APPENDIX B

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 RRS1: Closure/ Remediation to Background	Remove all hazardous and non-hazardous 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 non-hazardous waste, the contaminated media must be removed or decontaminated to cleanup levels specified in this section (30 TAC 335.554(b) and (c)).	Geophysical survey was conducted to determine if there is evidence of buried waste at the site. Survey indicated no anomalies or evidence of past waste management activities. Surface soil samples were collected. No analytes were detected above RRS1 criteria.	Yes. Confirmation surface soil sampling was conducted to investigate the chlorinated VOCs detected in the soil gas survey results. In addition, geophysical survey results revealed no evidence of subsurface waste.	RRS1 site closure is recommended.

Activity	Objectives	Action	Objective Attained?	Recommendations
Attainment of RRS1: Closure/ Remediation to Background (cont.)	Determine compliance with RRS1 closure requirements by comparing to 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)).	Contaminant concentrations were compared to RLs for the analytes, specifically, 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, PCE, TCE, and carbon tetrachloride.	Yes. None of the surface soil samples collected exceeded AFCEE RLs; therefore, the site meets RRS1 closure criteria for VOCs.	RRS1 site closure is recommended.
	Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern (30 TAC 335.554(e)).	The COCs detected during the 1995 soil gas survey, i.e.: 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, PCE, TCE, and carbon tetrachloride determined the need for additional surface soil sampling.	Yes. See above.	RRS1 site closure is recommended.

Activity	Objectives	Action	Objective Attained?	Recommendations
Objective 2: Meet Requirements of 3008(h) Order for RFI				
RFI Workplan Requirements				
Field Sampling *(Detailed listing of methods and procedures are provided in project plans which are incorporated by reference).*	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.	Not included in this phase of the RFI at AOC 35. 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 1.2.1.	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 Trinity and Frio soils is 7.90.	Yes.	NA
	Determine moisture content (B.3.A.2(g)).	The moisture content of each sample was analyzed and reported in the laboratory package.	Yes.	NA
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. An intermittent creek is located 50 feet west of AOC 35. Direction of runoff flow was discussed in Section 1.2.1.	Yes.	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
Source Characterization (B.3.B)	Identify the source area (B.3.B.1).	A description of the potential source area is provided in Section 1.1.2.2.	Yes. Sampling at the site was biased toward areas most suspected of contamination. None of the samples collected exceeded closure criteria.	NA
	Identify the location of the unit/disposal area (B.3.B.2(a)).	The boundaries were initially marked from aerial photographs, and confirmed by field investigations.	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)).	An EM geophysical survey and soil gas survey were conducted to investigate the source of COCs detected at Well CS-16. In addition, surface soil samples were collected at the site.	Yes. No disposal area was identified.	NA
	Identify design features (B.3.A.2(c)).	All available information regarding the design of the disposal site is provided in Section 1.1.	Yes. No disposal area was identified.	NA
	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)).	All known information regarding these items is provided in Section 1.1.2.1. This information is from records review, interviews, aerial photo review, and visual observations.	Yes. To the extent possible with data available.	NA
	Determine general physical conditions of the site (B.3.B.2(g))	The general physical condition of the site was determined during the field investigation. This information is presented in Section 1.1.2.3.	Yes.	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
Source Characterization (B.3.B) (cont.)	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).	Records regarding historic waste disposal practices at CSSA are very limited. All known information, derived from the Environmental Assessment (if appropriate for your site), records review, interviews, and visual observations at the site is provided in Section 1.3.	Yes. To the extent possible with the data available.	NA
Contamination Characterization – Groundwater (B.3.C.1)	Characterize the vertical and horizontal extent of groundwater contamination.	Not included in this phase of the RFI at the AOC 35 area. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.	NA	NA
Contamination Characterization – Soil (B.3.C.2)	Determine vertical and horizontal extent of contamination (B.3.C.2(a)).	Surface soil samples were collected to determine horizontal extent of contamination, if any. Subsurface soils were not evaluated because there was no evidence that waste was buried at the site.	NA	NA
	Describe contaminant and soil properties with the contaminant source area, including contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation, and other factors that might affect contaminant migration and transformation (B.3.C.2(b)).	No samples collected at AOC 35 exceeded closure criteria.	NA	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
Contamination Characterization – Soil (B.3.C.2) (cont.)	Describe soil properties (B.3.C.2(c)).	See "Characterization of Environmental Setting – Soils" above.	NA	NA
	Identify the direction of contaminant movement (B.3.C.2(d)).	No samples collected at AOC 35 exceeded closure criteria.	NA	NA
	Extrapolate future contaminant movement (B.3.C.2(e)).	No samples collected at AOC 35 exceeded closure criteria.	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.	Not included in this report for AOC 35. A soil boring investigation is not considered necessary for this site since there is no evidence of buried waste.	Yes.	NA
	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
	All reporting limits should be below regulatory criteria.	RLs were approved by TNRCC on October 5, 1999. RLs are considered RRS1 standards for all analytes except metals.	Yes.	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
Contamination Characterization – Soil (B.3.C.2) (cont.)	Perform all analyses in accordance with the AFCEE QAPP.	All analyses were performed in accordance with the AFCEE QAPP and approved variances.	Yes.	NA
		All data flagged with "U," "F," "M," and "J" are considered usable for site characterization purposes.	Yes.	NA
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.	The site drains west into the nearest surface water feature which is a north-south trending unnamed ephemeral stream that is located on the western edge of the site. The unnamed stream joins Salado Creek approximately 1,500 feet southwest of the site. Therefore, surface water was not sampled as part of the AOC 35 investigation. Sampling of sediments in association with the AOC 35 investigation is not warranted because contamination was not detected at the site.	NA	NA
Potential Receptors (B.3.D).	Collect the information necessary to describe the human populations and environmental systems that are susceptible to contaminant exposure from the Facility.	Information regarding receptors is provided in the Risk Assessment Technical Approach Document (Volume 1-6). In addition, the Well Research Report identifies private groundwater users within 0.25-mile and public water suppliers within 0.5-mile of CSSA	Yes.	NA