

APPENDIX C
B-30 -- EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Activity	Objectives	Action	Objective Attained?	Recommendations
Objective 1: Meet TNRCC Requirements for Site Closure				
Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background				
Attainment of Risk Reduction Standard 1	Remove all hazardous and nonhazardous waste and waste residues and contaminated design and operating system components such as liners, leachate collection systems, and dikes from the unit or area of the unauthorized discharge. For remediation of media that have become contaminated by releases from a waste management unit or by other unauthorized discharge of hazardous or nonhazardous waste, the contaminated media must be removed or decontaminated to cleanup levels specified in this section (30 TAC 335.554(b) and (c)).	A geophysical survey was conducted to determine if there is evidence of buried waste at the site. The survey indicated the presence of buried waste. Records and visual confirmation indicate waste management activities throughout the SWMU.	Yes. Waste and waste residue has been excavated and removed from the site. The area of the geophysical anomaly was excavated to bedrock.	Metals concentrations were not reported above background levels for the confirmation samples. Site closure under RRS1.

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	<p>Determine compliance with RRS1 closure requirements by comparing background as represented by results of analyses of samples taken from media that are unaffected by waste management or industrial activities. If the practical quantitation limit (PQL) is greater than background, then the PQL rather than background shall be used as the cleanup level provided that the person satisfactorily demonstrates to the executive director that lower levels of quantitation of a contaminant are not possible (30 TAC 335.554(d)).</p>	<p>Contaminant concentrations were compared to draft revised background levels (Parsons ES, May 2001) or RLs, which are equivalent to PQLs.</p>	<p>Yes. Confirmation sampling for copper, nickel, lead and zinc showed all samples were below background levels.</p>	<p>Site closure under RRS1.</p>
	<p>Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern (30 TAC 335.554(e)).</p>	<p>Soil samples were collected at the site and analyzed for contaminants of potential concern.</p>	<p>Yes.</p>	<p>NA.</p>

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Objective 2: Meet Requirements of 3008(h) Order for RFI				
RFI Workplan Requirements				
Field Sampling <i>(Detailed listing of methods and procedures are provided in project plans which are incorporated by reference).</i>	Conduct field sampling in accordance with procedures defined in the project work plan, SAP, QAPP, and HSP.	All sampling was conducted in accordance with the procedures described in the project plans.	Yes.	NA
Facility Investigation				
Characterization of Environmental Setting - Hydrogeology (B.3.A.1)	Evaluate hydrogeologic conditions at the site.	Shallow groundwater was not encountered during drilling at the site. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.	NA	NA
Characterization of Environmental Setting- Soils (B.3.A.2)	Characterize soils in accordance with USCS soil classification system (B.3.A.2(a)).	Soil types at the site are based on the SCS Bexar County Soil Survey (USDA, 1991) and are described in Section 1.3.1.	Yes.	NA
	Determine soil pH (B.3.A.2(e)).	The pH of each of the soil types evaluated as part of the background metals concentration study was determined through laboratory analysis. According to those analyses, the pH of Krum Complex soils is 7.87.	Yes.	NA
	Determine moisture content (B.3.A.2(g)).	The moisture content of each sample was analyzed. Moisture content values are provided in the laboratory data packages.	Yes.	NA

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Characterization of Environmental Setting – Surface Water and Sediment (B.3.A.3)	Characterize marshes, creeks, wetland areas, or ditches at the site.	No marshes, creeks, wetland areas, or ditches are present at the site. Direction of runoff flow has been evaluated in Section 1.2.	Yes.	NA
Source Characterization (B.3.B)	Identify the source area (B.3.B.1).	A description of the source area is provided in Section 1.2.2.2.	Sampling at the site was biased toward areas most suspected of contamination, including the construction debris piles. Waste was excavated and removed.	NA
	Identify the location of the unit/disposal area (B.3.B.2(a)).	In March 1999, points along the boundary of each site were surveyed with a Rockwell Plugger GPS unit (estimated accuracy of ±25 feet). The measurement points were identified by the CSSA Environmental Coordinator. The boundary of the site was reviewed during preparation of this report and adjusted, if necessary, based on observations made during the field investigation.	Yes. Although the accuracy of the boundary survey of the site is estimated to have an approximate error of 25 feet, this accuracy is sufficient for closure under RRS1.	NA
	Identify the type of unit/disposal area (B.3.B.2(b)).	The type of unit/disposal area was identified in the Environmental Assessment, and by visual observation of waste in the field.	We know the type of disposal at most sites based on records review, interviews with base personnel, and aerial photo review.	NA
	Identify design features (B.3.A.2(c)).	Information regarding design features was obtained during the Environmental Assessment (ES, 1992) and through visual observation during the field investigation. All available information regarding the design of the disposal site is provided in Section 1.2.	Yes	NA

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	<p>Identification of past and present operating practices, period of operation, age of unit/disposal area, and method used to close the unit/disposal area (B.3.B.2(d), (e), (f), and (h)).</p>	<p>All known information regarding these items is provided in Section 1.2. This information is from the Environmental Assessment, records review, interviews, aerial photo review, and visual observations.</p>	<p>To the extent possible with data available.</p>	<p>NA</p>
	<p>Determine general physical conditions of the site (B.3.B.2(g))</p>	<p>The general physical condition of the site was determined during the field investigation. This information is presented in Section 1.2.</p>	<p>Yes.</p>	<p>NA</p>
	<p>Identify waste characteristics, including type of waste placed in the unit, physical and chemical characteristics of the wastes, and migration and dispersal characteristics of the waste (B.3.B.3).</p>	<p>Records regarding historic waste disposal practices at CSSA are very limited. All known information derived from the Environmental Assessment, records review, interviews, and visual observations at the site is provided in Section 1.2.</p>	<p>Yes.</p>	<p>NA</p>
<p>Contamination Characterization – Groundwater (B.3.C.1)</p>	<p>Characterize the vertical and horizontal extent of groundwater contamination.</p>	<p>Shallow groundwater was not encountered during drilling at the site. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.</p>	<p>NA</p>	<p>NA</p>
<p>Contamination Characterization – Soil (B.3.C.2)</p>	<p>Determine vertical and horizontal extent of contamination (B.3.C.2(a)).</p>	<p>Surface and subsurface samples were collected from borings advanced in areas thought to contain contamination.</p>	<p>Yes. Horizontal and vertical extent of contamination was identified during the RFI, and all waste and waste residue was removed during closure actions.</p>	<p>NA</p>

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	Describe soil properties (B.3.C.2(c)).	See “Characterization of Environmental Setting – Soils” above.	Yes.	NA
	Identify the direction of contaminant movement (B.3.C.2(d)).	No action taken due to the limited number of above background detections.	NA	NA
	Extrapolate future contaminant movement (B.3.C.2(e)).	No action taken due to the limited number of above background detections.	NA	NA
	Implement a soil boring investigation to determine the extent of soil contamination. Soil gas monitoring will be performed during drilling of all borings. Laboratory analysis of borings for contaminants of potential concern will be performed on soils at depths where either visual contamination is evident, or soil gas concentrations indicate contamination. All boreholes shall be properly abandoned.	A phased approach was taken for the investigation SWMU B-30. The first phase included a geophysical survey to determine if any potential contamination exists at the site and to determine the extent of past waste management activities. Surface and subsurface soil samples were then collected to determine if there is surface and subsurface contamination.	Yes. Contamination was discovered in the samples that were collected, and waste was excavated and removed. Confirmation samples indicated that the metals were below background concentrations in soil.	Site closure under RRS1.
	Prepare a map of all areas included in the investigation (B.3.C.2(i)).	Figures included in this report show all areas included in the investigation.	Yes.	NA

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	All reporting limits should be below regulatory criteria.	RLs were approved by TCEQ on October 5, 1999. RLs are considered RRS1 standards for all analytes except metals. CSSA background metals levels were approved by TCEQ in April 2002.	Yes.	NA
	Perform all analyses in accordance with the AFCEE/CSSA QAPP.	All analyses were performed in accordance with the AFCEE/CSSA QAPP and approved variances.	Yes.	NA
		All data flagged with “U,” “F,” “M,” and “J” are considered usable for site characterization purposes.	Yes.	NA
		All “R” flagged data are considered unusable. Non-compliance of the relative percent difference (RPD) of the field duplicate collected on the same day lead to “R” flagged data for one metal. There were five sets of field duplicates collected on the same day at different sites. The non-compliant RPD was a field duplicate collected for surface soil samples. This non-compliance resulted in flagging one metal for two soil boring samples. In addition, two out of the five sets of field duplicates collected were for soil boring samples. Both these sets of quality control (QC) data were within QC criteria.	Yes.	The data are considered usable for characterization and closure purposes.
Contaminant Characterization – Sediment and Surface Water (B.3.C.3)	Conduct a surface water and sediment investigation to characterize contamination resulting from releases at the Facility.	SWMU B-30 is located in the southwestern portion of CSSA, and there are no creeks or ponds in the immediate vicinity. Therefore, surface water and sediments were not sampled as part of the SWMU B-30 investigation.	Yes.	NA