



ecology and environment, inc.

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International Specialists in the Environment

SCOPE OF WORK Region IX START

El Dorado Hills Naturally Occurring Asbestos Project

Soil Preparation

PAN: 001275.0440.01TA
TDD Number: 09-04-0-0011

1.0 GENERAL

Ecology and Environment, Inc., (E & E), with a business office located at 350 Sansome Street, Suite 300, San Francisco, California 94104, has entered into a contract (Contract No. 68-W-01-012) with the U.S. Environmental Protection Agency (US EPA) to procure as needed various services.

The US EPA has directed E & E to collect and prepare samples for analysis. Surface soil samples will be collected at various locations which may contain naturally occurring asbestos. The sampling is expected to begin in October 2004. The majority of the sampling will be completed over a 10 day period. E & E will collect approximately 230 surface soil samples.

2.0 REQUIREMENTS

2.1 PURPOSE

E & E will collect 230 surface soil samples and submit the sample for preparation following the Standard Operation Procedure (SOP) indicated in Attachment 1. The SOP addresses the drying, sieving, grinding and splitting procedures and requirements. The preparation laboratory will submit the prepared samples and documentation to an E & E designated analytical service laboratory. The preparation laboratory can not be associated with the designated analytical service laboratory that performs these soil sample analysis.

2.2 SPECIFIC PROJECT REQUIREMENTS

All laboratory services will be provided by the E & E contracted laboratory with no sub-contracting of analyses allowed. The preparation laboratory can not be associated with the designated analytical service laboratory that preforms these soil sample analysis. Soil preparation will follow Technical Standard Operating Procedure, *Soil Sample Preparation* (Attachment 1).

To insure quality for the analytical project the following measures are required:

- The service will be conducted by a NVLAP-certified laboratory for the analysis of asbestos.
- The laboratory will have previous experience in the preparation (drying, sieving, grinding, splitting) of soil samples containing naturally occurring asbestos.

2.3 TURNAROUND TIME

Sample turnaround is 10 days from the validated time of sample receipt (VTSR) of the last sample in each sample delivery group (SDG). Turnaround is complete when samples have been received by E & E designated analytical service provider.

2.4 PROTOCOL REQUIRED

Samples are to be prepared, documented, and reported as specified in the SOP. Any modifications to these protocols should be specified and approved prior to acceptance of project.

3.0 QUALITY ASSURANCE/QUALITY CONTROL REQUIREMENTS

Quality control and quality assurance is specified in the SOP.

4.0 DELIVERABLES REQUIREMENTS

Samples prepared by the laboratory for this project will require the following deliverables:

- Prepared samples for archive,
- Prepared samples for analysis,
- QA samples
- Sample drying, sample preparation and equipment calibration log documentation,
- Custody records documentation, and
- Shipment of prepared sample to archive and designated analytical service provider.

Prepared samples will be submitted to the START designated analytical service provider with custody record and copies of the sample drying and sample preparation logs. Copy of the custody records, drying logs, preparation logs and calibration logs (i.e. data package) should be submitted to E & E.

An project is not complete until all deliverable requirements have been met.

4.1 DATA PACKAGE

The data package shall include all copies of the original documentation generated in support of a SOP performed under the contracted Statement of Work. The data packages will be used to demonstrate and document that all requirements of the method have been met. The data packages will be used to support US EPA decisions and cost recovery efforts. Data and data packages may be used to support US EPA civil enforcement activities. The documentation includes, but is not limited to, sample tags, custody records, shipping information, standard preparation records, sample preparation records, and log sheets. The laboratory must maintain all original information and documentation required in the data package for five years. All related method records in permanently bound notebooks and all related computer files must also be maintained for five years. Otherwise, the laboratory must provide original documents and files in the data package rather than copies.

The following deliverables are required in the data package. The following data requirements are included to specify and emphasize general documentation requirements and are not intended to supersede or change the requirements of each method.

- C Raw data (to support all summary data) should include the following:
1. Copies of all sample drying sheets.
 2. Copies of all sample preparation sheets
 3. Copies of appropriate balance calibration and maintenance log sheets.
 4. Copies of appropriate grinder calibration and maintenance log sheets.
 5. Copies of appropriate hood calibration and maintenance log sheets.
 6. Copies of appropriate vacuum maintenance log sheets.
 7. Copies of appropriate oven calibration and maintenance log sheets.
- C Pages within the data package will be numbered sequentially.

5.0 ADDITIONAL REQUIREMENTS

All excess samples and prepared materials related to the samples must be held for six months. Prior to disposal of any sample, E & E must be notified and may require that the samples be returned to E & E, at E & E cost.

Disposal of samples and sample containers must be in compliance with local, state, and federal regulations and will be the responsibility of the laboratory. **Disposal cost must be included in the price of analysis.**

The data package may be independently validated within two months of package receipt. The laboratory will likely be contacted during the validation process to clarify any discrepancies or problems. The laboratory will perform corrective action as required. **All post sampling costs related to validation and corrective actions must be included in the price of analysis.**

All hard data generated in relation to E & E projects must be archived for five years.

Audits may be performed by E & E or the US EPA Quality Assurance Office. Performance Evaluation samples may be submitted to the laboratory at any time.

All work must be performed by the contract specified laboratories.

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