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MEMORANDUM

TO: Dave Williams, EPA/EFLR

FROM: Karla Granger, BRAL/STM

THRU: Robert C. Overfelt, CPG, E & E/START PM

DATE: August 21, 2000

SUBJECT: Addendum to the Quality Assurance Project Plan for the Preliminary Assessment/Site Inspection/Removal Assessment at the Former Frith's Battery Dump site in Sageville, Iowa.

TDD: S07-0007-010
PAN: 1592FFRAXX
CERCLIS No.: IASFN0703534
EPA SAM: Don Hamera
EPA OSC: DeAndre Singletary

INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division (SUPR) has tasked the Ecology and Environment, Inc. (E & E), Superfund Technical Assessment and Response Team (START) to conduct a Preliminary Assessment/Site Inspection/Removal Assessment (PA/SI/RA) at the Former Frith's Battery Dump site in Sageville, Iowa, under Technical Direction Document (TDD) S07-9910-003. The EPA has requested that additional sampling be performed under TDD S07-0007-010 to address the soil exposure pathway threat in potential source areas. This work is in addition to the work proposed in the Quality Assurance Project Plan (QAPP) for the site (May 15, 2000).

QUALITY ASSURANCE PROJECT PLAN ADDENDUM

for

SOIL SAMPLING

at

The Former Frith's Battery Dump Site

Sageville, Iowa

TDD#: S07-0007-010 PAN#: 1592FFRAXX

Prepared For:

United States Environmental Protection Agency
Region 7 Superfund Division

Prepared By:

Ecology and Environment, Inc.
Superfund Technical Assessment and Response Team

August 21, 2000

APPROVED BY:

E & E/START Project Manager, Jeff Fletcher	21 Aug 00 Date
E & E/START Program Manager, Robert C. Overfelt, CPG	8/21/00 Date
EPA On-Scene Coordinator, DeAndre Singletary	Date
Superfund Quality Assurance Coordinator, Bob Dona	Date

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ADDITIONAL FIELD WORK/LABORATORY ANALYSIS

Because of the inability of the Niton™ X-ray Fluorescence Spectrometer (XRF) to accurately determine arsenic concentrations (as well as erratic results for lead concentrations above 250 ppm), additional samples will be collected to determine those areas requiring excavation. Soil samples will be conducted utilizing the 50- by 50- foot grids established during the June 2000 sampling event. There are 33 grids where samples will be collected for total arsenic analysis. Confirmation samples collected in these cells were shown to contain lead concentrations below the EPA-established removal action level (RAL) of 1,611 milligrams per kilogram (mg/kg). Three additional grids (numbers 22, 24, and 32) will be collected and submitted to a subcontracted laboratory for total lead and arsenic analysis (Attachment A: Site Map). Grid numbers 6, 7, 27, and 38 will not be sampled. Data from the June sampling event indicates that the levels of contaminants present on the surface are below the RALs for lead and arsenic (31.1 mg/kg). For each grid, a surface (0-6 inches) composite sample consisting of five aliquots will be collected with a trowel and an aluminum pie pan. The soil will then be homogenized in an aluminum pie pan with a clean, dedicated stainless steel spoon. The soil in the aluminum pie pan will be placed in an 8-ounce sample jar, labeled, bagged, and placed in an iced cooler.

Subsurface soil samples will be collected with a Geoprobe™ Macro core sampler. At-depth samples (1-2 feet, 4-5 feet, and 7-8 feet below ground surface [bgs]) will be collected in all the aforementioned grids. For each core, the sample tube, which will be lined with a disposable acetate sleeve, will be driven into the ground to the desired depth. The tube will then be returned to the surface where the soil contained in the acetate sleeve will be removed. For the 4-8 foot depth, a second sampler, which will be fitted with a new acetate sleeve, will be placed in the original hole and driven the deeper depth. For each core, the sleeve will be slit lengthwise, placed in an aluminum pie pan, and processed in the aforementioned manner. In several of these grids (numbers 9, 10, 13, 19, 25, 31, and 34), lead contamination has been shown to increase with increasing depth.

A site-specific model has been programmed into a Metorex X-Met 880 XRF. All samples collected will be screened with the XRF to determine lead levels. If the screened values are below the RALs, the sample will not be submitted for total lead analysis. If the screened values exceed the RALs, samples will be submitted for total lead analysis. In addition, five soil samples, which will be collected from areas of high lead and arsenic concentrations (based on previous data), will be submitted to the laboratory for Toxic

Characteristic Leaching Procedure (TCLP) metals analysis. These samples will be taken to determine disposal considerations.

All samples will be packaged and preserved according to Region 7 SOP 2130.4B: "Sample Container Selection, Preservation and Holding Times". Documentation will follow SOPs 2130.2A: "Field Chain of Custody for Environmental Samples" and 2130.3B: "Identification, Documentation and Tracking of Samples". All samples will be submitted to an E & E-subcontracted laboratory for analysis.

Because dedicated supplies will be used for all samples (i.e., stainless steel spoons, new acetate sleeves for each at-depth sample), no rinsate samples will be required to assess the potential for cross-contamination. Analytical error (precision and accuracy) will be determined by the analysis of laboratory-prepared duplicates and spike samples. These criteria, along with other laboratory quality control (QC) elements, will be performed in accordance with the contract laboratory's quality assurance plan.

All laboratory data will be managed as specified in contract laboratory's quality assurance plan. The final data package will be forwarded to a chemist trained in data validation, to complete the validation process. Data review and verification will be performed as specified in the selected laboratory's quality assurance plan. The data will be reviewed by START, according to E & E SOP "Review of Data Packages from E & E Subcontracted Laboratories", to ensure that laboratory spikes, duplicates, blanks, etc., meet acceptable criteria. Any anomalies in the data will be appropriately documented. The results will be summarized and included in the report submitted to EPA.

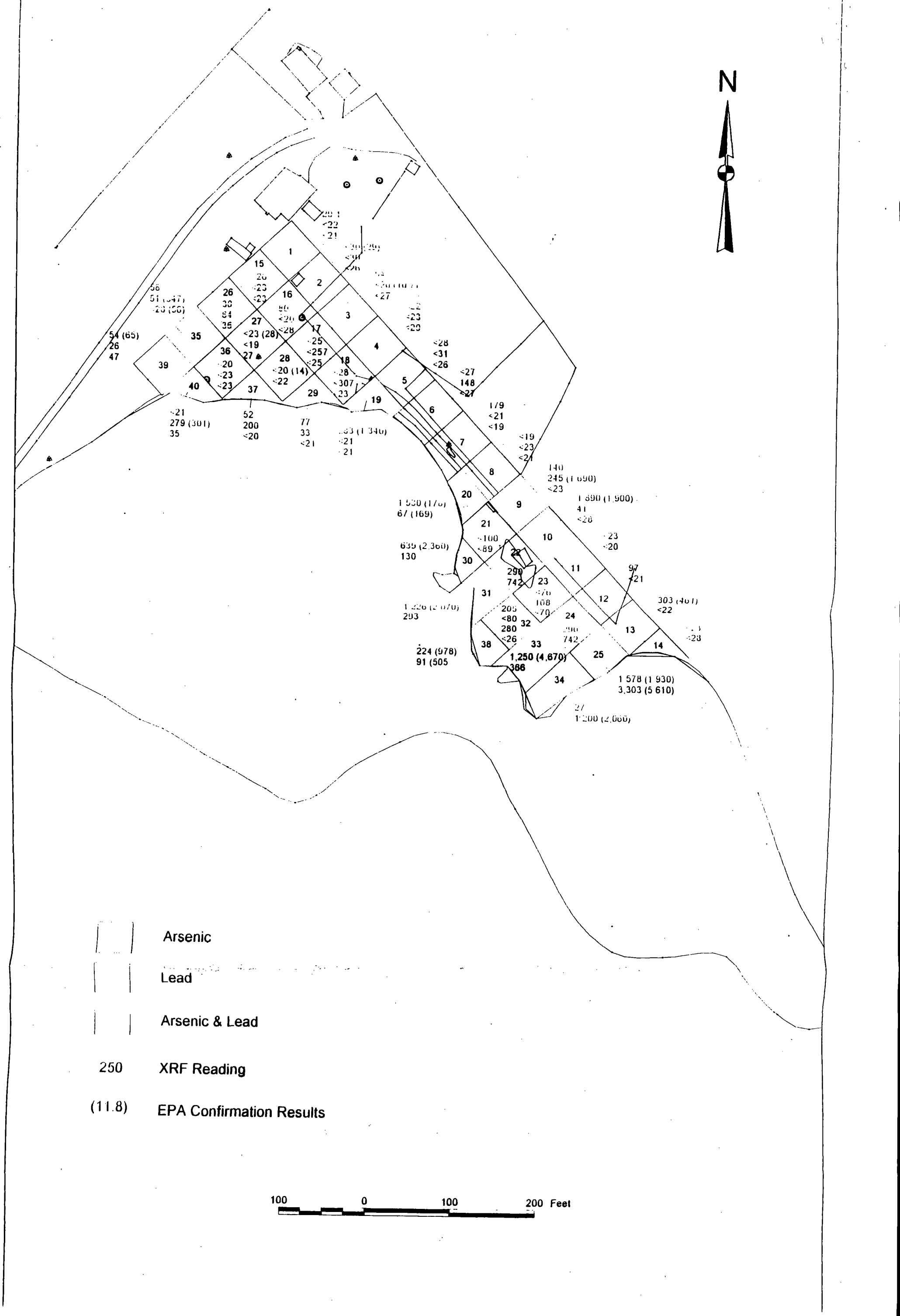
Because of the short duration of this sampling event, no field audits of sampling procedures will be performed. Assessments and response actions pertaining to analytical phases of the project are addressed in the contract laboratory's quality assurance plan, the referenced analytical methods, and in E & E's SOP for review of subcontracted laboratories. Those documents identify out-of-control conditions, who is responsible for initiating corrective actions, and what corrective steps should be taken.

ATTACHMENTS:

A. Figure 1: Site Map

ATTACHMENT A

Figure 1: Site Map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