APPENDIX B—DATA QUALITY SUMMARY

SWMU B-3 INTERIM REMEDIAL ACTION
CAMP STANLEY STORAGE ACTIVITY
DATA QUALITY SUMMARY REPORT

Introduction

The Camp Stanley SWMU B-3 Interim Remedial Action (IRA) field activities consisted of sampling and analysis in support of trench excavation and waste removal to achieve clean closure at the site. Samples were collected from the borrow source material; closure certification samples from the excavated eastern trench; and waste characterization samples from the Class 1 and Class 2 soil stockpiles, drum, clean soil, and western disposal area exploratory trenches as summarized below:

- One borrow source sample analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and contaminant of concern (COC) metals.

- Four clean soil samples and one field duplicate analyzed for VOCs and COCs metals; one clean soil composite sample analyzed for SVOCs and mercury; five grab soil samples analyzed for zinc and mercury.

- Four Class 1 and Class 2 waste stockpile samples analyzed for Toxicity Characteristic Leaching Procedure (TCLP) VOCs and Texas List metals, and total petroleum hydrocarbons (TPH); one liquid drum sample analyzed for VOCs, COC metals, and TPH.

- Nine western disposal area exploratory trench soil samples analyzed for TCLP VOCs and Texas List metals, and TPH for waste characterization. Three samples were also analyzed for VOCs and COC metals.

- Eighteen western disposal area soil samples analyzed for TCLP VOCs and Texas List metals, and TPH for waste characterization.

- Twelve east trench closure confirmation soil samples analyzed for VOCs and COC metals.

- Five east trench closure confirmation composite soil samples analyzed for SVOCs.

- Seven east trench closure confirmation soil samples and one field duplicate analyzed for trichloroethene and tetrachloroethene; one closure confirmation sample analyzed for copper.

- One east trench closure confirmation soil sample analyzed for SVOCs.

Field Sampling and Analysis

SWMU B-3 IRA sampling and analysis activities were conducted August 28–October 17, 2002, in accordance with the *Volume 1-4: Sampling and Analysis Plan Addendum—SWMU B-3* (USAF, 2002). Columbia Analytical Services, Redding, California, analyzed the IRA samples in accordance with the analytical methods and parameters specified in the project-specific plans. In addition, Severn Trent Laboratories, Corpus Christi, Texas, analyzed the soil samples for TPH in accordance with *Texas Natural Resource Conservation Commission, Method 1005, Revision 03, June 1, 2001*. Analytical methods are taken from the latest revision of the *U.S. Environmental Protection Agency (EPA) SW-846, Test Methods for Evaluating Solid Waste, Third Edition and Updates (1986)*. The analytical methods used for the IRA sampling event are listed below:

Analyte	Method
VOCs	EPA Method 8260B
SVOCs	EPA Method 8270C
COC Metals—arsenic, barium, cadmium, chromium, copper, lead, nickel, zinc, mercury	EPA Methods 6010B/7471A
TPH	TNRCC Method 1005, Rev 03, June 1, 2001
TCLP VOCs	EPA Method 1311–8260B
TCLP Texas List metals—antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, silver	EPA Method 1311–6010B/7470A

Notes:

TCLP   Toxicity Characteristic Leaching Procedure

Quality Assurance/Quality Control

Laboratory quality control (QC) samples associated with the SWMU B-3 IRA sample analyses included method blanks, laboratory control samples, matrix spike samples, and laboratory duplicate samples. Field QC samples for the IRA were collected in accordance with the project-specific work plans and include the following:

- Two field duplicate samples—one for closure confirmation and one for clean soil

- Two equipment rinse blank sample associated with closure confirmation sampling

- Two matrix spike/matrix spike duplicate sample associated with clean soil sampling

- Two trip blank samples—one for clean soil and one for confirmation soil sampling for VOC analysis

Data Validation

Closure confirmation sample analytical data for the SWMU B-3 IRA were validated in accordance with the *Air Force Center for Environmental Excellence Quality Assurance Project Plan Version 3.1*, and the project-specific work plans. Validation was performed by Environmental Data Services, Inc., Concord, New Hampshire. The closure sample validation reports are provided in Attachment 1.

One hundred percent of the closure confirmation sample data were reviewed for the following criteria: holding time compliance, blank data, calibration criteria, surrogate recoveries, internal standard recoveries, matrix spike sample recoveries, laboratory control sample recoveries, metals inductively coupled plasma (ICP) interference check sample and serial dilution, metals post-digestion spike recovery, compound quantitation, and overall data completeness and usability. Data validation resulted in the sample data qualification and data completeness results identified below:

- CSB3ET-EB-1(equipment blank sample)—calibration verification percent difference exceeds criteria for 1,2-dichloroethane (R-qualified signifying unusable data).

- Trip blank (9/17/02)—calibration verification percent difference exceeds criteria for 1,2-dichloroethane (R-qualified signifying unusable data).

- CSB3 ET-6—low internal standard (associated compounds M-qualified).