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The Trusted Integrator for Sustainable Solutions

REMOVAL SUPPORT TEAM 2
EPA CONTRACT EP-W-06-072

June 12, 2013

Ms. Kimberly Staiger, On-Scene Coordinator
U.S. Environmental Protection Agency
Removal Action Branch
2890 Woodbridge Avenue
Edison, NJ 08837

EPA CONTRACT NO: EP-W-06-072

TDD NO: TO-0027-0097

DOCUMENT CONTROL NO: RST2-02-F-2413

**SUBJECT: FINAL SOIL SAMPLING TRIP REPORT – BARTH SMELTING
CORPORATION SITE, 99 CHAPEL STREET, NEWARK, ESSEX
COUNTY, NEW JERSEY**

Dear Ms. Staiger:

Enclosed please find the Final Soil Sampling Trip Report for the sampling event conducted at the Barth Smelting Corporation Site located at 99 Chapel Street, Newark, Essex County, New Jersey. The sampling event was conducted on March 26, 2013. Per your request, a separate Soil Sampling Trip Report will be submitted for the Terrell Homes portion of the Site. The U.S. Environmental Protection Agency comments regarding the draft version of the report have been incorporated. If you have any questions or comments, please contact me at (732) 585-4441.

Sincerely,

WESTON SOLUTIONS, INC.

Scott T. Snyder, CHMM
RST 2 Site Project Manager/Group Leader

Enclosure
cc: TDD File No.: TO-0027-0097

FINAL SOIL SAMPLING TRIP REPORT

SITE NAME: Barth Smelting Corporation Site
DC No.: RST2-02-F-2413
TDD No.: TO-0027-0097

SAMPLING DATE: March 26, 2013

EPA ID NO.: NJN008010373

1. Site Location: Barth Smelting Corporation Site
99 Chapel Street, Newark, Essex County, New Jersey
(Refer to Attachment A, Figure 1 – Site Location Map)

2. Sample Summary:

On March 26, 2013, Weston Solutions, Inc., Removal Support Team 2 (RST 2) mobilized to the Barth Smelting Corporation Site (the Site) to conduct soil sampling activities. As part of the sampling event, RST 2 collected a total of 42 soil samples, including two field duplicates, from the 99 Chapel Street portion of the site. As part of the soil sampling event, RST 2 also collected one rinsate blank sample. With the exception of the five soil samples collected manually using a hand-driven bucket auger, samples were collected using Geoprobe® direct-push method. A total of 42 soil samples and one rinsate blank sample were submitted to the U.S. Environmental Protection Agency (EPA) Region II Division of Environmental Science and Assessment (DESA) laboratory in Edison, New Jersey for target analyte list (TAL) metal (including mercury and tin) analysis. Refer to Attachment B, Table 1 for sample collection information.

3. Laboratories Receiving Samples:

The following laboratories were utilized during the soil sampling event:

| Sample Matrix | Analysis | Laboratory |
|---------------|----------------------------------|--|
| Soil | TAL Metals (including Hg and Sn) | EPA Region II DESA Laboratory 2890 Woodbridge Ave. Building 209, MS-230 Edison, NJ 08837 |
| Rinsate Blank | | |

TAL = Target Analyte List Sn = Tin
Hg = Mercury EPA = U.S. Environmental Protection Agency
DESA = Division of Environmental Science and Assessment

4. Sample Dispatch Data:

On March 27, 2013, RST 2 hand-delivered 42 soil samples, including two field duplicates, and one rinsate blank sample to DESA, located in Edison, New Jersey, for TAL metal (including mercury and tin) analysis. All samples were delivered under Chain of Custody Record Number 2-032713-091826-0001.

5. On-Site Personnel:

| Name | Representing | Duties On-Site |
|------------------|------------------|---|
| Kimberly Staiger | EPA, Region II | On-Scene Coordinator |
| Scott Snyder | RST 2, Region II | Site Project Manager, Site Health & Safety, Sample Management, Site QA/QC, Global Positioning System (GPS) Data Collection, and Geoprobe [®] Oversight |
| Dipa Chavan | RST 2, Region II | Sampler |
| John Rush | TPI, Inc. | Geoprobe [®] Operator |
| George Demitry | TPI, Inc. | Assistant Driller |

6. Site Background and Description:

The Site is located in the Ironbound Section of Newark, New Jersey, adjacent to the Passaic River. The Ironbound section of Newark is historically an industrialized neighborhood. The area of the Site under investigation has been industrialized since the late 1800s. The Site is currently occupied by various maritime shipping and maintenance facilities. Barth Smelting Corp. operated on Block 2442, Lots 10, 11, 12 from at least 1946 until approximately 1982, and produced brass and bronze ingots and also worked with non-ferrous metals. Prior operators include General Lead Batteries, a manufacturer of lead acid batteries, and the New Jersey Zinc Company, a former zinc smelter. Barth was listed as an unrecognized Battery Lead Smelter site with a paper titled “Discovering Unrecognized Lead Smelting Sites by Historical Methods” written by William Eckel et al, and published in the American Journal of Public Health, April 2001, however, several resources exist labeling Barth Smelting as a secondary copper smelting facility. The New Jersey Zinc and Iron Company, also known as the Newark Zinc Works, formerly operated on the property now occupied by the Newark Housing Authority’s Terrell Homes and also on the property formerly occupied by Barth Smelting. The Zinc Works was one of the first commercial zinc oxide plants in the United States and operated on Chapel Street from 1848 to 1910. In 1946, the Millard E. Terrell Homes, a family development with 275 units, was constructed on the property formerly occupied by the New Jersey Zinc & Iron Company. A playground and grass-covered play area are located on housing authority property just beyond the fence that separates the 99 Chapel Street portion of the Site and the apartment complex. Additional residential properties are located across Chapel Street to the east.

7. Sample Collection Methodology

During the March 2013 sampling event, RST 2 collected 42 soil samples, including two field duplicates, from the 99 Chapel Street portion of the site. The Site [former Barth Smelting facility (i.e., 99 Chapel Street)] was divided into an approximately 100-foot (ft.) by 100-ft. grid pattern. At 99 Chapel Street, RST 2 advanced 12 boreholes within the former Barth Smelting facility footprint to a depth of 2 feet below ground surface (bgs) using Geoprobe[®] direct-push method. One additional borehole was advanced to a depth of 2 feet bgs using a hand-driven bucket auger from an area believed to be used by an on-site resident as a garden. RST 2 collected a total of 42 soil samples, including two field duplicate samples, from 99 Chapel Street. Borehole locations were recorded electronically using Global Positioning System (GPS) technology. From direct-push boreholes advanced within the paved areas of 99 Chapel Street, RST 2 generally collected soil samples from 2-6 inches, 6-12 inches, 12-18 inches, and 18-24

inches. The presence of asphalt, coarse material such as gravel, and subsurface concrete altered the sampling depths at some locations. From the manually advanced borehole in the garden area, RST 2 collected soil samples from 0-1 inch, 1-6 inches, 6-12 inches, 12-18 inches, and 18-24 inches. Refer to Attachment B, Table 1 for sample collection information and specific sample depths. The samples were collected to determine if operations at the former Barth Smelting facility have impacted the soils within the footprint of the facility.

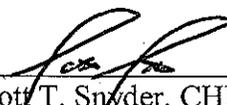
Soil samples were collected in 4-ounce (oz.) jars (as requested by the lab). Field duplicate and matrix spike/matrix spike duplicate (MS/MSD) samples were collected at a rate of one per 20 soil samples (inclusive of samples collected at the adjacent Terrell Homes housing complex). Soil samples were collected using dedicated plastic scoops. One rinsate blank sample was collected from a decontaminated Geoprobe[®] cutting shoe at a rate of one per day of sampling to demonstrate adequate decontamination of non-dedicated sampling equipment. Boreholes were backfilled and capped with asphalt or bentonite. The soil samples were submitted to the EPA DESA laboratory in Edison, New Jersey for TAL metal (including mercury and tin) analysis. Soil samples collected from the uppermost interval from each borehole were designated for sieving with a 250-micron stainless steel sieve and pan. After the samples were collected, the sample information was entered into Scribe sample management database from which sample labels and chain of custody documents were prepared and printed. The Chain of Custody Record is presented in Attachment C.

8. Analytical Results

Soil sample analytical results indicated the presence of lead at concentrations that exceed the USEPA Removal Management Level (RML) of 800 milligrams per kilogram (mg/kg) in 14 samples collected from seven of the boreholes; these elevated concentrations range from 1,100 mg/kg to 11,000 mg/kg. The highest concentrations were detected in soil samples collected from soil borings P001-SS006 and P001-SS009. Arsenic and manganese were also detected above their respective RMLs.

For reference purposes of this report, Attachment A contains the Site Location Map (Figure 1), and the Sample Location Map (Figure 2); Attachment B contains sample collection information (Table 1) and a target analyte list metals data summary table (Table 2); and Attachment C contains the sample analytical results and the Chain of Custody Record.

8. Report Prepared by:


Scott T. Snyder, CHMM
RST 2 Site Project Manager/Group Leader

Date:

6/12/13

Report Reviewed by:


Joel Petty
RST 2 Group Leader

Date:

6/12/13

ATTACHMENT A

Figure 1: Site Location Map
Figure 2: Sample Location Map



Barth Smelting Corporation
Newark, NJ 07101

Legend

 Site Location

0 0.0750.15 0.3 0.45 0.6
Miles



WESTON SOLUTIONS Weston Solutions, Inc.
Northeast Division

In Association With
H & S Environmental, Inc.,
Scientific and Environmental Associates, Inc.
and Avatar Environmental, LLC.

| | |
|---|-------------|
| Figure 1 | |
| Site Location Map | |
| Barth Smelting Corporation Site Newark, New Jersey | |
| U.S. ENVIRONMENTAL PROTECTION AGENCY REM OVAL SUPPORT TEAM 2 CONTRACT # EP-W-06-072 | |
| GIS ANALYST: | T. BENTON |
| EPA OSC: | K. STAIGER |
| RST SPM: | S. SNYDER |
| FILENAME: | SITEMAP.MXD |

DATE MODIFIED: 12/6/2012

PASSAIC RIVER

P001-SS013-0206-001 (2 - 6)
» LEAD - 61 MG/KG
P001-SS013-0612-001 (6 - 12)
» LEAD - 58 MG/KG
P001-SS013-1218-001 (12 - 18)
» LEAD - 1100 MG/KG
P001-SS013-1824-001 (18 - 24)
» LEAD - 2400 MG/KG

P001-SS014-0206-001 (2 - 6)
» LEAD - 15 MG/KG
P001-SS014-2124-001 (21 - 24)
» LEAD - 250 MG/KG

P001-SS010-1824-001 (18 - 24)
» LEAD - 5400 MG/KG

P001-SS008-0206-001 (2 - 6)
» LEAD - 740 MG/KG
P001-SS008-2224-001 (22 - 24)
» LEAD - 340 MG/KG

P001-SS007-1218-001 (12 - 18)
» LEAD - 180 MG/KG
P001-SS007-1824-001 (18 - 24)
» LEAD - 36 MG/KG

P001-SS003-0206-001 (2 - 6)
» LEAD - 150 MG/KG
P001-SS003-0612-001 (6 - 12)
» LEAD - 270 MG/KG
P001-SS003-1218-001 (12 - 18)
» LEAD - 350 MG/KG
P001-SS003-1824-001 (18 - 24)
» ARSENIC - 350 MG/KG
» LEAD - 51 MG/KG
» MANGANESE - 99000 MG/KG

P001-SS009-0206-001 (2 - 6)
» LEAD - 11000 MG/KG

P001-SS005-0206-001 (2 - 6)
» LEAD - 45 MG/KG
P001-SS005-0609-001 (6 - 9)
» LEAD - 13 MG/KG
P001-SS005-1318-001 (13 - 18)
» LEAD - 360 MG/KG
P001-SS005-1824-001 (18 - 24)
» LEAD - 78 MG/KG
» MANGANESE - 71000 MG/KG

P001-SS002-0206-001 (2 - 6)
» LEAD - 210 MG/KG
P001-SS002-0612-001 (6 - 12)
» LEAD - 130 MG/KG
» MANGANESE - 78000 MG/KG
P001-SS002-1218-001 (12 - 18)
» LEAD - 160 MG/KG
P001-SS002-1824-001 (18 - 24)
» LEAD - 64 MG/KG

P001-SS006-0206-001 (2 - 6)
» LEAD - 260 MG/KG
P001-SS006-0612-001 (6 - 12)
» LEAD - 2700 MG/KG
P001-SS006-1218-001 (12 - 18)
» LEAD - 11000 MG/KG
P001-SS006-1218-002 (12 - 18)
» LEAD - 5800 MG/KG

P001-SS015-0001-001 (0 - 1)
» LEAD - 66 MG/KG
P001-SS015-0106-001 (0 - 6)
» LEAD - 69 MG/KG
P001-SS015-0612-001 (6 - 12)
» LEAD - 67 MG/KG
P001-SS015-1218-001 (12 - 18)
» LEAD - 65 MG/KG
P001-SS015-1824-001 (18 - 24)
» LEAD - 76 MG/KG

P001-SS004-0206-001 (2 - 6)
» LEAD - 650 MG/KG
P001-SS004-0612-001 (6 - 12)
» LEAD - 1500 MG/KG
P001-SS004-1218-001 (12 - 18)
» LEAD - 1100 MG/KG
P001-SS004-1824-001 (18 - 24)
» LEAD - 2800 MG/KG

P001-SS001-0206-001 (2 - 6)
» LEAD - 2300 MG/KG
P001-SS001-0612-001 (6 - 12)
» LEAD - 560 MG/KG
P001-SS001-1218-001 (12 - 18)
» LEAD - 1200 MG/KG
P001-SS001-1824-001 (18 - 24)
» LEAD - 1400 MG/KG
P001-SS001-1824-002 (18 - 24)
» LEAD - 1500 MG/KG

| Analyte | CAS Number | USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion) (mg/Kg) |
|-----------|------------|--|
| Aluminum | 7429-90-5 | 3,000,000 |
| Antimony | 7440-36-0 | 1200 |
| Arsenic | 7440-38-2 | 160 |
| Barium | 7440-39-3 | 570,000 |
| Beryllium | 7440-41-7 | 6,000 |
| Cadmium | 7440-43-9 | 2,400 |
| Calcium | 7440-70-2 | --- |
| Chromium | 7440-47-3 | --- |
| Cobalt | 7440-48-4 | 910 |
| Copper | 7440-50-8 | 120,000 |
| Iron | 7439-89-6 | 2,100,000 |
| Lead* | 7439-92-1 | 800 |
| Magnesium | 7439-95-4 | --- |
| Manganese | 7439-96-5 | 68,000 |
| Mercury | 7439-97-6 | 130 |
| Nickel | 7440-02-0 | 59,000 |
| Potassium | 9/7/7440 | --- |
| Selenium | 7782-49-2 | 15,000 |
| Silver | 7440-22-4 | 15,000 |
| Sodium | 7440-23-5 | --- |
| Thallium | 7440-28-0 | 31 |
| Vanadium | 7440-62-2 | 15,000 |
| Zinc | 7440-66-6 | 920,000 |
| Tin | 7440-31-5 | 1,800,000 |

--- Level Not Specified * Screening Level



SCALE
1:1,250

LEGEND
Soil Sampling Location



NOTE(S):
» ALL SAMPLE DEPTHS ARE DEPICTED IN INCHES AND ARE DISPLAYED IN PARENTHESES
» ALL LEAD RESULTS AND ONLY EXCEEDANCES OF U.S.E.P.A. REMOVAL MANAGEMENT CRITERIA ARE DEPICTED
» MG/KG - MILLIGRAM PER KILOGRAM

Figure 2: Sample Location Map 99 Chapel Street

BARTH SMELTING CORPORATION
NEWARK, NEW JERSEY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072

Weston Solutions, Inc.
In Association With
Scientific and Environmental Associates, Inc.,
H & S Environmental, Inc. &
Avatar Environmental, LLC

| | |
|----------------|-------------------|
| GIS ANALYST: | E. CAMPBELL |
| EPA OSC: | K. STAIGER |
| RST 2 SPM: | S. SNYDER |
| FILENAME: | 99_CHAPEL_SMP.MXD |
| FIGURE: | 2 |
| REVISION: | 0 |
| DATE MODIFIED: | 05/24/2013 |



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ATTACHMENT B

Table 1: Sample Collection Information

Table 2: Target Analyte List Metals Data Summary

Table 1
Sample Collection Information
Barth Smelting Corporation Site (99 Chapel Street)
March 26, 2013

| Sample No. | Sample Date | Sample Time | Matrix | Collection | Sample Type | Depth From (inches) | Depth To (inches) | Remarks |
|---------------------|-------------|-------------|----------|------------|-----------------|---------------------|-------------------|---|
| RB-032613 | 3/26/2013 | 9:00 | DI Water | Grab | Rinsate Blank | N/A | | Geoprobe cutting shoe. |
| P001-SS001-0206-001 | 3/26/2013 | 9:10 | Soil | Grab | Field Sample | 2 | 6 | Sample designated for 250-micron sieving. |
| P001-SS001-0612-001 | 3/26/2013 | 9:12 | Soil | Grab | Field Sample | 6 | 12 | |
| P001-SS001-1218-001 | 3/26/2013 | 9:15 | Soil | Grab | Field Sample | 12 | 18 | |
| P001-SS001-1824-001 | 3/26/2013 | 9:20 | Soil | Grab | Field Sample | 18 | 24 | Matrix Spike/Matrix Spike Duplicate. |
| P001-SS001-1824-002 | 3/26/2013 | 9:20 | Soil | Grab | Field Duplicate | 18 | 24 | Duplicate of P001-SS001-1824-001. |
| P001-SS002-0206-001 | 3/26/2013 | 9:45 | Soil | Grab | Field Sample | 2 | 6 | Sample designated for 250-micron sieving. |
| P001-SS002-0612-001 | 3/26/2013 | 9:47 | Soil | Grab | Field Sample | 6 | 12 | |
| P001-SS002-1218-001 | 3/26/2013 | 9:50 | Soil | Grab | Field Sample | 12 | 18 | |
| P001-SS002-1824-001 | 3/26/2013 | 9:52 | Soil | Grab | Field Sample | 18 | 24 | |
| P001-SS003-0206-001 | 3/26/2013 | 10:05 | Soil | Grab | Field Sample | 2 | 6 | Sample designated for 250-micron sieving. |
| P001-SS003-0612-001 | 3/26/2013 | 10:07 | Soil | Grab | Field Sample | 6 | 12 | |
| P001-SS003-1218-001 | 3/26/2013 | 10:10 | Soil | Grab | Field Sample | 12 | 18 | |
| P001-SS003-1824-001 | 3/26/2013 | 10:12 | Soil | Grab | Field Sample | 18 | 24 | |
| P001-SS004-0206-001 | 3/26/2013 | 10:25 | Soil | Grab | Field Sample | 2 | 6 | Sample designated for 250-micron sieving. |
| P001-SS004-0612-001 | 3/26/2013 | 10:28 | Soil | Grab | Field Sample | 6 | 12 | |
| P001-SS004-1218-001 | 3/26/2013 | 10:35 | Soil | Grab | Field Sample | 12 | 18 | |
| P001-SS004-1824-001 | 3/26/2013 | 10:40 | Soil | Grab | Field Sample | 18 | 24 | |
| P001-SS005-0206-001 | 3/26/2013 | 11:00 | Soil | Grab | Field Sample | 2 | 6 | Sample designated for 250-micron sieving. |
| P001-SS005-0609-001 | 3/26/2013 | 11:05 | Soil | Grab | Field Sample | 6 | 9 | Presence of subsurface concrete altered normal sample depths. |
| P001-SS005-1318-001 | 3/26/2013 | 11:08 | Soil | Grab | Field Sample | 13 | 18 | Presence of subsurface concrete altered normal sample depths. |
| P001-SS005-1824-001 | 3/26/2013 | 11:12 | Soil | Grab | Field Sample | 18 | 24 | |
| P001-SS006-0206-001 | 3/26/2013 | 11:30 | Soil | Grab | Field Sample | 2 | 6 | Sample designated for 250-micron sieving. |
| P001-SS006-0612-001 | 3/26/2013 | 11:35 | Soil | Grab | Field Sample | 6 | 12 | |
| P001-SS006-1218-001 | 3/26/2013 | 11:40 | Soil | Grab | Field Sample | 12 | 18 | Matrix Spike/Matrix Spike Duplicate. |
| P001-SS006-1218-002 | 3/26/2013 | 11:40 | Soil | Grab | Field Duplicate | 12 | 18 | Duplicate of P001-SS006-1218-001. |
| P001-SS007-1218-001 | 3/26/2013 | 12:10 | Soil | Grab | Field Sample | 12 | 18 | Presence of concrete and coarse gravel prevented sample collection above 12 inches. |
| P001-SS007-1824-001 | 3/26/2013 | 12:15 | Soil | Grab | Field Sample | 18 | 24 | |
| P001-SS008-0206-001 | 3/26/2013 | 13:00 | Soil | Grab | Field Sample | 2 | 6 | Presence of concrete and coarse material prevented sample collection from depths of 6 to 22 inches. Sample designated for 250-micron sieving. |
| P001-SS008-2224-001 | 3/26/2013 | 13:05 | Soil | Grab | Field Sample | 22 | 24 | Presence of concrete altered normal sample depths. |
| P001-SS009-0206-001 | 3/26/2013 | 12:40 | Soil | Grab | Field Sample | 2 | 6 | Geoprobe refusal at 12 inches (concrete). Sample designated for 250-micron sieving. |
| P001-SS010-1824-001 | 3/26/2013 | 13:20 | Soil | Grab | Field Sample | 18 | 24 | Presence of concrete and coarse material prevented sample collection from remaining intervals at this location. |
| P001-SS013-0206-001 | 3/26/2013 | 13:55 | Soil | Grab | Field Sample | 2 | 6 | Sample designated for 250-micron sieving. |
| P001-SS013-0612-001 | 3/26/2013 | 14:00 | Soil | Grab | Field Sample | 6 | 12 | |
| P001-SS013-1218-001 | 3/26/2013 | 14:05 | Soil | Grab | Field Sample | 12 | 18 | |
| P001-SS013-1824-001 | 3/26/2013 | 14:10 | Soil | Grab | Field Sample | 18 | 24 | |
| P001-SS014-0206-001 | 3/26/2013 | 13:35 | Soil | Grab | Field Sample | 2 | 6 | Sample designated for 250-micron sieving. |
| P001-SS014-2124-001 | 3/26/2013 | 13:40 | Soil | Grab | Field Sample | 21 | 24 | Presence of concrete and coarse material prevented collection of samples and altered bottom sample depth. |
| P001-SS015-0001-001 | 3/26/2013 | 14:42 | Soil | Grab | Field Sample | 0 | 1 | Garden Area. Sample designated for 250-micron sieving. |
| P001-SS015-0106-001 | 3/26/2013 | 14:45 | Soil | Grab | Field Sample | 1 | 6 | Garden Area. |
| P001-SS015-0612-001 | 3/26/2013 | 14:47 | Soil | Grab | Field Sample | 6 | 12 | Garden Area. |
| P001-SS015-1218-001 | 3/26/2013 | 14:53 | Soil | Grab | Field Sample | 12 | 18 | Garden Area. |
| P001-SS015-1824-001 | 3/26/2013 | 14:55 | Soil | Grab | Field Sample | 18 | 24 | Garden Area. |

DI = Deionized.

N/A = Not Applicable.

**Table 2
Target Analyte List Metals Data Summary
Barth Smelting Corporation Site (99 Chapel Street)
March 26, 2013**

| Field Sample ID: Sample Date: Lab Sample ID: Depth (inches): | P001-SS001-0206-001 3/26/2013 1303109-01 2-6 | P001-SS001-0612-001 3/26/2013 1303109-02 6-12 | P001-SS001-1218-001 3/26/2013 1303109-03 12-18 | P001-SS001-1824-001 3/26/2013 1303109-04 18-24 | P001-SS001-1824-002 3/26/2013 1303109-05 18-24 | P001-SS002-0206-001 3/26/2013 1303109-06 2-6 | P001-SS002-0612-001 3/26/2013 1303109-07 6-12 | P001-SS002-1218-001 3/26/2013 1303109-08 12-18 | P001-SS002-1824-001 3/26/2013 1303109-09 18-24 | P001-SS003-0206-001 3/26/2013 1303109-10 2-6 | P001-SS003-0612-001 3/26/2013 1303109-11 6-12 | USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion) |
|---|---|--|---|---|---|---|--|---|---|---|--|--|
| Sample Location: | P001-SS001 | P001-SS001 | P001-SS001 | P001-SS001 | Duplicate of P001- SS001-1824-001 | P001-SS002 | P001-SS002 | P001-SS002 | P001-SS002 | P001-SS003 | P001-SS003 | |
| Aluminum | 6200 | 7500 | 9500 | 8200 | 8000 | 8500 | 6700 | 13000 | 11000 | 8800 | 5900 | 3000000 |
| Antimony | 32 | 9.2 U | 18 | 22 | 26 | 8.9 U | 24 | 10 | 9.3 U | 9.7 U | 35 | 1200 |
| Arsenic | 8.5 | 13 | 35 | 53 | 72 | 3.6 U | 130 | 41 | 54 | 65 | 150 | 160 |
| Barium | 150 | 88 | 180 | 610 | 730 | 45 U | 120 | 110 | 110 | 130 | 300 | 570000 |
| Beryllium | 1.5 | 1.4 U | 3.0 | 1.9 | 1.7 | 1.3 U | 2.3 | 2.4 | 1.4 U | 1.5 U | 2.7 | 6000 |
| Cadmium | 3.9 | 3.1 | 5.4 | 7.0 | 6.6 | 1.3 U | 2.9 | 2.3 | 1.4 U | 2.2 | 3.9 | 2400 |
| Calcium | 6800 | 19000 | 37000 | 12000 | 14000 | 17000 | 11000 | 16000 | 13000 | 41000 | 42000 | Not Established |
| Chromium | 41 | 11 | 26 | 36 | 45 | 7.2 | 13 | 18 | 18 | 21 | 34 | 560* |
| Cobalt | 10 | 12 | 9.0 | 11 U | 13 | 8.9 U | 12 | 8.8 U | 9.3 U | 14 | 10 | 910 |
| Copper | 12000 | 1600 | 3200 | 5600 | 2200 | 710 | 190 | 73 | 88 | 1700 | 590 | 120000 |
| Iron | 26000 | 35000 | 61000 | 54000 | 100000 | 25000 | 150000 | 47000 | 37000 | 75000 | 110000 | 2100000 |
| Lead | 2300 | 560 | 1200 | 1400 | 1500 | 210 | 130 | 160 | 64 | 150 | 270 | 800 |
| Magnesium | 2800 | 9900 | 18000 | 3700 | 4700 | 8500 | 4200 | 4200 | 3400 | 15000 | 18000 | Not Established |
| Manganese | 620 | 6700 | 30000 | 16000 | 19000 | 340 | 78000 | 18000 | 8200 | 16000 | 38000 | 68000 |
| Nickel | 200 | 34 | 69 | 73 | 72 | 31 | 45 | 21 | 16 | 62 | 45 | 59000** |
| Potassium | 340 | 590 | 670 | 550 | 500 | 450 | 510 | 750 | 630 | 1300 | 470 | Not Established |
| Selenium | 9.9 U | 9.2 U | 4.5 U | 11 U | 10 U | 8.9 U | 80 U | 18 U | 9.3 U | 9.7 U | 4.5 U | 15000 |
| Silver | 4.9 | 2.3 U | 4.3 | 2.6 U | 2.6 U | 2.2 U | 9.0 | 2.7 | 2.3 U | 2.4 U | 5.0 | 15000 |
| Sodium | 670 | 660 | 540 | 610 | 620 | 1300 | 670 | 910 | 980 | 990 | 630 | Not Established |
| Thallium | 9.9 U | 9.2 U | 9.0 U | 11 U | 10 U | 8.9 U | 8.0 U | 8.8 U | 9.3 U | 9.7 U | 9.0 U | 31** |
| Tin | 670 | 36 | 70 | 190 | 150 | 27 | 8.5 | 8.3 | 7.9 | 130 | 43 | 1800000 |
| Vanadium | 140 | 84 | 29 | 30 | 44 | 150 | 28 | 24 | 24 | 69 | 28 | 15000 |
| Zinc | 3600 | 3400 | 13000 | 14000 | 13000 | 400 | 37000 | 24000 | 13000 | 12000 | 31000 | 920000 |
| Mercury | 0.036 U | 0.15 | 0.080 | 0.50 | 0.53 | 0.044 U | 0.29 | 0.047 U | 0.13 | 0.070 | 0.16 | 130 |

All results in milligrams per kilogram (mg/kg).

U = The analyte was not detected at or above the reporting limit.

Reported concentration exceeds USEPA Removal Management Level.

* Value for hexavalent chromium, lower of two values.

** Soluble salts.

Table 2 (continued)
Target Analyte List Metals Data Summary
Barth Smelting Corporation Site (99 Chapel Street)
March 26, 2013

| Field Sample ID: | P001-SS003-1218-001 | P001-SS003-1824-001 | P001-SS004-0206-001 | P001-SS004-0612-001 | P001-SS004-1218-001 | P001-SS004-1824-001 | P001-SS005-0206-001 | P001-SS005-0609-001 | P001-SS005-1318-001 | P001-SS005-1824-001 | P001-SS006-0206-001 | USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion) |
|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|
| Sample Date: | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | |
| Lab Sample ID: | 1303109-12 | 1303109-13 | 1303109-14 | 1303109-15 | 1303109-16 | 1303109-17 | 1303109-18 | 1303109-19 | 1303109-20 | 1303109-21 | 1303109-22 | |
| Depth (inches): | 12-18 | 18-24 | 2-6 | 6-12 | 12-18 | 28-24 | 2-6 | 6-9 | 13-18 | 18-24 | 2-6 | |
| Sample Location: | P001-SS003 | P001-SS003 | P001-SS004 | P001-SS004 | P001-SS004 | P001-SS004 | P001-SS005 | P001-SS005 | P001-SS005 | P001-SS005 | P001-SS006 | |
| Aluminum | 7500 | 6400 | 12000 | 16000 | 12000 | 11000 | 12000 | 12000 | 7900 | 7400 | 8500 | 3000000 |
| Antimony | 25 | 28 | 9.8 U | 8.5 U | 9.6 U | 9.0 U | 9.7 U | 8.6 U | 20 | 47 | 8.6 U | 1200 |
| Arsenic | 140 | 350 | 6.7 | 6.5 | 8.0 | 11 | 3.9 U | 3.5 U | 100 | 110 | 3.7 | 160 |
| Barium | 300 | 270 | 59 | 98 | 200 | 59 | 59 | 43 U | 280 | 160 | 84 | 570000 |
| Beryllium | 2.7 | 6.0 | 1.5 U | 1.3 | 1.4 U | 1.4 | 1.5 U | 1.3 U | 2.8 | 2.8 | 1.3 U | 6000 |
| Cadmium | 3.0 | 4.8 | 6.1 | 13 | 9.5 | 57 | 1.5 U | 1.3 U | 6.2 | 2.6 | 1.3 U | 2400 |
| Calcium | 13000 | 41000 | 16000 | 26000 | 31000 | 41000 | 21000 | 21000 | 44000 | 15000 | 44000 | Not Established |
| Chromium | 91 | 12 | 33 | 28 | 31 | 17 | 24 | 18 | 18 | 15 | 32 | 560* |
| Cobalt | 16 | 12 | 9.8 U | 8.9 | 9.6 U | 9.0 U | 12 | 12 | 8.8 | 12 | 8.6 U | 910 |
| Copper | 810 | 30 | 2000 | 3900 | 2400 | 1800 | 160 | 67 | 150 | 45 | 850 | 120000 |
| Iron | 110000 | 170000 | 33000 | 24000 | 17000 | 33000 | 29000 | 26000 | 100000 | 150000 | 31000 | 2100000 |
| Lead | 350 | 51 | 650 | 1500 | 1100 | 2800 | 45 | 13 | 360 | 78 | 260 | 800 |
| Magnesium | 2600 | 8100 | 7300 | 6900 | 3100 | 7100 | 12000 | 14000 | 16000 | 4100 | 19000 | Not Established |
| Manganese | 35000 | 99000 | 2600 | 380 | 280 | 350 | 430 | 350 | 52000 | 71000 | 470 | 68000 |
| Nickel | 120 | 46 | 60 | 79 | 42 | 34 | 26 | 24 | 42 | 42 | 29 | 59000** |
| Potassium | 630 | 920 | 600 | 720 | 1200 | 820 | 1200 | 880 | 690 | 480 | 940 | Not Established |
| Selenium | 45 U | 160 U | 9.8 U | 8.5 U | 9.6 U | 9.0 U | 9.7 U | 8.6 U | 41 U | 46 U | 8.6 U | 15000 |
| Silver | 4.7 | 12 | 2.4 U | 2.1 U | 2.4 U | 2.4 | 2.4 U | 2.2 U | 6.8 | 8.5 | 2.1 U | 15000 |
| Sodium | 630 | 710 | 1700 | 2800 | 2800 | 2100 | 710 | 500 | 410 U | 460 U | 570 | Not Established |
| Thallium | 9.0 U | 8.1 U | 9.8 U | 8.5 U | 9.6 U | 9.0 U | 9.7 U | 8.6 U | 8.2 U | 9.3 U | 8.6 U | 31** |
| Tin | 32 | 4.1 U | 130 | 260 | 170 | 380 | 5.6 | 4.3 U | 15 | 4.6 U | 28 | 1800000 |
| Vanadium | 37 | 24 | 85 | 45 | 30 | 33 | 100 | 89 | 26 | 25 | 58 | 15000 |
| Zinc | 24000 | 77000 | 6600 | 9900 | 7300 | 27000 | 380 | 97 | 22000 | 32000 | 960 | 920000 |
| Mercury | 0.19 | 0.029 U | 0.13 | 0.34 | 0.29 | 0.97 | 0.040 U | 0.032 U | 0.24 | 0.090 | 0.035 | 130 |

All results in milligrams per kilogram (mg/kg).

U = The analyte was not detected at or above the reporting limit.

Reported concentration exceeds USEPA Removal Management Level.

* Value for hexavalent chromium, lower of two values.

** Soluble salts.

Table 2 (continued)
Target Analyte List Metals Data Summary
Barth Smelting Corporation (99 Chapel Street)
March 26, 2013

| Field Sample ID: Sample Date: Lab Sample ID: Depth (inches): | P001-SS006-0612-001 3/26/2013 1303109-23 6-12 | P001-SS006-1218-001 3/26/2013 1303109-24 12-18 | P001-SS006-1218-002 3/26/2013 1303109-25 12-18 | P001-SS007-1218-001 3/26/2013 1303109-26 12-18 | P001-SS007-1824-001 3/26/2013 1303109-27 18-24 | P001-SS008-0206-001 3/26/2013 1303109-28 2-6 | P001-SS008-2224-001 3/26/2013 1303109-29 22-24 | P001-SS009-0206-001 3/26/2013 1303109-30 2-6 | P001-SS010-1824-001 3/26/2013 1303109-31 18-24 | P001-SS013-0206-001 3/26/2013 1303109-32 2-6 | P001-SS013-0612-001 3/26/2013 1303109-33 6-12 | USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion) |
|---|--|---|---|---|---|---|---|---|---|---|--|--|
| Sample Location: | P001-SS006 | P001-SS006 | Duplicate of P001- SS006-1218-001 | P001-SS007 | P001-SS007 | P001-SS008 | P001-SS008 | P001-SS009 | P001-SS010 | P001-SS013 | P001-SS013 | |
| Aluminum | 8500 | 9400 | 9500 | 10000 | 16000 | 14000 | 3700 | 13000 | 5100 | 12000 | 6200 | 3000000 |
| Antimony | 20 | 110 | 32 | 18 | 8.5 U | 7.8 U | 21 | 130 | 39 | 7.9 U | 8.1 U | 1200 |
| Arsenic | 11 | 17 | 15 | 79 | 14 | 5.0 | 67 | 22 | 27 | 3.2 U | 3.2 U | 160 |
| Barium | 250 | 330 | 320 | 210 | 190 | 150 | 170 | 560 | 690 | 130 | 47 | 570000 |
| Beryllium | 1.7 | 7.3 | 4.3 | 6.0 | 7.1 | 3.6 | 1.7 | 7.5 | 3.9 | 1.2 U | 1.2 U | 6000 |
| Cadmium | 18 | 48 | 35 | 2.9 | 1.3 U | 5.0 | 3.3 | 82 | 23 | 1.2 U | 1.2 U | 2400 |
| Calcium | 41000 | 46000 | 45000 | 31000 | 37000 | 15000 | 4900 | 37000 | 35000 | 13000 | 5400 | Not Established |
| Chromium | 100 | 79 | 67 | 13 | 12 | 65 | 16 | 94 | 77 | 37 | 24 | 560* |
| Cobalt | 8.6 U | 11 | 10 | 11 | 8.5 U | 11 | 15 | 14 | 14 U | 10 | 8.1 | 910 |
| Copper | 9100 | 20000 | 16000 | 360 | 20 | 4400 | 340 | 18000 | 25000 | 180 | 110 | 120000 |
| Iron | 21000 | 42000 | 45000 | 90000 | 25000 | 53000 | 79000 | 41000 | 49000 | 38000 | 35000 | 2100000 |
| Lead | 2700 | 11000 | 5800 | 180 | 36 | 740 | 540 | 11000 | 5400 | 61 | 58 | 800 |
| Magnesium | 16000 | 4900 | 4300 | 7900 | 6700 | 5700 | 1400 | 4200 | 14000 | 7200 | 4300 | Not Established |
| Manganese | 810 | 3700 | 1600 | 38000 | 46000 | 970 | 15000 | 1900 | 2800 | 330 | 180 | 68000 |
| Nickel | 810 | 440 | 540 | 40 | 14 | 120 | 38 | 300 | 580 | 25 | 17 | 59000** |
| Potassium | 450 | 510 | 480 | 1200 | 1500 | 1600 | 360 | 440 | 340 | 1800 | 1700 | Not Established |
| Selenium | 8.6 U | 8.8 U | 8.4 U | 40 U | 85 U | 7.8 U | 9.7 U | 8.6 U | 14 U | 7.9 U | 8.1 U | 15000 |
| Silver | 3.2 | 9.6 | 6.2 | 4.9 | 5.2 | 2.7 | 2.4 U | 9.8 | 8.5 | 2.0 U | 2.0 U | 15000 |
| Sodium | 430 U | 530 | 420 U | 430 | 480 | 910 | 480 U | 430 U | 740 | 660 | 400 U | Not Established |
| Thallium | 8.6 U | 8.8 UL | 8.4 U | 8.0 U | 8.5 U | 7.8 U | 9.7 U | 8.6 U | 14 U | 7.9 U | 8.1 U | 31** |
| Tin | 780 | 800 | 780 | 12 | 6.6 | 200 | 30 | 1200 | 1100 | 3.9 U | 4.0 U | 1800000 |
| Vanadium | 32 | 38 | 37 | 24 | 17 | 70 | 19 | 45 | 49 | 74 | 69 | 15000 |
| Zinc | 8900 | 37000 | 26000 | 21000 | 5700 | 4400 | 23000 | 60000 | 14000 | 610 | 280 | 920000 |
| Mercury | 0.88 | 1.2 | 0.99 | 0.043 U | 0.035 U | 0.40 | 0.38 | 3.4 | 2.0 | 0.031 U | 0.039 U | 130 |

All results in milligrams per kilogram (mg/kg).

U = The analyte was not detected at or above the reporting limit.

L = The identification of the analyte is acceptable; the reported value may be biased low.

Reported concentration exceeds USEPA Removal Management Level.

* Value for hexavalent chromium, lower of two values.

** Soluble salts.

Table 2 (continued)
Target Analyte List Metals Data Summary
Barth Smelting Corporation (99 Chapel Street)
March 26, 2013

| Field Sample ID: | P001-SS013-1218-001 | P001-SS013-1824-001 | P001-SS014-0206-001 | P001-SS014-2124-001 | P001-SS015-0001-001 | P001-SS015-0106-001 | P001-SS015-0612-001 | P001-SS015-1218-001 | P001-SS015-1824-001 | USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion) |
|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|
| Sample Date: | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | 3/26/2013 | |
| Lab Sample ID: | 1303109-34 | 1303109-35 | 1303109-36 | 1303109-37 | 1303109-38 | 1303109-39 | 1303109-40 | 1303109-41 | 1303109-42 | |
| Depth (inches): | 12-18 | 18-24 | 2-6 | 21-24 | 0-1 | 1-6 | 6-12 | 12-18 | 18-24 | |
| Sample Location: | P001-SS013 | P001-SS013 | P001-SS014 | P001-SS014 | P001-SS015 | P001-SS015 | P001-SS015 | P001-SS015 | P001-SS015 | |
| Aluminum | 3900 | 26000 | 13000 | 21000 | 7900 | 7800 | 8100 | 8000 | 7900 | 300000 |
| Antimony | 26 | 14 | 8.3 U | 14 | 9.1 U | 9.4 U | 9.1 U | 9.2 U | 8.9 U | 1200 |
| Arsenic | 3.8 | 15 | 3.3 U | 46 | 7.4 | 5.9 | 9.4 | 11 | 25 | 160 |
| Barium | 50 | 510 | 54 | 270 | 65 | 62 | 70 | 69 | 73 | 570000 |
| Beryllium | 1.2 U | 6.9 | 1.2 U | 5.1 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.3 U | 6000 |
| Cadmium | 4.5 | 7.5 | 1.2 U | 3.5 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.3 U | 2400 |
| Calcium | 4200 | 60000 | 22000 | 34000 | 7300 | 13000 | 11000 | 11000 | 11000 | Not Established |
| Chromium | 17 | 200 | 19 | 290 | 23 | 23 | 24 | 33 | 39 | 560* |
| Cobalt | 7.9 U | 17 | 12 | 45 | 9.1 U | 9.4 U | 9.1 U | 9.2 U | 8.9 U | 910 |
| Copper | 3300 | 5400 | 60 | 610 | 88 | 82 | 74 | 77 | 83 | 120000 |
| Iron | 13000 | 50000 | 27000 | 73000 | 20000 | 16000 | 17000 | 17000 | 17000 | 2100000 |
| Lead | 1100 | 2400 | 15 | 250 | 66 | 69 | 67 | 65 | 76 | 800 |
| Magnesium | 1700 | 9800 | 12000 | 5900 | 3200 | 3800 | 3000 | 3400 | 3500 | Not Established |
| Manganese | 290 | 42000 | 360 | 30000 | 500 | 510 | 540 | 550 | 590 | 68000 |
| Nickel | 40 | 170 | 28 | 180 | 15 | 14 | 14 | 15 | 36 | 59000** |
| Potassium | 310 | 1500 | 1000 | 1500 | 690 | 610 | 540 | 630 | 500 | Not Established |
| Selenium | 7.9 U | 43 U | 8.3 U | 43 U | 9.1 U | 9.4 U | 9.1 U | 9.2 U | 8.9 U | 15000 |
| Silver | 2.0 U | 6.0 | 2.1 U | 3.4 | 2.3 U | 2.4 U | 2.3 U | 2.3 U | 2.2 U | 15000 |
| Sodium | 400 U | 650 | 1300 | 610 | 450 U | 470 U | 460 U | 460 U | 440 U | Not Established |
| Thallium | 7.9 U | 8.6 U | 8.3 U | 8.7 U | 9.1 U | 9.4 U | 9.1 U | 9.2 U | 8.9 U | 31** |
| Tin | 98 | 180 | 4.2 U | 7.9 | 4.5 U | 4.7 U | 4.6 U | 4.6 U | 4.4 U | 1800000 |
| Vanadium | 25 | 21 | 92 | 20 | 36 | 28 | 30 | 31 | 31 | 15000 |
| Zinc | 3700 | 6700 | 120 | 1200 | 230 | 200 | 190 | 180 | 210 | 920000 |
| Mercury | 0.23 | 0.047 | 0.038 U | 0.036 U | 0.094 | 0.10 | 0.12 | 0.12 | 0.11 | 130 |

All results in milligrams per kilogram (mg/kg).

U = The analyte was not detected at or above the reporting limit.

Reported concentration exceeds USEPA Removal Management Level

* Value for hexavalent chromium, lower of two values.

** Soluble salts.

ATTACHMENT C

Sample Analytical Results and Chain of Custody Record



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**Region 2 Laboratory
2890 Woodbridge Avenue
Edison, New Jersey 08837
732-906-6886 Phone
732-906-6165 Fax**

May 15, 2013

Smita Sumbaly
Weston Solutions Inc.
205 Campus Drive
Edison, NJ 08837

RE: Barth Smelting Co.-1303109

Enclosed are the results of analyses for samples received by the laboratory between 3/27/2013 and 4/2/2013. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 1303109 and contact John Birri by phone at 732-906-6886, or via Email at birri.john@epa.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "John R. Bourbon".

John R. Bourbon
Chief, DESA/LB



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Project Narrative:

The National Environmental Laboratory Accreditation Conference Institute (TNI) is a voluntary environmental laboratory accreditation association of State and Federal agencies. TNI established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the TNI Standards.

Condition Comments

None

Comment(s):

None

Data Qualifier(s):

- U- The analyte was not detected at or above the Reporting Limit.
- J- The identification of the analyte is acceptable; the reported value is an estimate.
- K- The identification of the analyte is acceptable; the reported value may be biased high.
- L- The identification of the analyte is acceptable; the reported value may be biased low.
- NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.

Reporting Limit(s):

The Laboratory was able to achieve the appropriate limits for each metals analytes and Mercury requested except for the Selenium which was raised due to highly saturated samples with Manganese. The Client's action level of 390 mg/Kg requirement for Selenium was met.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

SUMMARY REPORT FOR SAMPLES

| Field ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---------------------|---------------|--------|------------------|------------------|
| P001-SS001-0206-001 | 1303109-01 | Solid | 03/26/2013 09:10 | 03/27/2013 11:50 |
| P001-SS001-0612-001 | 1303109-02 | Solid | 03/26/2013 09:12 | 03/27/2013 11:50 |
| P001-SS001-1218-001 | 1303109-03 | Solid | 03/26/2013 09:15 | 03/27/2013 11:50 |
| P001-SS001-1824-001 | 1303109-04 | Solid | 03/26/2013 09:20 | 03/27/2013 11:50 |
| P001-SS001-1824-002 | 1303109-05 | Solid | 03/26/2013 09:20 | 03/27/2013 11:50 |
| P001-SS002-0206-001 | 1303109-06 | Solid | 03/26/2013 09:45 | 03/27/2013 11:50 |
| P001-SS002-0612-001 | 1303109-07 | Solid | 03/26/2013 09:47 | 03/27/2013 11:50 |
| P001-SS002-1218-001 | 1303109-08 | Solid | 03/26/2013 09:50 | 03/27/2013 11:50 |
| P001-SS002-1824-001 | 1303109-09 | Solid | 03/26/2013 09:52 | 03/27/2013 11:50 |
| P001-SS003-0206-001 | 1303109-10 | Solid | 03/26/2013 10:05 | 03/27/2013 11:50 |
| P001-SS003-0612-001 | 1303109-11 | Solid | 03/26/2013 10:07 | 03/27/2013 11:50 |
| P001-SS003-1218-001 | 1303109-12 | Solid | 03/26/2013 10:10 | 03/27/2013 11:50 |
| P001-SS003-1824-001 | 1303109-13 | Solid | 03/26/2013 10:12 | 03/27/2013 11:50 |
| P001-SS004-0206-001 | 1303109-14 | Solid | 03/26/2013 10:25 | 03/27/2013 11:50 |
| P001-SS004-0612-001 | 1303109-15 | Solid | 03/26/2013 10:28 | 03/27/2013 11:50 |
| P001-SS004-1218-001 | 1303109-16 | Solid | 03/26/2013 10:35 | 03/27/2013 11:50 |
| P001-SS004-1824-001 | 1303109-17 | Solid | 03/26/2013 10:40 | 03/27/2013 11:50 |
| P001-SS005-0206-001 | 1303109-18 | Solid | 03/26/2013 11:00 | 03/27/2013 11:50 |
| P001-SS005-0609-001 | 1303109-19 | Solid | 03/26/2013 11:05 | 03/27/2013 11:50 |
| P001-SS005-1318-001 | 1303109-20 | Solid | 03/26/2013 11:08 | 03/27/2013 11:50 |
| P001-SS005-1824-001 | 1303109-21 | Solid | 03/26/2013 11:12 | 03/27/2013 11:50 |
| P001-SS006-0206-001 | 1303109-22 | Solid | 03/26/2013 11:30 | 03/27/2013 11:50 |
| P001-SS006-0612-001 | 1303109-23 | Solid | 03/26/2013 11:35 | 03/27/2013 11:50 |
| P001-SS006-1218-001 | 1303109-24 | Solid | 03/26/2013 11:40 | 03/27/2013 11:50 |
| P001-SS006-1218-002 | 1303109-25 | Solid | 03/26/2013 11:40 | 03/27/2013 11:50 |
| P001-SS007-1218-001 | 1303109-26 | Solid | 03/26/2013 12:10 | 03/27/2013 11:50 |
| P001-SS007-1824-001 | 1303109-27 | Solid | 03/26/2013 12:15 | 03/27/2013 11:50 |
| P001-SS008-0206-001 | 1303109-28 | Solid | 03/26/2013 13:00 | 03/27/2013 11:50 |
| P001-SS008-2224-001 | 1303109-29 | Solid | 03/26/2013 13:05 | 03/27/2013 11:50 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

SUMMARY REPORT FOR SAMPLES

| Field ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---------------------|---------------|---------|------------------|------------------|
| P001-SS009-0206-001 | 1303109-30 | Solid | 03/26/2013 12:40 | 03/27/2013 11:50 |
| P001-SS010-1824-001 | 1303109-31 | Solid | 03/26/2013 13:20 | 03/27/2013 11:50 |
| P001-SS013-0206-001 | 1303109-32 | Solid | 03/26/2013 13:55 | 03/27/2013 11:50 |
| P001-SS013-0612-001 | 1303109-33 | Solid | 03/26/2013 14:00 | 03/27/2013 11:50 |
| P001-SS013-1218-001 | 1303109-34 | Solid | 03/26/2013 14:05 | 03/27/2013 11:50 |
| P001-SS013-1824-001 | 1303109-35 | Solid | 03/26/2013 14:10 | 03/27/2013 11:50 |
| P001-SS014-0206-001 | 1303109-36 | Solid | 03/26/2013 13:35 | 03/27/2013 11:50 |
| P001-SS014-2124-001 | 1303109-37 | Solid | 03/26/2013 13:40 | 03/27/2013 11:50 |
| P001-SS015-0001-001 | 1303109-38 | Solid | 03/26/2013 14:42 | 03/27/2013 11:50 |
| P001-SS015-0106-001 | 1303109-39 | Solid | 03/26/2013 14:45 | 03/27/2013 11:50 |
| P001-SS015-0612-001 | 1303109-40 | Solid | 03/26/2013 14:47 | 03/27/2013 11:50 |
| P001-SS015-1218-001 | 1303109-41 | Solid | 03/26/2013 14:53 | 03/27/2013 11:50 |
| P001-SS015-1824-001 | 1303109-42 | Solid | 03/26/2013 14:55 | 03/27/2013 11:50 |
| RB-032613 | 1303109-43 | Aqueous | 03/26/2013 09:00 | 03/27/2013 11:50 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

SUMMARY REPORT FOR METHODS

| Analysis | Method | Certification | Matrix |
|------------------|------------------------------|---------------|---------|
| Mercury | EPA 245.1 / SOP C-110 Rev2.3 | NELAP | Aqueous |
| Mercury | EPA 245.1 / SOP C-110 Rev2.3 | NELAP | Solid |
| E-Metals ICP TAL | EPA 200.7 / SOP C-109 Rev3.2 | NELAP | Aqueous |
| E-Metals ICP TAL | EPA 200.7 / SOP C-109 Rev3.2 | NELAP | Solid |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS001-0206-001

Sample ID: 1303109-01

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 6200 | | 50 | mg/kg dry |
| Antimony | 32 | | 9.9 | mg/kg dry |
| Arsenic | 8.5 | | 4.0 | mg/kg dry |
| Barium | 150 | | 50 | mg/kg dry |
| Beryllium | 1.5 | | 1.5 | mg/kg dry |
| Cadmium | 3.9 | | 1.5 | mg/kg dry |
| Calcium | 6800 | | 250 | mg/kg dry |
| Chromium | 41 | | 2.5 | mg/kg dry |
| Cobalt | 10 | | 9.9 | mg/kg dry |
| Copper | 12000 | | 5.0 | mg/kg dry |
| Iron | 26000 | | 25 | mg/kg dry |
| Lead | 2300 | | 4.0 | mg/kg dry |
| Magnesium | 2800 | | 250 | mg/kg dry |
| Manganese | 620 | | 2.5 | mg/kg dry |
| Nickel | 200 | | 9.9 | mg/kg dry |
| Potassium | 340 | | 250 | mg/kg dry |
| Selenium | --- | U | 9.9 | mg/kg dry |
| Sodium | 670 | | 500 | mg/kg dry |
| Silver | 4.9 | | 2.5 | mg/kg dry |
| Thallium | --- | U | 9.9 | mg/kg dry |
| Vanadium | 140 | | 9.9 | mg/kg dry |
| Zinc | 3600 | | 9.9 | mg/kg dry |
| Tin | 670 | | 5.0 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.036 | mg/kg dry |
|---------|-----|---|-------|-----------|



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS001-0612-001

Sample ID: 1303109-02

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 7500 | | 46 | mg/kg dry |
| Antimony | --- | U | 9.2 | mg/kg dry |
| Arsenic | 13 | | 3.7 | mg/kg dry |
| Barium | 88 | | 46 | mg/kg dry |
| Beryllium | --- | U | 1.4 | mg/kg dry |
| Cadmium | 3.1 | | 1.4 | mg/kg dry |
| Calcium | 19000 | | 230 | mg/kg dry |
| Chromium | 11 | | 2.3 | mg/kg dry |
| Cobalt | 12 | | 9.2 | mg/kg dry |
| Copper | 1600 | | 4.6 | mg/kg dry |
| Iron | 35000 | | 23 | mg/kg dry |
| Lead | 560 | | 3.7 | mg/kg dry |
| Magnesium | 9900 | | 230 | mg/kg dry |
| Manganese | 6700 | | 2.3 | mg/kg dry |
| Nickel | 34 | | 9.2 | mg/kg dry |
| Potassium | 590 | | 230 | mg/kg dry |
| Selenium | --- | U | 9.2 | mg/kg dry |
| Sodium | 660 | | 460 | mg/kg dry |
| Silver | --- | U | 2.3 | mg/kg dry |
| Thallium | --- | U | 9.2 | mg/kg dry |
| Vanadium | 84 | | 9.2 | mg/kg dry |
| Zinc | 3400 | | 9.2 | mg/kg dry |
| Tin | 36 | | 4.6 | mg/kg dry |

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------------------|--------|-----------|-----------------|-----------|
| Mercury CVAA | | | | |
| Mercury | 0.15 | | 0.034 | mg/kg dry |
| Metals ICP | | | | |
| Aluminum | 9500 | | 45 | mg/kg dry |
| Antimony | 18 | | 9.0 | mg/kg dry |
| Arsenic | 35 | | 3.6 | mg/kg dry |
| Barium | 180 | | 45 | mg/kg dry |
| Beryllium | 3.0 | | 1.3 | mg/kg dry |
| Cadmium | 5.4 | | 1.3 | mg/kg dry |
| Calcium | 37000 | | 220 | mg/kg dry |
| Chromium | 26 | | 2.2 | mg/kg dry |
| Cobalt | 9.0 | | 9.0 | mg/kg dry |
| Copper | 3200 | | 4.5 | mg/kg dry |
| Iron | 61000 | | 22 | mg/kg dry |
| Lead | 1200 | | 3.6 | mg/kg dry |
| Magnesium | 18000 | | 220 | mg/kg dry |
| Manganese | 30000 | | 11 | mg/kg dry |
| Nickel | 69 | | 9.0 | mg/kg dry |
| Potassium | 670 | | 220 | mg/kg dry |
| Selenium | --- | U | 45 | mg/kg dry |
| Sodium | 540 | | 450 | mg/kg dry |
| Silver | 4.3 | | 2.2 | mg/kg dry |
| Thallium | --- | U | 9.0 | mg/kg dry |
| Vanadium | 29 | | 9.0 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS001-1218-001

Sample ID: 1303109-03

Metals ICP

| | | | | |
|------|-------|--|-----|-----------|
| Zinc | 13000 | | 9.0 | mg/kg dry |
| Tin | 70 | | 4.5 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-------|--|-------|-----------|
| Mercury | 0.080 | | 0.036 | mg/kg dry |
|---------|-------|--|-------|-----------|

Field ID: P001-SS001-1824-001

Sample ID: 1303109-04

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 8200 | | 53 | mg/kg dry |
| Antimony | 22 | | 11 | mg/kg dry |
| Arsenic | 53 | | 4.2 | mg/kg dry |
| Barium | 610 | | 53 | mg/kg dry |
| Beryllium | 1.9 | | 1.6 | mg/kg dry |
| Cadmium | 7.0 | | 1.6 | mg/kg dry |
| Calcium | 12000 | | 260 | mg/kg dry |
| Chromium | 36 | | 2.6 | mg/kg dry |
| Cobalt | --- | U | 11 | mg/kg dry |
| Copper | 5600 | | 5.3 | mg/kg dry |
| Iron | 54000 | | 26 | mg/kg dry |
| Lead | 1400 | | 4.2 | mg/kg dry |
| Magnesium | 3700 | | 260 | mg/kg dry |
| Manganese | 16000 | | 5.3 | mg/kg dry |
| Nickel | 73 | | 11 | mg/kg dry |
| Potassium | 550 | | 260 | mg/kg dry |
| Selenium | --- | U | 11 | mg/kg dry |
| Sodium | 610 | | 530 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS001-1824-001

Sample ID: 1303109-04

Metals ICP

| | | | | |
|----------|-------|---|-----|-----------|
| Silver | --- | U | 2.6 | mg/kg dry |
| Thallium | --- | U | 11 | mg/kg dry |
| Vanadium | 30 | | 11 | mg/kg dry |
| Zinc | 14000 | | 11 | mg/kg dry |
| Tin | 190 | | 5.3 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.50 | | 0.037 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS001-1824-002

Sample ID: 1303109-05

Metals ICP

| | | | | |
|-----------|--------|--|-----|-----------|
| Aluminum | 8000 | | 51 | mg/kg dry |
| Antimony | 26 | | 10 | mg/kg dry |
| Arsenic | 72 | | 4.1 | mg/kg dry |
| Barium | 730 | | 51 | mg/kg dry |
| Beryllium | 1.7 | | 1.5 | mg/kg dry |
| Cadmium | 6.6 | | 1.5 | mg/kg dry |
| Calcium | 14000 | | 260 | mg/kg dry |
| Chromium | 45 | | 2.6 | mg/kg dry |
| Cobalt | 13 | | 10 | mg/kg dry |
| Copper | 2200 | | 5.1 | mg/kg dry |
| Iron | 100000 | | 26 | mg/kg dry |
| Lead | 1500 | | 4.1 | mg/kg dry |
| Magnesium | 4700 | | 260 | mg/kg dry |
| Manganese | 19000 | | 5.1 | mg/kg dry |
| Nickel | 72 | | 10 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS001-1824-002

Sample ID: 1303109-05

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Potassium | 500 | | 260 | mg/kg dry |
| Selenium | --- | U | 10 | mg/kg dry |
| Sodium | 620 | | 510 | mg/kg dry |
| Silver | --- | U | 2.6 | mg/kg dry |
| Thallium | --- | U | 10 | mg/kg dry |
| Vanadium | 44 | | 10 | mg/kg dry |
| Zinc | 13000 | | 10 | mg/kg dry |
| Tin | 150 | | 5.1 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.53 | | 0.038 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS002-0206-001

Sample ID: 1303109-06

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 8500 | | 45 | mg/kg dry |
| Antimony | --- | U | 8.9 | mg/kg dry |
| Arsenic | --- | U | 3.6 | mg/kg dry |
| Barium | --- | U | 45 | mg/kg dry |
| Beryllium | --- | U | 1.3 | mg/kg dry |
| Cadmium | --- | U | 1.3 | mg/kg dry |
| Calcium | 17000 | | 220 | mg/kg dry |
| Chromium | 7.2 | | 2.2 | mg/kg dry |
| Cobalt | --- | U | 8.9 | mg/kg dry |
| Copper | 710 | | 4.5 | mg/kg dry |
| Iron | 25000 | | 22 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS002-0206-001

Sample ID: 1303109-06

Metals ICP

| | | | | |
|-----------|------|---|-----|-----------|
| Lead | 210 | | 3.6 | mg/kg dry |
| Magnesium | 8500 | | 220 | mg/kg dry |
| Manganese | 340 | | 2.2 | mg/kg dry |
| Nickel | 31 | | 8.9 | mg/kg dry |
| Potassium | 450 | | 220 | mg/kg dry |
| Selenium | --- | U | 8.9 | mg/kg dry |
| Sodium | 1300 | | 450 | mg/kg dry |
| Silver | --- | U | 2.2 | mg/kg dry |
| Thallium | --- | U | 8.9 | mg/kg dry |
| Vanadium | 150 | | 8.9 | mg/kg dry |
| Zinc | 400 | | 8.9 | mg/kg dry |
| Tin | 27 | | 4.5 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.044 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS002-0612-001

Sample ID: 1303109-07

Metals ICP

| | | | | |
|-----------|-------|--|-----|-----------|
| Aluminum | 6700 | | 40 | mg/kg dry |
| Antimony | 24 | | 8.0 | mg/kg dry |
| Arsenic | 130 | | 3.2 | mg/kg dry |
| Barium | 120 | | 40 | mg/kg dry |
| Beryllium | 2.3 | | 1.2 | mg/kg dry |
| Cadmium | 2.9 | | 1.2 | mg/kg dry |
| Calcium | 11000 | | 200 | mg/kg dry |
| Chromium | 13 | | 2.0 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS002-0612-001

Sample ID: 1303109-07

Metals ICP

| | | | | |
|-----------|--------|---|-----|-----------|
| Cobalt | 12 | | 8.0 | mg/kg dry |
| Copper | 190 | | 4.0 | mg/kg dry |
| Iron | 150000 | | 20 | mg/kg dry |
| Lead | 130 | | 3.2 | mg/kg dry |
| Magnesium | 4200 | | 200 | mg/kg dry |
| Manganese | 78000 | | 20 | mg/kg dry |
| Nickel | 45 | | 8.0 | mg/kg dry |
| Potassium | 510 | | 200 | mg/kg dry |
| Selenium | --- | U | 80 | mg/kg dry |
| Sodium | 670 | | 400 | mg/kg dry |
| Silver | 9.0 | | 2.0 | mg/kg dry |
| Thallium | --- | U | 8.0 | mg/kg dry |
| Vanadium | 28 | | 8.0 | mg/kg dry |
| Zinc | 37000 | | 16 | mg/kg dry |
| Tin | 8.5 | | 4.0 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.29 | | 0.041 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS002-1218-001

Sample ID: 1303109-08

Metals ICP

| | | | | |
|-----------|-------|--|-----|-----------|
| Aluminum | 13000 | | 44 | mg/kg dry |
| Antimony | 10 | | 8.8 | mg/kg dry |
| Arsenic | 41 | | 3.5 | mg/kg dry |
| Barium | 110 | | 44 | mg/kg dry |
| Beryllium | 2.4 | | 1.3 | mg/kg dry |



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Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS002-1218-001

Sample ID: 1303109-08

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Cadmium | 2.3 | | 1.3 | mg/kg dry |
| Calcium | 16000 | | 220 | mg/kg dry |
| Chromium | 18 | | 2.2 | mg/kg dry |
| Cobalt | --- | U | 8.8 | mg/kg dry |
| Copper | 73 | | 4.4 | mg/kg dry |
| Iron | 47000 | | 22 | mg/kg dry |
| Lead | 160 | | 3.5 | mg/kg dry |
| Magnesium | 4200 | | 220 | mg/kg dry |
| Manganese | 18000 | | 4.4 | mg/kg dry |
| Nickel | 21 | | 8.8 | mg/kg dry |
| Potassium | 750 | | 220 | mg/kg dry |
| Selenium | --- | U | 18 | mg/kg dry |
| Sodium | 910 | | 440 | mg/kg dry |
| Silver | 2.7 | | 2.2 | mg/kg dry |
| Thallium | --- | U | 8.8 | mg/kg dry |
| Vanadium | 24 | | 8.8 | mg/kg dry |
| Zinc | 24000 | | 8.8 | mg/kg dry |
| Tin | 8.3 | | 4.4 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.047 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS002-1824-001

Sample ID: 1303109-09

Metals ICP

| | | | | |
|----------|-------|---|-----|-----------|
| Aluminum | 11000 | | 46 | mg/kg dry |
| Antimony | --- | U | 9.3 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS002-1824-001

Sample ID: 1303109-09

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Arsenic | 54 | | 3.7 | mg/kg dry |
| Barium | 110 | | 46 | mg/kg dry |
| Beryllium | --- | U | 1.4 | mg/kg dry |
| Cadmium | --- | U | 1.4 | mg/kg dry |
| Calcium | 13000 | | 230 | mg/kg dry |
| Chromium | 18 | | 2.3 | mg/kg dry |
| Cobalt | --- | U | 9.3 | mg/kg dry |
| Copper | 88 | | 4.6 | mg/kg dry |
| Iron | 37000 | | 23 | mg/kg dry |
| Lead | 64 | | 3.7 | mg/kg dry |
| Magnesium | 3400 | | 230 | mg/kg dry |
| Manganese | 8200 | | 2.3 | mg/kg dry |
| Nickel | 16 | | 9.3 | mg/kg dry |
| Potassium | 630 | | 230 | mg/kg dry |
| Selenium | --- | U | 9.3 | mg/kg dry |
| Sodium | 980 | | 460 | mg/kg dry |
| Silver | --- | U | 2.3 | mg/kg dry |
| Thallium | --- | U | 9.3 | mg/kg dry |
| Vanadium | 24 | | 9.3 | mg/kg dry |
| Zinc | 13000 | | 9.3 | mg/kg dry |
| Tin | 7.9 | | 4.6 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.13 | | 0.045 | mg/kg dry |
|---------|------|--|-------|-----------|



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS003-0206-001

Sample ID: 1303109-10

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 8800 | | 49 | mg/kg dry |
| Antimony | --- | U | 9.7 | mg/kg dry |
| Arsenic | 65 | | 3.9 | mg/kg dry |
| Barium | 130 | | 49 | mg/kg dry |
| Beryllium | --- | U | 1.5 | mg/kg dry |
| Cadmium | 2.2 | | 1.5 | mg/kg dry |
| Calcium | 41000 | | 240 | mg/kg dry |
| Chromium | 21 | | 2.4 | mg/kg dry |
| Cobalt | 14 | | 9.7 | mg/kg dry |
| Copper | 1700 | | 4.9 | mg/kg dry |
| Iron | 75000 | | 24 | mg/kg dry |
| Lead | 150 | | 3.9 | mg/kg dry |
| Magnesium | 15000 | | 240 | mg/kg dry |
| Manganese | 16000 | | 4.9 | mg/kg dry |
| Nickel | 62 | | 9.7 | mg/kg dry |
| Potassium | 1300 | | 240 | mg/kg dry |
| Selenium | --- | U | 9.7 | mg/kg dry |
| Sodium | 990 | | 490 | mg/kg dry |
| Silver | --- | U | 2.4 | mg/kg dry |
| Thallium | --- | U | 9.7 | mg/kg dry |
| Vanadium | 69 | | 9.7 | mg/kg dry |
| Zinc | 12000 | | 9.7 | mg/kg dry |
| Tin | 130 | | 4.9 | mg/kg dry |

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS003-0206-001 Sample ID: 1303109-10

Mercury CVAA

| | | | | |
|---------|-------|--|-------|-----------|
| Mercury | 0.070 | | 0.038 | mg/kg dry |
|---------|-------|--|-------|-----------|

Field ID: P001-SS003-0612-001 Sample ID: 1303109-11

Metals ICP

| | | | | |
|-----------|--------|---|-----|-----------|
| Aluminum | 5900 | | 45 | mg/kg dry |
| Antimony | 35 | | 9.0 | mg/kg dry |
| Arsenic | 150 | | 3.6 | mg/kg dry |
| Barium | 300 | | 45 | mg/kg dry |
| Beryllium | 2.7 | | 1.3 | mg/kg dry |
| Cadmium | 3.9 | | 1.3 | mg/kg dry |
| Calcium | 42000 | | 220 | mg/kg dry |
| Chromium | 34 | | 2.2 | mg/kg dry |
| Cobalt | 10 | | 9.0 | mg/kg dry |
| Copper | 590 | | 4.5 | mg/kg dry |
| Iron | 110000 | | 22 | mg/kg dry |
| Lead | 270 | | 3.6 | mg/kg dry |
| Magnesium | 18000 | | 220 | mg/kg dry |
| Manganese | 38000 | | 11 | mg/kg dry |
| Nickel | 45 | | 9.0 | mg/kg dry |
| Potassium | 470 | | 220 | mg/kg dry |
| Selenium | --- | U | 45 | mg/kg dry |
| Sodium | 630 | | 450 | mg/kg dry |
| Silver | 5.0 | | 2.2 | mg/kg dry |
| Thallium | --- | U | 9.0 | mg/kg dry |
| Vanadium | 28 | | 9.0 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS003-0612-001

Sample ID: 1303109-11

Metals ICP

| | | | | |
|------|-------|--|-----|-----------|
| Zinc | 31000 | | 9.0 | mg/kg dry |
| Tin | 43 | | 4.5 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.16 | | 0.039 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS003-1218-001

Sample ID: 1303109-12

Metals ICP

| | | | | |
|-----------|--------|---|-----|-----------|
| Aluminum | 7500 | | 45 | mg/kg dry |
| Antimony | 25 | | 9.0 | mg/kg dry |
| Arsenic | 140 | | 3.6 | mg/kg dry |
| Barium | 300 | | 45 | mg/kg dry |
| Beryllium | 2.7 | | 1.3 | mg/kg dry |
| Cadmium | 3.0 | | 1.3 | mg/kg dry |
| Calcium | 13000 | | 220 | mg/kg dry |
| Chromium | 91 | | 2.2 | mg/kg dry |
| Cobalt | 16 | | 9.0 | mg/kg dry |
| Copper | 810 | | 4.5 | mg/kg dry |
| Iron | 110000 | | 22 | mg/kg dry |
| Lead | 350 | | 3.6 | mg/kg dry |
| Magnesium | 2600 | | 220 | mg/kg dry |
| Manganese | 35000 | | 11 | mg/kg dry |
| Nickel | 120 | | 9.0 | mg/kg dry |
| Potassium | 630 | | 220 | mg/kg dry |
| Selenium | --- | U | 45 | mg/kg dry |
| Sodium | 630 | | 450 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS003-1218-001

Sample ID: 1303109-12

Metals ICP

| | | | | |
|----------|-------|---|-----|-----------|
| Silver | 4.7 | | 2.2 | mg/kg dry |
| Thallium | --- | U | 9.0 | mg/kg dry |
| Vanadium | 37 | | 9.0 | mg/kg dry |
| Zinc | 24000 | | 9.0 | mg/kg dry |
| Tin | 32 | | 4.5 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.19 | | 0.047 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS003-1824-001

Sample ID: 1303109-13

Metals ICP

| | | | | |
|-----------|--------|--|-----|-----------|
| Aluminum | 6400 | | 41 | mg/kg dry |
| Antimony | 28 | | 8.1 | mg/kg dry |
| Arsenic | 350 | | 3.2 | mg/kg dry |
| Barium | 270 | | 41 | mg/kg dry |
| Beryllium | 6.0 | | 1.2 | mg/kg dry |
| Cadmium | 4.8 | | 1.2 | mg/kg dry |
| Calcium | 41000 | | 200 | mg/kg dry |
| Chromium | 12 | | 2.0 | mg/kg dry |
| Cobalt | 12 | | 8.1 | mg/kg dry |
| Copper | 30 | | 4.1 | mg/kg dry |
| Iron | 170000 | | 20 | mg/kg dry |
| Lead | 51 | | 3.2 | mg/kg dry |
| Magnesium | 8100 | | 200 | mg/kg dry |
| Manganese | 99000 | | 41 | mg/kg dry |
| Nickel | 46 | | 8.1 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS003-1824-001

Sample ID: 1303109-13

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Potassium | 920 | | 200 | mg/kg dry |
| Selenium | --- | U | 160 | mg/kg dry |
| Sodium | 710 | | 410 | mg/kg dry |
| Silver | 12 | | 2.0 | mg/kg dry |
| Thallium | --- | U | 8.1 | mg/kg dry |
| Vanadium | 24 | | 8.1 | mg/kg dry |
| Zinc | 77000 | | 41 | mg/kg dry |
| Tin | --- | U | 4.1 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.029 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS004-0206-001

Sample ID: 1303109-14

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 12000 | | 49 | mg/kg dry |
| Antimony | --- | U | 9.8 | mg/kg dry |
| Arsenic | 6.7 | | 3.9 | mg/kg dry |
| Barium | 59 | | 49 | mg/kg dry |
| Beryllium | --- | U | 1.5 | mg/kg dry |
| Cadmium | 6.1 | | 1.5 | mg/kg dry |
| Calcium | 16000 | | 240 | mg/kg dry |
| Chromium | 33 | | 2.4 | mg/kg dry |
| Cobalt | --- | U | 9.8 | mg/kg dry |
| Copper | 2000 | | 4.9 | mg/kg dry |
| Iron | 33000 | | 24 | mg/kg dry |



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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS004-0206-001

Sample ID: 1303109-14

Metals ICP

| | | | | |
|-----------|------|---|-----|-----------|
| Lead | 650 | | 3.9 | mg/kg dry |
| Magnesium | 7300 | | 240 | mg/kg dry |
| Manganese | 2600 | | 2.4 | mg/kg dry |
| Nickel | 60 | | 9.8 | mg/kg dry |
| Potassium | 600 | | 240 | mg/kg dry |
| Selenium | --- | U | 9.8 | mg/kg dry |
| Sodium | 1700 | | 490 | mg/kg dry |
| Silver | --- | U | 2.4 | mg/kg dry |
| Thallium | --- | U | 9.8 | mg/kg dry |
| Vanadium | 85 | | 9.8 | mg/kg dry |
| Zinc | 6600 | | 9.8 | mg/kg dry |
| Tin | 130 | | 4.9 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.13 | | 0.034 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS004-0612-001

Sample ID: 1303109-15

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 16000 | | 43 | mg/kg dry |
| Antimony | --- | U | 8.5 | mg/kg dry |
| Arsenic | 6.5 | | 3.4 | mg/kg dry |
| Barium | 98 | | 43 | mg/kg dry |
| Beryllium | 1.3 | | 1.3 | mg/kg dry |
| Cadmium | 13 | | 1.3 | mg/kg dry |
| Calcium | 26000 | | 210 | mg/kg dry |
| Chromium | 28 | | 2.1 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS004-0612-001

Sample ID: 1303109-15

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Cobalt | 8.9 | | 8.5 | mg/kg dry |
| Copper | 3900 | | 4.3 | mg/kg dry |
| Iron | 24000 | | 21 | mg/kg dry |
| Lead | 1500 | | 3.4 | mg/kg dry |
| Magnesium | 6900 | | 210 | mg/kg dry |
| Manganese | 380 | | 2.1 | mg/kg dry |
| Nickel | 79 | | 8.5 | mg/kg dry |
| Potassium | 720 | | 210 | mg/kg dry |
| Selenium | --- | U | 8.5 | mg/kg dry |
| Sodium | 2800 | | 430 | mg/kg dry |
| Silver | --- | U | 2.1 | mg/kg dry |
| Thallium | --- | U | 8.5 | mg/kg dry |
| Vanadium | 45 | | 8.5 | mg/kg dry |
| Zinc | 9900 | | 8.5 | mg/kg dry |
| Tin | 260 | | 4.3 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.34 | | 0.038 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS004-1218-001

Sample ID: 1303109-16

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 12000 | | 48 | mg/kg dry |
| Antimony | --- | U | 9.6 | mg/kg dry |
| Arsenic | 8.0 | | 3.8 | mg/kg dry |
| Barium | 200 | | 48 | mg/kg dry |
| Beryllium | --- | U | 1.4 | mg/kg dry |



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Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS004-1218-001

Sample ID: 1303109-16

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Cadmium | 9.5 | | 1.4 | mg/kg dry |
| Calcium | 31000 | | 240 | mg/kg dry |
| Chromium | 31 | | 2.4 | mg/kg dry |
| Cobalt | --- | U | 9.6 | mg/kg dry |
| Copper | 2400 | | 4.8 | mg/kg dry |
| Iron | 17000 | | 24 | mg/kg dry |
| Lead | 1100 | | 3.8 | mg/kg dry |
| Magnesium | 3100 | | 240 | mg/kg dry |
| Manganese | 280 | | 2.4 | mg/kg dry |
| Nickel | 42 | | 9.6 | mg/kg dry |
| Potassium | 1200 | | 240 | mg/kg dry |
| Selenium | --- | U | 9.6 | mg/kg dry |
| Sodium | 2800 | | 480 | mg/kg dry |
| Silver | --- | U | 2.4 | mg/kg dry |
| Thallium | --- | U | 9.6 | mg/kg dry |
| Vanadium | 30 | | 9.6 | mg/kg dry |
| Zinc | 7300 | | 9.6 | mg/kg dry |
| Tin | 170 | | 4.8 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.29 | | 0.047 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS004-1824-001

Sample ID: 1303109-17

Metals ICP

| | | | | |
|----------|-------|---|-----|-----------|
| Aluminum | 11000 | | 45 | mg/kg dry |
| Antimony | --- | U | 9.0 | mg/kg dry |



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Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS004-1824-001

Sample ID: 1303109-17

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Arsenic | 11 | | 3.6 | mg/kg dry |
| Barium | 59 | | 45 | mg/kg dry |
| Beryllium | 1.4 | | 1.4 | mg/kg dry |
| Cadmium | 57 | | 1.4 | mg/kg dry |
| Calcium | 41000 | | 230 | mg/kg dry |
| Chromium | 17 | | 2.3 | mg/kg dry |
| Cobalt | --- | U | 9.0 | mg/kg dry |
| Copper | 1800 | | 4.5 | mg/kg dry |
| Iron | 33000 | | 23 | mg/kg dry |
| Lead | 2800 | | 3.6 | mg/kg dry |
| Magnesium | 7100 | | 230 | mg/kg dry |
| Manganese | 350 | | 2.3 | mg/kg dry |
| Nickel | 34 | | 9.0 | mg/kg dry |
| Potassium | 820 | | 230 | mg/kg dry |
| Selenium | --- | U | 9.0 | mg/kg dry |
| Sodium | 2100 | | 450 | mg/kg dry |
| Silver | 2.4 | | 2.3 | mg/kg dry |
| Thallium | --- | U | 9.0 | mg/kg dry |
| Vanadium | 33 | | 9.0 | mg/kg dry |
| Zinc | 27000 | | 9.0 | mg/kg dry |
| Tin | 380 | | 4.5 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.97 | | 0.040 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS005-0206-001

Sample ID: 1303109-18



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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS005-0206-001

Sample ID: 1303109-18

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 12000 | | 48 | mg/kg dry |
| Antimony | --- | U | 9.7 | mg/kg dry |
| Arsenic | --- | U | 3.9 | mg/kg dry |
| Barium | 59 | | 48 | mg/kg dry |
| Beryllium | --- | U | 1.5 | mg/kg dry |
| Cadmium | --- | U | 1.5 | mg/kg dry |
| Calcium | 21000 | | 240 | mg/kg dry |
| Chromium | 24 | | 2.4 | mg/kg dry |
| Cobalt | 12 | | 9.7 | mg/kg dry |
| Copper | 160 | | 4.8 | mg/kg dry |
| Iron | 29000 | | 24 | mg/kg dry |
| Lead | 45 | | 3.9 | mg/kg dry |
| Magnesium | 12000 | | 240 | mg/kg dry |
| Manganese | 430 | | 2.4 | mg/kg dry |
| Nickel | 26 | | 9.7 | mg/kg dry |
| Potassium | 1200 | | 240 | mg/kg dry |
| Selenium | --- | U | 9.7 | mg/kg dry |
| Sodium | 710 | | 480 | mg/kg dry |
| Silver | --- | U | 2.4 | mg/kg dry |
| Thallium | --- | U | 9.7 | mg/kg dry |
| Vanadium | 100 | | 9.7 | mg/kg dry |
| Zinc | 380 | | 9.7 | mg/kg dry |
| Tin | 5.6 | | 4.8 | mg/kg dry |

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS005-0206-001

Sample ID: 1303109-18

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.040 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS005-0609-001

Sample ID: 1303109-19

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 12000 | | 43 | mg/kg dry |
| Antimony | --- | U | 8.6 | mg/kg dry |
| Arsenic | --- | U | 3.5 | mg/kg dry |
| Barium | --- | U | 43 | mg/kg dry |
| Beryllium | --- | U | 1.3 | mg/kg dry |
| Cadmium | --- | U | 1.3 | mg/kg dry |
| Calcium | 21000 | | 220 | mg/kg dry |
| Chromium | 18 | | 2.2 | mg/kg dry |
| Cobalt | 12 | | 8.6 | mg/kg dry |
| Copper | 67 | | 4.3 | mg/kg dry |
| Iron | 26000 | | 22 | mg/kg dry |
| Lead | 13 | | 3.5 | mg/kg dry |
| Magnesium | 14000 | | 220 | mg/kg dry |
| Manganese | 350 | | 2.2 | mg/kg dry |
| Nickel | 24 | | 8.6 | mg/kg dry |
| Potassium | 880 | | 220 | mg/kg dry |
| Selenium | --- | U | 8.6 | mg/kg dry |
| Sodium | 500 | | 430 | mg/kg dry |
| Silver | --- | U | 2.2 | mg/kg dry |
| Thallium | --- | U | 8.6 | mg/kg dry |



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Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS005-0609-001

Sample ID: 1303109-19

Metals ICP

| | | | | |
|----------|-----|---|-----|-----------|
| Vanadium | 89 | | 8.6 | mg/kg dry |
| Zinc | 97 | | 8.6 | mg/kg dry |
| Tin | --- | U | 4.3 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.032 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS005-1318-001

Sample ID: 1303109-20

Metals ICP

| | | | | |
|-----------|--------|---|-----|-----------|
| Aluminum | 7900 | | 41 | mg/kg dry |
| Antimony | 20 | | 8.2 | mg/kg dry |
| Arsenic | 100 | | 3.3 | mg/kg dry |
| Barium | 280 | | 41 | mg/kg dry |
| Beryllium | 2.8 | | 1.2 | mg/kg dry |
| Cadmium | 6.2 | | 1.2 | mg/kg dry |
| Calcium | 44000 | | 210 | mg/kg dry |
| Chromium | 18 | | 2.1 | mg/kg dry |
| Cobalt | 8.8 | | 8.2 | mg/kg dry |
| Copper | 150 | | 4.1 | mg/kg dry |
| Iron | 100000 | | 21 | mg/kg dry |
| Lead | 360 | | 3.3 | mg/kg dry |
| Magnesium | 16000 | | 210 | mg/kg dry |
| Manganese | 52000 | | 10 | mg/kg dry |
| Nickel | 42 | | 8.2 | mg/kg dry |
| Potassium | 690 | | 210 | mg/kg dry |
| Selenium | --- | U | 41 | mg/kg dry |



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Region 2 Laboratory

Project: Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS005-1318-001

Sample ID: 1303109-20

Metals ICP

| | | | | |
|----------|-------|---|-----|-----------|
| Sodium | --- | U | 410 | mg/kg dry |
| Silver | 6.8 | | 2.1 | mg/kg dry |
| Thallium | --- | U | 8.2 | mg/kg dry |
| Vanadium | 26 | | 8.2 | mg/kg dry |
| Zinc | 22000 | | 8.2 | mg/kg dry |
| Tin | 15 | | 4.1 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.24 | | 0.034 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS005-1824-001

Sample ID: 1303109-21

Metals ICP

| | | | | |
|-----------|--------|--|-----|-----------|
| Aluminum | 7400 | | 46 | mg/kg dry |
| Antimony | 47 | | 9.3 | mg/kg dry |
| Arsenic | 110 | | 3.7 | mg/kg dry |
| Barium | 160 | | 46 | mg/kg dry |
| Beryllium | 2.8 | | 1.4 | mg/kg dry |
| Cadmium | 2.6 | | 1.4 | mg/kg dry |
| Calcium | 15000 | | 230 | mg/kg dry |
| Chromium | 15 | | 2.3 | mg/kg dry |
| Cobalt | 12 | | 9.3 | mg/kg dry |
| Copper | 45 | | 4.6 | mg/kg dry |
| Iron | 150000 | | 23 | mg/kg dry |
| Lead | 78 | | 3.7 | mg/kg dry |
| Magnesium | 4100 | | 230 | mg/kg dry |
| Manganese | 71000 | | 23 | mg/kg dry |



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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS005-1824-001

Sample ID: 1303109-21

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Nickel | 42 | | 9.3 | mg/kg dry |
| Potassium | 480 | | 230 | mg/kg dry |
| Selenium | --- | U | 46 | mg/kg dry |
| Sodium | --- | U | 460 | mg/kg dry |
| Silver | 8.5 | | 2.3 | mg/kg dry |
| Thallium | --- | U | 9.3 | mg/kg dry |
| Vanadium | 25 | | 9.3 | mg/kg dry |
| Zinc | 32000 | | 9.3 | mg/kg dry |
| Tin | --- | U | 4.6 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-------|--|-------|-----------|
| Mercury | 0.090 | | 0.040 | mg/kg dry |
|---------|-------|--|-------|-----------|

Field ID: P001-SS006-0206-001

Sample ID: 1303109-22

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 8500 | | 43 | mg/kg dry |
| Antimony | --- | U | 8.6 | mg/kg dry |
| Arsenic | 3.7 | | 3.4 | mg/kg dry |
| Barium | 84 | | 43 | mg/kg dry |
| Beryllium | --- | U | 1.3 | mg/kg dry |
| Cadmium | --- | U | 1.3 | mg/kg dry |
| Calcium | 44000 | | 210 | mg/kg dry |
| Chromium | 32 | | 2.1 | mg/kg dry |
| Cobalt | --- | U | 8.6 | mg/kg dry |
| Copper | 850 | | 4.3 | mg/kg dry |



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Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS006-0206-001

Sample ID: 1303109-22

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Iron | 31000 | | 21 | mg/kg dry |
| Lead | 260 | | 3.4 | mg/kg dry |
| Magnesium | 19000 | | 210 | mg/kg dry |
| Manganese | 470 | | 2.1 | mg/kg dry |
| Nickel | 29 | | 8.6 | mg/kg dry |
| Potassium | 940 | | 210 | mg/kg dry |
| Selenium | --- | U | 8.6 | mg/kg dry |
| Sodium | 570 | | 430 | mg/kg dry |
| Silver | --- | U | 2.1 | mg/kg dry |
| Thallium | --- | U | 8.6 | mg/kg dry |
| Vanadium | 58 | | 8.6 | mg/kg dry |
| Zinc | 960 | | 8.6 | mg/kg dry |
| Tin | 28 | | 4.3 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-------|--|-------|-----------|
| Mercury | 0.035 | | 0.035 | mg/kg dry |
|---------|-------|--|-------|-----------|

Field ID: P001-SS006-0612-001

Sample ID: 1303109-23

Metals ICP

| | | | | |
|-----------|-------|--|-----|-----------|
| Aluminum | 8500 | | 43 | mg/kg dry |
| Antimony | 20 | | 8.6 | mg/kg dry |
| Arsenic | 11 | | 3.4 | mg/kg dry |
| Barium | 250 | | 43 | mg/kg dry |
| Beryllium | 1.7 | | 1.3 | mg/kg dry |
| Cadmium | 18 | | 1.3 | mg/kg dry |
| Calcium | 41000 | | 210 | mg/kg dry |



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Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS006-0612-001

Sample ID: 1303109-23

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Chromium | 100 | | 2.1 | mg/kg dry |
| Cobalt | --- | U | 8.6 | mg/kg dry |
| Copper | 9100 | | 4.3 | mg/kg dry |
| Iron | 21000 | | 21 | mg/kg dry |
| Lead | 2700 | | 3.4 | mg/kg dry |
| Magnesium | 16000 | | 210 | mg/kg dry |
| Manganese | 810 | | 2.1 | mg/kg dry |
| Nickel | 810 | | 8.6 | mg/kg dry |
| Potassium | 450 | | 210 | mg/kg dry |
| Selenium | --- | U | 8.6 | mg/kg dry |
| Sodium | --- | U | 430 | mg/kg dry |
| Silver | 3.2 | | 2.1 | mg/kg dry |
| Thallium | --- | U | 8.6 | mg/kg dry |
| Vanadium | 32 | | 8.6 | mg/kg dry |
| Zinc | 8900 | | 8.6 | mg/kg dry |
| Tin | 780 | | 4.3 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.88 | | 0.074 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS006-1218-001

Sample ID: 1303109-24

Metals ICP

| | | | | |
|----------|------|--|-----|-----------|
| Aluminum | 9400 | | 44 | mg/kg dry |
| Antimony | 110 | | 8.8 | mg/kg dry |
| Arsenic | 17 | | 3.5 | mg/kg dry |
| Barium | 330 | | 44 | mg/kg dry |



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Project:Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS006-1218-001

Sample ID: 1303109-24

Metals ICP

| | | | | |
|-----------|-------|----|-----|-----------|
| Beryllium | 7.3 | | 1.3 | mg/kg dry |
| Cadmium | 48 | | 1.3 | mg/kg dry |
| Calcium | 46000 | | 220 | mg/kg dry |
| Chromium | 79 | | 2.2 | mg/kg dry |
| Cobalt | 11 | | 8.8 | mg/kg dry |
| Copper | 20000 | | 4.4 | mg/kg dry |
| Iron | 42000 | | 22 | mg/kg dry |
| Lead | 11000 | | 3.5 | mg/kg dry |
| Magnesium | 4900 | | 220 | mg/kg dry |
| Manganese | 3700 | | 2.2 | mg/kg dry |
| Nickel | 440 | | 8.8 | mg/kg dry |
| Potassium | 510 | | 220 | mg/kg dry |
| Selenium | --- | U | 8.8 | mg/kg dry |
| Sodium | 530 | | 440 | mg/kg dry |
| Silver | 9.6 | | 2.2 | mg/kg dry |
| Thallium | --- | UL | 8.8 | mg/kg dry |
| Vanadium | 38 | | 8.8 | mg/kg dry |
| Zinc | 37000 | | 18 | mg/kg dry |
| Tin | 800 | | 4.4 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|--|------|-----------|
| Mercury | 1.2 | | 0.16 | mg/kg dry |
|---------|-----|--|------|-----------|

Field ID: P001-SS006-1218-002

Sample ID: 1303109-25

Metals ICP

| | | | | |
|----------|------|--|----|-----------|
| Aluminum | 9500 | | 42 | mg/kg dry |
|----------|------|--|----|-----------|



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Project: Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS006-1218-002

Sample ID: 1303109-25

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Antimony | 32 | | 8.4 | mg/kg dry |
| Arsenic | 15 | | 3.4 | mg/kg dry |
| Barium | 320 | | 42. | mg/kg dry |
| Beryllium | 4.3 | | 1.3 | mg/kg dry |
| Cadmium | 35 | | 1.3 | mg/kg dry |
| Calcium | 45000 | | 210 | mg/kg dry |
| Chromium | 67 | | 2.1 | mg/kg dry |
| Cobalt | 10 | | 8.4 | mg/kg dry |
| Copper | 16000 | | 4.2 | mg/kg dry |
| Iron | 45000 | | 21 | mg/kg dry |
| Lead | 5800 | | 3.4 | mg/kg dry |
| Magnesium | 4300 | | 210 | mg/kg dry |
| Manganese | 1600 | | 2.1 | mg/kg dry |
| Nickel | 540 | | 8.4 | mg/kg dry |
| Potassium | 480 | | 210 | mg/kg dry |
| Selenium | --- | U | 8.4 | mg/kg dry |
| Sodium | --- | U | 420 | mg/kg dry |
| Silver | 6.2 | | 2.1 | mg/kg dry |
| Thallium | --- | U | 8.4 | mg/kg dry |
| Vanadium | 37 | | 8.4 | mg/kg dry |
| Zinc | 26000 | | 8.4 | mg/kg dry |
| Tin | 780 | | 4.2 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.99 | | 0.042 | mg/kg dry |
|---------|------|--|-------|-----------|



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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS007-1218-001

Sample ID: 1303109-26

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 10000 | | 40 | mg/kg dry |
| Antimony | 18 | | 8.0 | mg/kg dry |
| Arsenic | 79 | | 3.2 | mg/kg dry |
| Barium | 210 | | 40 | mg/kg dry |
| Beryllium | 6.0 | | 1.2 | mg/kg dry |
| Cadmium | 2.9 | | 1.2 | mg/kg dry |
| Calcium | 31000 | | 200 | mg/kg dry |
| Chromium | 13 | | 2.0 | mg/kg dry |
| Cobalt | 11 | | 8.0 | mg/kg dry |
| Copper | 360 | | 4.0 | mg/kg dry |
| Iron | 90000 | | 20 | mg/kg dry |
| Lead | 180 | | 3.2 | mg/kg dry |
| Magnesium | 7900 | | 200 | mg/kg dry |
| Manganese | 38000 | | 10 | mg/kg dry |
| Nickel | 40 | | 8.0 | mg/kg dry |
| Potassium | 1200 | | 200 | mg/kg dry |
| Selenium | --- | U | 40 | mg/kg dry |
| Sodium | 430 | | 400 | mg/kg dry |
| Silver | 4.9 | | 2.0 | mg/kg dry |
| Thallium | --- | U | 8.0 | mg/kg dry |
| Vanadium | 24 | | 8.0 | mg/kg dry |
| Zinc | 21000 | | 8.0 | mg/kg dry |
| Tin | 12 | | 4.0 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.043 | mg/kg dry |
|---------|-----|---|-------|-----------|



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS007-1824-001

Sample ID: 1303109-27

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 16000 | | 42 | mg/kg dry |
| Antimony | --- | U | 8.5 | mg/kg dry |
| Arsenic | 14 | | 3.4 | mg/kg dry |
| Barium | 190 | | 42 | mg/kg dry |
| Beryllium | 7.1 | | 1.3 | mg/kg dry |
| Cadmium | --- | U | 1.3 | mg/kg dry |
| Calcium | 37000 | | 210 | mg/kg dry |
| Chromium | 12 | | 2.1 | mg/kg dry |
| Cobalt | --- | U | 8.5 | mg/kg dry |
| Copper | 20 | | 4.2 | mg/kg dry |
| Iron | 25000 | | 21 | mg/kg dry |
| Lead | 36 | | 3.4 | mg/kg dry |
| Magnesium | 6700 | | 210 | mg/kg dry |
| Manganese | 46000 | | 21 | mg/kg dry |
| Nickel | 14 | | 8.5 | mg/kg dry |
| Potassium | 1500 | | 210 | mg/kg dry |
| Selenium | --- | U | 85 | mg/kg dry |
| Sodium | 480 | | 420 | mg/kg dry |
| Silver | 5.2 | | 2.1 | mg/kg dry |
| Thallium | --- | U | 8.5 | mg/kg dry |
| Vanadium | 17 | | 8.5 | mg/kg dry |
| Zinc | 5700 | | 8.5 | mg/kg dry |
| Tin | 6.6 | | 4.2 | mg/kg dry |

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS007-1824-001

Sample ID: 1303109-27

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.035 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS008-0206-001

Sample ID: 1303109-28

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 14000 | | 39 | mg/kg dry |
| Antimony | --- | U | 7.8 | mg/kg dry |
| Arsenic | 5.0 | | 3.1 | mg/kg dry |
| Barium | 150 | | 39 | mg/kg dry |
| Beryllium | 3.6 | | 1.2 | mg/kg dry |
| Cadmium | 5.0 | | 1.2 | mg/kg dry |
| Calcium | 15000 | | 190 | mg/kg dry |
| Chromium | 65 | | 1.9 | mg/kg dry |
| Cobalt | 11 | | 7.8 | mg/kg dry |
| Copper | 4400 | | 3.9 | mg/kg dry |
| Iron | 53000 | | 19 | mg/kg dry |
| Lead | 740 | | 3.1 | mg/kg dry |
| Magnesium | 5700 | | 190 | mg/kg dry |
| Manganese | 970 | | 1.9 | mg/kg dry |
| Nickel | 120 | | 7.8 | mg/kg dry |
| Potassium | 1600 | | 190 | mg/kg dry |
| Selenium | --- | U | 7.8 | mg/kg dry |
| Sodium | 910 | | 390 | mg/kg dry |
| Silver | 2.7 | | 1.9 | mg/kg dry |
| Thallium | --- | U | 7.8 | mg/kg dry |
| Vanadium | 70 | | 7.8 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS008-0206-001

Sample ID: 1303109-28

Metals ICP

| | | | | |
|------|------|--|-----|-----------|
| Zinc | 4400 | | 7.8 | mg/kg dry |
| Tin | 200 | | 3.9 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.40 | | 0.032 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS008-2224-001

Sample ID: 1303109-29

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 3700 | | 48 | mg/kg dry |
| Antimony | 21 | | 9.7 | mg/kg dry |
| Arsenic | 67 | | 3.9 | mg/kg dry |
| Barium | 170 | | 48 | mg/kg dry |
| Beryllium | 1.7 | | 1.5 | mg/kg dry |
| Cadmium | 3.3 | | 1.5 | mg/kg dry |
| Calcium | 4900 | | 240 | mg/kg dry |
| Chromium | 16 | | 2.4 | mg/kg dry |
| Cobalt | 15 | | 9.7 | mg/kg dry |
| Copper | 340 | | 4.8 | mg/kg dry |
| Iron | 79000 | | 24 | mg/kg dry |
| Lead | 540 | | 3.9 | mg/kg dry |
| Magnesium | 1400 | | 240 | mg/kg dry |
| Manganese | 15000 | | 12 | mg/kg dry |
| Nickel | 38 | | 9.7 | mg/kg dry |
| Potassium | 360 | | 240 | mg/kg dry |
| Selenium | --- | U | 9.7 | mg/kg dry |
| Sodium | --- | U | 480 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS008-2224-001

Sample ID: 1303109-29

Metals ICP

| | | | | |
|----------|-------|---|-----|-----------|
| Silver | --- | U | 2.4 | mg/kg dry |
| Thallium | --- | U | 9.7 | mg/kg dry |
| Vanadium | 19 | | 9.7 | mg/kg dry |
| Zinc | 23000 | | 9.7 | mg/kg dry |
| Tin | 30 | | 4.8 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.38 | | 0.033 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS009-0206-001

Sample ID: 1303109-30

Metals ICP

| | | | | |
|-----------|-------|--|-----|-----------|
| Aluminum | 13000 | | 43 | mg/kg dry |
| Antimony | 130 | | 8.6 | mg/kg dry |
| Arsenic | 22 | | 3.5 | mg/kg dry |
| Barium | 560 | | 43 | mg/kg dry |
| Beryllium | 7.5 | | 1.3 | mg/kg dry |
| Cadmium | 82 | | 1.3 | mg/kg dry |
| Calcium | 37000 | | 220 | mg/kg dry |
| Chromium | 94 | | 2.2 | mg/kg dry |
| Cobalt | 14 | | 8.6 | mg/kg dry |
| Copper | 18000 | | 4.3 | mg/kg dry |
| Iron | 41000 | | 22 | mg/kg dry |
| Lead | 11000 | | 3.5 | mg/kg dry |
| Magnesium | 4200 | | 220 | mg/kg dry |
| Manganese | 1900 | | 2.2 | mg/kg dry |
| Nickel | 300 | | 8.6 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS009-0206-001

Sample ID: 1303109-30

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Potassium | 440 | | 220 | mg/kg dry |
| Selenium | --- | U | 8.6 | mg/kg dry |
| Sodium | --- | U | 430 | mg/kg dry |
| Silver | 9.8 | | 2.2 | mg/kg dry |
| Thallium | --- | U | 8.6 | mg/kg dry |
| Vanadium | 45 | | 8.6 | mg/kg dry |
| Zinc | 60000 | | 43 | mg/kg dry |
| Tin | 1200 | | 4.3 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|--|------|-----------|
| Mercury | 3.4 | | 0.39 | mg/kg dry |
|---------|-----|--|------|-----------|

Field ID: P001-SS010-1824-001

Sample ID: 1303109-31

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 5100 | | 68 | mg/kg dry |
| Antimony | 39 | | 14 | mg/kg dry |
| Arsenic | 27 | | 5.4 | mg/kg dry |
| Barium | 690 | | 68 | mg/kg dry |
| Beryllium | 3.9 | | 2.0 | mg/kg dry |
| Cadmium | 23 | | 2.0 | mg/kg dry |
| Calcium | 35000 | | 340 | mg/kg dry |
| Chromium | 77 | | 3.4 | mg/kg dry |
| Cobalt | --- | U | 14 | mg/kg dry |
| Copper | 25000 | | 6.8 | mg/kg dry |
| Iron | 49000 | | 34 | mg/kg dry |
| Lead | 5400 | | 5.4 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS010-1824-001

Sample ID: 1303109-31

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Magnesium | 14000 | | 340 | mg/kg dry |
| Manganese | 2800 | | 3.4 | mg/kg dry |
| Nickel | 580 | | 14 | mg/kg dry |
| Potassium | 340 | | 340 | mg/kg dry |
| Selenium | --- | U | 14 | mg/kg dry |
| Sodium | 740 | | 680 | mg/kg dry |
| Silver | 8.5 | | 3.4 | mg/kg dry |
| Thallium | --- | U | 14 | mg/kg dry |
| Vanadium | 49 | | 14 | mg/kg dry |
| Zinc | 14000 | | 14 | mg/kg dry |
| Tin | 1100 | | 6.8 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|--|------|-----------|
| Mercury | 2.0 | | 0.21 | mg/kg dry |
|---------|-----|--|------|-----------|

Field ID: P001-SS013-0206-001

Sample ID: 1303109-32

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 12000 | | 39 | mg/kg dry |
| Antimony | --- | U | 7.9 | mg/kg dry |
| Arsenic | --- | U | 3.2 | mg/kg dry |
| Barium | 130 | | 39 | mg/kg dry |
| Beryllium | --- | U | 1.2 | mg/kg dry |
| Cadmium | --- | U | 1.2 | mg/kg dry |
| Calcium | 13000 | | 200 | mg/kg dry |
| Chromium | 37 | | 2.0 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS013-0206-001

Sample ID: 1303109-32

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Cobalt | 10 | | 7.9 | mg/kg dry |
| Copper | 180 | | 3.9 | mg/kg dry |
| Iron | 38000 | | 20 | mg/kg dry |
| Lead | 61 | | 3.2 | mg/kg dry |
| Magnesium | 7200 | | 200 | mg/kg dry |
| Manganese | 330 | | 2.0 | mg/kg dry |
| Nickel | 25 | | 7.9 | mg/kg dry |
| Potassium | 1800 | | 200 | mg/kg dry |
| Selenium | --- | U | 7.9 | mg/kg dry |
| Sodium | 660 | | 390 | mg/kg dry |
| Silver | --- | U | 2.0 | mg/kg dry |
| Thallium | --- | U | 7.9 | mg/kg dry |
| Vanadium | 74 | | 7.9 | mg/kg dry |
| Zinc | 610 | | 7.9 | mg/kg dry |
| Tin | --- | U | 3.9 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.031 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS013-0612-001

Sample ID: 1303109-33

Metals ICP

| | | | | |
|----------|------|---|-----|-----------|
| Aluminum | 6200 | | 40 | mg/kg dry |
| Antimony | --- | U | 8.1 | mg/kg dry |
| Arsenic | --- | U | 3.2 | mg/kg dry |
| Barium | 47 | | 40 | mg/kg dry |



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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS013-0612-001

Sample ID: 1303109-33

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Beryllium | --- | U | 1.2 | mg/kg dry |
| Cadmium | --- | U | 1.2 | mg/kg dry |
| Calcium | 5400 | | 200 | mg/kg dry |
| Chromium | 24 | | 2.0 | mg/kg dry |
| Cobalt | 8.1 | | 8.1 | mg/kg dry |
| Copper | 110 | | 4.0 | mg/kg dry |
| Iron | 35000 | | 20 | mg/kg dry |
| Lead | 58 | | 3.2 | mg/kg dry |
| Magnesium | 4300 | | 200 | mg/kg dry |
| Manganese | 180 | | 2.0 | mg/kg dry |
| Nickel | 17 | | 8.1 | mg/kg dry |
| Potassium | 1700 | | 200 | mg/kg dry |
| Selenium | --- | U | 8.1 | mg/kg dry |
| Sodium | --- | U | 400 | mg/kg dry |
| Silver | --- | U | 2.0 | mg/kg dry |
| Thallium | --- | U | 8.1 | mg/kg dry |
| Vanadium | 69 | | 8.1 | mg/kg dry |
| Zinc | 280 | | 8.1 | mg/kg dry |
| Tin | --- | U | 4.0 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.039 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS013-1218-001

Sample ID: 1303109-34

Metals ICP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS013-1218-001

Sample ID: 1303109-34

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 3900 | | 40 | mg/kg dry |
| Antimony | 26 | | 7.9 | mg/kg dry |
| Arsenic | 3.8 | | 3.2 | mg/kg dry |
| Barium | 50 | | 40 | mg/kg dry |
| Beryllium | --- | U | 1.2 | mg/kg dry |
| Cadmium | 4.5 | | 1.2 | mg/kg dry |
| Calcium | 4200 | | 200 | mg/kg dry |
| Chromium | 17 | | 2.0 | mg/kg dry |
| Cobalt | --- | U | 7.9 | mg/kg dry |
| Copper | 3300 | | 4.0 | mg/kg dry |
| Iron | 13000 | | 20 | mg/kg dry |
| Lead | 1100 | | 3.2 | mg/kg dry |
| Magnesium | 1700 | | 200 | mg/kg dry |
| Manganese | 290 | | 2.0 | mg/kg dry |
| Nickel | 40 | | 7.9 | mg/kg dry |
| Potassium | 310 | | 200 | mg/kg dry |
| Selenium | --- | U | 7.9 | mg/kg dry |
| Sodium | --- | U | 400 | mg/kg dry |
| Silver | --- | U | 2.0 | mg/kg dry |
| Thallium | --- | U | 7.9 | mg/kg dry |
| Vanadium | 25 | | 7.9 | mg/kg dry |
| Zinc | 3700 | | 7.9 | mg/kg dry |
| Tin | 98 | | 4.0 | mg/kg dry |

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS013-1218-001

Sample ID: 1303109-34

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.23 | | 0.039 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS013-1824-001

Sample ID: 1303109-35

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 26000 | | 43 | mg/kg dry |
| Antimony | 14 | | 8.6 | mg/kg dry |
| Arsenic | 15 | | 3.4 | mg/kg dry |
| Barium | 510 | | 43 | mg/kg dry |
| Beryllium | 6.9 | | 1.3 | mg/kg dry |
| Cadmium | 7.5 | | 1.3 | mg/kg dry |
| Calcium | 60000 | | 210 | mg/kg dry |
| Chromium | 200 | | 2.1 | mg/kg dry |
| Cobalt | 17 | | 8.6 | mg/kg dry |
| Copper | 5400 | | 4.3 | mg/kg dry |
| Iron | 50000 | | 21 | mg/kg dry |
| Lead | 2400 | | 3.4 | mg/kg dry |
| Magnesium | 9800 | | 210 | mg/kg dry |
| Manganese | 42000 | | 11 | mg/kg dry |
| Nickel | 170 | | 8.6 | mg/kg dry |
| Potassium | 1500 | | 210 | mg/kg dry |
| Selenium | --- | U | 43 | mg/kg dry |
| Sodium | 650 | | 430 | mg/kg dry |
| Silver | 6.0 | | 2.1 | mg/kg dry |
| Thallium | --- | U | 8.6 | mg/kg dry |
| Vanadium | 21 | | 8.6 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS013-1824-001

Sample ID: 1303109-35

Metals ICP

| | | | | |
|------|------|--|-----|-----------|
| Zinc | 6700 | | 8.6 | mg/kg dry |
| Tin | 180 | | 4.3 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-------|--|-------|-----------|
| Mercury | 0.047 | | 0.036 | mg/kg dry |
|---------|-------|--|-------|-----------|

Field ID: P001-SS014-0206-001

Sample ID: 1303109-36

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 13000 | | 42 | mg/kg dry |
| Antimony | --- | U | 8.3 | mg/kg dry |
| Arsenic | --- | U | 3.3 | mg/kg dry |
| Barium | 54 | | 42 | mg/kg dry |
| Beryllium | --- | U | 1.2 | mg/kg dry |
| Cadmium | --- | U | 1.2 | mg/kg dry |
| Calcium | 22000 | | 210 | mg/kg dry |
| Chromium | 19 | | 2.1 | mg/kg dry |
| Cobalt | 12 | | 8.3 | mg/kg dry |
| Copper | 60 | | 4.2 | mg/kg dry |
| Iron | 27000 | | 21 | mg/kg dry |
| Lead | 15 | | 3.3 | mg/kg dry |
| Magnesium | 12000 | | 210 | mg/kg dry |
| Manganese | 360 | | 2.1 | mg/kg dry |
| Nickel | 28 | | 8.3 | mg/kg dry |
| Potassium | 1000 | | 210 | mg/kg dry |
| Selenium | --- | U | 8.3 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS014-0206-001

Sample ID: 1303109-36

Metals ICP

| | | | | |
|----------|------|---|-----|-----------|
| Sodium | 1300 | | 420 | mg/kg dry |
| Silver | --- | U | 2.1 | mg/kg dry |
| Thallium | --- | U | 8.3 | mg/kg dry |
| Vanadium | 92 | | 8.3 | mg/kg dry |
| Zinc | 120 | | 8.3 | mg/kg dry |
| Tin | --- | U | 4.2 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.038 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS014-2124-001

Sample ID: 1303109-37

Metals ICP

| | | | | |
|-----------|-------|--|-----|-----------|
| Aluminum | 21000 | | 43 | mg/kg dry |
| Antimony | 14 | | 8.7 | mg/kg dry |
| Arsenic | 46 | | 3.5 | mg/kg dry |
| Barium | 270 | | 43 | mg/kg dry |
| Beryllium | 5.1 | | 1.3 | mg/kg dry |
| Cadmium | 3.5 | | 1.3 | mg/kg dry |
| Calcium | 34000 | | 220 | mg/kg dry |
| Chromium | 290 | | 2.2 | mg/kg dry |
| Cobalt | 45 | | 8.7 | mg/kg dry |
| Copper | 610 | | 4.3 | mg/kg dry |
| Iron | 73000 | | 22 | mg/kg dry |
| Lead | 250 | | 3.5 | mg/kg dry |
| Magnesium | 5900 | | 220 | mg/kg dry |
| Manganese | 30000 | | 11 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS014-2124-001

Sample ID: 1303109-37

Metals ICP

| | | | | |
|-----------|------|---|-----|-----------|
| Nickel | 180 | | 8.7 | mg/kg dry |
| Potassium | 1500 | | 220 | mg/kg dry |
| Selenium | --- | U | 43 | mg/kg dry |
| Sodium | 610 | | 430 | mg/kg dry |
| Silver | 3.4 | | 2.2 | mg/kg dry |
| Thallium | --- | U | 8.7 | mg/kg dry |
| Vanadium | 20 | | 8.7 | mg/kg dry |
| Zinc | 1200 | | 8.7 | mg/kg dry |
| Tin | 7.9 | | 4.3 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-----|---|-------|-----------|
| Mercury | --- | U | 0.036 | mg/kg dry |
|---------|-----|---|-------|-----------|

Field ID: P001-SS015-0001-001

Sample ID: 1303109-38

Metals ICP

| | | | | |
|-----------|------|---|-----|-----------|
| Aluminum | 7900 | | 45 | mg/kg dry |
| Antimony | --- | U | 9.1 | mg/kg dry |
| Arsenic | 7.4 | | 3.6 | mg/kg dry |
| Barium | 65 | | 45 | mg/kg dry |
| Beryllium | --- | U | 1.4 | mg/kg dry |
| Cadmium | --- | U | 1.4 | mg/kg dry |
| Calcium | 7300 | | 230 | mg/kg dry |
| Chromium | 23 | | 2.3 | mg/kg dry |
| Cobalt | --- | U | 9.1 | mg/kg dry |
| Copper | 88 | | 4.5 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS015-0001-001

Sample ID: 1303109-38

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Iron | 20000 | | 23 | mg/kg dry |
| Lead | 66 | | 3.6 | mg/kg dry |
| Magnesium | 3200 | | 230 | mg/kg dry |
| Manganese | 500 | | 2.3 | mg/kg dry |
| Nickel | 15 | | 9.1 | mg/kg dry |
| Potassium | 690 | | 230 | mg/kg dry |
| Selenium | --- | U | 9.1 | mg/kg dry |
| Sodium | --- | U | 450 | mg/kg dry |
| Silver | --- | U | 2.3 | mg/kg dry |
| Thallium | --- | U | 9.1 | mg/kg dry |
| Vanadium | 36 | | 9.1 | mg/kg dry |
| Zinc | 230 | | 9.1 | mg/kg dry |
| Tin | --- | U | 4.5 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|-------|--|-------|-----------|
| Mercury | 0.094 | | 0.033 | mg/kg dry |
|---------|-------|--|-------|-----------|

Field ID: P001-SS015-0106-001

Sample ID: 1303109-39

Metals ICP

| | | | | |
|-----------|------|---|-----|-----------|
| Aluminum | 7800 | | 47 | mg/kg dry |
| Antimony | --- | U | 9.4 | mg/kg dry |
| Arsenic | 5.9 | | 3.8 | mg/kg dry |
| Barium | 62 | | 47 | mg/kg dry |
| Beryllium | --- | U | 1.4 | mg/kg dry |
| Cadmium | --- | U | 1.4 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS015-0106-001

Sample ID: 1303109-39

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Calcium | 13000 | | 240 | mg/kg dry |
| Chromium | 23 | | 2.4 | mg/kg dry |
| Cobalt | --- | U | 9.4 | mg/kg dry |
| Copper | 82 | | 4.7 | mg/kg dry |
| Iron | 16000 | | 24 | mg/kg dry |
| Lead | 69 | | 3.8 | mg/kg dry |
| Magnesium | 3800 | | 240 | mg/kg dry |
| Manganese | 510 | | 2.4 | mg/kg dry |
| Nickel | 14 | | 9.4 | mg/kg dry |
| Potassium | 610 | | 240 | mg/kg dry |
| Selenium | --- | U | 9.4 | mg/kg dry |
| Sodium | --- | U | 470 | mg/kg dry |
| Silver | --- | U | 2.4 | mg/kg dry |
| Thallium | --- | U | 9.4 | mg/kg dry |
| Vanadium | 28 | | 9.4 | mg/kg dry |
| Zinc | 200 | | 9.4 | mg/kg dry |
| Tin | --- | U | 4.7 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.10 | | 0.045 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS015-0612-001

Sample ID: 1303109-40

Metals ICP

| | | | | |
|----------|------|---|-----|-----------|
| Aluminum | 8100 | | 46 | mg/kg dry |
| Antimony | --- | U | 9.1 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS015-0612-001

Sample ID: 1303109-40

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Arsenic | 9.4 | | 3.6 | mg/kg dry |
| Barium | 70 | | 46 | mg/kg dry |
| Beryllium | --- | U | 1.4 | mg/kg dry |
| Cadmium | --- | U | 1.4 | mg/kg dry |
| Calcium | 11000 | | 230 | mg/kg dry |
| Chromium | 24 | | 2.3 | mg/kg dry |
| Cobalt | --- | U | 9.1 | mg/kg dry |
| Copper | 74 | | 4.6 | mg/kg dry |
| Iron | 17000 | | 23 | mg/kg dry |
| Lead | 67 | | 3.6 | mg/kg dry |
| Magnesium | 3000 | | 230 | mg/kg dry |
| Manganese | 540 | | 2.3 | mg/kg dry |
| Nickel | 14 | | 9.1 | mg/kg dry |
| Potassium | 540 | | 230 | mg/kg dry |
| Selenium | --- | U | 9.1 | mg/kg dry |
| Sodium | --- | U | 460 | mg/kg dry |
| Silver | --- | U | 2.3 | mg/kg dry |
| Thallium | --- | U | 9.1 | mg/kg dry |
| Vanadium | 30 | | 9.1 | mg/kg dry |
| Zinc | 190 | | 9.1 | mg/kg dry |
| Tin | --- | U | 4.6 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.12 | | 0.047 | mg/kg dry |
|---------|------|--|-------|-----------|



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS015-1218-001

Sample ID: 1303109-41

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 8000 | | 46 | mg/kg dry |
| Antimony | --- | U | 9.2 | mg/kg dry |
| Arsenic | 11 | | 3.7 | mg/kg dry |
| Barium | 69 | | 46 | mg/kg dry |
| Beryllium | --- | U | 1.4 | mg/kg dry |
| Cadmium | --- | U | 1.4 | mg/kg dry |
| Calcium | 11000 | | 230 | mg/kg dry |
| Chromium | 33 | | 2.3 | mg/kg dry |
| Cobalt | --- | U | 9.2 | mg/kg dry |
| Copper | 77 | | 4.6 | mg/kg dry |
| Iron | 17000 | | 23 | mg/kg dry |
| Lead | 65 | | 3.7 | mg/kg dry |
| Magnesium | 3400 | | 230 | mg/kg dry |
| Manganese | 550 | | 2.3 | mg/kg dry |
| Nickel | 15 | | 9.2 | mg/kg dry |
| Potassium | 630 | | 230 | mg/kg dry |
| Selenium | --- | U | 9.2 | mg/kg dry |
| Sodium | --- | U | 460 | mg/kg dry |
| Silver | --- | U | 2.3 | mg/kg dry |
| Thallium | --- | U | 9.2 | mg/kg dry |
| Vanadium | 31 | | 9.2 | mg/kg dry |
| Zinc | 180 | | 9.2 | mg/kg dry |
| Tin | --- | U | 4.6 | mg/kg dry |

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS015-1218-001

Sample ID: 1303109-41

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.12 | | 0.047 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: P001-SS015-1824-001

Sample ID: 1303109-42

Metals ICP

| | | | | |
|-----------|-------|---|-----|-----------|
| Aluminum | 7900 | | 44 | mg/kg dry |
| Antimony | --- | U | 8.9 | mg/kg dry |
| Arsenic | 25 | | 3.6 | mg/kg dry |
| Barium | 73 | | 44 | mg/kg dry |
| Beryllium | --- | U | 1.3 | mg/kg dry |
| Cadmium | --- | U | 1.3 | mg/kg dry |
| Calcium | 11000 | | 220 | mg/kg dry |
| Chromium | 39 | | 2.2 | mg/kg dry |
| Cobalt | --- | U | 8.9 | mg/kg dry |
| Copper | 83 | | 4.4 | mg/kg dry |
| Iron | 17000 | | 22 | mg/kg dry |
| Lead | 76 | | 3.6 | mg/kg dry |
| Magnesium | 3500 | | 220 | mg/kg dry |
| Manganese | 590 | | 2.2 | mg/kg dry |
| Nickel | 36 | | 8.9 | mg/kg dry |
| Potassium | 500 | | 220 | mg/kg dry |
| Selenium | --- | U | 8.9 | mg/kg dry |
| Sodium | --- | U | 440 | mg/kg dry |
| Silver | --- | U | 2.2 | mg/kg dry |
| Thallium | --- | U | 8.9 | mg/kg dry |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: P001-SS015-1824-001

Sample ID: 1303109-42

Metals ICP

| | | | | |
|----------|-----|---|-----|-----------|
| Vanadium | 31 | | 8.9 | mg/kg dry |
| Zinc | 210 | | 8.9 | mg/kg dry |
| Tin | --- | U | 4.4 | mg/kg dry |

Mercury CVAA

| | | | | |
|---------|------|--|-------|-----------|
| Mercury | 0.11 | | 0.045 | mg/kg dry |
|---------|------|--|-------|-----------|

Field ID: RB-032613

Sample ID: 1303109-43

Metals ICP

| | | | | |
|-----------|-----|---|-----|------|
| Aluminum | --- | U | 100 | ug/L |
| Antimony | --- | U | 20 | ug/L |
| Arsenic | --- | U | 8.0 | ug/L |
| Barium | --- | U | 100 | ug/L |
| Beryllium | --- | U | 3.0 | ug/L |
| Cadmium | --- | U | 3.0 | ug/L |
| Calcium | --- | U | 500 | ug/L |
| Chromium | --- | U | 5.0 | ug/L |
| Cobalt | --- | U | 20 | ug/L |
| Copper | --- | U | 10 | ug/L |
| Iron | --- | U | 50 | ug/L |
| Lead | --- | U | 8.0 | ug/L |
| Magnesium | --- | U | 500 | ug/L |
| Manganese | --- | U | 5.0 | ug/L |
| Nickel | --- | U | 20 | ug/L |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109
Project Number: 1303109

| Analyte | Result | Qualifier | Reporting Limit | Units |
|---------|--------|-----------|-----------------|-------|
|---------|--------|-----------|-----------------|-------|

Field ID: RB-032613

Sample ID: 1303109-43

Metals ICP

| | | | | |
|-----------|-----|----|------|------|
| Potassium | --- | U | 500 | ug/L |
| Selenium | --- | U | 20 | ug/L |
| Silver | --- | U | 5.0 | ug/L |
| Sodium | --- | U | 1000 | ug/L |
| Thallium | --- | UJ | 20 | ug/L |
| Vanadium | --- | U | 20 | ug/L |
| Zinc | --- | U | 20 | ug/L |
| Tin | --- | U | 10 | ug/L |

Mercury CVAA

| | | | | |
|---------|-----|---|------|------|
| Mercury | --- | U | 0.20 | ug/L |
|---------|-----|---|------|------|

USEPA

Date Shipped: 3/27/2013
 Carrier Name: Hand-Deliver
 Airbill No: N/A

CHAIN OF CUSTODY RECORD

R02_Barth Smelting Corp./NJ
 Contact Name: Scott Snyder
 Contact Phone: 973-219-7394

No: 2-032713-091826-0001

Cooler #: _____
 Lab: DESA
 Lab Phone: 732-321-6707

| Lab # | Sample # | Analyses | Matrix | Collected | Sample Time | Numb Cont | Container | Preservative | MS/MSD |
|-------|---------------------|------------------------------|--------|-----------|-------------|-----------|-----------------|--------------|--------|
| | P001-SS001-0206-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:10 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS001-0612-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:12 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS001-1218-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:15 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS001-1824-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:20 | 2 | 4-oz. glass jar | 4 C | Y |
| | P001-SS001-1824-002 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:20 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS002-0206-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:45 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS002-0612-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:47 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS002-1218-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:50 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS002-1824-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 09:52 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS003-0206-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 10:05 | 1 | 4-oz. glass jar | 4 C | N |
| | P001-SS003-0612-001 | TAL Metals (incl. Hg and Sn) | Soil | 3/26/2013 | 10:07 | 1 | 4-oz. glass jar | 4 C | N |

Special Instructions: The following samples are designated for 250-micron sieving: P001-SS001-0206-001, P001-SS002-0206-001, P001-SS003-0206-001, P001-SS004-0206-001, P001-SS005-0206-001, P001-SS006-0206-001, P001-SS008-0206-001, P001-SS009-0206-001, P001-SS013-0206-001, P001-SS014-0206-001, P001-SS015-0001-001.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

| Items/Reason | Relinquished by | Date | Received by | Date | Time | Items/Reason | Relinquished By | Date | Received by | Date | Time |
|--------------|-----------------|---------|-------------|---------|-------|--------------|-----------------|------|-------------|------|------|
| Lab Analysis | | 3/27/13 | | 3/27/13 | 11:50 | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Temp = 4.8°C on 100 3/27/13

