Quality Assurance Project Plan

Removal Site Evaluation
Big River Mine Tailings Site, Operable Unit 1
St. Francois County, Missouri
CERCLIS ID: MOD981126899

September 22, 2010

Prepared by:

U.S. EPA Region VII
901 North Fifth Street
Kansas City, Kansas 66101
Regional Quality Assurance Project Plan Approval

This document has been prepared in accordance with the *EPA Requirements for Quality Assurance Project Plans*, EPA QA/R-5 (March 2001), for use by the U.S. Environmental Protection Agency (EPA), or its designated representatives.

I have reviewed the attached Quality Assurance Project Plan (QAPP) and find that the procedures outlined in this document will result in data that can be used for determining the impact of heavy metals to residential properties, schools and daycare facilities within the Big River Mine Tailings Site Area of Contamination in St. Francois County, Missouri.

Approval:

______________________________  ______________________________
EPA Project Officer                          Date

______________________________  ______________________________
EPA Regional QA Manager             Date
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1. Project Management

1.1. Distribution List

The individuals responsible for the activities identified in this QAPP are as follows:

Region 7 U.S. Environmental Protection Agency (EPA):
Heath Smith, U.S. EPA Region 7 On-Scene Coordinator (OSC)
Jason Gunter, U.S. EPA Region 7 Lead Remedial Project Manager (RPM)
Diane Harris, U.S. EPA Region 7 Regional Quality Assurance Manager (RQAM)

Region 7 Superfund Technical Assessment and Response Team (START):
Ted Faile, START Program Manager
Kathleen Homer, Quality Assurance Manager

Each of these individuals will receive a copy of the approved QAPP and any subsequent modifications.

1.2. Project, Task Organization, and Scope of Work

A Removal Site Evaluation (RSE) will be conducted by the EPA to determine the extent of mine waste contamination in schools, daycares and residential yards in portions of St. Francois County within the Big River Mine Tailings Site's defined Area of Contamination (AOC) or Area of Response (AOR). Heath Smith will serve as the EPA On-Scene Coordinator for the project and will be responsible for ensuring that sampling of environmental media is conducted as described in this Quality Assurance Project Plan (QAPP).

The EPA intends to task the Region 7 START Contractor to provide sampling and analytical services during this RSE. Field sampling teams will consist of two individuals. They will be responsible for (1) obtaining access to properties for sampling, (2) acquiring and calibrating sampling and monitoring equipment, (3) collecting samples, (4) conducting field screening, and (5) coordinating laboratory analysis. It is anticipated that up to two field sampling teams will be employed. The START Project Manager (To Be Determined) will coordinate the activities of the START personnel.

Although an attempt will be made to adhere to this QAPP as much as possible, the proposed activities may be altered in the field if warranted by site-specific conditions and unforeseen circumstances that prevent any aspect of this QAPP from being implemented in a feasible
manner. Such deviations will be recorded in the site logbook, as necessary. This QAPP will be available to the field team at all times during sampling activities to serve as a key reference for the proposed activities described herein.

1.3. Problem Definition, Background, and Site Description

Site Name: Big River Mine Tailings Site, Operable Unit 1
Superfund Site ID: 07CR
CERCLIS Number: MOD981126899
Site Location: St. Francois County, Missouri
Latitude: 38.847572, Longitude: -90.492674 (Columbia Lead Mine)
Nationally Significant: No
Potentially Responsible Party (PRP):
NPL Status: Listed on October 14, 1992

The EPA is conducting a Removal Site Evaluation (RSE) at the Big River Mine Tailings Site, Operable Unit 1 (OU 1).

The Big River Mine Tailings/St. Joe Minerals Corp. Site includes a complex of sites which exist in the former mining region known as the "Old Lead Belt," about 70 miles south of St. Louis in an area known as the Southeast Missouri Lead District. The Big River Mine Tailings Site is composed of six large areas of mine waste in this rural region, approximately 110 square miles in size. The areas included are the Bonne Terre Mine Tailings Site, the Leadwood Mine Tailings Site, the Elvins Mine Tailings Site, the Federal Mine Tailings Site, the Desloge Mine Tailings Site, and the National Mine Tailings Site. Also included are the surrounding residential and recreational areas. A map of the area is attached.

The site includes an area known as the Columbia Lead Mine Site near the junction of 10th Street and Columbia Street in Park Hills, Missouri. The main shaft for the mine is thought to be located near latitude N38.847572, longitude W090.492674.

The RSE described in this QAPP will be conducted to assess three specific targets within the Big River Mine Tailings Site's Area of Contamination (AOC):

Schools that have not been previously sampled within the AOC
Daycares that have not been previously sampled within the AOC
Residential properties around the Columbia Lead Mine Site that have not been previously sampled in an area bounded to the north by Jefferson Street, to the west by 7th Street, to the south by St. Joe Drive, and to the east by State Highway 67
The objective of this RSE is to collect information that will be used for risk assessment decision making as well as define the vertical extent of contamination at yet to be determined schools, daycares and residential properties within these specific areas of the AOC.

1.4. Project and Task Description

Soil samples will be collected in residential yards, school yards, yards of daycare. Composite samples will be collected from 0-2 inch across these areas to assist in risk assessment decision making per the guidance contained in the Superfund Lead Contaminated Residential Sites Handbook (EPA 2003). A subset (30%) of sample areas will be sampled from 0-24 inches to characterize the vertical extent of contamination (depth profiling). At these sites composite samples will be collected at 6 inch depth intervals, i.e., 0-6 inches, 6-12 inches, 12-18 inches, and 18-24 inches. Depth sampling will be conducted until the vertical extent of contamination has been adequately defined. Soil sample analysis will occur in the field via Field Portable X-Ray Fluorescent Spectrometer (FP-XRF) as well as in a laboratory setting.

Special attention will be paid to gardens, children’s play areas, and bare soils.

The samples will be dried and analyzed with a Niton FP-XRF (EPA Method 6200). Laboratory confirmation samples (20%) will be randomly selected and delivered to the Region 7 Laboratory by courier.

Multiple environmental assessments and responses have occurred at the site. The current project will attempt to assess sensitive areas known to exist outside of previous action boundaries, but within the AOC.

1.5. Quality Objectives and Criteria for Measurement Data

The QA objective for this project is to provide valid data of known and documented quality. Specific data quality objectives are discussed in terms of accuracy, precision, completeness, representativeness, and comparability.

For this project, accuracy is defined as the ratio, expressed as a percentage, of a measured value to a true or reference value. The analytical component of accuracy will be expressed as a percent recovery, based on the analysis of laboratory-prepared spike samples and performance evaluation audit samples. The accuracy of field screening measurements will be measured by
routine assessment of field standards and by a comparison of screening data with laboratory results for split samples, as described in Section 2.5 of this QAPP.

Precision for the project is defined as a measure of agreement among individual measurements of laboratory-prepared duplicate samples. Because total method precision will not be determined for this project, no collocated samples will be collected.

Data completeness will be expressed as the percentage of data generated that is considered valid. A completeness goal of 100 percent will be applied to this project; however, if that goal is not met, site decisions may still be made based on the remaining data. No critical samples have been identified for the project.

Representativeness of collected samples is facilitated by establishing and following criteria and procedures identified in this QAPP.

Data comparability is achieved by requiring that all data generated for the project be reported in common units. Table 1 lists the various types of data that will be generated and specific reporting units.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metals in soil by laboratory analysis</td>
<td>Milligrams per Kilogram</td>
</tr>
<tr>
<td>Metals in soil by X-ray Fluorescence (FP-XRF)</td>
<td>Milligrams per kilogram (for total concentrations)</td>
</tr>
</tbody>
</table>

1.6. Special Training Requirements and Certification

All site personnel will be required to have completed a basic 40-hour health and safety (Hazardous Waste Operations and Emergency Response) training course and annual refreshers. Familiarization with FP-XRF instruments and its operating procedures also will be necessary.

1.7. Documentation and Records

The EPA START contractor will maintain a field logbook to record all pertinent activities associated with the sampling events. Appropriate documentation pertaining to photographs taken by START also will be recorded in the field logbook. Information pertaining to all samples (such as sampling dates and times, locations, etc.) collected during this event will be recorded on sample field sheets generated by the EPA. Labels generated by EPA will be affixed to sample
containers, identifying sample numbers, dates collected, and requested analyses. Chain-of-custody (COC) records will be completed and maintained for all samples from the time of their collection until they are submitted to the laboratory for analysis.

A site specific health and safety plan (HASP) will be required prior to field activities. The HASP will be reviewed and signed by all field sample team personnel prior to field work, indicating they understand the plan and its requirements. Copies of the plan will be available to all personnel throughout sampling activities.

Property specific field sheets will be prepared for each site sampled providing graphical illustrations of sample results. A website on www.epaosc.net will be created and maintained. The site's administrative record will be updated.

2. Measurement and Data Acquisition

2.1. Sampling Process Design

The sampling design proposed in the following subsections has been selected to fully determine whether any harmful concentrations of hazardous materials have been released to residential, daycare, or school property. The proposed sampling scheme for this project will be judgmental (based on the best professional judgment of the sampling team). Sampling shall occur in accordance with the Superfund Lead Contaminated Residential Sites Handbook (08/03); the EPA Standard Operating Procedure 4230.19A Soil Sampling at Lead-Contaminated Residential Sites (07/07); the EPA Standard Operating Procedure 4220.03A Protocol for the Region 7 Lead-Contaminated Residential Yard Soil Cleanup Actions Procedures and Sequencing (06/07); the EPA Generic Quality Assurance Project Plan for Region 7's Superfund Lead-Contaminated Sites (06/07); as well as the site specific Quality Assurance Project Plan.

2.1.1. Surface Soil Sampling

In general sampling shall be confined to an area within 100 feet of the residential structure or to the ownership boundaries of the property. Areas outside of 100 feet, that are heavily used (play area, sand box, garden, pool, etc), can be sampled assuming proper access has been granted.

During this RSE, vacant lots shall not be sampled, unless they are considered part of the yard of an adjacent home and/or the area is heavily used by children less than seven years of age.

Observations will be made of the area to be sampled. Level sites or raised areas in otherwise un-level terrain may suggest an area of fill. Barns or outbuildings large enough to house vehicles or machinery may have a gravel drive leading to the structures which, if not visible, may have
been covered by vegetation. Material inside sand boxes should be sampled regardless of distance from the house (such as the green plastic turtle sandboxes available at the local variety store). Garden areas should be sampled even if they exist outside of the 100 foot boundary. The field sampling teams will be familiar with the type of mine waste in the area (tailings and chat) as well as what area mine waste looks like (color, consistency, etc.). Any suspected mine waste on the property will be sampled as a separate discrete sample. Samples will be collected, at a minimum, in the following locations.

**Residential Yards / School Yards / Ball Fields**

When sampling residential lots with a total surface area less than 5,000 square feet (a typical urban lot size), a nine point composite sample will be collected from 0 to 2 inch in each of the following locations: the front yard, the back yard, and the side yards (if the size of the latter is substantial). The front, back and side (if needed) yard composites should be equally spaced within the respective portion of the yard, and should be outside of the drip zone and away from influences of any other painted surfaces.

For residential yards with a total surface area greater than 5,000 square feet, the minimum number of samples areas shall be four. The two sample areas in the front yard should encompass one half of the side yard; likewise for the two quadrants in the back yard. One nine-point composite of aliquots collected at equal spacing and from the same depth interval (0 to 2 inch) should be obtained from each sample area. Each aliquot should be collected away from influences of the drip zone and any other painted surfaces.

Schools shall be sampled in the same fashion as residential properties. Consideration shall be given to areas in which children utilize such as playgrounds and ball fields. These areas may exceed the guideline of 100 feet from the structure. Should a large open area be encountered, the suggested size of sample area is 100 foot by 100 foot and the area should be gridded. The grid pattern established shall be based on a permanent reference point in order that the grid can be re-established at a later date.

In general, sampling crews will obtain access from all residential properties, daycares and schools that are to be sampled. After receiving consent from the property owner the sample crews will divide each property into distinct sample areas (SA) for screening purposes. While the maximum size of a cell will be 100 foot by 100 foot, the actual size of the sample area will be determined in the field based on site features. A sample area will extend from the building circumference (defined by the drip zone around the building or house) in all directions 100 feet or to the property line, whichever distance is shorter. A composite sample consisting of nine aliquots, each collected from 0 to 2 inches below ground surface (bgs), will be collected in each sample area and placed in a labeled, sealed plastic bag. Additional sample areas that will be
established if present include those detailed below in this section. Samples in these additional sample areas will be collected in the same fashion except where noted.

**Gravel Driveways**

Gravel driveways shall be treated as a separate sample area. A nine-point composite of aliquots shall be collected in each separate driveway area from the 0 to 2 inch interval. It may be necessary to divide driveways into multiple sample areas should it be determined, based on field observation, that different types of construction materials are present. Effort will be made to ensure recent driveway amendments are not concealing substantial lead contaminated material just below the surface.

**Drip Zones and Soils Below Roof Gutter Downspouts**

A minimum of a four point composite sample shall be collected from the drip zone of each residential property, daycare and school. The composite sample should consist of a minimum of four aliquots collected between 6 and 30 inches from the exterior walls of the house. Collection of additional aliquots shall be considered if other factors exist, such as bare spots and distinct differences in the house exterior (post 1980 addition to a pre 1980 structure). Samples of soil from the downspout discharge area should also be sampled if present.

**Soils in Playgrounds, Gardens and Street/Alley Right of Ways**

Distinct play areas and gardens, if present, should generally be sampled separately as discrete areas of the yard. Collection of right-of-way/easement composites would be appropriate at this site. It will not be necessary to sample paved surfaces. However, breakdown by-products of paved surfaces should be sampled. For instance, liberated aggregate material from a poorly maintained asphalt driveway may be a likely source for lead contamination in the yard.

**2.1.2. Sub-Surface Soil Sampling**

Sampling for lead contamination will be conducted to depth at a subset of 30% of the sample areas. Depth sample locations will be made on a site by site basis. Composite samples shall be collected at 6 inch depth intervals, i.e. 0-6 inches, 6-12 inches, 12-18 inches, and 18-24 inches. Soil borings will advance to a depth of 2 feet bgs in areas chosen to be evaluated. At each location a thin-walled tube sampler will be used to collect a continuous sample of the soil profile. A minimum of three aliquots of material will be collected from each interval within each core sample. The aliquots will be placed in a labeled, sealed plastic bag and processed. Depth
sampling should continue until the vertical extent of contamination in a typical residential yard has been adequately defined, i.e. general depth of contamination defined.

2.1.3. Groundwater Sampling

Drinking water in the area to be sampled is provided by a municipal Public Drinking Water Supply regulated under the Safe Drinking Water Act and associated State and Federal regulations. Therefore, no groundwater sampling is anticipated during this RSE.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Anticipated Sample Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matrix</td>
<td>Number of Samples</td>
</tr>
<tr>
<td>Soil</td>
<td>Field Screening: 300</td>
</tr>
<tr>
<td></td>
<td>Laboratory: Lead</td>
</tr>
</tbody>
</table>

2.2. Sampling Methods Requirements

Table 3 references the EPA Region 7 SOPs that will be followed during sample collection. SOPs for sampling surface soil are what is included that may be conducted during this RSE.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Summary of Sampling Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matrix</td>
<td>Sample Description</td>
</tr>
<tr>
<td>Soil</td>
<td>On-site surface soil</td>
</tr>
</tbody>
</table>

Disposal of investigation-derived wastes (IDW) and procedures for equipment and personal decontamination will be addressed in the site specific HASP prepared by START for the project. Most IDW will consist of disposable sampling supplies (gloves, paper towels, etc.) that will be disposed of off-site as uncontaminated debris.

2.3. Sample Handling and Custody Requirements

Sample containers, preservatives, and holding times will comply with procedures defined in EPA Region 7 SOP Number 2420.06. Chain-of-Custody procedures will be maintained as directed by EPA Region 7 SOP Number 2420.04. Samples will be accepted by the EPA Region 7 laboratory in accordance with the regions SOP number 2420.01, or by a START-contracted laboratory according to their approved procedures.
Soil samples will be placed in coolers containing packing material and enough ice to ensure that the temperature of the samples does not exceed 4° Celsius. Chain-of-Custody records will accompany the coolers until delivery to the laboratory. If shipment of samples is required by commercial service, each cooler lid will be securely taped shut, and two custody seals will be signed, dated, and placed across the lid openings. Samples will be submitted to the laboratory in a time-efficient manner to ensure that applicable holding times are not exceeded.

2.4. Analytical Methods Requirements
Samples will be analyzed at the EPA Region 7 laboratory or a START-contracted laboratory, according to the EPA SOPs and methods listed in Table 4. Rapid turnaround times may be necessary. Detection limits typically reported by those methods are expected to be adequate for this activity. The requested analyses have been selected based on past sampling data and historical information collected for the site.

<table>
<thead>
<tr>
<th>Analytical Parameter</th>
<th>EPA Method or Region 7-SOP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Metals, including Lead (no mercury)</td>
<td>SOP 3122.03; SW-846 Method 6010</td>
</tr>
</tbody>
</table>

2.5. Quality Control Requirements
Because dedicated supplies will be used for all samples (plastic bags, sampling gloves, stainless-steel spoons, disposable pie pans, etc.), no quality control (QC) samples will be required to assess potential for cross-contamination. Analytical error (precision and accuracy) will be assessed by the analysis of laboratory-prepared duplicates and spike samples. These criteria, along with other laboratory QC elements, will be evaluated in accordance with EPA SOPs.

To satisfy the QC evaluation criteria for the FP-XRF data, screening data will be compared with laboratory confirmation results. The mean of three FP-XRF readings taken for each sample will be compared statistically to the laboratory result for each corresponding confirmation sample. For a given FP-XRF instrument, the $r^2$ value for the FP-XRF data, compared to laboratory confirmation results, should not exceed 0.7 for the FP-XRF data, from that instrument to be considered quantitatively valid (EPA 1994). The FP-XRF instrument will also be checked against known standards each day to assess analytical drift.

For every measurement, the Niton FP-XRF has an uncertainty range that represents a 95 percent confidence interval. In general, precision and accuracy increases with increasing sample run times. For samples with very high (greater than 1,000 mg/kg) or very low (less than 300 mg/kg) lead concentrations, the sample run times must be long enough to obtain readings within 30 percent of the actual concentrations. For samples with lead levels between 300 and 1,000 mg/kg, the sample run times should be long enough to obtain measurements within 20 percent
of actual concentrations. The soil samples will be screened by the FP-XRF for a minimum of 20 nominal seconds.

2.6. Instrument, Equipment Testing, Inspection, and Maintenance Requirements

START personnel will test, inspect, and maintain all sampling equipment and supplies, along with field screening instrumentation, prior to deployment for field activities. Testing, inspection and maintenance of analytical instrumentation will be performed in accordance with EPA SOPs, START-contract laboratory procedures, and/or manufacturers' recommendations.

2.7. Instrument Calibration and Frequency

Calibration of field screening and laboratory analytical instrumentation will be in accordance with the referenced SOPs/methods and manufacturers' recommendations.

2.8. Inspection and Acceptance Requirements for Supplies and Consumables

All sample containers will meet EPA criteria for cleaning procedures required for low-level chemical analysis. Sample containers will have Level II certifications provided by the manufacturer in accordance with pre-cleaning criteria established by the EPA in Specifications and Guidelines for Obtaining Contaminant-Free Sample Containers. Certificates of cleanliness will be maintained in the project file.

2.9. Data Acquisition Requirements

Data exists with regard to this site that was generated from previous EPA lead as well as Potentially Responsible Party (PRP) lead response actions (including other analytical data, reports, photographs, and maps). Some of that data has not been verified; however, that unverified information will not be used for decision-making purposes during this RSE without verification of its authenticity.

2.10. Data Management

All laboratory data acquired during this activity will be managed in accordance with the EPA Region 7 SOP Number 2410.01 or by procedures established by the contract laboratory if one is chosen to be used.
3. Assessment and Oversight

3.1. Assessment and Response Actions

Assessment and response actions pertaining to analytical phases of the project are addressed in the EPA Region 7 SOP 2430.12 and in procedures established by the contracted laboratory (if used for this project). Corrective action will be taken at the discretion of the EPA project Manager whenever problems appear that could adversely affect data quality or resulting decisions affecting future response actions pertaining to the site.

3.2. Reports to Management

START will prepare a formal report describing samples techniques, locations, problems encountered (with resolutions to those problems); interpretation of analytical results following completion of the field activities described herein; and validation of the laboratory data. The laboratory data for soil sampling will be compared to all applicable or relevant and appropriate requirements – including Removal Action Levels (RALs) at similar sites – to determine whether further response is warranted.

4. Data Validation and Usability

4.1. Data Review, Validation, and Verification Requirements

Data review and verification will be performed by laboratory staff in accordance with their QA program. For data generated by a contracted laboratory, follow-up data review and verification will also be conducted by qualified START personnel. The EPA Project Manager will be responsible for overall validation and final approval of the data, in accordance with the projected use of the results.

4.2. Validation and Verification Methods

The data will be validated in accordance with the laboratory's established SOPs. Laboratory personnel will perform QC spot checks, as needed. For data generated by a contracted laboratory (if needed), follow-up data validation will also be conducted by qualified START contract personnel. The EPA project Manager will inspect the data to provide final review. The EPA Project Manager will also compare sample descriptions with field sheets for consistency, and will ensure that any anomalies in the data are documented appropriately.
4.3. Reconciliation with User Requirements

If data indicators do not meet the projects' requirements as outlined in this QAPP, the data may be discarded, and re-sampling or re-analysis may be required.
5. References


U.S. Environmental Protection Agency. 2006. Quality Assurance Project Plan for Sampling Heavy Metals at the Annapolis Lead Mine Site, OU2. Region 7 Superfund

U.S. Environmental Protection Agency. 2010. Quality Assurance Project Plan, Removal Action at the Big River Mine Tailings, OU1, Central Middle School Site. Region 7 Superfund


U.S. Environmental Protection Agency. 2008. Sample Receipt and Log-In. Region 7 Superfund. Standard Operating Procedure. 2420.01F. July 16


Attachment 1: Map of Area of Contamination / Area of Response
### Attachment 2: Example Field Sheet / Site Sketch

<table>
<thead>
<tr>
<th>Sample Area Pre Ex (XXX)</th>
<th>Sample Area Post Ex (XXX)</th>
<th>Property ID:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SA1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SA2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SA3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SA4</strong></td>
<td>Garden</td>
<td></td>
</tr>
<tr>
<td><strong>SA5</strong></td>
<td>Play Area</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pre Exp Samples Collected</th>
<th>Pre Exp Samples Analyzed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>Date:</td>
</tr>
<tr>
<td>Time:</td>
<td>Time:</td>
</tr>
</tbody>
</table>
Example of Field Sheet / Site Sketch Page 2

<table>
<thead>
<tr>
<th>General Information / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Owner Information (if different from front)</strong></td>
</tr>
<tr>
<td>Telephone No.: Circle all that apply: tenant owner home work cell</td>
</tr>
<tr>
<td>Telephone No.: Circle all that apply: tenant owner home work cell</td>
</tr>
<tr>
<td>Telephone No.: Circle all that apply: tenant owner home work cell</td>
</tr>
<tr>
<td>Telephone No.: Circle all that apply: tenant owner home work cell</td>
</tr>
<tr>
<td>Property Owner (if different):</td>
</tr>
<tr>
<td>Mailing Address (if different):</td>
</tr>
<tr>
<td>City: Zip:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Physical Description of House or Property (include age of home if known)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS Coordinates:</td>
</tr>
<tr>
<td>Does this property have a private drinking water well? Yes City Water Community County</td>
</tr>
<tr>
<td>Total number of residents:</td>
</tr>
<tr>
<td>Number of children less than 6:</td>
</tr>
<tr>
<td>Depth of well (if known):</td>
</tr>
<tr>
<td>Treatment system in use? Type (filter, softener, etc.):</td>
</tr>
<tr>
<td>Groundwater Sampling locations:</td>
</tr>
<tr>
<td>Description of historic mining activities or mining material (e.g., tailings, chat, tuff) present on property</td>
</tr>
</tbody>
</table>

| Comments/Observations: |
Attachment 3: Access Agreement Example

PROPERTY ACCESS AGREEMENT

(to be completed by property owner)

I freely and voluntarily, for the term of time set forth in this agreement, grant permission to the United States Environmental Protection Agency (USEPA), its authorized agents, representatives, attorneys, contractors, and the Missouri Department of Natural Resources (MDNR), to enter and perform environmental response activities upon the premises described on the reverse side of this form in the site sketch.

Property Access Granted By: ____________________________

(Address)

Property Owner Information:

PROPERTY ACCESS AGREEMENT

RIGHT OF ENTRY TO PREMISES: This form (Property Access Agreement) is to be signed by the property owner, or an authorized representative, allowing use of property by USEPA and/or any contractors and employees of USEPA and/or other parties as necessary to perform environmental response activities as described in this agreement.

ENVIRONMENTAL RESPONSE ACTIONS: The property owner acknowledges that USEPA may access, enter, and use the property for the purpose of performing environmental response actions as described in this agreement.

RIGHT TO INSPECTION: The property owner acknowledges the right of USEPA to enter the property at any reasonable time for inspection purposes.

RIGHT TO INVESTIGATE: The property owner agrees to cooperate fully with USEPA in all aspects of the investigation, including providing access to the property to USEPA and its contractors.

RIGHT TO REMEDIATE: The property owner agrees to cooperate fully with USEPA in all aspects of the remediation, including providing access to the property to USEPA and its contractors.

RIGHT TO BOUNDARY: The property owner acknowledges the right of USEPA to establish and maintain boundaries necessary for the performance of environmental response actions.

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PROPERTY ACCESS AGREEMENT

TERMS AND CONDITIONS:

PROPERTY ACCESS AGREEMENT

RIGHT OF ENTRY TO PREMISES: The property owner, or an authorized representative, grants permission to USEPA, its authorized agents, representatives, attorneys, contractors, and the Missouri Department of Natural Resources (MDNR), to enter and perform environmental response activities upon the premises described on the reverse side of this form in the site sketch.

ENVIRONMENTAL RESPONSE ACTIONS: The property owner acknowledges that USEPA may access, enter, and use the property for the purpose of performing environmental response actions as described in this agreement.

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