria
Lead	72	75 – 125%

The lead results for both samples were flagged "J" as estimated due to the non-compliant PDS results.

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

Completeness

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

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

TCLP METALS

General

The TCLP metals portion of this SDG consisted of two (2) soil samples. The samples were collected on September 13, 2011. The samples were prepared using Toxicity Characteristic Leaching Procedure (TCLP) method USEPA SW1311. The leachates were then analyzed for the standard list of TCLP metals which included arsenic, barium, cadmium, chromium, lead, selenium, and silver. The TCLP metals analyses were performed using USEPA SW846 Method 6010B. Both samples were analyzed following the procedures outlined in the Work Plan. Both samples were prepared and analyzed within the holding time required by the method and the Work Plan.

The samples for TCLP metals were digested in one batch (#159316). The samples were analyzed in one batch under a single ICAL. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS sample.

All LCS recoveries were within acceptance criteria.

Precision

Precision could not be evaluated for the TCLP metals portion of this SDG because no duplicate analyses were performed.

Representativeness

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

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;

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

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

- All instrument initial calibration criteria were met.
- All metals met criteria in the low-level check standards.
- All second source criteria were met. The ICV sample was prepared using a secondary source.
- All CCV criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The DT/PDS analysis was not applicable for TCLP.

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

Completeness

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

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

TCLP MERCURY

General

The mercury portion of this SDG consisted of two (2) soil samples. The samples were collected on September 13, 2011. The sample was prepared using TCLP method USEPA SW1311. The leachate was then analyzed for mercury using USEPA Method SW7470A.

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

The samples for mercury were digested in one batch (#159258). The samples were analyzed in a one batch under a single ICAL. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS sample.

The LCS recovery for mercury was within acceptance criteria.

Precision

Precision could not be evaluated for mercury because no duplicate analyses were performed.

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.

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

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

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

APPENDIX E

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 F

Waste Characterization Sampling Results for RMU-2

Validated Analytical Results for CSSA RMU-2 Waste Characterization Samples Collected March through September 2011

SAMPLE ID:		RMU2-WC01		RMU2-WC02		RMU2-WC03		RMU2-WC04		RMU2-WC05		RMU2-WC06		RMU2-WC07		RMU2-WC08		RMU2-WC09		RMU2-WC10		RMU2-WC11		RMU2-WC12		RMU2-WC13		RMU2-WC14	
DATE SAMPLED:		3/1/2011		3/1/2011		3/1/2011		3/1/2011		6/2/2011		6/2/2011		6/2/2011		6/2/2011		6/6/2011		6/6/2011		6/8/2011		6/8/2011		6/8/2011		6/8/2011	
LAB SAMPLE ID:		AY33430		AY33431		AY33432		AY33433		AY39114		AY39115		AY39116		AY39117		AY39196		AY39197		AY39421		AY39422		AY39423		AY39424	
	Units																												
Metals - SW6010B/SW7471A																													
Arsenic	mg/kg	**3.7**	F	**4.2**	F	**4.6**	F	**4.2**	F	--		--		--		--		--		--		--		--		--		--	
Barium	mg/kg	**16**		**19**		**28**		**34**		--		--		--		--		--		--		--		--		--		--	
Cadmium	mg/kg	0.030	UJ	0.030	UJ	0.030	UJ	0.030	UJ	--		--		--		--		--		--		--		--		--		--	
Chromium	mg/kg	**4.2**	F	**5.0**	F	**5.8**	F	**6.4**	F	--		--		--		--		--		--		--		--		--		--	
Lead	mg/kg	**1,700**		**2,400**		**9,700**		**6,000**		--		--		--		--		--		--		--		--		--		--	
Mercury	mg/kg	**0.020**	F	**0.020**	F	**0.030**	F	**0.060**	F	--		--		--		--		--		--		--		--		--		--	
Selenium	mg/kg	0.20	UJ	0.20	UJ	0.20	UJ	0.20	UJ	--		--		--		--		--		--		--		--		--		--	
Silver	mg/kg	**1.9**	J	**1.7**	J	**1.6**	J	**0.84**	F	--		--		--		--		--		--		--		--		--		--	
TCLP Metals - SW6010B/SW7470A																													
Arsenic	mg/L	--		--		--		--		**0.021**	F	**0.024**	F	**0.022**	F	**0.019**	F	**0.023**	F	**0.024**	F	**0.022**	F	**0.020**	F	**0.021**	F	**0.022**	F
Barium	mg/L	--		--		--		--		**0.42**		**0.33**		**0.16**		**0.36**		**0.39**		**0.37**		**0.42**		**0.39**		**0.31**		**0.36**	
Cadmium	mg/L	--		--		--		--		0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U
Chromium	mg/L	--		--		--		--		0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Lead	mg/L	**6.9**		**5.0**		**47**		**7.8**		**1.4**		**1.3**		**0.0063**	F	**0.95**		**0.69**		**0.84**		**0.015**	F	**0.10**		**0.099**		**0.054**	
Mercury	mg/L	--		--		--		--		**0.00020**	F	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U
Selenium	mg/L	--		--		--		--		0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Silver	mg/L	--		--		--		--		**0.014**		**0.0021**	F	**0.00040**	F	**0.00060**	F	**0.014**		**0.014**		**0.016**		**0.016**		**0.014**		**0.016**	

SAMPLE ID:		RMU2-WC15		RMU2-WC16		RMU2-WC17		RMU2-WC18		RMU2-WC19		RMU2-WC20		RMU2-WC21		RMU2-WC22		RMU2-WC23		RMU2-WC24		RMU2-WC25		RMU2-WC26		RMU2-WC27	
DATE SAMPLED:		8/10/2011		8/10/2011		8/10/2011		8/15/2011		8/17/2011		8/17/2011		8/18/2011		8/18/2011		8/18/2011		8/30/2011		8/31/2011		9/13/2011		9/13/2011	
LAB SAMPLE ID:		AY44180		AY44181		AY44182		AY44536		AY44741		AY44742		AY44929		AY44930		AY44928		AY45484		AY45561		AY46223		AY46225	
	Units																										
Metals - SW6010B/SW7471A																											
Arsenic	mg/kg	--		--		--		--		--		--		--		--		--		--		--		--		--	
Barium	mg/kg	--		--		--		--		--		--		--		--		--		--		--		--		--	
Cadmium	mg/kg	--		--		--		--		--		--		--		--		--		--		--		--		--	
Chromium	mg/kg	--		--		--		--		--		--		--		--		--		--		--		--		--	
Lead	mg/kg	--		--		--		--		--		--		--		--		--		--		--		--		--	
Mercury	mg/kg	--		--		--		--		--		--		--		--		--		--		--		--		--	
Selenium	mg/kg	--		--		--		--		--		--		--		--		--		--		--		--		--	
Silver	mg/kg	--		--		--		--		--		--		--		--		--		--		--		--		--	
TCLP Metals - SW6010B/SW7470A																											
Arsenic	mg/L	**0.011**	F	**0.0070**	F	**0.0070**	F	0.0020	U	**0.0050**	F	**0.0070**	F	**0.0040**	F	**0.0040**	F	**0.0050**	F	**0.013**	F	**0.010**	F	**0.0070**	F	**0.013**	F
Barium	mg/L	**0.69**		**0.66**		**0.52**		**0.30**		**0.37**		**0.38**		**0.48**		**0.48**		**0.45**		**0.47**		**0.38**		**0.34**		**0.62**	
Cadmium	mg/L	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U	0.00030	U
Chromium	mg/L	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	**0.0020**	F	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Lead	mg/L	**0.94**		**14**		**1.2**		**0.066**		**0.33**		**0.059**		**2.5**		**0.26**		**1.0**		**0.057**		**0.17**		**0.43**		**0.062**	
Mercury	mg/L	**0.00020**	F	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U	0.00010	U
Selenium	mg/L	0.0020	U	**0.0030**	F	0.0020	U	0.0020	U	**0.0060**	F	**0.0050**	F	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Silver	mg/L	**0.031**		**0.037**		**0.037**		**0.0059**	F	**0.0073**	F	**0.0061**	F	**0.020**		**0.019**		**0.017**		**0.017**		**0.018**		**0.0037**	F	**0.0025**	F

QA NOTES AND DATA QUALIFIERS:

(NO CODE) - Confirmed identification.
U - Analyte was not detected above the indicated Method Detection Limit (MDL).
J - Analyte was positively identified, but the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria
UJ - Analyte was not detected above the indicated RL; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria
Detections are **bolded**.

APPENDIX G

ProUCL Statistical Calculation Summary for Lead in RMU-2 Soils

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

C1

General Statistics

Number of Valid Observations	35	Number of Distinct Observations	35

Raw Statistics		Log-transformed Statistics	
Minimum	1.66	Minimum of Log Data	0.507
Maximum	248.8	Maximum of Log Data	5.516
Mean	52.43	Mean of log Data	3.395
Median	41.23	SD of log Data	1.217
SD	56.21		
Std. Error of Mean	9.502		
Coefficient of Variation	1.072		
Skewness	2.11		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.764	Shapiro Wilk Test Statistic	0.952
Shapiro Wilk Critical Value	0.934	Shapiro Wilk Critical Value	0.934
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	68.5	95% H-UCL	110.7
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	126.1
95% Adjusted-CLT UCL (Chen-1995)	71.68	97.5% Chebyshev (MVUE) UCL	154.6
95% Modified-t UCL (Johnson-1978)	69.07	99% Chebyshev (MVUE) UCL	210.4

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.951	Data appear Gamma Distributed at 5% Significance Level
Theta Star	55.12	
MLE of Mean	52.43	
MLE of Standard Deviation	53.76	
nu star	66.59	
Approximate Chi Square Value (.05)	48.81	**Nonparametric Statistics**
Adjusted Level of Significance	0.0425	95% CLT UCL 68.06
Adjusted Chi Square Value	48.09	95% Jackknife UCL 68.5
		95% Standard Bootstrap UCL 67.83
Anderson-Darling Test Statistic	0.235	95% Bootstrap-t UCL 73.92
Anderson-Darling 5% Critical Value	0.775	95% Hall's Bootstrap UCL 74.6
Kolmogorov-Smirnov Test Statistic	0.0683	95% Percentile Bootstrap UCL 69.51
Kolmogorov-Smirnov 5% Critical Value	0.153	95% BCA Bootstrap UCL 70.18
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 93.85
		97.5% Chebyshev(Mean, Sd) UCL 111.8
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 147
95% Approximate Gamma UCL	71.53	
95% Adjusted Gamma UCL	72.61	

Potential UCL to Use	
Use 95% Approximate Gamma UCL	71.53

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.