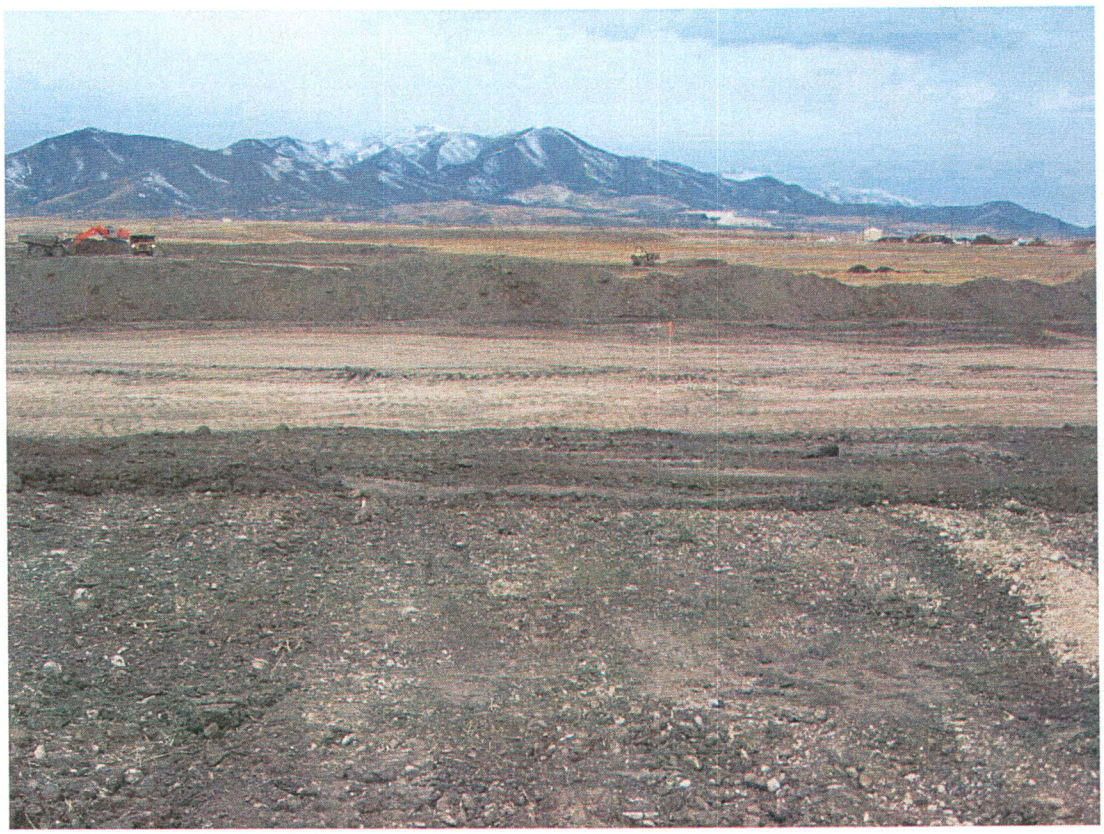
BASTIAN SINK SITE
SOIL REMOVAL PROJECT

POST REMOVAL SAMPLING AND ANALYSIS REPORT



Prepared by:
North American Mines Services
For:
Kennecott Land Company

April 5, 2007

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For additional information

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April 5, 2007

Mary Ann Wright
Associate Director - Mining
Utah Division of Oil Gas and Mining
("DOGM")
Department of Natural Resources
1594 West North Temple, Suite 1210
Salt Lake City, UT 84116

Re: Final Documentation -- Kennecott Land Company's South Jordan Evaporation Ponds and Bastian Sink Cleanup

Dear Ms. Wright:

Kennecott Land Company ("Kennecott Land") has, consistent with the requirements prescribed by the Environmental Protection Agency ("EPA") and the Utah Department of Environmental Quality ("DEQ"), completed all soil removal work associated with the South Jordan Evaporation Ponds ("SJEP") and the Bastian Sink areas of the Daybreak development. This letter provides associated documentation to DOGM.

Kennecott Land recognizes that DOGM has been following the status of the clean-up activities as per discussions with both Kennecott Land and its sister company, Kennecott Utah Copper Corporation ("Kennecott"). In furtherance of those communications, the information provided herein documents the final clean condition of the SJEP and Bastian Sink areas. The material provides, in a consolidated format, all data associated with the soil removal sampling programs. *See* SJEP and Bastian Sink Post Removal Sampling and Analysis Reports (Attachments 1 and 2) (collectively referred to as the "Reports"). The pertinent information in the Reports (as required by the EPA/DEQ-approved post removal sampling and analysis plans) includes field notes, photographs, chain of custody forms, laboratory analytical certificates, site and samples location maps, and analytical data. These data demonstrate that soils at the SJEP and Bastian Sink regions were removed consistent with EPA's and DEQ's default unrestricted land use standards for lead and arsenic of 50 ppm arsenic and 500 ppm lead, respectively. *See* SJEP Report at 4; Bastian Sink Report at 4. The regions are now cleaned to standards characterized as appropriate for unlimited land use and unrestricted exposure.

As part of its soil removal project, Kennecott Land has further evaluated opportunities to coordinate the project with future plans for the Daybreak master planned community. In that context (and consistent with discussions with DOGM), the haul road

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associated with the soil removal project need not be reclaimed since it will continue to be used as part of the Daybreak Development.

Kennecott Land has also discussed with DOGM inspectors, agency expectations associated with the Copper Notch soil repository. DOGM's inspectors have concurred that the repository will not be closed to ensure that it is available for future cleanup or reclamation projects. Accordingly and in order to meet DOGM's requests, Kennecott Land has agreed to revegetate the repository in lieu of closure.

As established above, Kennecott Land has removed soils in the SJEP and Bastian Sink areas to the unrestricted land use standards established by EPA. EPA has clarified that these standards are protective of human health.

In summary, Kennecott Land has completed all work associated with reclamation of the SJEP and Bastian Sink areas in accordance with DOGM's requirements.

Thank you and do not hesitate to contact me with any questions.

Very truly yours,

Francisco Benavides
Manager, Sustainable Development & Environment

FB/ch
cc: Susan White
Rohan McGowan Jackson, KUC

Enclosure:
SJEP Post Removal Sampling and Analysis Report
Bastian Sink Sampling and Analysis Report

BASTIAN SINK

POST REMOVAL AND CONFIRMATION SAMPLING AND ANALYSIS REPORT

Prepared by:
North American Mines Services
For:
Kennecott Land Company
April 5, 2007

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To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Russell K Sanford

Russell Sanford, Vice President Land Development and Construction, Kennecott Land Company

EXECUTIVE SUMMARY

The Bastian Sink site is a naturally formed topographical low area located in the south half of Section 15 and the north half of Section 22, Township 3 South, Range 2 West of the Salt Lake Base and Meridian (SLBM). The area is located to the immediate east of Utah State highway 111 and south of the Trans Jordan Landfill and covers an area of approximately 123 acres. The sink received water from Bingham Creek via the Bastian Ditch during the 1910s to the early 1930s. The water contained a high percentage of suspended sediments including tailings from the Anaconda Tailings Ponds located in Section 16, T3S, R2W, SLBM. These flows deposited the suspended solids containing elevated concentrations sulfate, lead and arsenic into the Bastian Sink.

Bastian Sink was sampled by Kennecott Utah Copper (Kennecott) in the early 1990's and after the data was reviewed, the EPA decided the site would have institutional controls limiting its use to industrial. This site was included in the Bingham Creek Record of Decision (ROD) in 1998. In late 2002, Kennecott Land Company (KL) decided to remove all the contaminated soil from the site to achieve residential standards for soils. At that time additional characterization was conducted to determine the lateral and vertical extent of the required removal in order to achieve target soil cleanup concentrations of less than or equal to 50 ppm arsenic and 500 ppm lead. The findings and conclusions from these activities are described in the Bastian Sink Soil Removal Work Plan.

Approximately 340,000 cubic yards of soils were removed from the site to the Copper Notch Repository. One hundred sixty four (164) post removal samples were collected and confirmed that the post removal surface was within the target cleanup goals.

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 SITE DESCRIPTION 1
3.0 PREVIOUS WORK 2
4.0 SAMPLING PROCEDURES 2
5.0 ANALYSIS 3
5.1 Total Metals Analytical Results 3
6.0 QUALITY ASSURANCE/QUALITY CONTROL 3
7.0 SITE STATUS 4
8.0 DOCUMENTATION 4

LIST OF TABLES

TABLE 1: SAMPLING AND ANALYTICAL DATA FOR POST REMOVAL SOIL SAMPLES COLLECTED FROM THE BASTIAN SINK SITE

TABLE 1A: SUMMARY OF POST REMOVAL ANAYTICAL DATA

TABLE 2: QUALITY ASSURRANCE/QUALITY CONTROL SPLIT SAMPLE ANALYTICAL DATA AND RELATIVE PERCENT DIFFERENCE (RPD)

TABLE 3: PHOTOS OF POST REMOVAL SAMPLES—DESCRIPTIONS FOR PHOTOS ON ATTACHED CD

LIST OF FIGURES

FIGURE 1: SOIL REMOVAL PROJECTS – AREA MAP

FIGURE 2: BASTIAN SINK SITE – POST REMOVAL SAMPLE LOCATIONS MAP

APPENDICES

APPENDIX A: FIELD NOTES

APPENDIX B: CHAIN OF CUSTODY FORMS

APPENDIX C: LABORATORY ANALYTICAL CERTIFICATES AND QA STATEMENTS

APPENDIX D: PHOTOGRAPHS

BASTIAN SINK POST REMOVAL SAMPLING AND ANALYSIS REPORT

1.0 INTRODUCTION

The Bastian Sink site is a naturally formed topographically low area located in the south half of Section 15 and the north half of Section 22, Township 3 South, Range 2 West of the Salt Lake Base and Meridian (SLBM) (Figure 1). The site covers an area of approximately 123 acres.

KL intended to remove lead and arsenic contaminated soils from Bastian Sink during the South Jordan Evaporation Pond soil removal, and move the Bastian Sink soils to the Copper Notch Fill Repository. KL decided to remove the contaminated soil from the site to achieve residential standards for soils, i.e., concentrations of less than or equal to 50 ppm arsenic and 500 ppm lead.

Removal work was conducted at the site between September 2003 and February 2007. Soils with arsenic and/or lead concentrations above the target level were loaded on trucks and removed to the Copper Notch Repository. Approximately 340,000 cubic yards of soils were removed from Bastian Sink and transported to the Copper Notch Repository. After soil removal, post removal samples were collected to document the concentrations of total arsenic and lead of the post-removal surface.

This report documents the sampling and analytical data of the post removal sampling at the Bastian Sink site.

2.0 SITE DESCRIPTION

The Bastian Sink area is located to the immediate east of Utah State highway 111 and south of the Trans Jordan Landfill and covers an area of approximately 123 acres. The sink received water from Bingham Creek via the Bastian Ditch during the 1910s to the early 1930s. The water flows contained a high percentage of suspended sediments including tailings from the Anaconda Tailings Ponds located in Section 16, T3S, R2W SLBM. The Ditch flows deposited the suspended solids containing elevated concentrations sulfate, lead and arsenic into the Bastian Sink.

The southeastern one-half of the site contained the deepest contamination with soil containing >500 ppm lead found to three feet below surface. The northwestern one-half of the site had generally less than one foot of contaminated soil and more often, less than six inches.

3.0 PREVIOUS WORK

Bastian Sink was sampled by Kennecott in the early 1990's and after the data was reviewed, the EPA determined the site would have institutional controls limiting its use to industrial. This site was included in the Bingham Creek Record of Decision (ROD) in 1998.

In late 2001, Kennecott Land Company (KL) decided to evaluate alternative land uses for the Bastian Sink including residential use. In response to this, additional samples were collected from the site in February 2002 to better define lead and arsenic concentrations and to quantify the volume of contaminated soil at the site based on residential clean up standards. Additional samples were collected from the site in February-March 2003 to better define the lateral limits of the Site. The conclusions from these sampling activities were described in the Bastian Sink Soil Removal Work Plan submitted to EPA on July 22, 2003 and revised December 2006.

4.0 SAMPLING PROCEDURES

All sampling procedures were consistent with the approved sampling and analysis plan. Post-removal samples were collected to document the arsenic, lead, and pH of the post-removal surface. The post removal samples were collected as composite types consisting of one to five sub sites each. On average, one composite sample was collected per acre. Sample material was collected from 0 to 3 inches below surface using disposable plastic spoons and cups. The sample material was placed into a clean zip-lock bag.

The samples were assigned the identification numbers BSX-1 through BSX-169. Repeat sampling was conducted following additional removal in areas were the analytical results exceeded the 50 ppm arsenic and/or 500 ppm lead benchmark. Repeat samples were assigned identification number as the first sample followed by a letter (e.g., sample BSX-74 represents the first sample collected after removal, sample EPX-74A represents a second sample after additional removal; and EPX-74B represents a third sample after another additional removal)[1]

All pertinent information about each sample site was logged in a field notebook and is included in this report. Sample locations were recorded and mapped using the Global Positioning System (GPS). Photographs of sample locations and materials were taken and are also included in this report.

[1] There were some exceptions to this rule mainly when follow up samples were not collected at the same footprint, therefore samples BSX-4, 5, 9, 13, 27, 28, 29 are not shown on the final map.

5.0 ANALYSIS

All samples were analyzed at Kennecott Environmental laboratory (KEL) for total arsenic, lead, and paste pH. Total metal concentrations were analyzed using the Environmental Protection Agency (EPA) SW-846 Methods 3050 (preparation) and 6010 (analytical/ICP). The samples were also analyzed for pH using EPA method 9035 (paste pH). The analytical results are listed in Table 1.

Samples were split as part of the QA/QC procedures. The split sample was dried and crushed to <65 standard sieve sizes after the initial analysis (as described above) was completed. The split samples were analyzed by KEL and American West Analytical Laboratories (AWAL) using the same analytical methods (SW-846 3050/6010). The results from both laboratories were compared by calculating the relative percent difference (RPD). The results of the split sample analysis were used for QA/QC purposes only, and the original "unprepared" sample analysis is considered the reportable results. The results of the split samples analyses are listed in Table 2.

5.1 Total Metals Analytical Results

A total of 164 post removal samples were collected from the final post removal surface Site (Figure 2). The results of the post removal sample analyses are reported in Table 1. Table 1A summarizes the analytical results of total metal concentrations for samples that represent the current surface. Results in Table 1A are in parts per million from a total 164 samples.

Table 1A: Summary of Post Removal Analytical Data

	Arsenic	Lead
Median concentration	14	152
Average concentration	15	181
Min. concentration	5	28
Max. concentration	45	499

6.0 QUALITY ASSURANCE/QUALITY CONTROL

KEL is a State certified lab and as such follows QA/QC procedures consistent with USEPA standards. Laboratory QA/QC samples include method blanks, matrix spikes, duplicates and matrix duplicates, and calibration and calibration check samples. QA statements for all samples are included with this report.

Fifteen samples were split as part of QA/QC procedures and analyzed KEL and AWAL. The results of the analysis from the two laboratories were compared by calculating the

relative percent difference (RPD).[2] Three of the RPD that were calculated exceeded the data quality objective of 35%. The results of the split samples analysis with the RPD calculated are listed in Table 2.

7.0 SITE STATUS

All of soils that had a higher than 50 ppm arsenic and/or 500 ppm lead concentration were removed to the Copper Notch Repository.

8.0 DOCUMENTATION

Sample locations were recorded and mapped using the Global Positioning System (GPS) (see Figure 2).
Table 3 lists all photos taken as part of the documentation of the post removal sampling events.
Also included with this report are the following appendices:

- Appendix A: Field Notes
- Appendix B: Chain-of-Custody Forms
- Appendix C: Laboratory Analytical Certificates and QA Statements
- Appendix D: Photographs

[2] RPD was only calculated when analytical results for both samples were ten times greater than the method detection limits.

TABLE 1: SAMPLING AND ANALYTICAL DATA FOR POST REMOVAL SOIL SAMPLES COLLECTED FROM THE BARRIAN SINK SITE

SAMPLE ID NO.	DATE	LAB ID NO.	LAB Q\C	SAMPLE TYPE	DESCRIPTION	TOTAL ARSENIC (mg/kg)	TOTAL LEAD (mg/kg)	pH	EC
BSX-1	25-Aug-03	AL21637	AL21657	3-POINT COMPOSITE	LIGHT BROWN, DRY, GRAVELLY SILTY SAND.	18	220	6.14	na
BSX-2	25-Aug-03	AL21638	AL21657	3-POINT COMPOSITE	LIGHT BROWN, DRY, GRAVELLY SILTY SAND.	21	341	6.73	na
BSX-3	25-Aug-03	AL21639	AL21657	GRAB	LIGHT BROWN, DRY, GRAVELLY SILTY SAND.	20	152	6.16	na
BSX-6	25-Aug-03	AL21642	AL21657	5-POINT COMPOSITE	LIGHT BROWN, DRY, GRAVELLY SILTY SAND. NE, NW AND SW SUB SITES HAVE LIGHT ORANGE-BROWN DISCOLORATION.	16	191	6.6	na
BSX-7A	13-Jul-04	AM14702	AM14712	5-POINT COMPOSITE	MEDIUM BROWN SILT	14	283	5.92	190
BSX-8A	13-Jul-04	AM14703	AM14712	5-POINT COMPOSITE	LIGHT BROWN, DRY, GRAVELLY SILTY SAND.	11	156	5.85	130
BSX-10	8-Sep-03	AL22772	AL22776	3-POINT COMPOSITE	DRY, MEDIUM BROWN SILTY SAND	27	83	7.06	200
BSX-11	8-Sep-03	AL22773	AL22776	5-POINT COMPOSITE	DRY, MEDIUM BROWN SILTY SAND	20	135	6.65	230
BSX-12	8-Sep-03	AL22774	AL22776	4-POINT COMPOSITE	DRY, MEDIUM BROWN SILTY SAND	18	85	5.46	230
BSX-14	8-Sep-03	AL22776	AL22776	5-POINT COMPOSITE	LIGHT BROWN SILTY SAND	18	198	6.87	170
BSX-15A	22-Feb-04	AM03921	AM03921	4-POINT COMPOSITE	DARK BROWN CLAY, ORANGE-BROWN SILT	14	129	7.85	350
BSX-16	28-Jan-04	AM01859	AM01858	5-POINT COMPOSITE	LIGHT BROWN SILTY SAND	17	91	8.05	330
BSX-17A	22-Feb-04	AM03922	AM03921	5-POINT COMPOSITE	DARK BROWN ROCKY SILT	19	234	7.45	90
BSX-18	11-Feb-04	AM02963	AM02963	3-POINT COMPOSITE	DARK BROWN ROCKY CLAY, SILTY SAND (TOP SOIL)	25	478	7.74	380
BSX-19	11-Feb-04	AM02964	AM02963	5-POINT COMPOSITE	LIGHT BROWN SANDY SILT	29	110	8.02	610
BSX-20	11-Feb-04	AM02965	AM02963	4-POINT COMPOSITE	DARK BROWN CLAY, MED BROWN SILTY SAND	35	295	8.11	250
BSX-21	12-Feb-04	AM03055	AM03055	2-POINT COMPOSITE	DARK BROWN CLAY	9	37	7.71	180
BSX-22	12-Feb-04	AM03056	AM03055	5-POINT COMPOSITE	DARK BROWN CLAY, SOME ORANGE DISCOLORATION IN C,NE SUB-SITES	8	29	7.99	230
BSX-23	12-Feb-04	AM03057	AM03055	3-POINT COMPOSITE	DARK BROWN CLAY	13	198	6.99	130
BSX-24	9-Mar-04	AM05107	AM05108	4-POINT COMPOSITE	DARK BROWN CLAY	21	427	7.34	190
BSX-25	9-Mar-04	AM05108	AM05108	3-POINT COMPOSITE	LIGHT GRAY SILTY SAND	14	50	7.77	220

TAB[illegible]1: SAMPLING AND ANALYTICAL DATA FOR POST [illegible]MOVAL SOIL SAMPLES COLLECTED FROM THE BA[illegible]AN SINK SITE

SAMPLE ID NO.	DATE	LAB ID NO.	LAB QC	SAMPLE TYPE	DESCRIPTION	TOTAL ARSENIC (mg/kg)	TOTAL LEAD (mg/kg)	pH	EC
BSX-26	18-Mar-04	AM05523	AM05529	4-POINT COMPOSITE	MEDIUM BROWN ROCKY SILT	20	54	8.06	210
BSX-30	18-Mar-04	AM05527	AM05529	3-POINT COMPOSITE	MEDIUM BROWN ROCKY SILT	14	259	7.9	180
BSX-31NW	27-Oct-04	AM20789	AM20306	GRAB	GRAY SANDY GRAVEL, HEAVY FeOx	23	229	6.88	na
BSX-31E	20-Dec-06	AO20638	AO20640	4-POINT COMPOSITE	LIGHT TO MEDIUM BROWN-GRAY SANDY GRAVEL	10	81	5.9	na
BSX-32	18-Mar-04	AM05529	AM05529	3-POINT COMPOSITE	MEDIUM TO DARK BROWN SILT	10	54	7.76	220
BSX-33A	1-Jul-04	AM13663	AM13554	5-POINT COMPOSITE	MEDIUM TO DARK BROWN SILTY CLAY	8	110	n/a	n/a
BSX-34	23-Apr-04	AM05531	AM08500	5-POINT COMPOSITE	MEDIUM TO DARK BROWN SILTY CLAY.	13	330	6.93	260
BSX-35	6-May-04	AM09240	AM09282	3-POINT COMPOSITE	DARK BROWN CLAY	18	132	7.77	160
BSX-36	6-May-04	AM09241	AM09282	3-POINT COMPOSITE	DARK BROWN CLAY	20	311	7.35	140
BSX-37	6-May-04	AM09242	AM09282	5-POINT COMPOSITE	DARK BROWN CLAY. SOME ORANGE DISCOLORATION	20	410	7.14	170
BSX-38	6-May-04	AM09243	AM09282	5-POINT COMPOSITE	DARK BROWN CLAY. SOME ORANGE DISCOLORATION	14	206	6.56	210
BSX-39	6-May-04	AM09244	AM09282	3-POINT COMPOSITE	BROWN SILTY CLAY	18	212	6.51	170
BSX-40	6-May-04	AM09245	AM09282	3-POINT COMPOSITE	BROWN SILTY CLAY	14	143	6.53	260
BSX-41	21-Jun-04	AM12925	AM12932	5-POINT COMPOSITE	LIGHT TO MED BROWN SANDY SILT	12	232	7.52	240
BSX-42	21-Jun-04	AM12926	AM12932	5-POINT COMPOSITE	MED BROWN SANDY SILT. YELLOW BROWN DISCOLORATION IN CENTER. NW SUB SITE HAS WHITE SPECS	10	126	7.85	430
BSX-43	21-Jun-04	AM12927	AM12932	5-POINT COMPOSITE	MED BROWN SANDY SILT. SOME YELLOWISH DISCOLORATION	12	216	8.07	180
BSX-44B	8-Sep-04	AM18402	AM12932	5-POINT COMPOSITE	GRAY SILTY GRAVEL	16	163	6.75	80
BSX-45	21-Jun-04	AM12929	AM12932	5-POINT COMPOSITE	MED TO LIGHT BROWN GRAVELY SILTY SAND	20	427	6.11	na
BSX-46A	9-Aug-04	AM16600	AM15699	5-POINT COMPOSITE	MED TO LIGHT BROWN GRAVELY SAND	20	341	6.83	260
BSX-47A	13-Jul-04	AM14710	AM14712	5-POINT COMPOSITE	MED GRAY SILTY GRAVEL	17	182	6.84	250
BSX-48A	13-Jul-04	AM14711	AM14712	5-POINT COMPOSITE	MED GRAY SILTY GRAVEL	22	349	6.77	220

TA[illegible] 1: SAMPLING AND ANALYTICAL DATA FOR POST[illegible]MOVAL SOIL SAMPLES COLLECTED FROM THE BA[illegible]IAN SINK SITE

SAMPLE ID NO.	DATE	LAB ID NO.	LAB QC	SAMPLE TYPE	DESCRIPTION	TOTAL ARSENIC (mg/kg)	TOTAL LEAD (mg/kg)	pH	EC
BSX-49	24-Jun-04	AM13182	AM13184	3-POINT COMPOSITE	MEDIUM TO LIGHT BROWN SANDY SILT AND GRAVELY SAND	16	199	7.8	380
BSX-50	24-Jun-04	AM13183	AM13184	3-POINT COMPOSITE	MEDIUM TO LIGHT BROWN SANDY SILT	26	495	7.92	290
BSX-51	24-Jun-04	AM13184	AM13184	3-POINT COMPOSITE	MEDIUM TO LIGHT BROWN SANDY SILT	11	106	7.71	210
BSX-52	1-Jul-04	AM13662	AM13554	5-POINT COMPOSITE	MEDIUM TO LIGHT BROWN SANDY SILT	16	327	n/a	n/a
BSX-53	2-Jul-04	AM13889	AM13902	5-POINT COMPOSITE	LIGHT BROWN SILTY SANDY GRAVEL AND SANDY GRAVELY SILT	12	79	7.09	360
BSX-54	2-Jul-04	AM13890	AM13902	5-POINT COMPOSITE	MED TO LIGHT BROWN GRAVELY SILTY SAND	15	156	7.31	220
BSX-55	2-Jul-04	AM13891	AM13902	5-POINT COMPOSITE	MED TO LIGHT BROWN GRAVELY SILTY SAND	29	488	7.18	330
BSX-56	2-Jul-04	AM13892	AM13902	5-POINT COMPOSITE	GRAVELY SILTY CLAY	10	153	7.31	200
BSX-57	2-Jul-04	AM13893	AM13902	5-POINT COMPOSITE	GRAVELY SAND AND GRAVELY CLAY	19	64	7.52	160
BSX-58	2-Jul-04	AM13894	AM13902	5-POINT COMPOSITE	LIGHT BROWN GRAVELY SAND	14	105	7.28	210
BSX-59A	9-Aug-04	AM16598	AM15699	2-POINT COMPOSITE	CLAYEY SANDY GRAVEL	22	329	6.72	220
BSX-60	2-Jul-04	AM13896	AM13902	5-POINT COMPOSITE	GRAVELY SAND AND WET COMPACTED CLAYEY GRAVEL	17	164	7.45	240
BSX-61	2-Jul-04	AM13897	AM13902	5-POINT COMPOSITE	LIGHT ORANGE BROWN SANDY SILT AND MED TO DARK BROWN SILTY CLAY	13	209	7.72	170
BSX-62	2-Jul-04	AM13898	AM13902	5-POINT COMPOSITE	SILTY SAND AND GRAVELY SILTY SAND	12	122	7.5	210
BSX-63	2-Jul-04	AM13899	AM13902	5-POINT COMPOSITE	MED TO DARK BROWN GRAVELY SANDY SILT	10	54	7.1	140
BSX-64	2-Jul-04	AM13900	AM13902	5-POINT COMPOSITE	MED TO DARK BROWN GRAVELY SANDY SILT	15	202	7.01	260
BSX-65	2-Jul-04	AM13901	AM13902	5-POINT COMPOSITE	MED TO DARK BROWN GRAVELY SANDY SILT	11	142	7.13	370
BSX-66	2-Jul-04	AM13902	AM13902	5-POINT COMPOSITE	MED TO LIGHT BROWN GRAVELY SANDY SILT	14	315	7.33	110
BSX-67	13-Jul-04	AM14704	AM14712	2-POINT COMPOSITE	MEDIUM BROWN SILT	11	277	5.91	140
BSX-68	13-Jul-04	AM14705	AM14712	5-POINT COMPOSITE	MEDIUM BROWN SILT	19	401	6.06	120
BSX-69	13-Jul-04	AM14706	AM14712	5-POINT COMPOSITE	MEDIUM BROWN SILT	16	290	5.81	270

TABLE 1: SAMPLING AND ANALYTICAL DATA FOR POST REMOVAL SOIL SAMPLES COLLECTED FROM THE BASIAN SINK SITE

SAMPLE ID NO.	DATE	LAB ID NO.	LAB QC	SAMPLE TYPE	DESCRIPTION	TOTAL ARSENIC (mg/kg)	TOTAL LEAD (mg/kg)	pH	EC
BSX-70	13-Jul-04	AM14707	AM14712	5-POINT COMPOSITE	LIGHT GRAY SILTY GRAVEL	14	197	6.11	330
BSX-71A	8-Sep-04	AM18394	AM18402	4-POINT COMPOSITE	MED GRAY SILT AND LIGHT GRAY GRAVEL	15	184	7.38	350
BSX-72	13-Jul-04	AM14709	AM14712	4-POINT COMPOSITE	LIGHT COLOR SILTY GRAVEL	24	387	6.68	280
BSX-73B	27-Oct-04	AM20794	AM20306	5-POINT COMPOSITE	GRAY BROWN SILTY GRAVEL	21	383	7.64	200
BSX-74B	27-Oct-04	AM20795	AM20306	5-POINT COMPOSITE	DARK BROWN SILT AND LIGHT BROWN SANDY GRAVEL	24	389	7.84	220
BSX-75	30-Jul-04	AM16100	AM16107	3-POINT COMPOSITE	SANDY GRAVEL	23	202	7.7	220
BSX-76	30-Jul-04	AM16101	AM16107	3-POINT COMPOSITE	SILTY GRAVELY SAND	45	200	7.25	100
BSX-77	30-Jul-04	AM16102	AM16107	5-POINT COMPOSITE	MED BROWN SILTY SANDY GRAVEL	24	250	7.13	120
BSX-78	30-Jul-04	AM16103	AM16107	5-POINT COMPOSITE	MED BROWN SILTY SANDY GRAVEL	16	93	7.32	260
BSX-79	30-Jul-04	AM16104	AM16107	5-POINT COMPOSITE	MED BROWN SILTY SANDY GRAVEL	34	388	7.37	240
BSX-80	30-Jul-04	AM16105	AM16107	3-POINT COMPOSITE	MED BROWN SILTY SANDY GRAVEL	15	93	7.54	100
BSX-81B	27-Oct-04	AM20796	AM20306	5-POINT COMPOSITE	MED BROWN SILTY GRAVEL	18	168	8.19	160
BSX-82B	27-Oct-04	AM20797	AM20306	3-POINT COMPOSITE	LIGHT GRAY SILTY GRAVEL AND DARK BROWN SILT	20	222	7.74	380
BSX-83B	27-Oct-04	AM20798	AM20306	3-POINT COMPOSITE	LIGHT GRAY SILTY GRAVEL AND DARK BROWN SILT	12	59	8.7	130
BSX-823W	27-Oct-04	AM20853	AM20803	4-POINT COMPOSITE	DARK BROWN SILT, MINOR YELLOWISH DISCOLORATION	5	106	6.31	130
BSX-84B	27-Oct-04	AM20799	AM20306	5-POINT COMPOSITE	MED BROWN SILT	7	89	7.13	70
BSX-85D	20-Dec-06	AO20639	AO20640	5-POINT COMPOSITE	LIGHT BROWN-GRAY SILTY SAND	12	64	8.25	na
BSX-86A	8-Sep-04	AM18396	AM18402	3-POINT COMPOSITE	LIGHT TO MED BROWN SILTY SAND	20	102	8.09	180
BSX-87A	8-Sep-04	AM18397	AM18402	3-POINT COMPOSITE	LIGHT TO MED BROWN SILTY SAND	20	401	7.21	210
BSX-88B	27-Oct-04	AM20801	AM20306	3-POINT COMPOSITE	MED BROWN SILTY SAND	9	171	7.14	150
BSX-89C	22-Nov-06	AO19211	AO19206	3-POINT COMPOSITE	LIGHT SILTY SAND	16	293	7.9	na

TABLE 1: SAMPLING AND ANALYTICAL DATA FOR POST REMOVAL SOIL SAMPLES COLLECTED FROM THE BASTIAN SINK SITE

SAMPLE ID NO.	DATE	LAB ID NO.	LAB Q\C	SAMPLE TYPE	DESCRIPTION	TOTAL ARSENIC (mg/kg)	TOTAL LEAD (mg/kg)	pH	EC
BSX-90	8-Sep-04	AM18400	AM18402	2-POINT COMPOSITE	LIGHT TO MED BROWN SILTY SAND	11	128	7.94	180
BSX-91	8-Sep-04	AM18401	AM18402	5-POINT COMPOSITE	LIGHT BROWN SAND AND GRAY SANDY SILT	20	231	7.71	500
BSX-92B	22-Nov-06	AO19212	AO19206	5-POINT COMPOSITE	MED GRAY SANDY SILT	14	399	5.97	na
BSX-93	9-Sep-04	AM18408	AM18402	5-POINT COMPOSITE	DARK GRAY -BROWN SANDY SILT	19	499	7.43	210
BSX-94	9-Sep-04	AM18409	AM18402	GRAB	DARK GRAY -BROWN SANDY SILT	19	396	8.07	250
BSX-95	20-Nov-06	AO19205	AO19206	4-POINT COMPOSITE	DARK BROWN SILTY SANDY GRAVEL	18	349	7.69	na
BSX-96	20-Nov-06	AO19206	AO19206	5-POINT COMPOSITE	MED GRAY SANDY SILT	7	43	8.28	na
BSX-97	20-Nov-06	AO19207	AO19206	5-POINT COMPOSITE	MED GRAY SANDY SILT	6	39	8.21	na
BSX-98	20-Nov-06	AO19208	AO19206	5-POINT COMPOSITE	MED GRAY SANDY SILT	9	148	8.12	na
BSX-99A	16-Jan-07	AP00857	AP00871	4-POINT COMPOSITE	MED GRAY SANDY SILTY GRAVEL	7	32	7.43	240
BSX-100	7-Dec-06	AO19894	AO19910	5-POINT COMPOSITE	MED GRAY SANDY SILT	13	266	7.3	na
BSX-101A	9-Jan-07	AP00549	AP00143	5-POINT COMPOSITE	MED GRAY GRAVELY SILT	14	176	8.25	na
BSX-102	7-Dec-06	AO19896	AO19910	5-POINT COMPOSITE	MED GRAY SANDY SILT	7	79	7.74	na
BSX-103	7-Dec-06	AO19897	AO19910	5-POINT COMPOSITE	MED GRAY SANDY SILT	11	229	7.68	na
BSX-104	7-Dec-06	AO19898	AO19910	5-POINT COMPOSITE	MED TO DARK GRAY SANDY SILT	7	77	7.94	na
BSX-105A	10-Jan-07	AP00605	AP00619	5-POINT COMPOSITE	MED GRAY GRAVELY SILT	6	28	8.1	210
BSX-106	7-Dec-06	AO19900	AO19910	5-POINT COMPOSITE	MED TO DARK GRAY SANDY SILT	11	184	7.73	na
BSX-107	7-Dec-06	AO19901	AO19910	5-POINT COMPOSITE	MED TO DARK GRAY SANDY SILT	13	87	7.43	na
BSX-108B	10-Jan-07	AP00606	AP00619	5-POINT COMPOSITE	MED TO DARK GRAY SILT	7	85	8.02	250
BSX-109A	15-Dec-06	AO20409	AO20411	5-POINT COMPOSITE	MED GRAY SILT	6	51	7.71	na
BSX-110	7-Dec-06	AO19904	AO19910	3-POINT COMPOSITE	GRAY SANDY GRAVEL	12	48	8.11	na

TABLE 1: SAMPLING AND ANALYTICAL DATA FOR POST REMOVAL SOIL SAMPLES COLLECTED FROM THE BASTIAN SINK SITE

SAMPLE ID NO.	DATE	LAB ID NO.	LAB QC	SAMPLE TYPE	DESCRIPTION	TOTAL ARSENIC (mg/kg)	TOTAL LEAD (mg/kg)	pH	EC
BSX-111A	16-Jan-07	AP00858	AP00871	2-POINT COMPOSITE	SANDY SILTY GRAVEL	11	52	8.2	250
BSX-112	7-Dec-06	AO19906	AO19910	5-POINT COMPOSITE	GRAY SANDY SILT	19	462	8	na
BSX-113	7-Dec-06	AO19907	AO19910	5-POINT COMPOSITE	GRAY SANDY SILT	7	74	8.22	na
BSX-114	7-Dec-06	AO19908	AO19910	3-POINT COMPOSITE	LIGHT TO MED GRAY SILTY SAND	19	265	6.57	na
BSX-115B	3-Jan-07	AP00233	AP00233	5-POINT COMPOSITE	LIGHT TO MED GRAY SANDY SILT	21	368	7.12	na
BSX-116B	3-Jan-07	AP00234	AP00233	2-POINT COMPOSITE	MED TO DARK SILT AND SANDY SILT	12	47	7.46	na
BSX-117	15-Dec-06	AO20400	AO20411	4-POINT COMPOSITE	MED TO LIGHT GRAY SILT	10	138	6.33	na
BSX-118	15-Dec-06	AO20401	AO20411	2-POINT COMPOSITE	MED GRAY SILT AND LIGHT GRAY SANDY GRAVEL	14	35	8.2	na
BSX-119	15-Dec-06	AO20402	AO20411	5-POINT COMPOSITE	MED GRAY SILT	7	36	7.95	na
BSX-120	15-Dec-06	AO20403	AO20411	2-POINT COMPOSITE	MED GRAY SILT	7	30	7.77	na
BSX-121A	10-Jan-07	AP00607	AP00619	3-POINT COMPOSITE	LIGHT GRAY GRAVEL AND MED GRAY SILT	15	38	8.31	240
BSX-122	15-Dec-06	AO20405	AO20411	5-POINT COMPOSITE	MED GRAY SILT	6	55	7.96	na
BSX-123	15-Dec-06	AO20406	AO20411	5-POINT COMPOSITE	MED GRAY SILT	7	69	7.73	na
BSX-124	15-Dec-06	AO20407	AO20411	5-POINT COMPOSITE	MED GRAY SILT	12	255	7.97	na
BSX-125	15-Dec-06	AO20408	AO20411	5-POINT COMPOSITE	MED GRAY SILT	8	108	8.13	na
BSX-126A	16-Jan-07	AP00859	AP00871	5-POINT COMPOSITE	MED TO DARK GRAY SANDY SILT	11	77	8.06	190
BSX-127A	9-Jan-07	AP00550	AP00143	5-POINT COMPOSITE	MED TO DARK GRAY SILT	18	239	6.76	na
BSX-128A	9-Jan-07	AP00551	AP00143	5-POINT COMPOSITE	MED GRAY GRAVEL AND SILT	17	114	8.01	na
BSX-129A	9-Jan-07	AP00552	AP00143	5-POINT COMPOSITE	MED GRAY SILT	9	127	7.47	na
BSX-130	20-Dec-06	AO20631	AO20640	5-POINT COMPOSITE	MED GRAY SILT	13	247	7.38	na
BSX-131	20-Dec-06	AO20632	AO20640	5-POINT COMPOSITE	MED TO DARK GRAY SILT	8	84	7.7	na

TABLE 1: SAMPLING AND ANALYTICAL DATA FOR POST REMOVAL SOIL SAMPLES COLLECTED FROM THE BARIAN SINK SITE

SAMPLE ID NO.	DATE	LAB ID NO.	LAB Q\C	SAMPLE TYPE	DESCRIPTION	TOTAL ARSENIC (mg/kg)	TOTAL LEAD (mg/kg)	pH	EC
BSX-132	20-Dec-06	AO20633	AO20640	5-POINT COMPOSITE	MED GRAY SILT	8	96	7.48	na
BSX-133A	10-Jan-07	AP00608	AP00619	5-POINT COMPOSITE	MED GRAY SANDY SILT	10	71	7.81	810
BSX-134	20-Dec-06	AO20635	AO20640	5-POINT COMPOSITE	MED TO DARK GRAY SILT	16	432	8.11	na
BSX-135B	16-Jan-07	AP00871	AP00871	5-POINT COMPOSITE	MED GRAY SILT	19	381	8	240
BSX-136A	10-Jan-07	AP00610	AP00619	5-POINT COMPOSITE	MED TO DARK GRAY SANDY SILT	11	155	7.8	230
BSX-137	29-Dec-06	AO20971	AO20241	5-POINT COMPOSITE	MED GRAY SILT	6	30	8.06	na
BSX-138	29-Dec-06	AO20972	AO20241	4-POINT COMPOSITE	MED GRAY SILT	10	124	8.12	na
BSX-139	3-Jan-07	AP00235	AP00233	3-POINT COMPOSITE	MED GRAY SANDY SILT	19	153	7.21	na
BSX-140	3-Jan-07	AP00236	AP00233	4-POINT COMPOSITE	MED TO DARK GRAY SILT	14	107	7.55	na
BSX-141	3-Jan-07	AP00237	AP00233	2-POINT COMPOSITE	MED GRAY SILT, MINOR FeOx	18	168	7.9	na
BSX-142	3-Jan-07	AP00238	AP00233	5-POINT COMPOSITE	LIGHT TO MED GRAY SANDY SILT	26	469	8.03	na
BSX-143	3-Jan-07	AP00239	AP00233	3-POINT COMPOSITE	MED GRAY SILT	29	430	7.94	na
BSX-144	3-Jan-07	AP00240	AP00233	5-POINT COMPOSITE	MED GRAY SANDY SILT AND SANDY GRAVEL	12	62	7.89	na
BSX-145	3-Jan-07	AP00241	AP00233	5-POINT COMPOSITE	LIGHT TO MED GRAY SANDY SILT	14	121	8.06	na
BSX-146	3-Jan-07	AP00242	AP00233	3-POINT COMPOSITE	LIGHT GRAY SILTY GRAVEL	10	84	8.09	na
BSX-147	3-Jan-07	AP00243	AP00233	3-POINT COMPOSITE	MED GRAY SILTY GRAVEL	15	63	8.2	na
BSX-148A	10-Jan-07	AP00611	AP00619	3-POINT COMPOSITE	MED GRAY SILT	7	37	7.88	420
BSX-149	3-Jan-07	AP00245	AP00233	2-POINT COMPOSITE	LIGHT GRAY SANDY GRAVEL	36	92	8.21	na
BSX-150	3-Jan-07	AP00246	AP00233	GRAB	DARK CLAY	8	206	5.03	na
BSX-151A	10-Jan-07	AP00612	AP00619	2-POINT COMPOSITE	LIGHT TO MED GRAY SANDY SILT	8	47	7.83	230
BSX-152A	16-Jan-07	AP00870	AP00871	2-POINT COMPOSITE	MED TO DARK GRAY SILT	9	44	8.01	150

TABLE 1: SAMPLING AND ANALYTICAL DATA FOR POST REMOVAL SOIL SAMPLES COLLECTED FROM THE BASTIAN SINK SITE

SAMPLE ID NO.	DATE	LAB ID NO.	LAB Q\C	SAMPLE TYPE	DESCRIPTION	TOTAL ARSENIC (mg/kg)	TOTAL LEAD (mg/kg)	pH	EC
BSX-153	10-Jan-07	AP00613	AP00619	3-POINT COMPOSITE	LIGHT GRAY SANDY GRAVEL	18	136	8.22	100
BSX-154	10-Jan-07	AP00614	AP00619	3-POINT COMPOSITE	LIGHT GRAY SANDY SILT	14	101	8.16	210
BSX-155	10-Jan-07	AP00615	AP00619	3-POINT COMPOSITE	LIGHT TO MED GRAY SANDY SILT	9	118	8.01	330
BSX-156	10-Jan-07	AP00616	AP00619	3-POINT COMPOSITE	MED TO DARK GRAY SANDY SILT	8	169	6.98	280
BSX-157	10-Jan-07	AP00617	AP00619	3-POINT COMPOSITE	MED TO DARK GRAY SANDY SILT	10	149	7.24	230
BSX-158	10-Jan-07	AP00618	AP00619	3-POINT COMPOSITE	MEDIUM GRAY SANDY SILT	7	77	7.9	350
BSX-159	10-Jan-07	AP00619	AP00619	3-POINT COMPOSITE	MEDIUM GRAY SANDY SILT	17	413	7.76	680
BSX-160	16-Jan-07	AP00860	AP00871	3-POINT COMPOSITE	MED GRAY SILT	14	82	7.12	90
BSX-161	16-Jan-07	AP00861	AP00871	3-POINT COMPOSITE	MED GRAY SILT	13	123	6.43	60
BSX-162	16-Jan-07	AP00862	AP00871	5-POINT COMPOSITE	MED GRAY SILTY GRAVEL	10	76	5.72	40
BSX-163	16-Jan-07	AP00863	AP00871	5-POINT COMPOSITE	MED GRAY SILTY GRAVEL	16	105	6.85	60
BSX-164A	24-Jan-07	AP01284	AP01284	5-POINT COMPOSITE	LIGHT TO MED GRAY SANDY SILT	8	32	7.79	1610
BSX-165	16-Jan-07	AP00865	AP00871	3-POINT COMPOSITE	MED GRAY SILT	15	209	6.63	180
BSX-166	16-Jan-07	AP00866	AP00871	3-POINT COMPOSITE	MED GRAY SILT	12	185	7.84	460
BSX-167	16-Jan-07	AP00867	AP00871	3-POINT COMPOSITE	MED GRAY SILT	7	32	5.88	300
BSX-168	16-Jan-07	AP00868	AP00871	4-POINT COMPOSITE	LIGHT TO MED GRAY SANDY GRAVEL	20	180	7.8	220
BSX-169	16-Jan-07	AP00869	AP00871	4-POINT COMPOSITE	LIGHT TO MED GRAY SANDY GRAVEL	16	50	8.08	170

TABLE 2: QUALITY ASSURANCE/QUALITY CONTROL SPLIT SAMPLE ANALYTICAL DATA AND RELATIVE PERCENT DIFFERENCE (RPD)

SAMPLE ID NUMBER	DATE COLLECTED	SITE	LAB	LAB ID NO.	TOTAL As (ppm)	TOTAL Pb (ppm)
BSX-15	28-Jan-04	BASTIAN SINK	KEL	AM03766	24	805
			AWAL	L59380-01A	28	740
RPD %					-15.38	8.41
BSX-16	28-Jan-04	BASTIAN SINK	KEL	AM03767	20	151
			AWAL	L59380-02A	20	700
RPD %					0.00	-129.02
BSX-44	21-Jun-04	BASTIAN SINK	KEL	AM17059	49	1210
			AWAL	L61813-01A	34	980
RPD %					36.14	21.00
BSX-46	21-Jun-04	BASTIAN SINK	KEL	AM17060	38	516
			AWAL	L61813-02A	30	430
RPD %					23.53	18.18
BSX-59	2-Jul-04	BASTIAN SINK	KEL	AM17061	40	675
			AWAL	L61813-03A	36	590
RPD %					10.53	13.44
BSX-69	13-Jul-04	BASTIAN SINK	KEL	AM17062	27	510
			AWAL	L61813-04A	23	430
RPD %					16.00	17.02
BSX-70	13-Jul-04	BASTIAN SINK	KEL	AM17063	18	207
			AWAL	L61813-05A	17	180
RPD %					5.71	13.95
BSX-71	13-Jul-04	BASTIAN SINK	KEL	AM17064	36	846
			AWAL	L61813-06A	36	710
RPD %					0.00	17.48
BSX-99 (AO19893)	7-Dec-06	BASTIAN SINK	KEL	AP00140	102	3740
			AWAL	L75746-01A	91	3200
RPD %					11.40	15.56
BSX-108 (AO19902)	7-Dec-06	BASTIAN SINK	KEL	AP00141	40	1180
			AWAL	L75746-02A	35	1100
RPD %					13.33	7.02
BSX-126 (AO20627)	20-Dec-06	BASTIAN SINK	KEL	AP00142	120	4050
			AWAL	L75746-03A	100	3600
RPD %					18.18	11.76
BSX-136 (AO20637)	20-Dec-06	BASTIAN SINK	KEL	AP00143	42	1220
			AWAL	L75746-04A	34	1100
RPD %					21.05	10.34

RPD(%) = 100 x[A1-A2]/[(A1+A2)/2]

TABLE 2: QUALITY ASSURANCE/QUALITY CONTROL SPLIT SAMPLE ANALYTICAL DATA AND RELATIVE PERCENT DIFFERENCE (RPD)

SAMPLE ID NUMBER	DATE COLLECTED	SITE	LAB	LAB ID NO.	TOTAL As (ppm)	TOTAL Pb (ppm)
BSX-148 (AP00244)	3-Jan-07	BASTIAN SINK	KEL	AP01555	24	415
			AWAL	L76163-02A	13	440
RPD %					59.46	-5.85
BSX-135A (AP00609	10-Jan-07	BASTIAN SINK	KEL	AP01556	44	1440
			AWAL	L76163-01A	38	1200
RPD %					14.63	18.18
BSX-164 (AP00864)	16-Jan-07	BASTIAN SINK	KEL	AP01557	112	2460
			AWAL	L76163-03A	120	2700
RPD %					-6.90	-9.30

RPD(%) = 100 x[A1-A2]/[(A1+A2)/2]

TABLE 3: PHOTOS OF POST REMOVAL SAMPLING SITES

DESCRIPTIONS FOR PHOTOS ON THE ATTACHED CD

DATE	SAMPLE ID	PHOTO	ORIENTATION	DESCRIPTION
28-Jan-04	BSX-15	BSX15E	EAST	SITE OF SAMPLE BSX-15
28-Jan-04	BSX-16	BSX16N	NORTH	SITE OF SAMPLE BSX-16
28-Jan-04	BSX-16	BSX16NW	NORTH WEST	SITE OF SAMPLE BSX-16, WITH BSX-11,12 IN BG
28-Jan-04	BSX-16	BSX16W	WEST	SITE OF SAMPLE BSX-16
28-Jan-04	BSX-16	BSX16UP	CLOSE UP	SUB SITE OF SAMPLE BSX-16
11-Feb-04	BSX-17	BSX17SE	SOUTH EAST	SITE OF SAMPLE BSX-17
11-Feb-04	BSX-18	BSX18SW	SOUTH WEST	SITE OF SAMPLE BSX-18, BSX-20 IN BG
11-Feb-04	BSX-19	BSX19UP	CLOSE UP	SUB SITE OF SAMPLE BSX-19
23-Apr-04	BSX-33	BSX33NE	NORTH EAST	SITE OF SAMPLES BSX-33,34. BSX-24,25 IN LEFT BG
23-Apr-04	BSX-34	BSX34UP	CLOSE UP	SUB SITE OF SAMPLE BSX-34
23-Apr-04	BSX-35	BSX35N	NORTH	SITE OF SAMPLES BSX-35-40
21-Jun-04	BSX-41	BSX41NE	NORTH EAST	SITE OF SAMPLE BSX-41
21-Jun-04	BSX-42	BSX42N	NORTH	SITE OF SAMPLE BSX-42
21-Jun-04	BSX-43	BSX43N	NORTH	SITE OF SAMPLE BSX-43
21-Jun-04	BSX-44	BSX44N	NORTH	SITE OF SAMPLE BSX-44
21-Jun-04	BSX-45	BSX45N	NORTH	SITE OF SAMPLE BSX-45
21-Jun-04	BSX-46	BSX46N	NORTH	SITE OF SAMPLE BSX-46
21-Jun-04	BSX-47	BSX47N	NORTH	SITE OF SAMPLE BSX-47
21-Jun-04	BSX-48	BSX48N	NORTH	SITE OF SAMPLE BSX-48
24-Jun-04	BSX-49	BSX49W	WEST	SITE OF SAMPLE BSX-49
24-Jun-04	BSX-50	BSX50E	EAST	SITE OF SAMPLE BSX-50
24-Jun-04	BSX-51	BSX51NW	NORTH WEST	SITE OF SAMPLE BSX-51
6-Jul-04	BSX-53	BSX53N	NORTH	SITE OF SAMPLE BSX-53

TABLE 3: PHOTOS OF POST REMOVAL SAMPLING SITES

DESCRIPTIONS FOR PHOTOS ON THE ATTACHED CD

DATE	SAMPLE ID	PHOTO	ORIENTATION	DESCRIPTION
6-Jul-04	BSX-54	BSX54N	NORTH	SITE OF SAMPLE BSX-54
6-Jul-04	BSX-55	BSX55N	NORTH	SITE OF SAMPLE BSX-55
6-Jul-04	BSX-56	BSX56N	NORTH	SITE OF SAMPLE BSX-56
6-Jul-04	BSX-57	BSX57N	NORTH	SITE OF SAMPLE BSX-57
6-Jul-04	BSX-58	BSX58N	NORTH	SITE OF SAMPLE BSX-58
6-Jul-04	BSX-59	BSX59N	NORTH	SITE OF SAMPLE BSX-59
6-Jul-04	BSX-60	BSX60N	NORTH	SITE OF SAMPLE BSX-60
6-Jul-04	BSX-61	BSX61N	NORTH	SITE OF SAMPLE BSX-61
6-Jul-04	BSX-62	BSX62S	SOUTH	SITE OF SAMPLE BSX-62
6-Jul-04	BSX-63	BSX63S	SOUTH	SITE OF SAMPLE BSX-63
6-Jul-04	BSX-64	BSX64S	SOUTH	SITE OF SAMPLE BSX-64
6-Jul-04	BSX-65	BSX65N	NORTH	SITE OF SAMPLE BSX-65
6-Jul-04	BSX-66	BSX66N	NORTH	SITE OF SAMPLE BSX-66
13-Jul-04	BSX-7A	BSX7AN	NORTH	SITE OF SAMPLES BSX-7A, 8A
13-Jul-04	BSX-67	BSX67W	WEST	SITE OF SAMPLE BSX-67
13-Jul-04	BSX-67	BSX67UP	CLOSE UP	SUB SITE OF SAMPLE BSX-67
13-Jul-04	BSX-72	BSX72E	EAST	SITE OF SAMPLES BSX-71,72
2-Aug-04	BSX-73	BSX73N	NORTH	SITE OF SAMPLE BSX-73
2-Aug-04	BSX-74	BSX74N	NORTH	SITE OF SAMPLE BSX-74
30-Jul-04	BSX-75	BSX75NW	NORTH WEST	SITE OF SAMPLE BSX-75
30-Jul-04	BSX-76	BSX76NE	NORTH EAST	SITE OF SAMPLE BSX-76
30-Jul-04	BSX-77	BSX77SE	SOUTH EAST	SITE OF SAMPLE BSX-77
30-Jul-04	BSX-78	BSX78SW	SOUTH WEST	SITE OF SAMPLE BSX-78
30-Jul-04	BSX-79	BSX79W	WEST	SITE OF SAMPLE BSX-79

TABLE 3: PHOTOS OF POST REMOVAL SAMPLING SITES

DESCRIPTIONS FOR PHOTOS ON THE ATTACHED CD

DATE	SAMPLE ID	PHOTO	ORIENTATION	DESCRIPTION
30-Jul-04	BSX-80	BSX80N	NORTH	SITE OF SAMPLE BSX-80
30-Jul-04	BSX-81	BSX81SE	SOUTH EAST	SITE OF SAMPLE BSX-81
30-Jul-04	BSX-82	BSX82NW	NORTH WEST	SITE OF SAMPLE BSX-82
30-Jul-04	BSX-83	BSX83SE	SOUTH EAST	SITE OF SAMPLE BSX-83
2-Aug-04	BSX-84	BSX84N	NORTH	SITE OF SAMPLE BSX-84
2-Aug-04	BSX-85	BSX85N	NORTH	SITE OF SAMPLE BSX-85
5-Aug-04	BSX-86	BSX86N	NORTH	SITE OF SAMPLE BSX-86
5-Aug-04	BSX-87	BSX87N	NORTH	SITE OF SAMPLE BSX-87
5-Aug-04	BSX-88	BSX88S	SOUTH	SITE OF SAMPLE BSX-88
5-Aug-04	BSX-89	BSX89S	SOUTH	SITE OF SAMPLE BSX-89
9-Aug-04	BSX-44A	BSX44AN	NORTH	SITE OF SAMPLE BSX-44A
9-Aug-04	BSX-46A	BSX46AN	NORTH	SITE OF SAMPLE BSX-46A
9-Aug-04	BSX-59A	BSX59AN	NORTH	SITE OF SAMPLE BSX-59A
8-Sep-04	BSX-90	BSX90S	SOUTH	SITE OF SAMPLES BSX-90,91. BSX-52 IN BG
8-Sep-04	BSX-88A	BSX88AE	EAST	SITE OF SAMPLES BSX-88A, 89A
9-Sep-04	BSX-74A	BSX74AN	NORTH	SITE OF SAMPLES BSX-73A, 74A, 84A, 85A
9-Sep-04	BSX-84A	BSX84AUP	CLOSE UP	SUB SITE OF SAMPLE BSX-84A
20-Nov-06	BSX-95	BSX95W	WEST	SITE OF SAMPLE BSX-95
20-Nov-06	BSX-96	BSX96N	NORTH	SITE OF SAMPLES BSX-96-98
7-Dec-06	BSX-99	BSX99W	WEST	SITE OF SAMPLE BSX-99
7-Dec-06	BSX-101	BSX101N	NORTH	SITE OF SAMPLES BSX-100,101. BSX-102 THRU 105 IN BG
7-Dec-06	BSX-106	BSX106N	NORTH	SITE OF SAMPLES BSX-106,107. BSX-108, 109 IN BG
7-Dec-06	BSX-110	BSX110NE	NORTH EAST	SITE OF SAMPLE BSX-110
7-Dec-06	BSX-113	BSX8113S	SOUTH	SITE OF SAMPLES BSX-112,113

TABLE 3: PHOTOS OF POST REMOVAL SAMPLING SITES

DESCRIPTIONS FOR PHOTOS ON THE ATTACHED CD

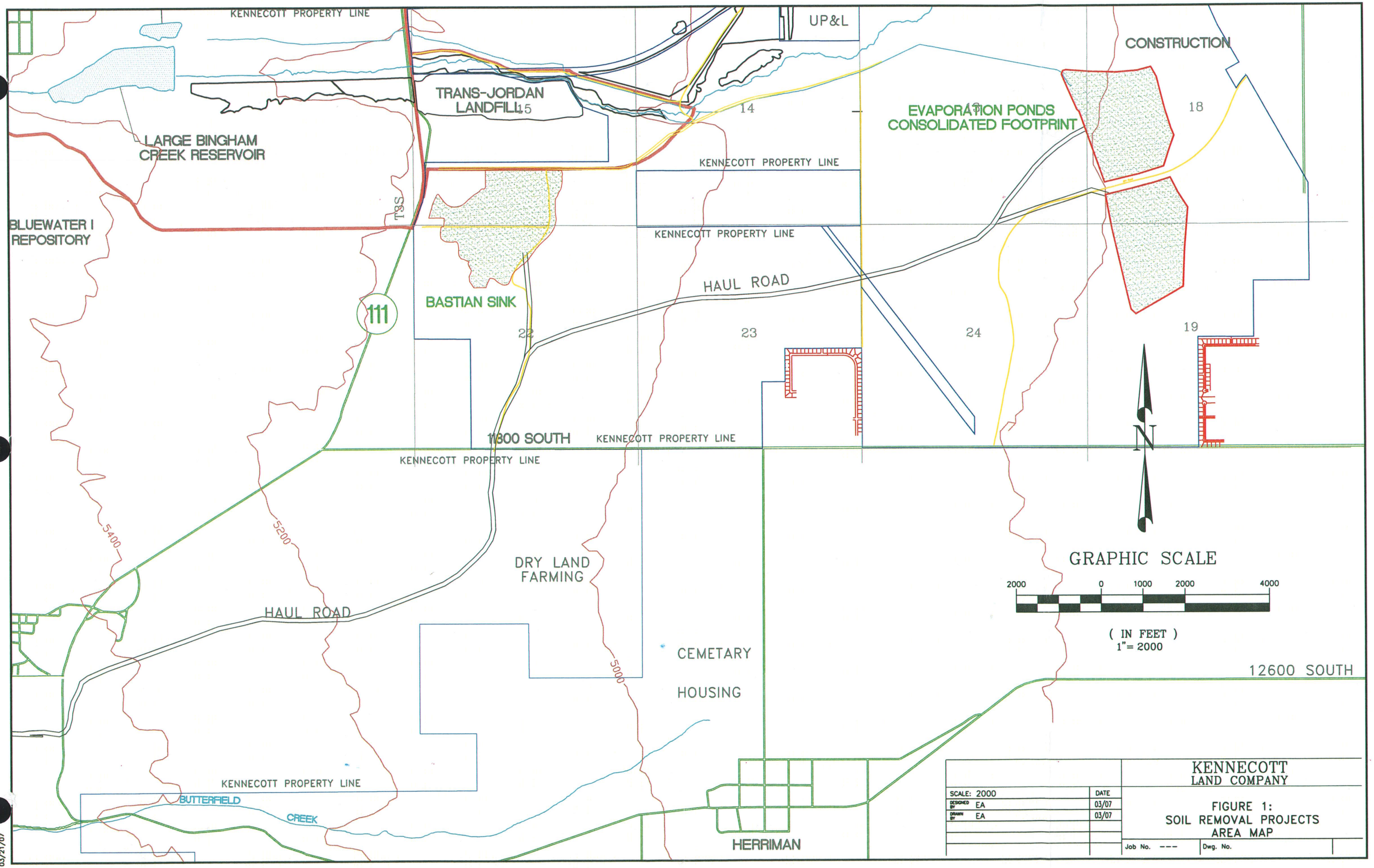
DATE	SAMPLE ID	PHOTO	ORIENTATION	DESCRIPTION
7-Dec-06	BSX-114	BSX114S	SOUTH	SITE OF SAMPLE BSX-114
7-Dec-06	BSX-115	BSX115SE	SOUTH EAST	SITE OF SAMPLE BSX-115
7-Dec-06	BSX-116	BSX116E	EAST	SITE OF SAMPLE BSX-116
15-Dec-07	BSX-116A	BSX116ASE	SOUTH EAST	SITE OF SAMPLES BSX-115A, 0116A
15-Dec-07	BSX-117	BSX117W	WEST	SITE OF SAMPLE BSX-117
15-Dec-07	BSX-118	BSX118NE	NORTH EAST	SITE OF SAMPLE BSX-118
15-Dec-07	BSX-120	BSX120N	NORTH	SITE OF SAMPLE BSX-120
15-Dec-07	BSX-122	BSX122NW	NORTH WEST	SITE OF SAMPLES BSX-122-125
20-Dec-06	BSX-129	BSX129NW	NORTH WEST	SITE OF SAMPLES BSX-127-129
20-Dec-06	BSX-131	BSX131N	NORTH	SITE OF SAMPLES BSX-131,133,135
20-Dec-06	BSX-135	BSX135N	NORTH	SITE OF SAMPLE BSX-135
20-Dec-06	BSX-136	BSX136N	NORTH	SITE OF SAMPLES BSX-134,136
29-Dec-06	BSX-137	BSX137S	SOUTH	SITE OF SAMPLE BSX-137
29-Dec-06	BSX-138	BSX138N	NORTH	SITE OF SAMPLE BSX-138
3-Jan-07	BSX-139	BSX139W	WEST	SITE OF SAMPLE BSX-139
3-Jan-07	BSX-141	BSX41NW	NORTH WEST	SITE OF SAMPLES BSX-141,143
3-Jan-07	BSX-142	BSX142N	NORTH	SITE OF SAMPLE BSX-142, BSX-144-147 IN BG
3-Jan-07	BSX-116B	BSX116BSW	SOUTH WEST	SITE OF SAMPLES BSX-115B, 116B
3-Jan-07	BSX-116B	BSX116BSW	SOUTH WEST	SITE OF SAMPLES BSX-115B, 116B
9-Jan-07	BSX-101A	BSX101AE	EAST	SITE OF SAMPLES BSX-101A, 128A
9-Jan-07	BSX-127A	BSX127AN	NORTH	SITE OF SAMPLES BSX-127A, 129A
9-Jan-07	BSX-152	BSX152E	EAST	SITE OF SAMPLE BSX-152
10-Jan-07	BSX-121A	BSX121ANE	NORTH EAST	SITE OF SAMPLE BSX-121A
10-Jan-07	BSX-148A	BSX148ASW	SOUTH WEST	SITE OF SAMPLE BSX-148A

TABLE 3: PHOTOS OF POST REMOVAL SAMPLING SITES

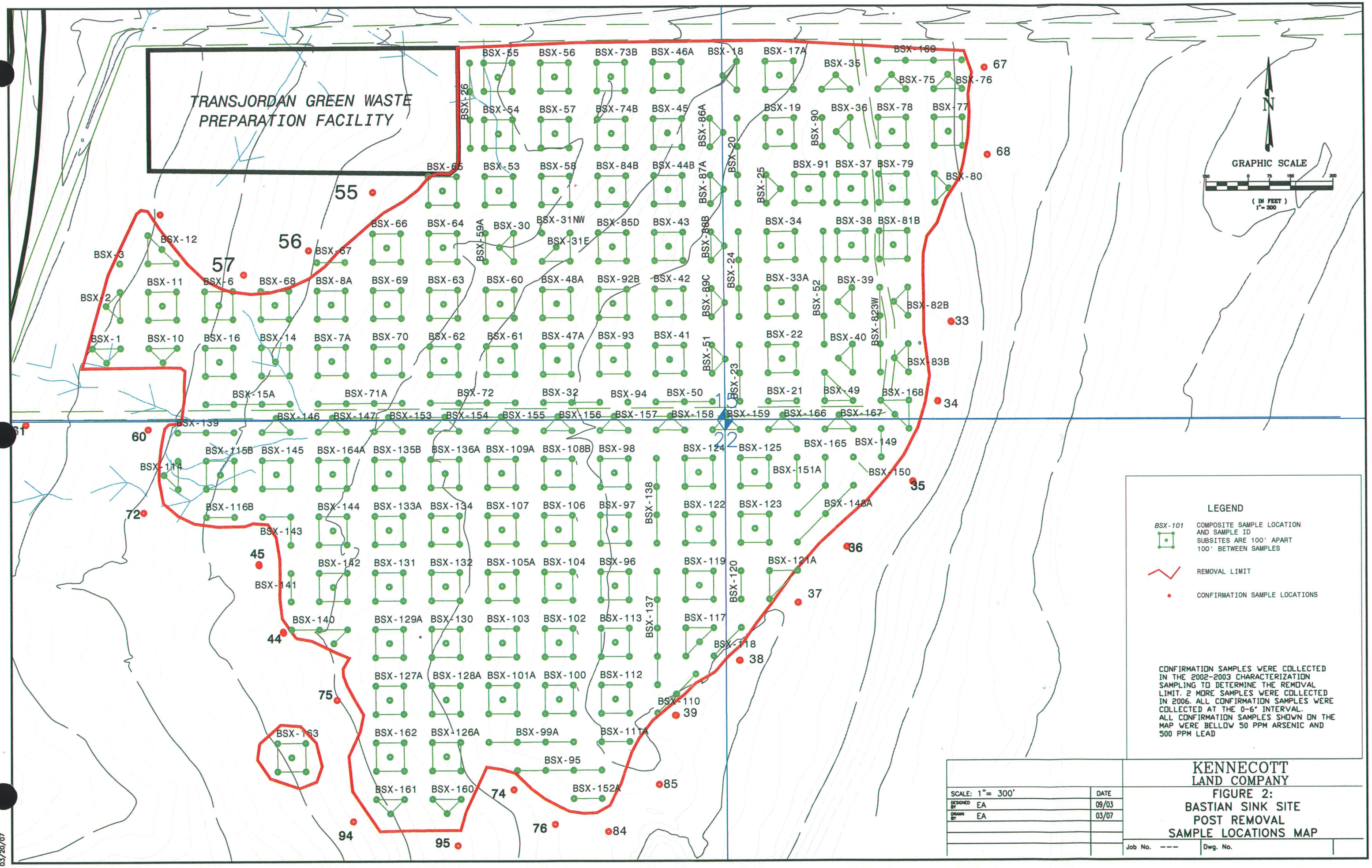
DESCRIPTIONS FOR PHOTOS ON THE ATTACHED CD

DATE	SAMPLE ID	PHOTO	ORIENTATION	DESCRIPTION
10-Jan-07	BSX-133A	BSX133AS	SOUTH	SITE OF SAMPLES BSX-133A, 135A
10-Jan-07	BSX-136A	BSX136ASE	SOUTH EAST	SITE OF SAMPLE BSX-136A
10-Jan-07	BSX-153	BSX153E	EAST	SITE OF SAMPLES BSX-153-155
16-Jan-07	BSX-162	BSX162SW	SOUTH WEST	SITE OF SAMPLES BSX-162, 126A
16-Jan-07	BSX-99A	BSX99AE	EAST	SITE OF SAMPLES BSX-99A, 111A
16-Jan-07	BSX-166	BSX166W	WEST	SITE OF SAMPLES BSX-166,167
16-Jan-07	BSX-169	BSX169W	WEST	SITE OF SAMPLE BSX-169
16-Jan-07	BSX-135B	BSX135B	SOUTH WEST	SITE OF SAMPLE BSX-135B. PHOTO TAKEN AT TIME OF ADDITIONAL REMOVAL WORK

Note: Photos of sampling during October 2004 through January 2005 were lost as a result of a theft of digital cameras and computers at Kennecott Land field office in January 2005


KENNECOTT PROPERTY LINE
UP&L
CONSTRUCTION
TRANS-JORDAN LANDFILL
15
14
13
18
EVAPORATION PONDS CONSOLIDATED FOOTPRINT
LARGE BINGHAM CREEK RESERVOIR
KENNECOTT PROPERTY LINE
BLUEWATER I REPOSITORY
TSS
KENNECOTT PROPERTY LINE
HAUL ROAD
111
BASTIAN SINK
22
23
24
19
11300 SOUTH
KENNECOTT PROPERTY LINE
KENNECOTT PROPERTY LINE
N
5400
5200
DRY LAND FARMING
GRAPHIC SCALE
2000
0
1000
2000
4000
(IN FEET)
1"= 2000
HAUL ROAD
CEMETARY
5000
HOUSING
12600 SOUTH
KENNECOTT PROPERTY LINE
BUTTERFIELD
CREEK
HERRIMAN
SCALE: 2000
DATE
DESIGNED BY EA 03/07
DRAWN BY EA 03/07
KENNECOTT
LAND COMPANY
FIGURE 1:
SOIL REMOVAL PROJECTS
AREA MAP
Job No. ---
Dwg. No.

03/21/07


TRANSJORDAN GREEN WASTE PREPARATION FACILITY
N
GRAPHIC SCALE
(IN FEET)
1" = 300
LEGEND
BSX-101
COMPOSITE SAMPLE LOCATION AND SAMPLE ID
SUBSITES ARE 100' APART
100' BETWEEN SAMPLES
REMOVAL LIMIT
CONFIRMATION SAMPLE LOCATIONS
CONFIRMATION SAMPLES WERE COLLECTED IN THE 2002-2003 CHARACTERIZATION SAMPLING TO DETERMINE THE REMOVAL LIMIT. 2 MORE SAMPLES WERE COLLECTED IN 2006. ALL CONFIRMATION SAMPLES WERE COLLECTED AT THE 0-6" INTERVAL. ALL CONFIRMATION SAMPLES SHOWN ON THE MAP WERE BELLOW 50 PPM ARSENIC AND 500 PPM LEAD
KENNECOTT
LAND COMPANY
SCALE: 1" = 300'
DATE
DESIGNED BY EA 09/03
DRAWN BY EA 03/07
FIGURE 2:
BASTIAN SINK SITE
POST REMOVAL
SAMPLE LOCATIONS MAP
Job No. ---
Dwg. No.
03/20/07

Southend-4
5-14-02

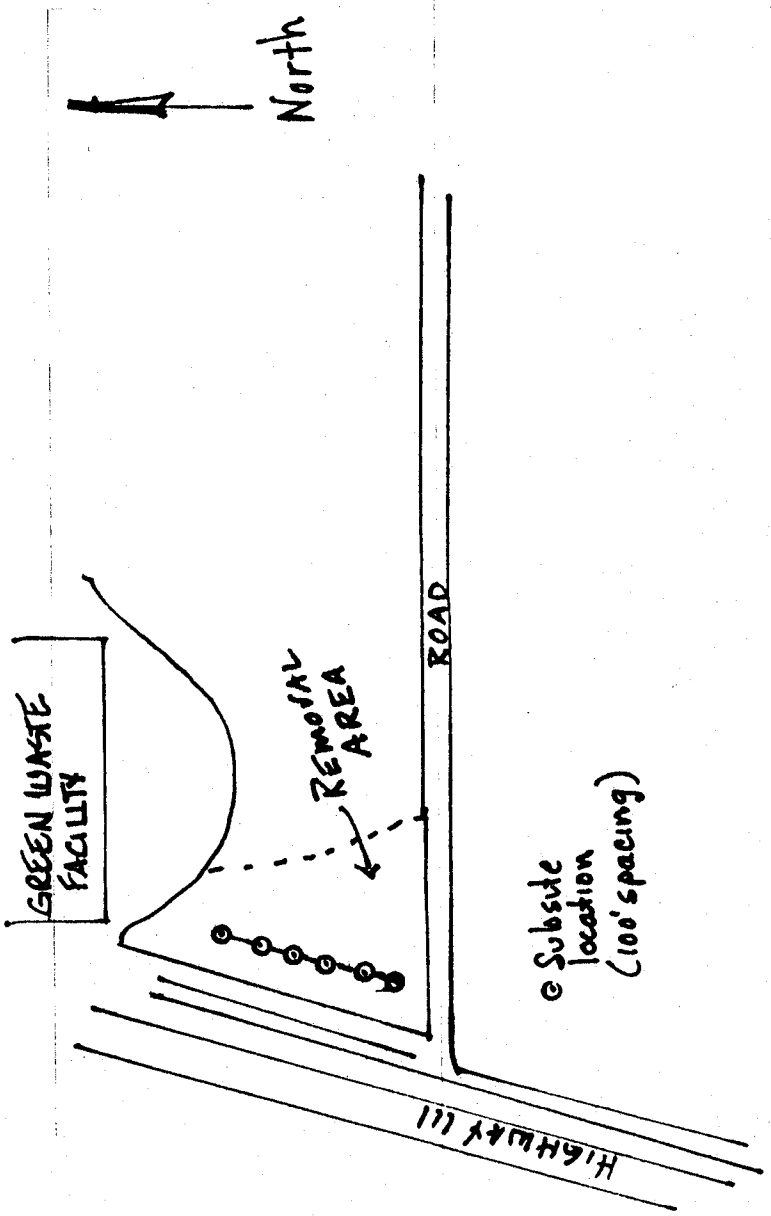
ALL WEATHER
FIELD BOOK
No. 350

Post Removal Confirmation Sampling at Bastian Sink Site

Removal of contaminated soil has begun at Bastian Sink. A small area located at the northwest corner has been removed. Samples will be collected from this removal area in order to determine if sufficient soil has be removed and if the removal technique is working.

Three confirmation samples will be collected today. Sample locations are diagrammed on page 93 of this logbook.

Sample material will be collected from "loose" soil left on post removal surface (top 2") and from undisturbed soil below the loose soil. One addition sample will be collected from top 3" (same depth as post removal samples will be collected.



 8-19-03 L. ELKIN

BSPC-1 (12:45) 6 point composite collected from top 1.5 inches. Subsites are spaced approximately 100 feet apart and arranged in a line. Top 1.5" is loose soil.

BSPC-2 (12:50) 6 point composite collected from same locations as BSPC-1. Sample material is collected from 2"-3" below surface in undisturbed soil.

BSPC-3 (12:51) 6 point composite collected from 0"-3" below surface from same locations as BSPC-1 and BSPC-2.

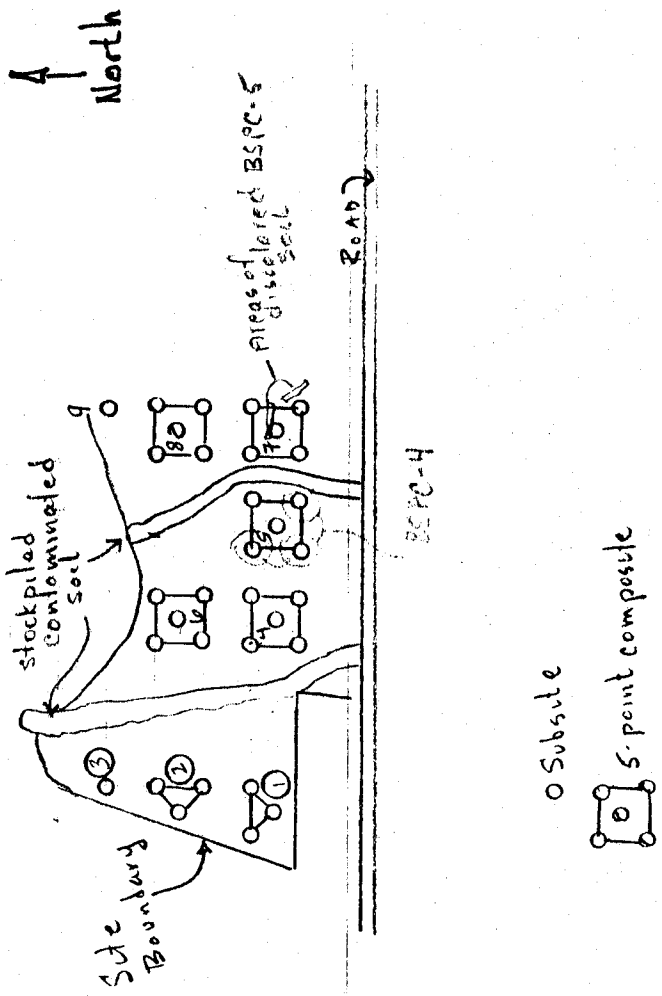
8-25-03 L. ELKIN

Post Removal Sampling
Bastian Sink Site

Removal of contaminated soil began last week at the Bastian Sink Site. Removal is being done using dozers to push contaminated soil into piles that will later be picked up using front end loaders.

Removal has begun at the NW corner of the site and is progressing east. There is now enough of an area to began collecting post-removal samples. Some areas covered by piles of contaminated soil cannot be sampled at this time. A sample location map is located on Page 97 of this logbook.

Two additional "check" samples were collected to see if areas of slightly different colored soil observed in the removal area is contaminated.



8-25-03 L. ELKIN

BSX-1 (10:55) 3 point composite light brown, dry, gravelly silty sand.

BSX-2 (11:01) 3 point composite. Light brown, dry, gravelly silty sand.

BSX-3 (11:04) grab. light brown, dry, gravelly silty sand.

BSX-4 (11:45) 5 point composite. light brown, dry gravelly silty sand. NE corner subsite has some light orange brown color. (?discoloration from contam?)

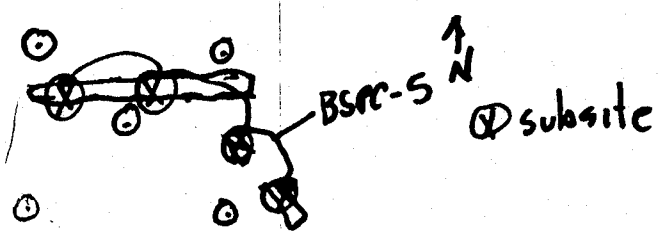
BSX-6 (11:52) 5 point composite, light brown, dry, gravelly silty sand at NW, NE and SW subsite. light orange brown at cent and SW subsite.

L. ELKIN 8-26-03

BSX-5 (11:58) 5 point composite. NW, SE and SW subsites light orange brown discoloration? center and NE subsites light brown. All subsites are dry, gravelly silty sand.

BSPC-4 (12:22) 3 point composite collected from NW, SE and SW subsites of BSX-5. These are the subsites with slight orange color. Sampled to see if these are higher than the 5 points collected in BSX-5.

BSX-7 (12:36) point composite. light brown, dry gravelly silty sand. Some discoloration of soil as marked below



L. ELKIN 8-25-03

BSX-8 (12:42) 5 point composite. Light brown, dry, gravelly silty sand.

BSX-9 (12:46) grab. light brown, dry, gravelly silty sand.

BSPC-5 (12:52) 4 point composite collected from 4 locations in discolored soil found in vicinity of BSX-7 (see pg 99 of this logbook) These locations appear to be a former feeder ditch.

8-27-03 L. ELKIN

Continuation of Bastian Sink Sampling

Samples collected on 8-26-03 were analyzed and the results showed some of the post-removal samples were above the removal limit of 500 Pb. (See Pgs 96-100 of this logbook)

Today I will collect samples of specific intervals below the current post removal surface to try to determine the depth needed to be removed to achieve <500 Pb.

I will collect 3 samples from the center subsite of ~~BSPC~~ BSX-8.

8-27-03 L.ELKIN

BSPC-6 (09:40) 0"-4" collected in undisturbed soil from 0"-4" below top of undisturbed soil. Some minor orange "specs" in this interval.

BSPC-7 (09:45) (4"-6") collected from ø 4"-6" below top of undisturbed soil. No discoloration observed.

BSPC-8 (09:58) 0"-2" Collected from loose material on surface at Center subsite of BSX-8.

Bastian - Sink

Peninsular

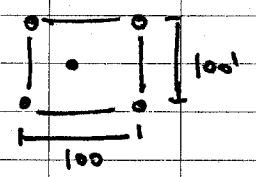
FIELD BOOK

FB 802

9/8/03

Bastion Sink
Post Removal Sampling.

Post Removal samples collected from the Bastion Sink Site.
Samples collected as composite samples subsites are in the following manner:



at each subsite sample is collected from 0-3" intervals.
samples subsites are surveyed w/ GPS unit, based on sampling plan.

- BSX-10 (10:55) 3 pt composite.
  Dry med brn silty sand.

- BSX-11 (11:03) 5 pt
  Dry med brn silty sand

- BSX-12 (11:09) 5 pt composite

continue:
BSX-12: Sample is Dry, med brn silty sand.

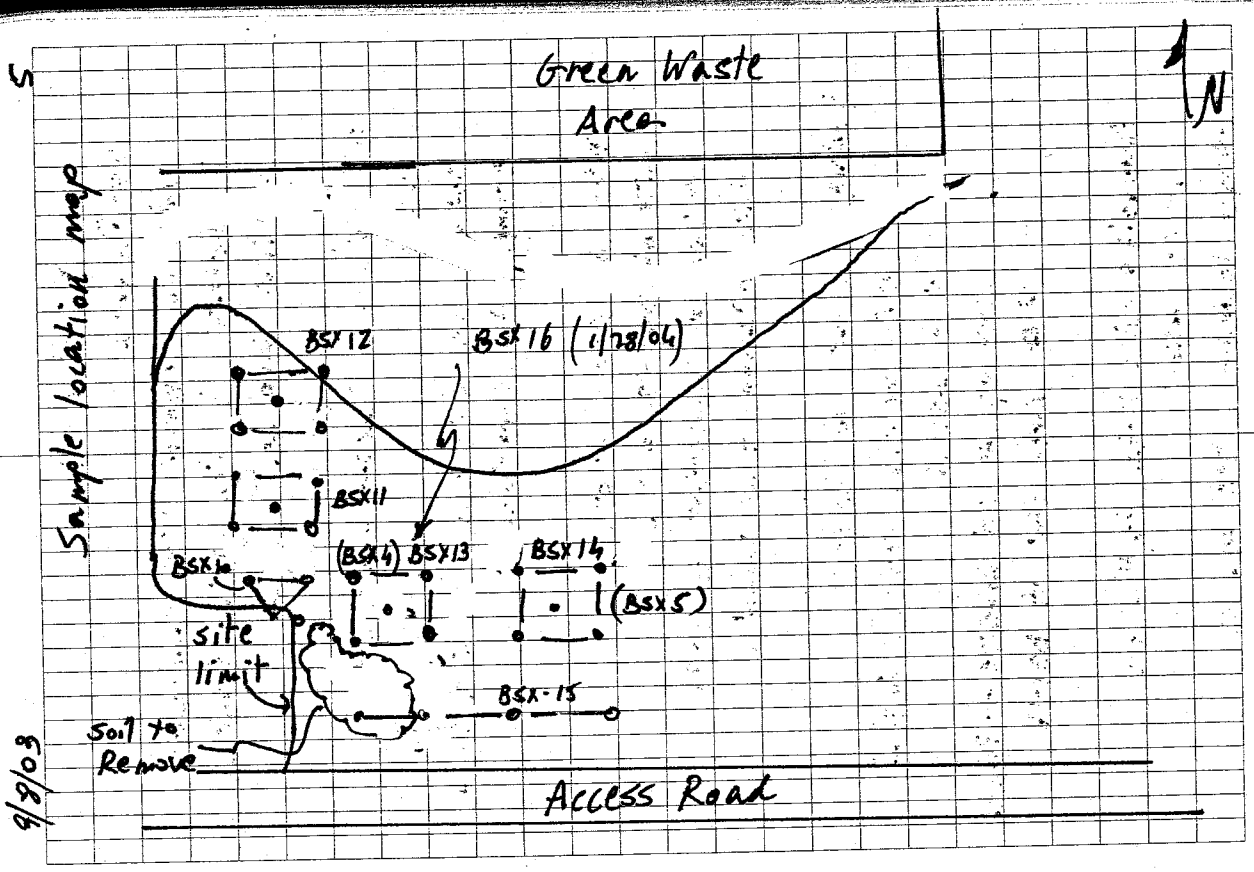
- BSX-13 (11:14) Re-Sample at site of BSX-4 after additional Removal was conducted.
  Sample is light brn silty gravely sand.
  Some FeOx discoloration at NW, NE subsites.

- BSX-14 (11:18) 5 pt. site of BSX-C
  lgt brn silty sand.

Analysis @ KEC: Total As, Pb. pH
C.o.c: (LAB, no number)

sample locations: see pg 5.

Sample location map



9/8/08

1/28/04

Bastion Sink

Post Removal

Additional Removal was conducted in areas of high As/Pb found in previous sampling.

- BSX-15 (4 pt linear composite) (12:00)
  sample is dark brn-blk silt. some orange discoloration.

- BSX-16 (12:10) 5 pt.
  site of BSX-13 (9/8/03)
  lgt brn w/ consistent lgt FeO_x discoloration fine sand.

Photos: - East at BSX-15
- NW @ BSX-16. (BSX-11,12 in B/G)
- N @ BSX-16
- close up at NE subsite of BSX-16
- W @ north part of BSX-16

Analysis @ KEL: Total As, Pb, pH
C.O.C: 4145
Sample location see pg. 5.

2/11/04

Bastion Sink

Post Removal - continue:
<Removal is now in progress on NE area of site>

- BSX-17 (13:15) 5 pt
  dark brn Rocky silt.
- BSX-18 (13:20) 3 pt
  dark brn rocky silt & brn silt, sand.
- BSX-19 (13:40) 5pt.
  lgt brn silty sand.
- BSX-20 (14:05) 4pt - linear

Photos:
- SE at BSX-17
- SW at BSX-18 (BSX-20 in B/G)
- close-up at NE sub-site of BSX-19 (Typ.)

Analysis at KEL: Total As, Pb, pH
C.O.C: 4147

Sample location see pg. 9.

2/12/04

Bastian Sink

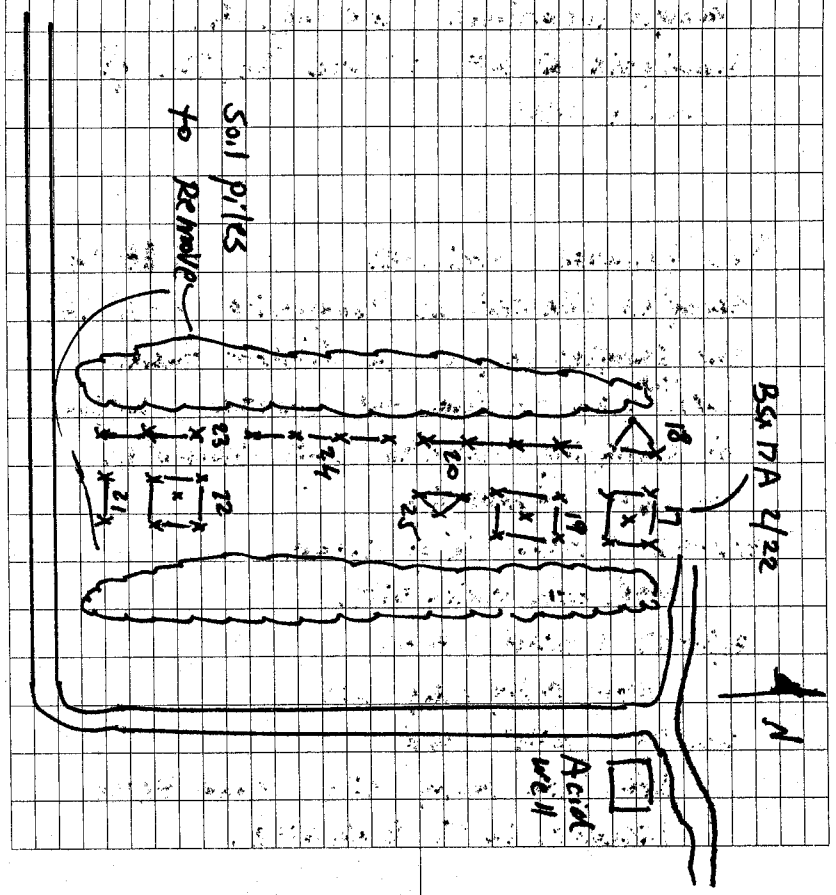
- BSX-21 (12:50) 2 pt
  dark brn clay.
- BSX-22 (13:05) 5 pt
  dark brn clay. minor FeOx discoloration in c\NW sub sites.
- BSX-23 (13:15) 3 pt
  dark brn clay.

Analysis @ KEL Total As, Pb, pH
C.O.C: 4144

Photos: (not taken)

2/22/04
Additional Samples collected from locations of Previous Samples after additional removal was conducted.
- BSX-15A (12:10)
  dark clay, some FeOx-brn silty sand.
- BSX-17A (12:00)
  dark brn rocky silt.
C.O.C: 4150

2/11/04
sample locations:
(added 2/12) (3/9)



3/9/04

Bastian Sink

Post Removal.

BSX-24 (12:00) 4 pt
dark brn clay

BSX-25 (12:30) 3 pt
lgt grey silty sand.

sample locations see pg. 9.
Analysis @ KEL: Total As, Pb. pH
C.O.C: 4152.

Post Removal - continue: 3/18/04
Samples collected as composite 3-5 pt.
The samples layout is different ~~than~~ then the plan to map the current area of sampling due to soil stock piles to be removed.

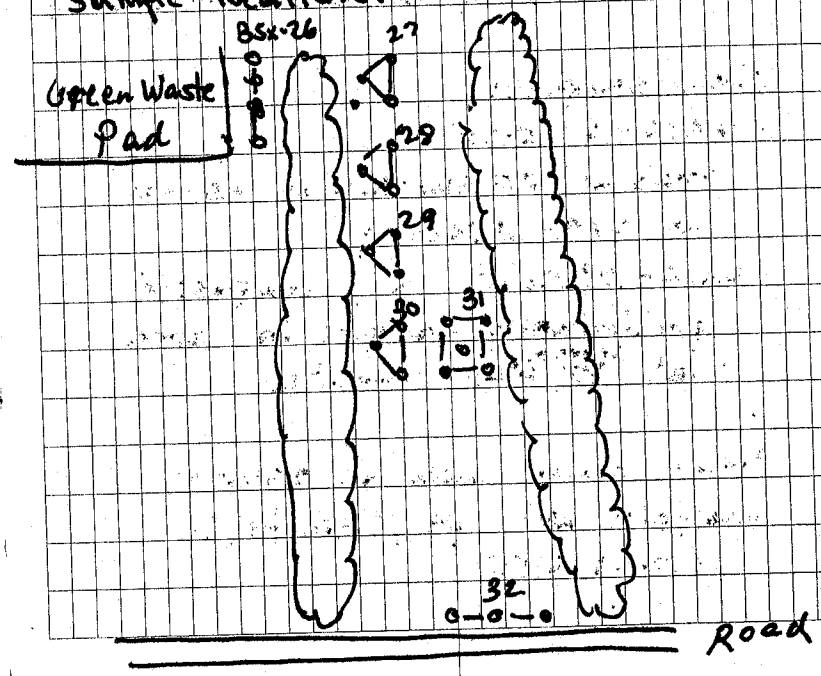
BSX-26 (12:30) 4 pt linear.
med brn rocky silt.

BSX-27 (12:40) 3 pt
dark rocky clay silt

BSX-28 (12:45) 3 pt
dark brn rocky silt. some FeOx discolor. in S subsite.

Continue
- BSX-29 (12:50) 3 pt
dark brn rocky silt
- BSX-30 (12:55) 3 pt
med brn rocky sandy silt
- BSX-31 (13:00) 5 pt.
med brn rocky silt. some FeOx discolor.
- BSX-32 (13:10) 3 pt. med brn silt
Analysis @ KEL: pH, Total As, Pb
C.O.C: 4153.

Sample locations:



4/23/04

Bastian Sink

Post Removal.

- BSX-33 (14:55) 5 pt
  med to dark brn silty, some FeOx
  @ 0-3", in NE sub site.
- BSX-34 (15:10) 5 pt.
  med - dark brn silt.

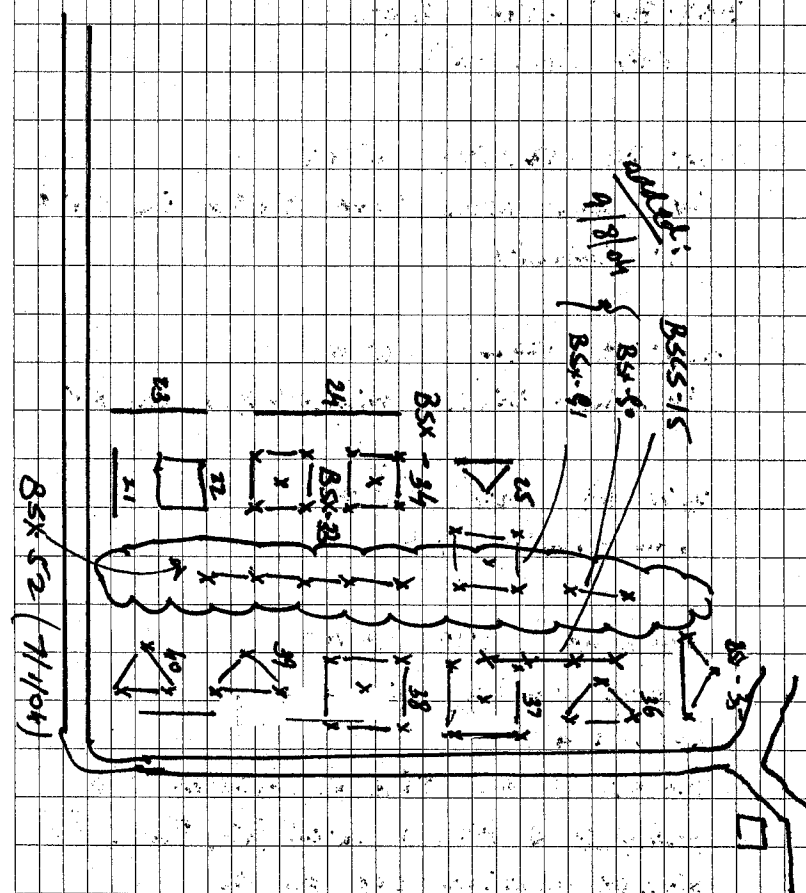
Photos: - Looking N-NE @ BSX-33,34
(Samples BSX-24, left, BSX-25 R/6)
- close up on sub site of BSX-34

Check samples:

- BSCS-14 (15:25)
  grab at NE sub-site of BSX-33
  w/ FeOx discolor.
- BSCS-15 (15:45) 4 pt composite
  preliminary samples in area
  that Removal was complete.

Photo: Looking South at BSCS-15.
Analysis: KEL pH, Total As, Pb
C.O.C: 4155

sample location



 5/6/04

Bastian Sink

Post Removal

BSX-35 (13:30) 3 pt composite
dark brn silt

BSX-36 (13:40) 3 pt
dark brn silt

BSX-37 (13:50) 5 pt
dark brn silt. some FeOx in sw & nw subsite

BSX-38 (14:00) 5 pt
dark brn silt. minor FeOx in nw

BSX-39 (14:10) ~~5~~ 3 pt
brn sandy silt

BSX-40 (14:20) 3 pt
brn sandy silt.
C.O.C: 4158
Photo: N at site of BSX-35 -40
Analysis @ KEL: Total As, Pb, pH
sample location see pg 13

7/1/04:

Bastian Sink

Post Removal.

w/ the removal of the soil pile on East Side of site (see pg. 13) some additional removal was conducted to remove discolored soils at NE subsite of BSX-33 (sample BSXS-14).

BSX-33A (13:40) 5 pt
site of BSX-33. additional removal conducted.
sample is med brn sandy silt. No discoloration.

BSX-52 (13:30) 5 pt, linear comp. (at footprint of soil pile)
sample is med brn sandy silt.

Analysis at KEL: pH, Total As, Pb
C.O.C: 4272

Sample location: see pg. 13

Southend-5 LBE

6-4-04

"Rite in the Rain"
ALL-WEATHER
FIELD BOOK
No. 350

(1) 6-21-04 L. ELKIN

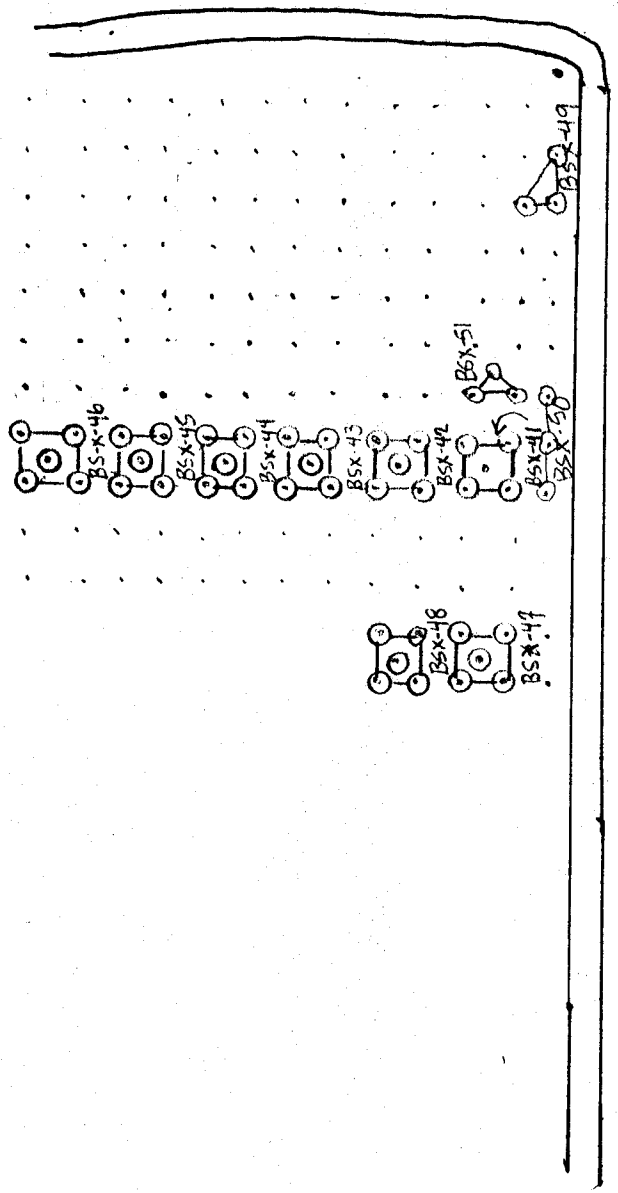
BASTIAN SINK POST REMOVAL SAMPLING

Purpose: Collect post removal samples from Bastian Sink Site. Removal operations began this morning after a long hiatus. There are several areas on the north half of the site that were cleaned several months ago. These sites will be sampled today (8 samples BSX-41 thru BSX-48). Piles of contaminated soil that are stockpiled are being removed starting this morning. After removal the area underneath the piles will be sampled.

6-21-04 L. ELKIN (2)

PHOTO LOG

1) Looking N-NE at site of BSX-41
2) Looking North at site of BSX-42
3) Looking North at site of BSX-43
4) Looking North at site of BSX-44
5) Looking north at site of BSX-45
6) Looking north at site of BSX-46
7) Looking north at site of BSX-47
8) Looking north at site of BSX-48



BSX-41 (11:21) 5 point composite. 100'x100' square. Center site. All subsites light to medium brown sandy silt. Dry. No discoloration.

BSX-42 (11:31) 5 point composite 100'x100' square with center subsite. Southwest, southeast and northeast subsites are med brown sandy silt, moist to dry. Center subsite has yellow-brown and copper green discoloration-sandy silt. Northwest subsite is med brown sandy silt and has white "specs" of color thru-out.

BSX-43 (11:42) 5-point composite. 100'x100' square with center subsite. SW, SE and center subsites med brown, moist, sandy silt. NE subsite med brown, moist sandy silt with possible yellow-brown discoloration from contamination. NW subsite gravelly silty sand. light brown.

BSX-44 (11:52) 5-point composite 100'x100' square with center subsite. All subsites med to light brown gravelly silty sand. Possible discoloration from contamination at NE and SW subsites.

BSX-45 (12:04) 5-point composite, 100'x100' square with center subsite. All subsites are medium to light brown gravelly silty sand with locally some clay. The area of this sample has not been bladed.

BSX-46 (12:20) 5 point composite. 100'x100' square with a center subsite. All subsites medium brown gravelly silty sand with some clay. Area of sample has not been bladed.

BSX-47 (12:54) 5-point composite. 100'x100' square with center subsite. All subsites except NE are medium brown, moist sandy silt. NE subsite is med. brown gravelly sandy silt. No visible discoloration at any subsite.

BSX-48 (13:04) 5-point composite 100'x100' square with center subsite. SW and SE subsite med brown, moist sandy silt. NE, NW subsites med. brown gravelly sandy silt. Center subsite gravelly sand light brown. Center subsite and NE subsite has discoloration from contamination.

6-24-04 L. ELKIN

Continuation of Bastian Sink Post Removal Sampling

- See Page 3 of this logbook for sample locations

BSX-50 (14:47) 3 point composite arranged on E-W line. Subsites are spaced 100' apart. West and center subsites med to light brown sandy silt. East subsite gravelly silty sand. Photo #1 looking east at site of BSX-50. Photo by L. Elkin.

BSX-51 (14:56) 3 point composite subsites arranged in a right triangle, sides of triangle are 100'. All subsites are med to light brown sandy silt. dry.
- photo #2 looking NW at site of BSX-51. Photo by L. Elkin.

BSX-49 (15:21) 3 point composite sample. Subsites arranged in a right triangle with 100' foot sides Eastern subsite is gravelly sand other two subsites are med to light brown sandy silt. No discoloration
- photo #3 looking W-NW at site of BSX-49. Photo by L. Elkin.

CONTINUATION OF BASTIAN SINK SAMPLING

* REFER TO PAGE 3 of this log book for sample locations

Sample Descriptions

- BSX-53 (10:52) 5-point composite sample collected from 100' square configuration. Subsites are located in corners of square and one in the center. NE and SE subsites are light brown, dry, silty sandy gravel, Center, NW and SW subsites are med. brown sandy gravelly silt. moist. No discoloration at any subsite.
* photo #1 looking south at site of sample BSX-53. Photo by L. Elkin

- BSX-54 (11:01) 5-point composite. Subsites arranged on a 100'x100' square with a subsite in the middle. All subsites are med to light brown, dry, silty gravelly sand. Center and NW subsite has white discoloration from possibly caliche.

Sample Descriptions

*photo #2. Looking south at site of sample BSX-54. Photo by L. Elkin

- BSX-55 (11:13) 5-point composite. Subsites arranged on a 100'x100' square with a subsite located in each corner and one in the center. SW subsite - light brown gravelly silty sand. SE subsite gravelly silty clay. wet. → same NE, NW and center. Possible red-brown discoloration at center subsite.

*photo 3 looking north at site of sample BSX-55. Photo by L. ELKIN.

- BSX-56 (11:22) 5 point composite sample. Subsites arranged in a 100'x100' square with subsites located at the corners of the square and one in the center. All subsites gravelly silty Clay. Dark brown, wet. NW Subsite may have slight red-brown discoloration.

* photo 4: Looking north at site of sample BSX-56. Photo by L. Elkin

Sample Descriptions

- BSX-57 (11:31) 5-point composite. Sample arranged in a 100'x100' square with a subsite located at the corners of the square and one in the center. Center subsite gravelly sand, dry. light brown. NE subsite gravelly clay. med to dark brown. Appears to be some orange discoloration. NW subsite gravelly sand. light brown. dry. Gravel is caliche coated. SW, SE same as NW subsite.

*photo #5 looking north at site of sample BSX-57. Photo by L. Elkin

- BSX-58 (11:~~48~~ 48) 5-point composite. Sample arrange on a 100'x100' square with a subsite located in the corner of the square and one in the center. All subsites are light brown dry to moist gravelly sand. NW subsite ~~may have~~ has yellow brown discoloration

*photo #6 looking north at site of sample BSX-58. Photo by L. Elkin

(11) 7-2-07 L. ELKIN

Sample Descriptions

- BSX-59 (11:59) 2 point composite subsites located 100' apart (N to S) Both subsites are gravelly silty sand. moist to dry. med to light brown. Caliche on gravel at northern site.

* photo 7: Looking south at site of BSX-59. Photo by L. Elkin.

- BSX-60 (12:13) 5-point composite. Sample arranged in a 100' x 100' square configuration with a subsite located in the corner of the square and one in the center. Center subsite gravelly sand. Moist. faint orange discoloration. NE subsite clayey (med brown) gravel. wet. Very compacted. NW subsite sandy gravel. Dry. light brown. Gravel is coated with caliche. SW subsite same as NW. SE subsite sandy silt. light brown. Very compacted. moist.

* photo 8: Looking north at site of Sample BSX-60. Photo by L. Elkin

Sample Descriptions

BSX-61 (12:27) 5-point composite. Sample is arranged in a 100' x 100' square configuration with a subsite located at the corners of the square and one in the center. Center subsite is light orange-brown sandy silt. Mod. disseminated caliche. NE subsite med to dark brown silty clay. moist. NW, SW and SE same as NE subsite.

- photo 9 Looking north at site of sample BSX-61. Photo by L. Elkin

- BSX-62 (12:45) 5-point composite Sample arranged in a 100' x 100' square configuration with a subsite located at the corners of the square and one in the middle. Center subsite silty sand. light br. dry. NE subsite gravelly silty sand med. brown. dry. NW subsite dark brown gravelly clay. Moist. SW subsite gravelly silty sand. Dry. Faint orange color may be discoloration. SE subsite gravelly silty sand. dry. light brown.

* photo 10: Looking north at site of BSX-62

Sample Descriptions 58

- BSX-63 (12:45) 5-point composite sample. Sample is arranged in a square configuration with a subsite located in the corners of the square and one in the center. ALL ~~Center~~ subsites are med to dark brown gravelly sandy silt, moist.

* photo 11. Look north at site of sample BSX-63. Photo by L. ELKIN

- BSX-64 (13:06) 5-point composite. Sample arranged in a square configuration with a subsite located at the corners of the square and one in the center. All subsites are med to dark brown gravelly sandy silt, moist.

* photo #12: Looking north at site of sample BSX-64. Photo by L. ELKIN.

*

Sample Descriptions

- BSX-65 (13:22) 5-point composite sample arranged in a square 100'x100' configuration with a subsite located at the corners of the square and one in the center. All subsites are med to dark brown gravelly sandy silt. Possibly discoloration at NW subsite.

* photo #13 Looking north at site of BSX-65. Photo by L. ELKIN.

- BSX-66 (13:35) 5-point composite sample. Sample arranged in a 100'x 100' square sample configuration. with a subsite located at the corners of the square and one in the center. All subsites med to light brown gravelly sandy silt, dry to moist

* photo #14: Looking north at site of sample BSX-66. Photo by L. ELKIN.

7-6-04 L. ELKIN

PHOTOS OF SAMPLE SITES
BSX-53 THRU BSX-54 Bastian
Sink Post Removal

The photos taken on 7-2-04 of sample sites BSX-53 thru BSX-66 did not turn out due to camera malfunction. The sites will be re-photographed today. ALL photos by L. Elkin

Photo #1 Looking north at site of BSX-61.
Photo #2 Looking north at site of BSX-60
photo #3 Looking north at site of BSX-59
photo #4 Looking north at site of BSX-58
photo #5 Looking north at site of BSX-54
photo #6 Looking north at site of BSX-55
photo #7 Looking north at site of BSX-56
photo #8 Looking north at site of BSX-57
photo #9 Looking north at site of BSX-58
photo #10 Looking south at site of BSX-62
photo #11 Looking south at site of BSX-63
photo #12 Looking south at site of BSX-64
photo #13 Looking north at site of BSX-65
photo #14 Looking south at site of BSX-66

Bastian - Sink

Peninsular

FIELD BOOK

FB 302

7/13/04

Bactian Sink

Post Removal

Additional Removal was conducted in areas where sample failed the Action level.

- BSx-7A (7:10) 5 pt.
  site of BSX-7.
  med brn silt.
- BSx-8A (7:20) 5 pt.
  med brn silt.
- BSx-67 (7:30) 2 pt.
  re sampling of BSX-9 (BSx-9 was 1 pt grab sample)
  med brn silt.
- BSX-68 (7:40) 5 pt
  med brn silt
- BSx-69 (7:50) 5 pt
  med brn silt.
- BSx-70 (8:00) 5 pt
  lgt gray silty gravel
- BSx-71 (8:07) 4 pt linear comp.
  med-lgt silty gravel some FeO_x discoloration in West sub sites.

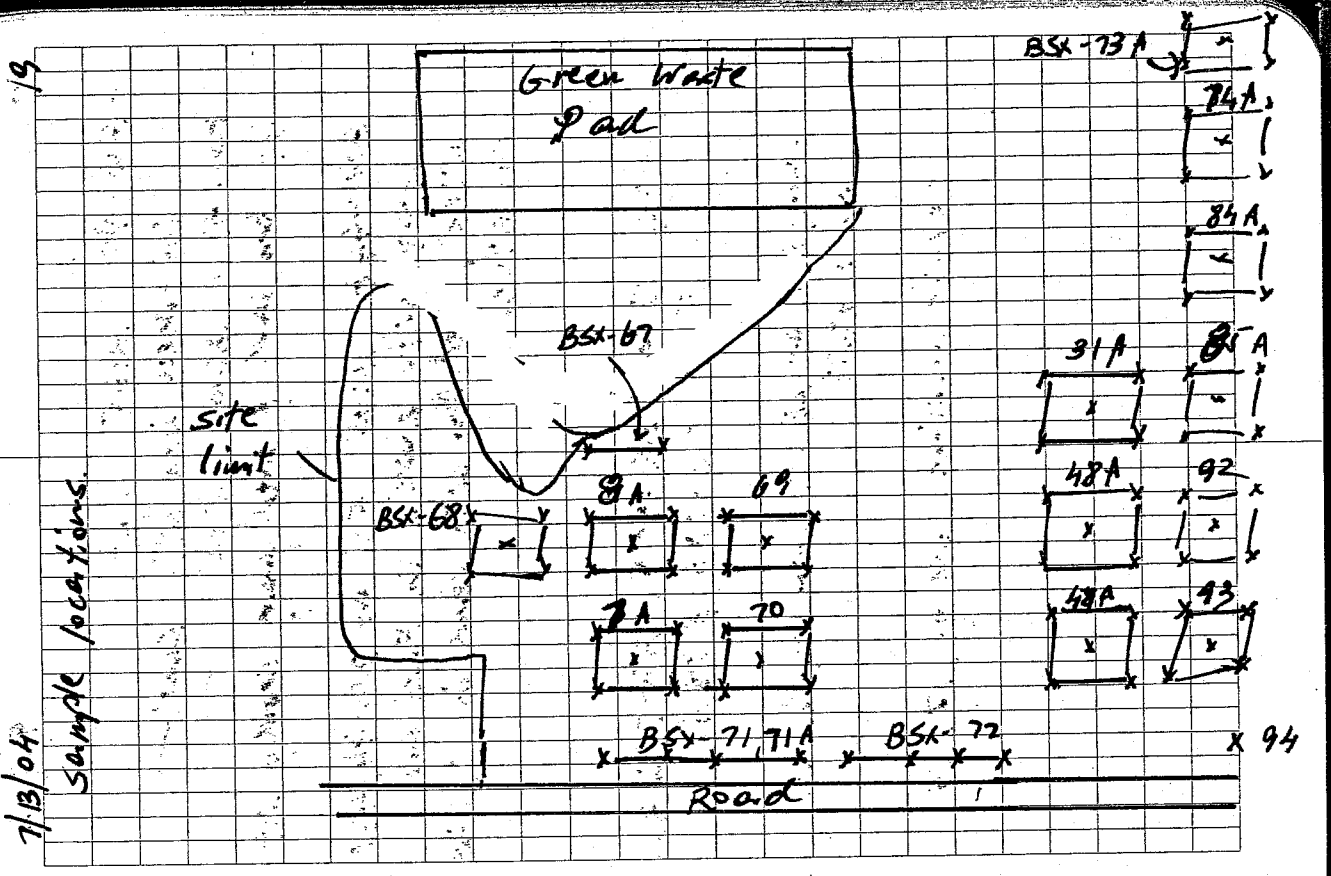
- BSx-72 (8:15) 4 pt linear comp.
  lgt silty gravel.
- BSx-47A (8:20) 5 pt
  Re sampling of BSx-47
  med gray silty gravel
- BSx-48A (8:25) 5 pt, site of BSx-48
  med gray silty gravel
- BSx-31A (8:30) 5 pt @ BSx-31.
  med brn silty gravel. some FeO_x

Photos:

- N at BSx-7A & -8A (BSx-67 in B/G)
- W at BSx-67
- Close up on subsite of BSx-67
- E at BSx-71 & BSx-72

Analysis at KEL: pH Total As, Pb
C.O.C.: 4274

Sample locations see pg 19



Sample locations

7/13/04

Southend-5 LBE

6-4-04

"Rite in the Rain"

ALL-WEATHER

FIELD BOOK

No. 350

Continuation of Bastian Sink
Post Removal Sampling

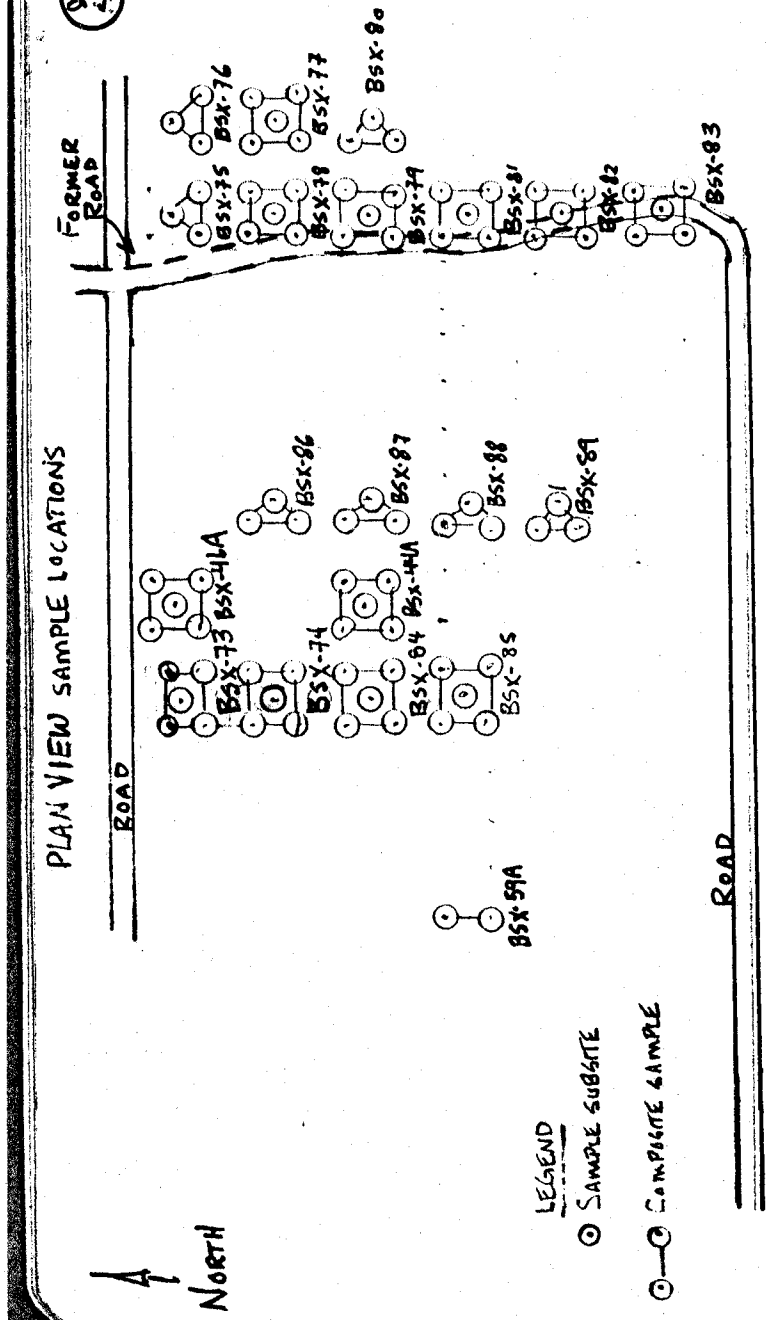
~~Sampling~~
Samples will be collected from east of the north-south road on the north half of the site. Sample locations are diagramedon page 27 of this logbook

Samples will be analyzed at KEL for the following:

* Total Pb and As EPA methods 3050B Prep and 6010B (ICP)
* Paste pH
* Cond of the paste pH solution

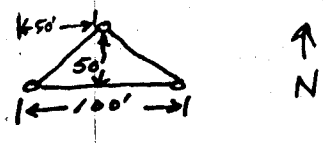
Sample Summary

BSX-75 3-point composite
BSX-76 3 point composite
BSX-77 5-point composite
BSX-78 5- point composite
BSX-79 5-point composite
BSX-80 3 point composite
BSX-81 5 point composite
BSX-82 5 point composite
BSX-83 5 point composite



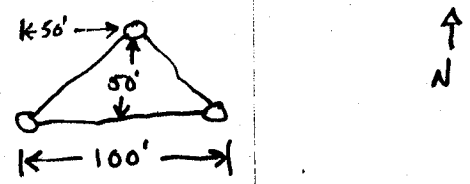
Sample ~~location~~ Descriptions

BSX-75 (12:01) 3-point composite
Sample subsites are located in a triangular configuration



All subsites are sandy gravel. Slighty discolored light orange at north-center and sw subsites. med brown at SE subsite. Photo#1 NW

BSX-76 (12:07) 3 point composite
Subsites arranged in a triangular configuration.



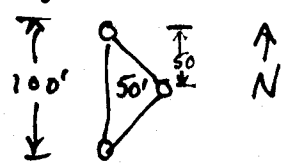
All subsites are silty gravelly sand. med brown. Photo#2 NE

BSX-77 (12:14) 5-point composite. Subsites arranged in a 100' square config. with a subsite at the corners of the square and one in the center. All subsites are silty sandy gravel. Med. brown. Photo#5E

BSX-78 (12:20) 5-point composite, subsites arranged in a 100' square configuration with a subsite located at the corners of the square and one in the center. All subsites are silty sandy gravel. med. brown. Photo #4 looking SW.

BSX-79 (12:34) 5-point composite. Subsites arranged in a 100' square configuration with a subsite located at the corners of the square and one in the center. All subsites silty sandy gravel. Med. brown. Photo #5 looking west.

BSX-80 (12:43) 3 point composite. Subsites arranged in a triangular configuration.



All subsites silty sandy gravel med brown. Photo #6 looking north

DIAN VIEW SAMPLE LOCATIONS

BSX-81 (12:50) 5-point composite. Subsites arranged in a 100' square configuration with a subsite located in the corners of the square and one in the center. All subsites except NW are med brown silty sandy gravel. NW subsite is med brown gravelly sandy silt. Yellow-orange "specs" are disseminated in sample material. Photo #7 looking SW. SE

BSX-82 (1305) 5-point composite. Subsites arranged in a 100' square configuration with a subsite located at the corners of the square and one in the center. SE subsite med to dk brown gravelly sandy silt. Yellow "specs" throughout. SW subsite dk brown silt with yellow "specs". Center subsite gravelly sandy silt. most strong yellow "specs" throughout sample. NW subsite med brown gravelly silty sand with weak "specs". NE subsites gravelly clay. minor yellow "specs" Photo #8 looking NW. (2 photos)

7-30-04 L. ELKIN

BSX-83 (13:18) 5-point composite. Subsite arranged in a 100' square configuration with a subsite located at the corners and one in the center. Subsites are mixture of dark brown silt and gravelly sandy silt. All but NW subsite has minor yellow "specs". Photo #9. Looking SE.

8-2-04 L. ELKIN

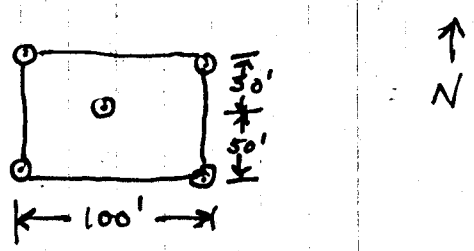
CONTINUATION OF BASTIAN SINK POST REMOVAL SAMPLING.

Refer to sample location map on Page 27 of this logbook.

Sample summary
- BSX-73 5-point composite
- BSX-74 5 point composite
- BSX-84 5 point composite
- BSX-85 5 point composite

8-2-04 L. ELKIN

BSX-73 (11:40) 5-point composite.



Center subsite: med brown sandy gravel. NE subsite: med to dark brown gravelly silty sand. NW subsite: Strong to mod yellow discoloration. gravelly silty sand. SW subsite: med brown gravelly sand SE subsite: med brown gravelly silty sand. Photo #1 Looking north at BSX-73

BSX-74 (11:55) 5-point composite Subsites arranged in a 100' square configuration with a subsite located at the corners of the square and one in the center. ~~NE subsite~~ ALL subsites: med brown gravelly silty sand. ~~Cent~~ Photo #2 Looking north at BSX-74

8-2-04 L.ELKIN

BSX-84 (12:07) 5-point composite subsites arranged in a 100' square configuration with a subsite located at the corners of the square and one in the center. All subsites are med brown, gravelly silty sand. NE subsite has minor yellow discoloration. Photo #3 Looking north at area of BSX-84

BSX-85 (12:25) 5-point composite subsites arranged in a 100' square configuration with a subsite located in the corners of the square and one in the center. All subsites are med brown, gravelly silty sand. Photo #4 Looking north at area of BSX-85

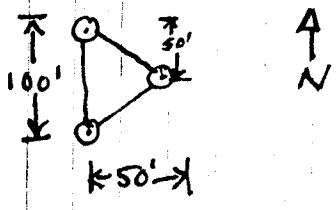
8-5-04 L.ELKIN

Continuation of Bastian Sink Post Removal Sampling

Refer to Page 27 of this logbook for sample locations.

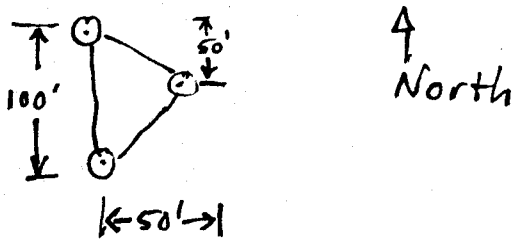
Sample Descriptions

- BSX-86 (07:47) 3-point composite arranged in a triangular configuration



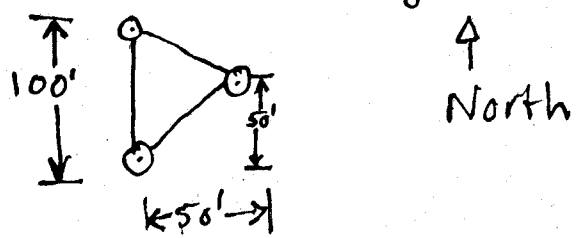
East Center subsite: med brown sand. North subsite sandy gravel. South subsite silty sand. very compacted. Photo #1 Looking north at area of BSX-86

BSX-87 (07:54) 3 point composite arranged in a triangular configuration



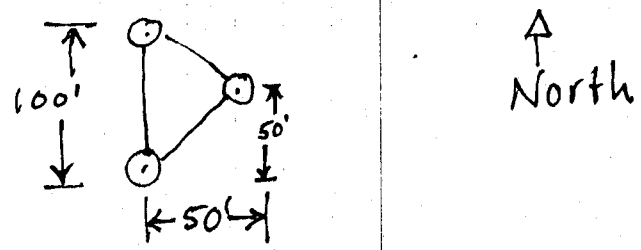
North subsite is med brown gravelly sand. Center subsite is med brown sandy silt. Very compacted. South subsite, med brown gravelly silty sand. Photo #2 Looking north at area of BSX-87.

BSX-88 (08:10) 3-point composite arranged in a triangular config.



Center subsite: med brown silty sand. Very compacted. North subsite: gravelly sandy. South subsite med brown silty sand photo #3 Looking south at area of BSX-89

BSX-89 (08:18) 3-point composite sample arranged in a triangular configuration



North subsite: med to dark brown sandy silt. Minor yellow "specs". East-center subsite: med brown silty sand. Very compacted. South subsite: med brown silty sand. Photo #4 Looking south at area of BSX-89

8-9-04 L. ELKIN

Continuation of Bastian Sink Past Removal sampling

-REFER TO PAGE 27 OF THIS LOGBOOK FOR SAMPLE LOCATIONS

*BSX-59A (08:19) (repeat of BSX-59 after additional soil was removed. Two point composite, Subsite arranged 100' apart on a north-south line. Both subsites are clayey sandy gravel. Photo #1 Looking N at area of BSX-59A

* BSX-44A (08:44) Repeat of BSX-44 after additional removal 5-point composite sample, subsites are arrange in a 100' square configuration with a subsite located at the corners of the square and one in the center. All subsite med to light brown gravelly sand. Photo #2 Looking north at area of BSX-44A.

* BSX-46A (09:03) Repeat of BSX-46. 5-point composite with subsites arranged in a 100' foot square configuration with a subsite located at the corners of the square and one in the center. All subsites are med to light brown gravelly sand. Photo #3 Looking north at area of BSX-46A.

Bastian -
Sink

Peninsular

FIELD BOOK

FB 802

9/8/04

Bastian Sink

Post Removal - Continue:
Removal of all stock piles of soil on the North section of the site is complete. additional Removal was conducted in sites of samples that tested the Action level.

BSX-71A (12:45) 4 pt linear comp.
med grey silt. lgt grey gravel in East subsite.

BSX-81A (13:00) 5 pt. resample BSX-81
med brn-grey silt. East sub sites are silty gravel.

BSX-86A (13:05) 3pt.
lgt-med brn silty sand

BSX-87A (13:10) 3pt
lgt-med brn silty sand

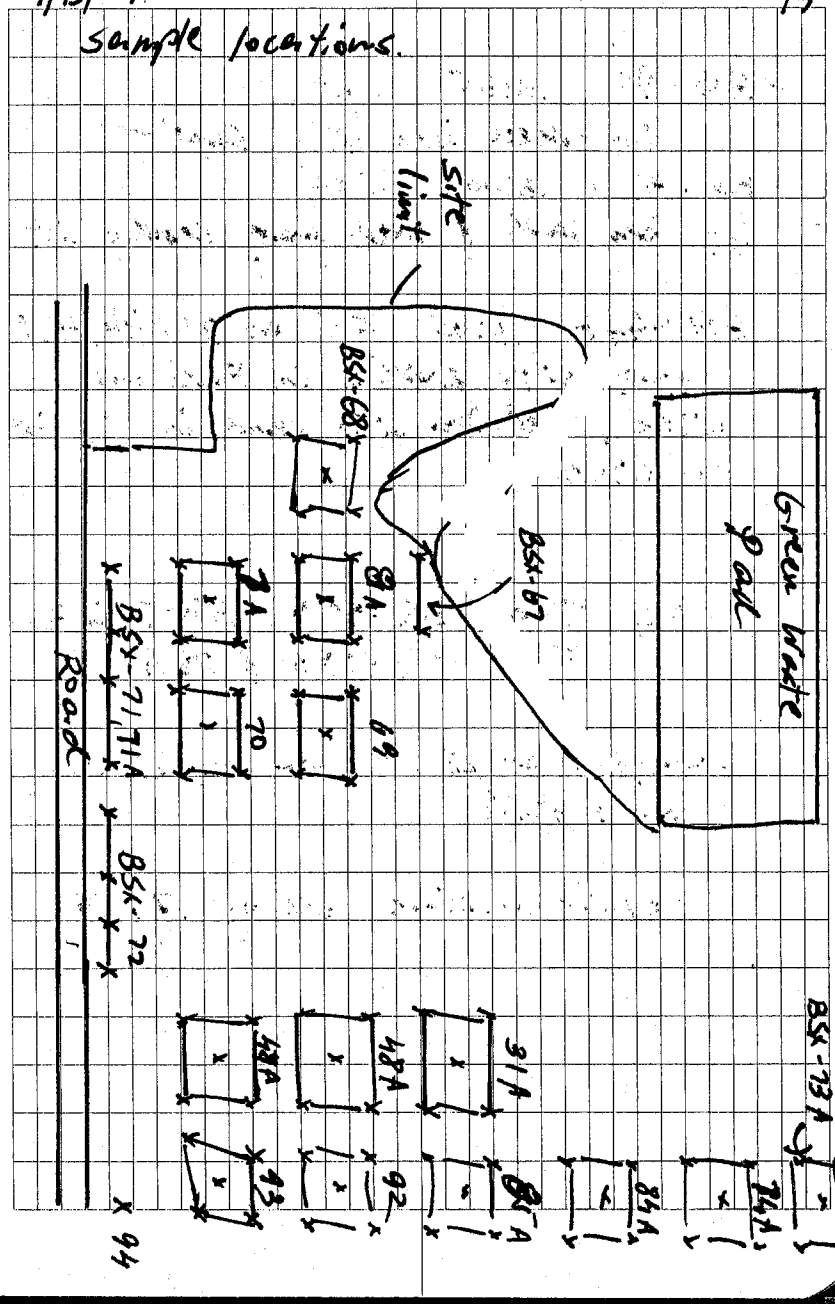
BSX-88A (13:20) 3pt
med brn silty sand, dark brn silt in South subsite.

BSX-89A (13:25) 3 pt
dark brn silt.

(continue pg 20)

7/13/04

sample locations.



- BSX-90 (13:35) 2 pt
  lgt-med brn silty sand
- BSX-91 (13:40) 5 pt
  lgt brn sand & med gray sandy silt

- BSX-44B (13:45) 5 pt at BSX-44, 44A
  gray silty gravel in East sub sites, med brn silty sand in C, West sub sites.

Photos: - S at BSX-90, 91. BSX-52 in B/G
- E at BSX-88A & 88A

Analysis at KEL: Total As, Pb. ptt
C.O.C: 4278

Sample locations see pg 13, 19

Bastian Sink

Post Removal - Continue:

- BSX-73A (10:45) 5 pt (site of BSX-73)
  gray gravely silt.
- BSX-74A (10:50) 5 pt (@ BSX-74)
  gray gravely silt.
- BSX-84A (10:55) 5 pt (@ BSX-84)
  gray gravely silt.
- BSX-85A (11:00) 5 pt (@ BSX-85)
  gray gravely silt.

- BSX-92 (11:10) 5 pt
  gray sandy silt

- BSX-93 (11:15) 5 pt
  dk gray-brn sandy silt
- BSX-94 (11:20) 1 pt grab
  dk gray-brn sandy silt

Photos: - Looking north at sample BSX-73, 74, 84, 85
- close up on subsite of BSX-84

Sample locations - see pg 19

9/9/04

Additional check sample.
BSES-3 (2pt) (11:45)
heavy FeO_x in area of BSX-31
this sample collected from most heavy discoloration. some CuO_x

Photos: - w at site & sample
- close up.

Analysis @ KEL: pH, Total As, Pb
(D.C. 4278. (+ Lab form for BSES-3)

Bastion Sink

Post Removal.
Additional Removal was conducted in areas of Previous Samples that failed the Action level (As > 50 / Pb > 500)

- BSX-31C (11:00) 5 pt composite
  med brn gravely silt
  NW subsite is sandy gravel, heavy FeO_x

- BSX-73B (11:05) 5 pt
  gray-brn silty gravel. blk silt in NW subsites.

- BSX-74B (11:10) 5 pt
  dark brn silt & lgt brn sandy gravel

- BSX-84B (11:30) 5 pt
  med brn silt

- BSX-85B (11:40) 5 pt
  lgt to med brn gravely silty sand
  CuO_x, FeO_y in SW subsite.

10/27/04

- BSX-81B (5 pt) (11:15)
  Additional removal conducted in area of samples BSX-81, 82, 83. all discolored soil was removed (approx 1-2')
  sample is med brn silty gravel.

- BSX-82B (11:20) 3 pt
  This sample was collected at center and East subsites of BSX-82A
  lgt gray silty gravel, dark silt in C subsite.

- BSX-83B (11:25) 3 pt
  Center & East subsites of BSX-83A
  lgt gray silty gravel, dark brn silt in Center subsite.

- BSX-823W (11:27) 4 pt linear
  this sample collected at West subsites of samples BSX-82, 83.
  dark silt, minor yellowish discolor.

- BSX-88B (11:45) 3 pt
  med brn silty sand.

BSX-89B (11:50) 3 pt
dark silt & lgt brn silty sand
(dark silt in 0-1")

- BSX-92A (11:55) 5 pt
  med brn silt.

Additional check samples collected:

- BSX-31NW (11:07)
  NW subsite of sample BSX-31C
  heavy FeOx sandy gravel

- BSX-73NW (11:07)
  NW subsite of BSX-73B
  dark blk silt.

- BSX-85 SW (11:42)
  SW subsite of BSX-85B
  CuOx & FeOx discoloration.

- BSX-84R (11:35)
  small spot w/ heavy FeOx discolor in area of BSX-84B.
  soil was completly removed. sample taken.

10/27/04

Photos: - N at BSX-73B - 85B
- N at BSX-81B thru 83B
- N at BSX-89B - 88B
- close up at BSX-31 NW
- close up at BSX-85 SW

Analysis at KEL: pH, Total As, Pb
C.O.C: 4981 + lab forms.

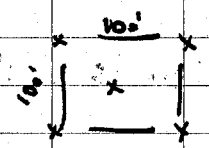
Sample locations: all samples collected at sites of previously sampled sites

11/20/06

Bastian Sink

Post Removal

Removal resumes in the Bastian Sink site. Post removal samples collected as 5 pt composite @ 0-3"

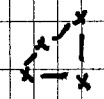


some modifications from this sampling pattern are made to accomodate the removal progress.

- BSX-95 (15:00) 4 pt linear (sample is on south edge of site where soil were previously removed and forming over the area continue)
  silty-sandy gravel
- BSX-96 (15:05) 5 pt
  wet grey sandy silt
- BSX-97 (15:10) ~~m~~ 5 pt
  wet grey sandy silt
- BSX-98 (15:15) 5 pt
  wet grey silt.

- Sampling continue 11/22/06
  these samples collected as re-samples of areas previously sampled and addit. removal conducted.

- BSX-31D (11:20) 4 pt.
  re sample of BSX-31C w/out NW subsite.
  silty gravel.



- BSX-85C (11:25) 5 pt
  silty gravel.
- BSX-89C (11:30) ~~3~~ 3 pt
  lgt silty sand
- BSX-89B (11:35) 5 pt
  wet grey sandy silt

Analysis @ KEL: pH, Total As, Pb
C.O.C: 4418

Sample locations see pg. 37
(for re-samples see previous sampling)

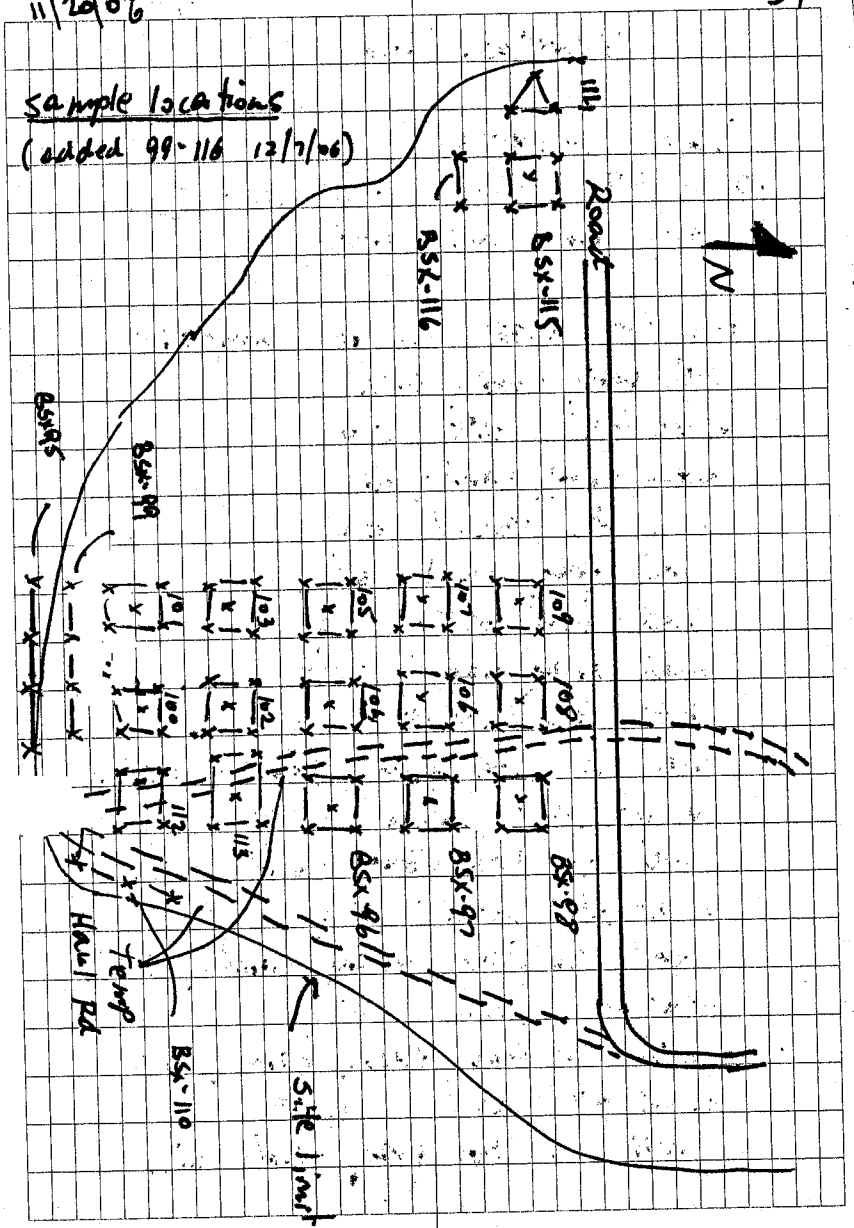
Photos:

- W @ BSX-95
- N @ BSX-96 - BSX-98

11/20/06

sample locations

(added 99-116 12/7/06)



12/7/06

Bestian Sink

Post Removal

- BSX-99 (13:30) 4 pt linear
  gray sandy-silty gravel

- BSX-100 (13:35) 5 pt composite
  med gray sandy silt
- BSX-101 (13:40) 5 pt
  med gray sandy silt
- BSX-102 (13:45) 5 pt
  med gray sandy silt
- BSX-103 (13:50) 5 pt
  med gray sandy silt
- BSX-104 (13:55) 5 pt
  med to dark gray sandy silt.
- BSX-105 (14:00) 5 pt
  med to dark gray sandy silt
- BSX-106 (14:05) 5 pt
  med to dark gray sandy silt
- BSX-107 (14:10) 5 pt
  med to dark gray sandy silt
- BSX-108 (14:15) 5 pt
  med to dark gray sandy silt

continue:

- BSX-109 (14:20) 5 pt
  med to dark gray sandy silt.

- BSX-110 (14:30) 3 pt linear
  sample in the East side of site
  on the slope
  gray sandy gravel.

- BSX-111 (15:00) 2 pt
  sandy silty gravel

- BSX-112 (15:05) 5 pt
  gray sandy silt
- BSX-113 (15:10) 5 pt
  gray sandy silt

- BSX-114 (~~5 pt~~) (15:30) ~~5~~ 3 pt
  lgt to med gray silty sand.

- BSX-115 (15:35) 5 pt
  med gray silty sand

- BSX-116 (15:40)
  med gray silty sand

continue:

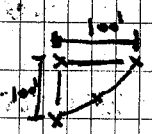
Photos: - N @ 100-101 (102-103 in B/6)
- N @ 106-107 (108-109 in B/6)
- W @ 99
- NE @ 110
- S @ 112-113 (112 in B/6)
- S @ 114
- SE @ 115
- E @ 116

Analysis @ KEL: pH Total As, Pb
C.o.C: 4419-4420

Sample locations: see pg 37

Bestian Sink

Post Removal.
Removal continues at the Bestian Sink site. Additional removal conducted per Post Removal samples analysis



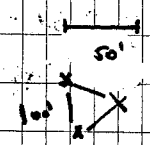
- BSX-117 (15:00) 4 pt composite
med lgt gray sandy gravel silt

- BSX-118 (15:05) 2 pt composite
med gray silt, and lgt gray sandy gravel

- BSX-119 (15:10) 5 pt
med gray silt

-

- BSX-120 (15:15) 2 pt
med gray silt



- BSX-121 (15:20) 3 pt composite
lgt to dark silty gravel & silt on west sub site.

- BSX-122 (15:25) 6 pt composite
med gray silt

- BSX-123 (15:30) 5 pt
  med grey silt

- BSX-124 (15:35) 5 pt
  med grey silt

- BSX-125 (15:40) 5 pt
  med grey silt

- BSX-109A (15:50) 5 pt @ site of BSX-109
  med grey silt

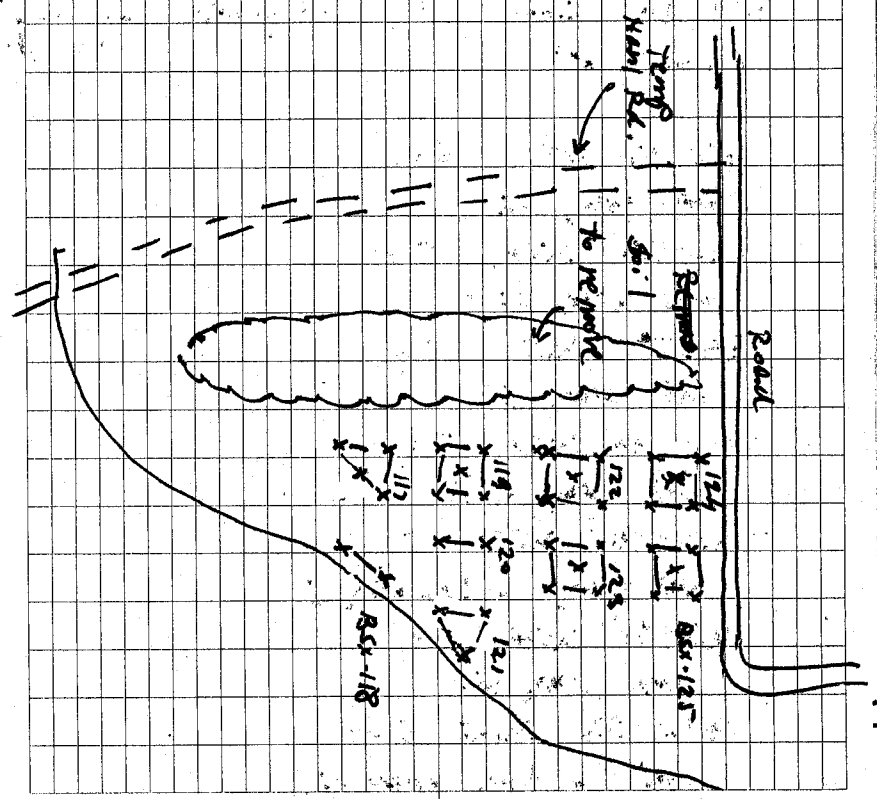
- BSX-115A (15:55) 5 pt @ site of BSX-115
  lgt to med sandy silt

- BSX-116A (16:00) 2 pt @ site of BSX-116
  lgt to med grey sandy silt

Photos:
- West at site of BSX-117 (Pile of soil to remove in 8/6)
- NE at BSX-118
- N at BSX-120
- NW at BSX-122 - 125
- SE at BSX-115A, 116A

Analysis at KEL: Total As, Pb. pH
C.O.C.: 4422

Sample locations: <see pg 37 for locations of Re: samples>



12/20/06

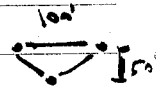
Bastian Sink

Post Removal.

- Additional Removal Conducted in areas of previous Samples which failed the Action level of Pb < 500 ppm

- Samples

BSX-126 (14:00) 3 pt composite



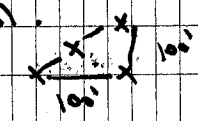
blk silt, wet.

- BSX-127 (14:05) 5 pt
  med gray silt
- BSX-128 (14:10) 5 pt
  med gray silt
- BSX-129 (14:15) 5 pt
  med gray silt
- BSX-130 (14:20) 5 pt
  med gray silt
- BSX-131 (14:25) 5 pt
  med gray to drk gray silt
- BSX-132 (14:30) 5 pt
  med gray silt
- BSX-133 (14:35) 5 pt
  med to drk gray silt

Continue:

- BSX-134 (5 pt) (14:40)
  med to drk gray silt
- BSX-135 (14:45) (5 pt)
  med gray silt
- BSX-136 14:50) 5 pt
  med to drk gray silt
- BSX-31E (15:00) 4 pt composite @ site of BSX-31.

lgt to med brn gray sandy gravel



- BSX-85D (15:05) 5 pt @ BSX-85
  lgt brn gray silty sand
- BSX-108A (15:20) 5 pt @ BSX-108
  drk gray silt.

Photos:
- NW @ BSX-127, 128, 129 (under snow)
- N BSX-131, 135 (134 on Right under snow)
- N BSX-134, 136
- N BSX-135

Analysis @ KEL: Total As, Pb
c.o.c: 4493
Sample locations: see pg 47

12/29/06

Bastion Sink

Post Removal - continue:

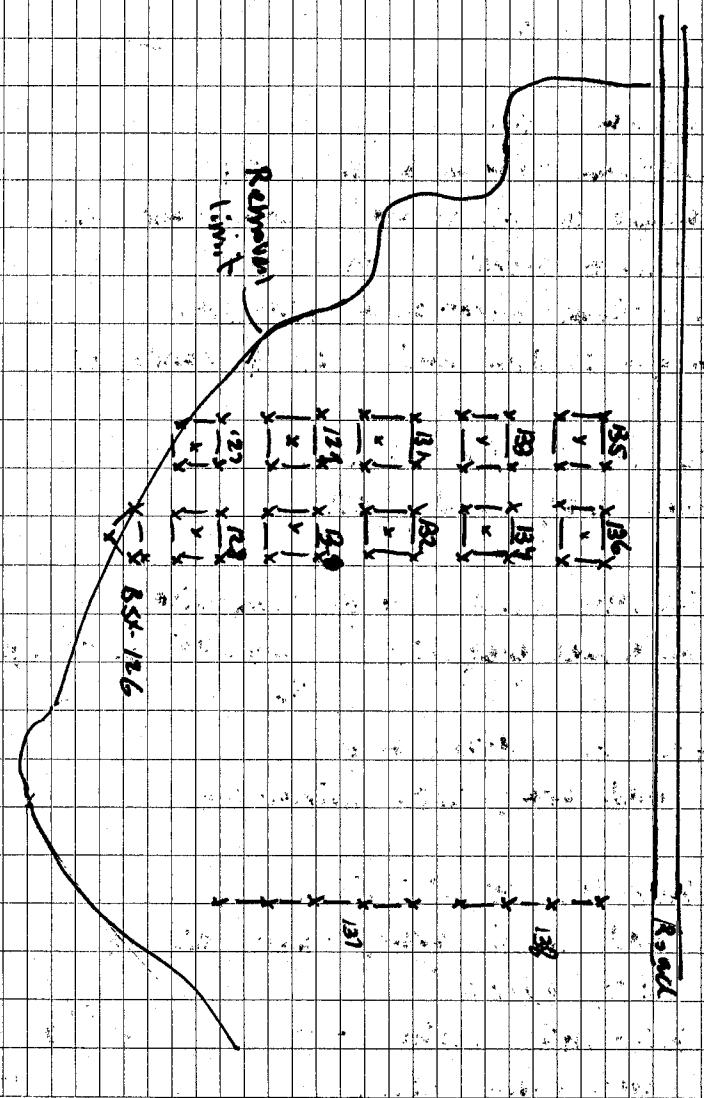
- BSX-137 (13:00) 5 pt linear composite
  med gray silt

- BSX-138 (13:05) 4 pt linear
  med gray silt

Photos: - ~~N~~ S @ BSX-137
N @ BSX-138

Analysis @ MEL: Total As, Pb, ptt,
C.O.C: 4484

Sample locations:



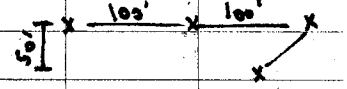
Bastian Sink

Post Removal

- BSX-115B (14:00) 5 pt
  Additional Removal @ BSX 115A.
  Sample is lgt to med grey sandy silt
- BSX-116 B (14:05) 2 pt
  Additional Removal @ BSX-116A.
  Sample is dark-med silt & sandy silt.

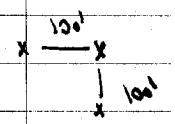
- BSX-139 (14:10) 3 pt.
  med gray sandy silt.

- BSX-140 (14:25) 4 pt composite
  dark to med grey silt



- BSX-141 (14:30) 2 pt
  med gray silt. minor FeOx

- BSX-142 (14:35) 5 pt
  med to lgt gray sandy silt & silty gravel
- BSX-143 (14:40) 3 pt
  med gray silt.

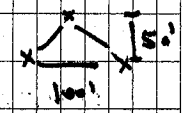


Bastian Sink - continue:

- BSX-144 (14:45) 5 pt
  med gray sandy silt & sandy gravel

- BSX-145 (14:50) 5 pt
  lgt to med gray ~~silt~~ sandy silt

- BSX-146 (14:55) 3 pt
  lgt gray silty gravel



BSX 147 (15:00) 3pt
med gray silty gravel

BSX-148 (15:30) 3pt composite
dark gray sandy gravel & clay

BSX 149 (15:35) 2 pt
lgt gray sandy gravel

- BSX-150 (15:40) 1 pt - grab
  dark clay

- BSX-151 (15:45) ~~2~~ 3 pt
  med - dark grey silt

50

~~1/31~~ 1/3/07

continue:

Photos:

- SW @ site of BSX-115 B, 116 B
- W @ site of BSX-130
- N @ site of BSX-142, BSX-144-147 in B/G
- NW @ BSX-141, 143

Analysis @ KEL: pH, Total As, Pb
C.O.C 4425

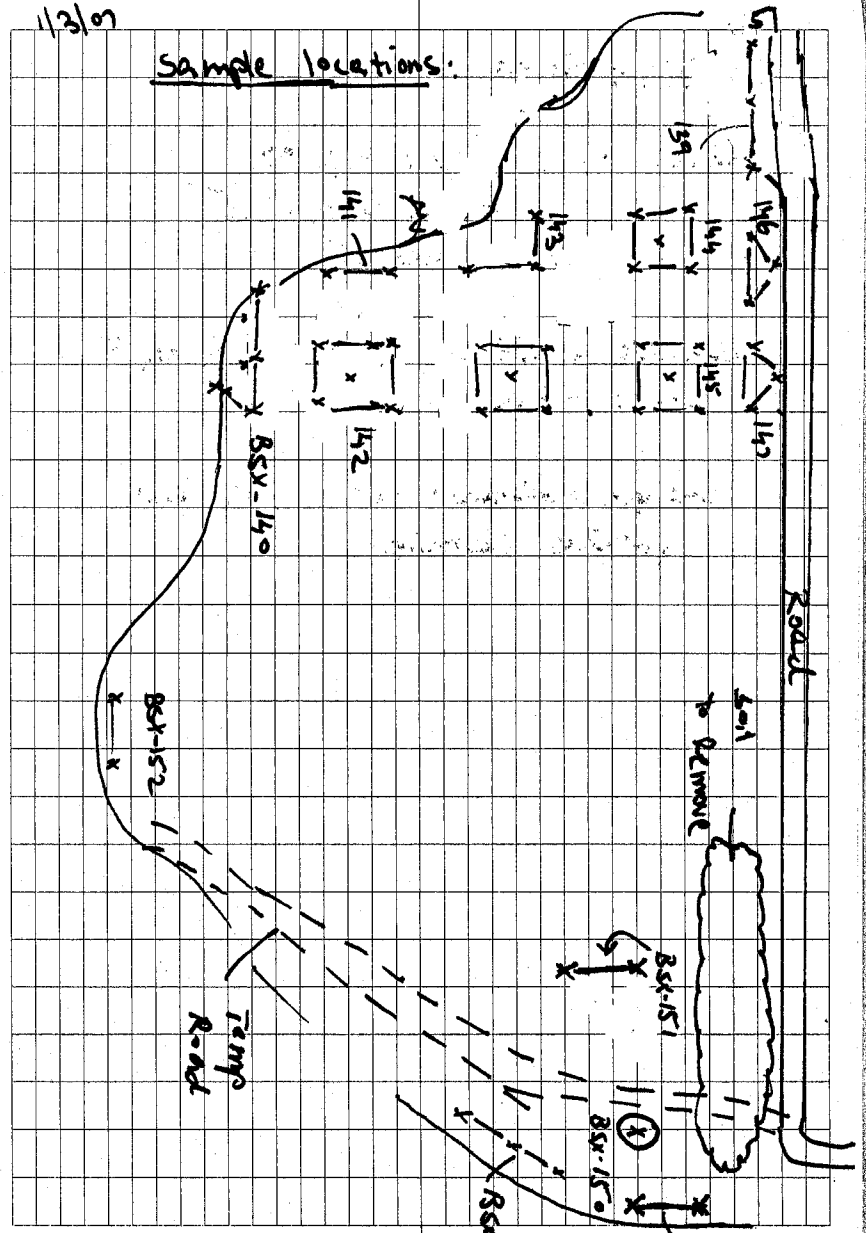
1/9/07

Post Removal - Continue:

- Additional Removal conducted in areas of samples > 500 pb / 50 As
- BSX-101A (14:35) 5 pt
  med gray gravely silt
- BSX-127A (14:40)
  med to dark gray silt
- BSX-128A (14:45) med gray gravel & silt
- BSX-129A (14:50) med gray silt.
- BSX-152 (15:30) 2pt
  dark gray gravely silt. (sample in wheel)

1/3/07

Sample locations:



11/7/07 - continue:

Photos: - E @ BSX-101A, 128A
N @ BSX-127A, 129A
E @ BSX-152

Analysis @ KEC: Total As, Pb, pH, EC
C.O.C: 4496

Sample locations: see pg 51 and previous sampling.

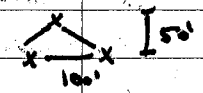
Bastian Sink

Post Removal.

Additional Removal conducted in areas of samples BSX-105, 108A, 121, 148, 151, 133, 135, 136.

- BSX-121A (3 pt) (12:00) 100' 100'
lgt gray gravel & med gray silt.
(site of BSX-121)
- BSX-148A (12:05) 3pt, linear @ BSX-148
med gray silt.
- BSX-151A (12:20) 2 pt 100'
lgt to med med gray silt sandy silt
- BSX-105A (12:25) 5 pt at site of BSX-105
med gray gravelly silt
- BSX-108B (12:30) 5 pt (site of BSX-108A)
med to drk silt.
- BSX-133A (13:10) 5 pt
med gray sandy silt.
- BSX-135A (13:15) 5 pt
med gray sandy silt lgt sandy gravel in NW sub site

- BSX-136A (13:20) 5 pt
  wet to dark sandy silt
- BSX-153 (13:25) 3 pt
  lgt grey sandy gravel

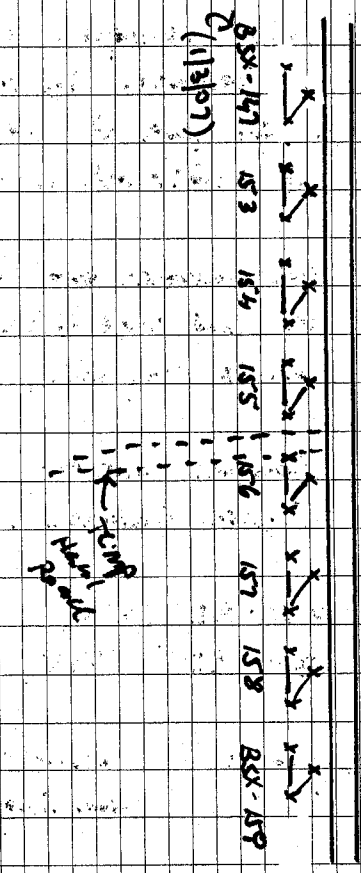


- BSX-154 (13:30) 3pt
  lgt sandy, silt
- BSX-155 (13:35) 3pt
  lgt to wet sandy silt
- BSX-156 (13:40) 3pt
  wet to dark sandy silt
- BSX-157 (13:45) 3pt
  wet to dark sandy silt
- BSX-158 (13:50) 3pt
  wet sandy silt
- BSX-159 (13:55) 3 pt
  wet grey sandy silt

Photos: - NE @ BSX-121A, 148 in B16
- SW @ BSX-148A
- S @ BSX-133A, B5A
- SE @ BSX-136A
- E @ BSX-153-155 (156-159 in far B16)

Analysis @ KEL: Total As, Pb, pH EC
C.O.C. & Lab sheet.

Analysis
Sample locations:
- see previous sampling for re-samples.



1/10/97

Bastion Sink

Two confirmation samples collected at the South edge of the site outside of the removal area.
these samples collected to confirm that no removal is required in this area.
<this part of the site boundary was not confirmed in the grid sampling.>

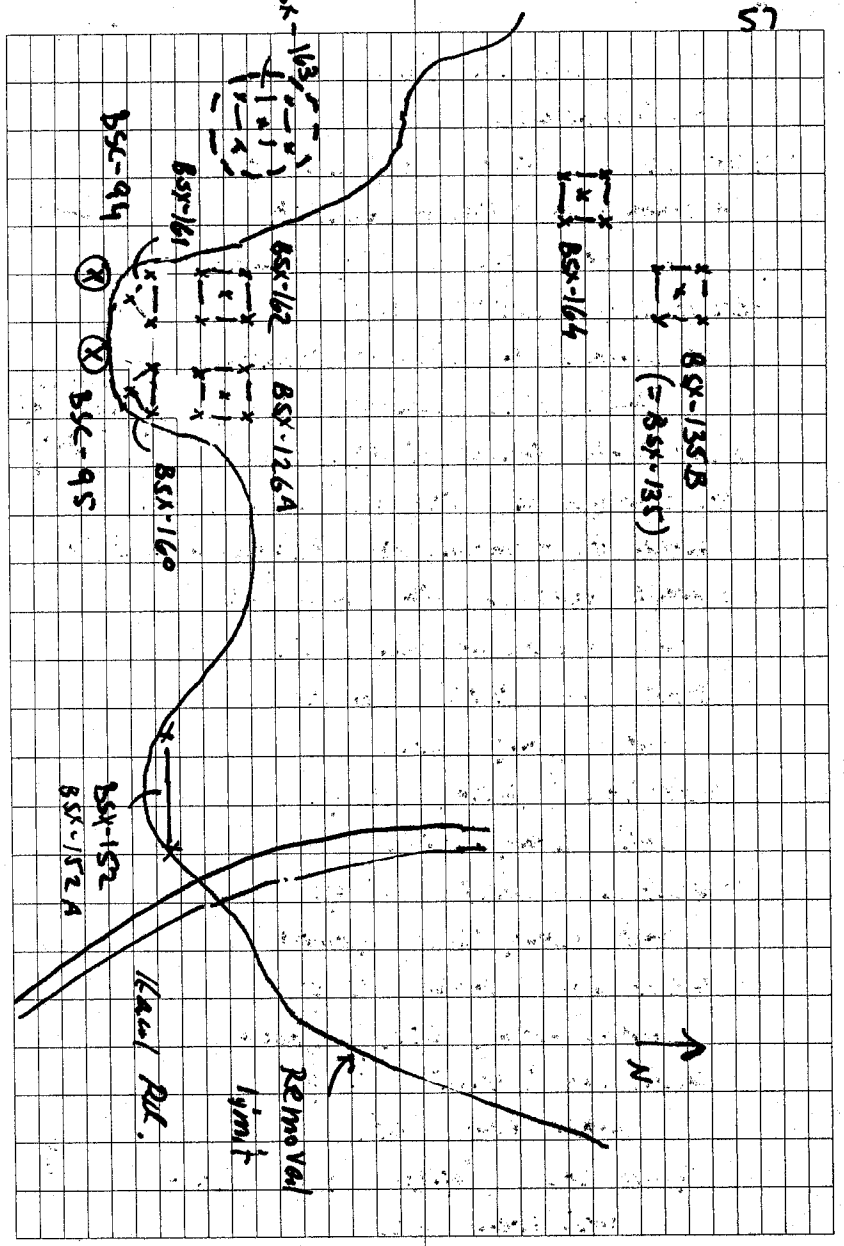
the samples are collected in an area of good vegetation growth (not cultivated)
Soil is top soil, dark sandy silt.

Samples collected @ 0-6" bellow surface (grab samples).

- BSC-94 (11:30) (35,530, 32600 KTM)
- BSC-95 (11:35) (35700, 32600 KTM)

Photo: - Looking west at area of sampling.

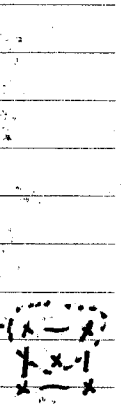
Analysis @ KEL : Total As, Pb. pH, EC
C.O.C : Lab sheet



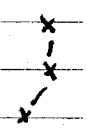
Bastian Sink

Post Removal.

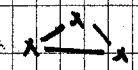
- BSX-99A (12:50) 4 pt linear
  re sample @ site of BSX-99
  med gray sandy silty gravel
- BSX-111A (12:55) 2 pt
  re sample at site of BSX-111
  sandy silty gravel.
- BSX-126A (13:00) 5 pt.
  re sample at site of BSX-126.
  (area of removal was expanded after sample BSX-126 was collected)
  med to dark gry sandy silt



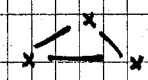
- BSX-160 (13:05) 3 pt
  med gray silt
- BSX-161 (13:10) 3 pt
  med gray silt
- BSX-162 (13:15) 5 pt
  med gray silty gravel
- BSX-163 (16:20) 5 pt
  med gray silty gravel
- BSX-164 (13:25) 5 pt
  med gray silt
- BSX-165 (~~13:30~~) 3 pt (13:40)
  med gray silt.



- BSX-166 (13:45) 3 pt
  med gray silt



- BSX-167 (13:50) 3pt
  med gray silt



- BSX-168 (13:55) 4 pt ~~linear~~
  lgt to med gray sandy gravel

- BSX-169 (14:00) 4 pt linear
  lgt to med gray sandy gravel
- BSX-152A (14:10) 2 pt
  med to dark gray silt
- BSX-135B (14:30) 5 pt
  re sample of BSX-135A. med gray silt.

<u>Photos:</u>

- SW @ BSX-126A, 162
- E @ BSX-99A, 111A
- W @ BSX-166, 167
- W @ BSX-169
- Removal @ BSX-135A
  (Before BSX-135B collected)

1/16/07

Analysis @ KEL for Total As, Pb;
pH & EC
C.o.C: 4427

1/24/07
Post Removal - continue.
Additional removal & sampling at site of BSX-164.

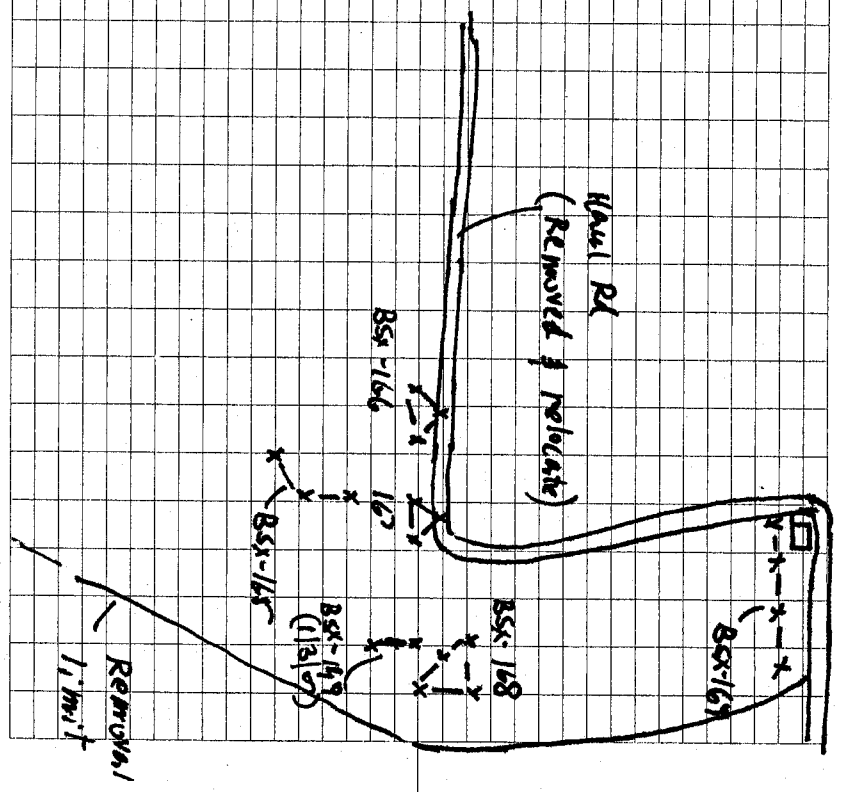
BSX-164A (15:30) 5 pt composite.
left to red grey sandy silt.

Analysis @ KEL: pH, EC, Total As, Pb
C.o.C: 4428

Sample locations: site & BSX-164 -
see pg 57.

1/16/07

Sample locations



Appendix B

Chain-of-Custody Forms

KENNECOTT UTAH COPPER CORPORATION — CHAIN OF CUSTODY — ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME: BASTIAN SINK (KENNECOTT LAND) | PO#: | COC#: 4251

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS: Soil	Water	Other	FIELD PARAMETERS: pH	Cond.	Temp.	DTW(ft)		ANALYSIS REQUESTED
AL21637	BSX-1	8-25-03	10:55	1								TOTAL Pb AND As
AL21638	BSX-2		11:01	1								
AL21639	BSX-3		11:04	1								Due Tuesday 8/26/03
AL21640	BSX-4		11:45	1								
AL21641	BSX-5		11:58	1								
AL21642	BSX-6		11:52	1								
AL21643	BSX-7		12:36	1								
AL21644	BSX-8		12:42	1								
AL21645	BSX-9		12:46	1								
AL21646	BSPC-4		12:22	1								
AL21647	BSPC-5		12:52	1								

SAMPLER'S SIGNATURE: Larry Elkin — LAB SUBMITTED TO: KEL

REPORT RESULTS TO: LARRY — PHONE #: 7869 — FAX #:

SURRENDERED BY: Larry Elkin — RECEIVED BY: Jam Hardin — DATE/TIME: 8-25-03 ( )

SURRENDERED BY: — RECEIVED BY: — DATE/TIME: 8/25/03 (14:42)

SURRENDERED BY: — RECEIVED BY: — DATE/TIME:

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES — YELLOW COPY: EEPG — PINK COPY: SAMPLER

KENNECOTT UTAH COPPER CORPORATION CHAIN OF CUSTODY ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME: BASTIAN SINK (KENNECOTT LAND) | PO#: | COC#: 4248

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
	BSPC-6	8-27-03	9:40	1								
	BSPC-7	↓	9:45	1								Total Pb and As
	BSPC-8		9:58	1								(don't need pH)

SAMPLER'S SIGNATURE: Larry Elkin LAB SUBMITTED TO: KEL

REPORT RESULTS TO: LARRY PHONE #: 7869 FAX #:

SURRENDERED BY: Larry Elkin RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

Log-in Group No. 04 ~~0827~~

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AL 22772	BSX - 10	9/8/03	10:55	1							As, Pb 3 pH
2	773	BSX - 11		11:03	1							(Total)
3	774	BSX - 12		11:09	1							
4	775	BSX - 13		11:14	1							
5	776	BSX - 14		11:18	1							
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: Elid Arden **Telephone #** _____ **Fax #** _____
Report Results to : Elid Arden **Telephone #** _____ **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: Adam Hutchinson Date/Time: 9/9/03
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

KENNECOTT UTAH COPPER CORPORATION — CHAIN OF CUSTODY — ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME: Bastian Sink 01291011 | PO#: | COC#: 4145

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM01858	BSX-15	1/28/04	12:05	1								Total As, Pb
1859	BSX-16	"	12:10	1								pH
												Rush

SAMPLER'S SIGNATURE: Elol Arlon LAB SUBMITTED TO:

REPORT RESULTS TO: Elud PHONE #: FAX #:

SURRENDERED BY: Elol Arlon RECEIVED BY: J Hardman DATE/TIME 1/28/04 8:30

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

KENNECOTT UTAH COPPER CORPORATION CHAIN OF CUSTODY ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME	PO#	COC#
Bastian Sink	02121001	4147

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM029102	BSX-17	2-11-04	13:10	1								Total As, Pb
103	BSX-18	-"-	13:20	1								pH, EC
104	BSX-19	-"-	13:40	1								
105	BSX-20	-"-	14:05	1								
												Rush
												EA-300013-TML

SAMPLER'S SIGNATURE: Eld Ardon LAB SUBMITTED TO:

REPORT RESULTS TO: Ehud Ardon PHONE #: FAX #

SURRENDERED BY: Eld Ardon RECEIVED BY: J B Hardman DATE/TIME 2/12/04 09:50

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME	PO#	COC#
Bastian Sink	022609 54	4150

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM03921	BSX-15A	2-26-04	12:10	1	3	EA	-300013-TML					Total As, Pb
922	BSX-17A	-11-	12:00	1								pH, EC
923	EPA-39	2-26-04	11:50	1	EA		-310031-TML					Total As, Pb, S
												pH, EC
												Soluble S

SAMPLER'S SIGNATURE: Ethel Arthur LAB SUBMITTED TO:

REPORT RESULTS TO: Ethel PHONE #: 253 2081 FAX #

SURRENDERED BY: Ethel Arthur RECEIVED BY: J Bardman DATE/TIME 2/26/04 09:48

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

KENNECOTT UTAH COPPER CORPORATION CHAIN OF CUSTODY ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME	Bastian Sink	PO# 02130807	COC# 4144

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM03055	BSX-21	2-12-04	12:50	1								As, Pb Totals
56	BSX-22	"	13:05	1								pH, EC
57	BSX-23	"	13:15	1								
												300013

SAMPLER'S SIGNATURE: Ehd Arden LAB SUBMITTED TO:

REPORT RESULTS TO: Ehud PHONE #: FAX #

SURRENDERED BY: Ehd Arden RECEIVED BY: [signature] DATE/TIME 2/12/04 4:30pm

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

051 108

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME	Bastian Sink	PO#	COC# 4152

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM05107	BSX-24	3-9-04	12:00	1								As, Pb - Totals
108	BSX-25	-"-	12:30	1								pH, EC

SAMPLER'S SIGNATURE: Eld Arden LAB SUBMITTED TO:

REPORT RESULTS TO: EHWD PHONE #: 253 2081 FAX #

SURRENDERED BY: Eld Arden RECEIVED BY: Hutchinson DATE/TIME 3/12/04 4:00PM

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

05196 36

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME: Bastian Sink | PO#: | COC#: 4153

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM05523	BSX-26	3/18/04	12:30	1								Total As, Pb
524	BSX-27	-"-	12:40	1								Paste pH, EC
525	BSX-28	-"-	12:45	1								
526	BSX-29	-"-	12:50	1								
527	BSX-30	-"-	12:55	1								
528	BSX-31	-"-	13:00	1								
529	BSX-32	-"-	13:10	1								

SAMPLER'S SIGNATURE: Ed Arden LAB SUBMITTED TO:

REPORT RESULTS TO: EHWD PHONE #: 253-2081 FAX #:

SURRENDERED BY: Ed Arden RECEIVED BY: JB Hardman DATE/TIME 3/18/04 03:45

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

KENNECOTT UTAH COPPER CORPORATION CHAIN OF CUSTODY ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME	PO#	COC#
Bastian Sink		4155

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM08598	BSX-033	4/23/04	14:55	1								As, Pb, Total
599	BSX-034	↓	15:10	1								pH
				~~1~~								
600 ~~599~~	BSCS-14		15:25	1								
601 ~~600~~	BSCS-15		15:45	1								

SAMPLER'S SIGNATURE: Eld Arden LAB SUBMITTED TO:

REPORT RESULTS TO: Ehud Ardon PHONE #: FAX #

SURRENDERED BY: Eld Arden RECEIVED BY: Hutchenson DATE/TIME 4/26/04 8:30 AM

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME	PO#	COC#
Bestian Sink		4158

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM09240	BSX-35	5/6/04	1:30	1								As Pb - Totals
241	BSX-36	↓	1:40	1								pH EC
242	BSX-37		1:50	1								
243	BSX-38		2:00	1								
244	BSX-39		2:10	1								
245	BSX-40		2:20	1								

SAMPLER'S SIGNATURE: Ell Ardon LAB SUBMITTED TO:

REPORT RESULTS TO: Ellen Ardon PHONE #: 253 2081 FAX #

SURRENDERED BY: Ell Ardon RECEIVED BY: Xiaoli DATE/TIME 5.6.04 / 2:50

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

Log-in Group No. _____

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1		BSX-41	6-21-04	11:21	1							- TOTAL Pb, As
2		BSX-42		11:31	1							3050/6010
3		BSX-43		11:42	1							
4		BSX-44		11:52	1							- PASTE pH
5		BSX-45		12:04	1							- COND OF PASTE PH SOLUTION
6		BSX-46		12:40	1							
7		BSX-47		12:54	1							
8		BSX-48		13:04	1							
9												
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: LARRY ELKIN **Telephone #** 7869 **Fax #** _____
Report Results to : LARRY ELKIN **Telephone #** _____ **Fax #** _____

Sampler: Larry Elkin **Sampling Site:** BASTIAN SINK **Sampling Date:** 6-21-04 **Time:** _____
Surrendered By: Larry Elkin Received By: [illegible] Date/Time: [illegible]
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____
Comments / Special Instructions: _____

Log-in Group No. 0 50821

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM13182	BSX-49	6-24-04	15:21	1							TOTAL Pb, As
2	83	BSX-50	↓	14:47	1							3050/6010
3	84	BSX-51	↓	14:56	1							
4												- paste pH
5												- cond. of paste pH solution
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												LE-300013-TML

Sample Submitted by: Larry Elkin **Telephone #** 7869 **Fax #** _____
Report Results to : LARRY ELKIN **Telephone #** _____ **Fax #** _____

Sampler: LARRY ELKIN **Sampling Site:** Bastian Sink **Sampling Date:** _____ **Time:** _____

Surrendered By: Larry Elkin Received By: Hutchinson Date/Time: 4:00pm 6/24/04
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME	PO#	COC#
Bastion Sink		4272

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AM13662	BSX-52	7/1/04	13:30	1								
6663	BSX-33A	-"-	13:40	1								
												Total Pb, As
												pH, EC
												Total & Soluble S

SAMPLER'S SIGNATURE: Elf Ardon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: Elnd Ardon PHONE #: 253.2081 FAX #

SURRENDERED BY: Elf Ardon RECEIVED BY: AEH DATE/TIME 7/1/04

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

Log-in Group No. 0- 1047

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM13889	BSX-53	7-2-04	10:53	1							- TOTAL Pb and As
2	90	BSX-54		11:01	1							
3	91	BSX-55		11:13	1							- Paste pH
4	92	BSX-56		11:22	1							
5	93	BSX-57		11:31	1							- Cond of paste pH
6	94	BSX-58		11:48	1							solution
7	95	BSX-59		11:59	1							
8	96	BSX-60		12:13	1							
9	97	BSX-61		12:27	1							
10	98	BSX-62		12:45	1							
11	99	BSX-63		12:58	1							
12	900	BSX-64		13:06	1							
13	901	BSX-65		13:22	1							
14	902	BSX-66		13:35	1							
15												
16												30013

Sample Submitted by: LARRY ELKIN **Telephone #** _____ **Fax #** _____
Report Results to : EHUD ARDON **Telephone #** _____ **Fax #** _____

Sampler: L. ELKIN **Sampling Site:** BASTIAN SINK **Sampling Date:** 7-2-04 **Time:** _____

Surrendered By: Larry Elkin Received By: Hutchinson Date/Time: 7/2/04 1500
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME: Bastian Sink | PO#: | COC#: 4274

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
	~~BSX-6A~~	7/13/04		1								pH, EC
AM14702	BSX-7A		7:10	1								Total As, Pb, SO_4
703	BSX-8A		7:20	1								Soluble SO_4
704	BSX-67		7:30	1								
705	BSX-68		7:40	1								
706	BSX-69		7:50	1								
707	BSX-70		8:00	1								Please Split
708	BSX-71		8:07	1								BSX-69, BSX-70
709	BSX-72		8:15	1								BSX-71
710	SSX-47A		8:20	1								
711	BSX-48A		8:25	1								
712	BSX-31A		8:30	1								

SAMPLER'S SIGNATURE: Ed Arlon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHLO PHONE #: 253.2081 FAX #:

SURRENDERED BY: Ed Arlon RECEIVED BY: Adam Hale DATE/TIME 7/13/04

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

Log-In Group No. C 01650

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM16100	BSX-75	7-30-04	12:01								- TOTAL Pb and As using
2	101	BSX-76		12:07								3050B/6010B
3	102	BSX-77		12:14								
4	103	BSX-78		12:20								- paste pH
5	104	BSX-79		12:34								- cond of paste pH solution
6	105	BSX-80		12:43								
7	106	BSX-81		12:50								
8	107	BSX-82		13:05								
9	108	BSX-83		13:18								
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: LARRY ELKIN **Telephone #** 7869 **Fax #** _____
Report Results to : _____ **Telephone #** _____ **Fax #** _____

Sampler: Larry Elkin **Sampling Site:** BASTIAN SINK **Sampling Date:** 7-30-04 **Time:** _____
Surrendered By: Larry Elkin Received By: Hutchinson Date/Time: 7-30-04 (14:15)
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____
Comments / Special Instructions: _____

Log-In Group No. UC 142

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

Sheet Request No. Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM16178	BSX-73	8-2-04	11:40	1							– Total Pb and As
2	79	BSX-74		11:55	1							3050B/6010B
3	80	BSX-84		12:07	1							
4	81	BSX-85		12:25	1							– paste pH
5												– conductivity of paste pH
6												solution
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												300013

Sample Submitted by: LARRY ELKIN **Telephone #** _____ **Fax #** _____
Report Results to : _____ **Telephone #** _____ **Fax #** _____

Sampler: Larry Elkin **Sampling Site:** BASTIAN SINK **Sampling Date:** 8-2-04 **Time:** _____
Surrendered By: Larry Elkin Received By: J P Hardman Date/Time: 8-2-04 (14:36)
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____
Comments / Special Instructions: _____

Log-in Group No. 08 1325

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM16384	BSX-86	8-5-04	07:47	1							- Total Pb and As
2	385	BSX-87	↓	07:54	1							3050B/6010B
3	386	BSX-88		08:10	1							
4	387	BSX-89		08:18	1							- Also:
5												- Paste pH and cond of
6												paste pH solution
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: LARRY ELKIN **Telephone #** 7869 **Fax #** _____
Report Results to : _____ **Telephone #** _____ **Fax #** _____

Sampler: LARRY ELKIN **Sampling Site:** BASTIAN SINK **Sampling Date:** 8-5-04 **Time:** _____

Surrendered By: Larry Elkin Received By: J B Hardman Date/Time: 8-5-04 (11:50)
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

Log-in Group No. 0[illegible]5839

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM16598	BSX-59A	8-9-04	08:19	1							- TOTAL Pb and As
2	599	BSX-44A	8-9-04	08:44	1							3050B/6010B
3	600	BSX-46A	8-9-04	09:03	1							- paste pH
4												- cond of paste pH solution
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: LARRY ELKIN **Telephone #** 7869 **Fax #** _____
Report Results to : _____ **Telephone #** _____ **Fax #** _____

Sampler: Larry Elkin **Sampling Site:** BASTIAN SINK **Sampling Date:** 8-9-04 **Time:** _____

Surrendered By: _____ Received By: J B Hardman Date/Time: 8/9/04 15:26
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

KENNECOTT UTAH COPPER CORPORATION CHAIN OF CUSTODY ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME: Bastian Sink | PO#: | COC#: 4278

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS: Soil	Water	Other	FIELD PARAMETERS: pH	Cond.	Temp.	DTW(ft)		ANALYSIS REQUESTED
AM18394	BSX-71A	9/8/04	12:45	1								Total As Pb
95	BSX-81A	-"-	13:00	1								~~Total & Soluble Sulfate~~
96	BSX-86A	-"-	13:05	1								pH, EC
97	BSX-87A	-"-	13:10	1								
98	BSX-88A	-"-	13:20	1								
99	BSX-89A	-"-	13:25	1								
AM18400	BSX-90	-"-	13:35	1								
01	BSX-91	-"-	13:40	1								
02	BSX-44B	-"-	13:45	1								
03	BSX-73A	9/9/04	10:45	1								
04	BSX-74A	-"-	10:50	1								
AM18405	BSX-84A	-"-	10:55	1								
06	BSX-85A	-"-	11:00	1								
07	BSX-92	-"-	11:10	1								
08	~~BSX-93~~	~~-"-~~	~~11:15~~									
09	~~BSX-94~~	~~-"-~~	~~11:20~~	1								

SAMPLER'S SIGNATURE: Ehud Ardon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: Ehud Ardon PHONE #: 253-2081 FAX #:

SURRENDERED BY: Ehud Ardon RECEIVED BY: Melissa DATE/TIME 09-09-04/1200

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

Log-in Group No. U7 075 S

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

04 - 244 - 031
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM18422	BS-CS3	9/9/04	11:45	1							As, Pb Totals
2												pH, EC
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: Elad Ardon **Telephone #** _____ **Fax #** _____
Report Results to : Elad Ardon **Telephone #** 253-2081 **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: M Ol Date/Time: 9-9-04/1200
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME: Bestian Sink | PO# 10280738 | COC# 4281

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS: Soil	Water	Other	FIELD PARAMETERS: pH	Cond.	Temp.	DTW(ft)		ANALYSIS REQUESTED
AM20793	BSX-31 C	10/27/04	11:00	1								As Pb - Totals
94	BSX-73 B	↓	11:05	1								pH EC
95	BSX-74B		11:10	1								
96	BSX-81B		11:15	1								
97	BSX-82B		11:20	1								
98	BSX-83B		11:25	1								
—	~~BSX-83B~~		~~11:30~~	~~1~~								
99	BSX-84B		11:30	1								
800	BSX-85B		11:40	1								
01	BSX-88B		11:45	1								
02	BSX-89B		11:50	1								
03	BSX-92A	↓	11:55	1								

SAMPLER'S SIGNATURE: Ehud Ardon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: Ehud Ardon PHONE #: 253 2081 FAX #

SURRENDERED BY: Ehud Ardon RECEIVED BY: Hutchinson DATE/TIME 10/27/04 5:00PM

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

Log-in Group No. 10 734

KENNECOTT
ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only) 10/20/04	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	~~AM~~ AM20789	BSX-31NW	10/27/04	11:02	1							pH, As, Pb
2	90	BSX-73NW	-"-	11:07	1							
3	91	BSX-85SW	-"-	11:42	1							
4	92	BSX-84R	"	11:35	1							
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												LE-360013-TML

Sample Submitted by: Ehud Ardon **Telephone #** _____ **Fax #** _____

Report Results to : Ehud Ardon **Telephone #** 253-2081 **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: [signature] Date/Time: 10/27/04 5:00PM

Surrendered By: _____ Received By: _____ Date/Time: _____

Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

Log-in Group No. 1 0653

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM20853	B SX-823W	10/27	11:27	1							As, Pb - Totals
2												pH, EC
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												3000B

Sample Submitted by: Ed Ardon **Telephone #** _____ **Fax #** _____
Report Results to : Chad Ardon **Telephone #** 253-2081 **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: K Hutchinson Date/Time: 10/28/04 4:45 PM
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME: Bastian Sink PO#: COC# **4418**

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS: Soil	Water	Other	FIELD PARAMETERS: pH	Cond.	Temp.	DTW(ft)	ANALYSIS REQUESTED
A019205	BSX-95	11/20/06	15:00	1							Total As, Pb
206	BSX-96	-"-	15:05	1							pH-paste
207	BSX-97	-"-	15:10	1							
208	BSX-98	-"-	15:15	1							
209	BSX-31D	11/22/06	11:20	1							
210	BSX-85C	-"-	11:25	1							
	~~BSX-89B~~										
211	BSX-89C	-"-	11:30	1							
A019212	BSX-92B	-"-	11:35	1							

SAMPLER'S SIGNATURE: EM Arbon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHUD ARDON PHONE #: 253.2021 FAX #

SURRENDERED BY: EM Arbon RECEIVED BY: Judy Fox DATE/TIME 11/22/06 1235

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

EA-310005-TML

KENNECOTT UTAH COPPER CORPORATION — CHAIN OF CUSTODY — ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME: Bastian Sink | PO#: | COC# 4419

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
A019893	BSX-99	12/7/06	13:30	1								Total As, Pb
19894	BSX-100		13:35	1								pH
19895	BSX-101		13:40	1								
19896	BSX-102		13:45	1								
19897	BSX-103		13:50	1								
19898	BSX-104		13:55	1								Rush
19899	BSX-105		14:00	1								
19900	BSX-106		14:05	1								
19901	BSX-107		14:10	1								
19902	BSX-108		14:15	1								
19903	BSX-109		14:20	1								
19904	BSX-110		14:30	1								
19905	BSX-111		15:00	1								
19906	BSX-112		15:05	1								
19907	BSX-113		15:10	1								EA-310005-TAL

SAMPLER'S SIGNATURE: Ehud Ardon — LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHUD ARDON — PHONE #: 253-2081 — FAX #:

SURRENDERED BY: Ehud Ardon — RECEIVED BY: [signature] — DATE/TIME Dec. 8, 06, 0730

SURRENDERED BY: — RECEIVED BY: — DATE/TIME

SURRENDERED BY: — RECEIVED BY: — DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

login # 0612081012 42

WHITE COPY: LAB/SAMPLES — YELLOW COPY: EEPG — PINK COPY: SAMPLER

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME: Bastian Sink | PO# | COC# 4420

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
A019908	BSX-114	12/7/06	15:30	1								Total As, Pb
19909	BSX-115	-"-	15:35	1								pH
19910	BSX-116	-"-	15:40	1								
												Rush

SAMPLER'S SIGNATURE: Ehud Ardon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHUD ARDON PHONE #: 283.2081 FAX #

SURRENDERED BY: Ehud Ardon RECEIVED BY: [signature] DATE/TIME 12/8/06, 0730

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

login # 0612081012 42

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

06121808 324

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME Bastian Sink

PO# COC# **4422**

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
A020400	BSX-117	12/15/06	15:00									Total As, Pb
401	BSX-118		15:05									pH
402	BSX-119		15:10									
403	BSX-120		15:15									
404	BSX-121		15:20									
405	BSX-122		15:25									
406	BSX-123		15:30									
407	BSX-124		15:35									Rush
408	BSX-125		15:40									
409	BSX-109A		15:50									
410	BSX-115A		15:55									
A020411	BSX-116A		16:00									

SAMPLER'S SIGNATURE: Ehud Ardon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHUD ARDON PHONE #: 253-2081 FAX #

SURRENDERED BY: Ehud Ardon RECEIVED BY: Judy Fox DATE/TIME 12/18/06 0850

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

EA-310005-TM1

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME: Bastian Sink

PO#:

COC#: 4423

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
A020627	BSX-126	12/20/06	14:00	1								Total As, Pb
20628	BSX-127		14:05	1								pH
20629	BSX-128		14:10	1								
20630	BSX-129		14:15	1								
20631	BSX-130		14:20	1								
20632	BSX-131		14:25	1								Rush
20633	BSX-132		14:30	1								
20634	BSX-133		14:35	1								
20635	BSX-134		14:40	1								
20636	BSX-135		14:45	1								
20637	BSX-136		14:50	1								
20638	BSX-31E		15:00	1								
20639	BSX-85D		15:05	1								
20640	BSX-108A		15:30	1								LCC CODE: TOTIME7
												EA - 3100005

SAMPLER'S SIGNATURE: Ehud Ardon

LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHUD ARDON

PHONE #: 253. 2081 FAX #:

SURRENDERED BY: Ehud Ardon RECEIVED BY: Hutchinson DATE/TIME 12/20/06 16:30

SURRENDERED BY: RECEIVED BY: ~~[illegible]~~ NRO 12-21-06 DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

061229 1009

KENNECOTT UTAH COPPER CORPORATION — CHAIN OF CUSTODY — ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

PROJECT CODE/NAME | PO# | COC# 4424

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
920971	BSX-137	12/29/06	13:00	1								Total As, Pb
972	BSX-138	-11-	13:05	1								pH
												Rush

AMPLER'S SIGNATURE: Ehud Ardon — LAB SUBMITTED TO: KEC

EPORT RESULTS TO: Ehud Ardon — PHONE #: 253.2081 — FAX #

URRENDERED BY: Ehud Ardon — RECEIVED BY: Hutchinson — DATE/TIME 12/29/06 16:00

URRENDERED BY: — RECEIVED BY: — DATE/TIME

URRENDERED BY: — RECEIVED BY: — DATE/TIME

OMMENTS/SPECIAL INSTRUCTIONS:

HITE COPY: LAB/SAMPLES — YELLOW COPY: EEPG — PINK COPY: SAMPLER

KENNECOTT UTAH COPPER CORPORATION CHAIN OF CUSTODY ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

0701050853

PROJECT CODE/NAME: Bastian Sink | PO#: | COC#: 4425

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS: Soil	Water	Other	FIELD PARAMETERS: pH	Cond.	Temp.	DTW(ft)		ANALYSIS REQUESTED
P00233	BSX-115B	1/3/07	14:00	1								Total As, Pb
234	BSX-116B		14:05	1								pH
235	BSX-139		14:10	1								
236	BSX-140		14:25	1								
237	BSX-141		14:30	1								
238	BSX-142		14:35	1								Rush
239	BSX-143		14:40	1								
240	BSX-144		14:45	1								
241	BSX-145		14:50	1								
242	BSX-146		14:55	1								
243	BSX-147		15:00	1								
244	BSX-148		15:30	1								
245	BSX-149		15:35	1								
246	BSX-150		15:40	1								
P00247	BSX-151		15:45	1								

SAMPLER'S SIGNATURE: Ehud Ardon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHUD ARDON PHONE #: 253-2081 FAX #:

SURRENDERED BY: Ehud Ardon RECEIVED BY: [signature] DATE/TIME 1/4/07 16:00

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

FA - 310005-TML

KENNECOTT UTAH COPPER CORPORATION CHAIN OF CUSTODY ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

07011010412

PROJECT CODE/NAME: Bastian Sink | PO#: | COC#: 4426

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
P00549	BSX-19A	1/9/07	14:35	1								Total As, Pb
550	BSX-127A	-"-	14:40	1								pH
551	BSX-128A	-"-	14:45	1								
552	BSX-129A	-"-	14:50	1								
9P00553	BSX-152	-"-	15:30	1								
												Rush

SAMPLER'S SIGNATURE: Ehud Ardon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHUD ARDON PHONE #: FAX #:

SURRENDERED BY: Ehud Ardon RECEIVED BY: Judy Fox DATE/TIME 01/10/07 0800

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

EA-310005-YML

Log-in Group No. 07 01 1138

page 1 of 2

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

Sheet Request No. (Lab Use Only)

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data	Analyses Requested
1	AP00605	BSX-105A	1/10/07	12:25	1		Total As, pb
2	606	BSX-108B		12:30	1		pH, EC
3	607	BSX-121A		12:00	1		
4	608	BSX-133A		13:10	1		
5	609	BSX-135A		13:15	1		
6	610	BSX-136A		13:20	1		
7	611	BSX-148A		12:05	1		Rush
8	612	BSX-151A		12:20	1		
9	613	BSX-153		13:25	1		
10	614	BSX-154		13:30	1		
11	615	BSX-155		13:35	1		
12	616	BSX-156		13:40	1		
13	617	BSX-157		13:45	1		
14	618	BSX-158		13:50	1		
15	AP00619	BSX-159		13:55	1		
16							

Sample Submitted by: EHUD ARDON Telephone # _____ Fax # _____
Report Results to: EHUD ARDON Telephone # 253.2081 Fax # _____

Sampler: [signature] Sampling Site: Bastian Sink Sampling Date: 1/10/07 Time: _____
Surrendered By: [signature] Received By: Judy Fox Date/Time: 01/11/07 0730
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____
Comments / Special Instructions: _____

5A - 310005-TML

0701170850 40

KENNECOTT UTAH COPPER CORPORATION **CHAIN OF CUSTODY** **ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP**

PROJECT CODE/NAME: Bastian Sink | PO#: | COC#: 4427

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS: Soil	Water	Other	FIELD PARAMETERS: pH	Cond.	Temp.	DTW(ft)		ANALYSIS REQUESTED
AP00857	BSX-99A	1/16/07	12:50	1								Total As, Pb
858	BSX-111A		12:55	1								pH EC
859	BSX-126A		13:00	1								
860	BSX-160		13:05	1								
861	BSX-161		13:10	1								
862	BSX-162		13:15	1								Rush
863	BSX-163		13:20	1								
864	BSX-164		13:25	1								
865	BSX-165		13:30	1								
866	BSX-166		13:45	1								
867	BSX-167		13:50	1								
868	BSX-168		13:55	1								
869	BSX-169		14:00	1								
870	BSX-152A		14:10	1								
AP00871	BSX-135B		14:30	1								

SAMPLER'S SIGNATURE: Ehud Ardon LAB SUBMITTED TO: KEL

REPORT RESULTS TO: EHUD ARDON PHONE #: 253-2081 FAX #:

SURRENDERED BY: Ehud Ardon RECEIVED BY: Hutchinson DATE/TIME 1/16/07 4:00pm

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

EA -310005-TML

KENNECOTT UTAH COPPER CORPORATION CHAIN OF CUSTODY ENVIRON. ENG. PROJECTS GROUP/STRATEGIC RESOURCES GROUP

070[illegible]091758

PROJECT CODE/NAME: Bastian Sink | PO#: | COC#: 4428

LAB ID (lab use only)	SAMPLE ID	DATE COLLECTED	TIME	SAMPLE TYPE/ # OF CONTAINERS			FIELD PARAMETERS					ANALYSIS REQUESTED
				Soil	Water	Other	pH	Cond.	Temp.	DTW(ft)		
AP01284	BSX-164A	1/24/07	15:30	1								Total As, Pb
												pH, EC
												Rush

SAMPLER'S SIGNATURE: Ehud Ardon LAB SUBMITTED TO: KEC

REPORT RESULTS TO: EHUD ARDON PHONE #: 253.2081 FAX #:

SURRENDERED BY: Ehud Ardon RECEIVED BY: Judy Fox DATE/TIME 01/25/07 0720

SURRENDERED BY: RECEIVED BY: DATE/TIME

SURRENDERED BY: RECEIVED BY: DATE/TIME

COMMENTS/SPECIAL INSTRUCTIONS:

WHITE COPY: LAB/SAMPLES YELLOW COPY: EEPG PINK COPY: SAMPLER

Appendix C

Laboratory Analytical Certificates and QA Statements

Kennecott
Utah Copper

Kennecott Environmental Laboratory
Certificate of Analysis

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax: (801) 569-7901

Date 6/3/2004

Larrv Elkin

Sample Preparation: SW846 Method 3050B

Sample Analysis: SW846 Method 6010

Submission Date: 8/25/2003
Matrix: Soil
QC Sample AL21657
Total Metal

Lab Number	*Description*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AL21637	BSX-1						
		8/25/03	8/26/03	Arsenic	18	2	mg/kg
		8/25/03	8/26/03	Lead	220	1	mg/kg
		8/25/03	8/26/03	pH Paste	6.14		
AL21638	BSX-2						
		8/25/03	8/26/03	Arsenic	21	2	mg/kg
		8/25/03	8/26/03	Lead	341	1	mg/kg
		8/25/03	8/26/03	pH Paste	6.73		
AL21639	BSX-3						
		8/25/03	8/26/03	Arsenic	20	2	mg/kg
		8/25/03	8/26/03	Lead	152	1	mg/kg
		8/25/03	8/26/03	pH Paste	6.16		
AL21640	BSX-4						
		8/25/03	8/26/03	Arsenic	65	2	mg/kg
		8/25/03	8/26/03	Lead	2070	1	mg/kg
		8/25/03	8/26/03	pH Paste	5.90		
AL21641	BSX-5						
		8/25/03	8/26/03	Arsenic	24	2	mg/kg
		8/25/03	8/26/03	Lead	406	1	mg/kg
		8/25/03	8/26/03	pH Paste	6.26		
AL21642	BSX-6						
		8/25/03	8/26/03	Arsenic	16	2	mg/kg
		8/25/03	8/26/03	Lead	191	1	mg/kg
		8/25/03	8/26/03	pH Paste	6.60		
AL21643	BSX-7						
		8/25/03	8/26/03	Arsenic	55	2	mg/kg
		8/25/03	8/26/03	Lead	1060	1	mg/kg
		8/25/03	8/26/03	pH Paste	5.28		
AL21644	BSX-8						
		8/25/03	8/26/03	Arsenic	37	2	mg/kg
		8/25/03	8/26/03	Lead	1040	1	mg/kg
		8/25/03	8/26/03	pH Paste	5.61		

Lab Number	Description	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AL21645	BSX-9						
		8/25/03	8/26/03	Arsenic	31	2	mg/kg
		8/25/03	8/26/03	Lead	1150	1	mg/kg
		8/25/03	8/26/03	pH Paste	5.32		

Approved by:

Approved By: Lynn A. Hutchinson CIH
Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 8/27/2003

Quality Assurance Statement for Sample: **AL21657**

Original: AL21657 **Duplicate:** AL21734 **Blank Sample:** AL21736

Spike Sample: AL21735 **Spike Blank Sample:** AL21738

Analyte	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery
Silver	9	10	-10.53	100	106	**97**	Below MDL	88	**88**
Arsenic	430	390	9.76	100	579	*	Below MDL	100	**100**
Barium	112	106	5.50	100	202	**90**	Below MDL	100	**100**
Cadmium	3.5	3.8	-8.22	100	97	**94**	Below MDL	96	**96**
Chromium	66	74	-11.43	100	185	**119**	Below MDL	102	**102**
Lead	278	294	-5.59	100	389	**111**	Below MDL	102	**102**
Selenium	41	45	-9.30	100	153	**112**	Below MDL	98	**98**

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

Kennecott
Utah Copper

Kennecott Environmental Laboratory
Certificate of Analysis

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax: (801) 569-7901

Date 6/3/2004

EHUD ARDON

Submission Date: 9/10/2003
Matrix: Soil

Sample Preparation: SW846 Method 3050B

QC Sample AL22776
Total Metal

Sample Analysis: SW846 Method 6010

Lab Number	*Description*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AL22772	BSX-10						
		9/8/03	9/12/03	Silver	Below MDL	1	mg/kg
		9/8/03	9/12/03	Arsenic	27	2	mg/kg
		9/8/03	9/12/03	Barium	144	2	mg/kg
		9/8/03	9/12/03	Cadmium	Below MDL	0.5	mg/kg
		9/8/03	9/18/03	Soil Paste Conductivity	200		umhos/cm
		9/8/03	9/12/03	Chromium	22	1.0	mg/kg
		9/8/03	9/12/03	Copper	102	1.0	mg/kg
		9/8/03	9/15/03	Mercury	0.03	0.010	mg/kg
		9/8/03	9/12/03	Lead	83	1	mg/kg
		9/8/03	9/18/03	pH Paste	7.06		
		9/8/03	9/12/03	Selenium	11	2	mg/kg
AL22773	BSX-11						
		9/8/03	9/12/03	Silver	Below MDL	1	mg/kg
		9/8/03	9/12/03	Arsenic	20	2	mg/kg
		9/8/03	9/12/03	Barium	152	2	mg/kg
		9/8/03	9/12/03	Cadmium	Below MDL	0.5	mg/kg
		9/8/03	9/18/03	Soil Paste Conductivity	230		umhos/cm
		9/8/03	9/12/03	Chromium	22	1.0	mg/kg
		9/8/03	9/12/03	Copper	210	1.0	mg/kg
		9/8/03	9/15/03	Mercury	0.06	0.010	mg/kg
		9/8/03	9/12/03	Lead	135	1	mg/kg
		9/8/03	9/18/03	pH Paste	6.65		
		9/8/03	9/12/03	Selenium	10	2	mg/kg

Lab Number	Description	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AL22774	BSX-12						
		9/8/03	9/10/03	Misc #2	Receiving		
		9/8/03	9/12/03	Silver	Below MDL	1	mg/kg
		9/8/03	9/12/03	Arsenic	18	2	mg/kg
		9/8/03	9/12/03	Barium	151	2	mg/kg
		9/8/03	9/12/03	Cadmium	Below MDL	0.5	mg/kg
		9/8/03	9/18/03	Soil Paste Conductivity	230		umhos/cm
		9/8/03	9/12/03	Chromium	23	1.0	mg/kg
		9/8/03	9/12/03	Copper	357	1.0	mg/kg
		9/8/03	9/15/03	Mercury	0.03	0.010	mg/kg
		9/8/03	9/12/03	Lead	85	1	mg/kg
		9/8/03	9/18/03	pH Paste	5.46		
		9/8/03	9/12/03	Selenium	11	2	mg/kg
AL22775	BSX-13						
		9/8/03	9/12/03	Silver	Below MDL	1	mg/kg
		9/8/03	9/12/03	Arsenic	30	2	mg/kg
		9/8/03	9/12/03	Barium	105	2	mg/kg
		9/8/03	9/12/03	Cadmium	Below MDL	0.5	mg/kg
		9/8/03	9/18/03	Soil Paste Conductivity	400		umhos/cm
		9/8/03	9/12/03	Chromium	23	1.0	mg/kg
		9/8/03	9/12/03	Copper	217	1.0	mg/kg
		9/8/03	9/15/03	Mercury	0.04	0.010	mg/kg
		9/8/03	9/12/03	Lead	582	1	mg/kg
		9/8/03	9/18/03	pH Paste	7.38		
		9/8/03	9/12/03	Selenium	11	2	mg/kg
AL22776	BSX-14						
		9/8/03	9/12/03	Silver	Below MDL	1	mg/kg
		9/8/03	9/12/03	Arsenic	18	2	mg/kg
		9/8/03	9/12/03	Barium	122	2	mg/kg
		9/8/03	9/12/03	Cadmium	Below MDL	0.5	mg/kg
		9/8/03	9/18/03	Soil Paste Conductivity	170		umhos/cm
		9/8/03	9/12/03	Chromium	21	1.0	mg/kg
		9/8/03	9/12/03	Copper	143	1.0	mg/kg
		9/8/03	9/15/03	Mercury	0.03	0.010	mg/kg
		9/8/03	9/12/03	Lead	198	1	mg/kg
		9/8/03	9/18/03	pH Paste	6.87		
		9/8/03	9/12/03	Selenium	8	2	mg/kg

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KTL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 9/10/2003

Quality Assurance Statement for Sample: **AL22776**

Original: AL22776 **Duplicate:** AL22818 **Blank Sample:** AL22820

Spike Sample: AL22819 **Spike Blank Sample:** AL22821

Analyte	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery
Silver	Below MDL	Below MDL	**	100	84	**84**	Below MDL	87	**87**
Arsenic	18	17	5.71	100	115	**97**	Below MDL	93	**93**
Barium	122	139	-13.03	100	214	**92**	Below MDL	99	**99**
Cadmium	Below MDL	Below MDL	**	100	90	**90**	Below MDL	94	**94**
Chromium	21	21	0.00	100	117	**96**	Below MDL	99	**99**
Lead	198	197	0.51	100	308	**110**	Below MDL	98	**98**
Selenium	8	6	28.57	100	93	**85**	Below MDL	89	**89**

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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Certificate of Analysis

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Date 6/3/2004

EHUD ARDON

Sample Preparation: SW846 Method 3050B

Sample Analysis: SW846 Method 6010

Submission Date: 1/29/2004
Matrix: Soil
QC Sample AM01858
Total Metal

Lab Number	*Description*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM01858	BSX-15						
		1/28/04	1/30/04	Silver	1	1	mg/kg
		1/28/04	1/30/04	Arsenic	23	2	mg/kg
		1/28/04	1/30/04	Barium	118	2	mg/kg
		1/28/04	1/30/04	Cadmium	5.0	0.5	mg/kg
		1/28/04	2/12/04	Soil Paste Conductivity	370		umhos/cm
		1/28/04	1/30/04	Chromium	18	1.0	mg/kg
		1/28/04	1/30/04	Copper	454	1.0	mg/kg
		1/28/04	1/30/04	Lead	866	1	mg/kg
		1/28/04	2/12/04	pH Paste	6.89		
		1/28/04	1/30/04	Selenium	10	2	mg/kg
AM01859	BSX-16						
		1/28/04	1/30/04	Arsenic	17	2	mg/kg
		1/28/04	2/12/04	Soil Paste Conductivity	330		umhos/cm
		1/28/04	1/30/04	Lead	91	1	mg/kg
		1/28/04	2/12/04	pH Paste	8.05		

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 1/30/2004

Quality Assurance Statement for Sample: **AM01858**

Original: AM01858 **Spike Sample:** AM01931 **Blank Sample:** AM01933

Duplicate: AM01930 **Blank Sample:** AM01932 **Reference Sample:** AM01934 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	1	1	0.00	100	96	**96**	Below MDL	95	**95**			
Arsenic	2	23	22	4.44	100	115	**92**	Below MDL	96	**96**	128	129	99
Barium	2	118	108	8.85	100	217	**99**	Below MDL	95	**95**	201	220	91
Cadmium	0.5	5	4	22.22	100	94	**94**	Below MDL	92	**92**	82	89.2	92
Chromium	1	18	18	0.00	100	115	**97**	Below MDL	96	**96**	99	105	94
Lead	1	866	890	-2.73	100	794	*	Below MDL	93	**93**	55	60.6	91
Selenium	2	10	10	0.00	100	95	**85**	Below MDL	91	**91**	82	88.9	92
Copper	1	454	517	-12.98	100	100	*	Below MDL	99	**99**	100	95	105

* = Sample concentration is 10 times higher than the spike amount.

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Date 6/3/2004

EHUD ARDON

Sample Preparation: SW846 Method 3050B

Sample Analysis: SW846 Method 6010

Submission Date: 2/12/2004
Matrix: Soil
QC Sample AM02963
Total Metal

Lab Number	*Description*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM02962	BSX-17						
		2/11/04	2/13/04	Arsenic	80	2	mg/kg
		2/11/04	2/12/04	Soil Paste Conductivity	270		umhos/cm
		2/11/04	2/13/04	Lead	672	0.05	mg/kg
		2/11/04	2/12/04	pH Paste	7.83		
AM02963	BSX-18						
		2/11/04	2/13/04	Silver	Below MDL	1	mg/kg
		2/11/04	2/13/04	Arsenic	25	2	mg/kg
		2/11/04	2/13/04	Barium	95	2	mg/kg
		2/11/04	2/13/04	Cadmium	1.2	0.5	mg/kg
		2/11/04	2/12/04	Soil Paste Conductivity	380		umhos/cm
		2/11/04	2/13/04	Chromium	14	1.0	mg/kg
		2/11/04	2/13/04	Copper	164	1.0	mg/kg
		2/11/04	2/13/04	Lead	478	0.05	mg/kg
		2/11/04	2/12/04	pH Paste	7.74		
		2/11/04	2/13/04	Selenium	Below MDL	2	mg/kg
AM02964	BSX-19						
		2/11/04	2/13/04	Arsenic	29	2	mg/kg
		2/11/04	2/12/04	Soil Paste Conductivity	610		umhos/cm
		2/11/04	2/13/04	Lead	110	0.05	mg/kg
		2/11/04	2/12/04	pH Paste	8.02		

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
Lab. Laboratory Director

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CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

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Date: 20-Mar-07

To: EHUD ARDON

Sample Preparation: ***SWA 846 Method 3050 B*** ***Submission Date:*** 2/12/2004

Metals Analysis: ***SWA846 Methods 60100B and 7471*** ***QC Reference Sample:*** **AM02963**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AM02965	BSX-20	2/11/2004	2/12/2004	pH Paste	**8.11**		
			2/13/2004	Arsenic	**35**	2	mg/kg
			2/13/2004	Barium	**92**	2	mg/kg
			2/13/2004	Cadmium	**1.3**	1	mg/kg
			2/13/2004	Chromium	**14**	2	mg/kg
			2/13/2004	Copper	**186**	2.0	mg/kg
			2/13/2004	Lead	**295**	3	mg/kg
			2/24/2004	Mercury	**1.0**	0.10	mg/kg
			2/13/2004	Selenium	**Below MDL**	2	mg/kg
			2/13/2004	Silver	**Below MDL**	1	mg/kg
			2/12/2004	Soil Paste Conductivity	**250**		umhos/cm

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 2/13/2004

Quality Assurance Statement for Sample: **AM02963**

Original: AM02963 **Spike Sample:** AM03047 **Blank Sample:** AM03049

Duplicate: AM03046 **Blank Sample:** AM03048 **Reference Sample:** AM03050 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	Below MDL	Below MDL	**	100	98	**98**	Below MDL	94	**94**			
Arsenic	2	25	32	-24.56	100	126	**101**	Below MDL	100	**100**	137	129	106
Barium	2	95	96	-1.05	100	176	**81**	Below MDL	96	**96**	203	220	92
Cadmium	0.5	1.2	0.8	**	100	94	**93**	Below MDL	94	**94**	84	89.2	94
Chromium	1	14	11	24.00	100	110	**96**	Below MDL	96	**96**	101	105	96
Lead	1	478	564	-16.51	100	641	**77**	Below MDL	95	**95**	62	60.6	102
Selenium	2	Below MDL	Below MDL	**	100	97	**97**	Below MDL	93	**93**	84	88.9	94
Copper	1	164	163	0.61	100	268	**104**	Below MDL	99	**99**	99	95	104

* = Sample concentration is 10 times higher than the spike amount.

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Date 6/15/2004

EHUD ARDON

Sample Preparation: SW846 Method 3050B

Sample Analysis: SW846 Method 6010

Submission Date: 2/26/2004
Matrix: Soil
QC Sample AM03921
Total Metal

Lab Number	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM03921	BSX-15A						
		2/22/04	3/2/04	Arsenic	14	2	mg/kg
		2/22/04	2/26/04	Soil Paste Conductivity	350		umhos/cm
		2/22/04	3/2/04	Lead	129	0.05	mg/kg
		2/22/04	2/26/04	pH Paste	7.85		
AM03922	BSX-17A						
		2/22/04	3/2/04	Arsenic	19	2	mg/kg
		2/22/04	2/26/04	Soil Paste Conductivity	90		umhos/cm
		2/22/04	3/2/04	Lead	234	0.05	mg/kg
		2/22/04	2/26/04	pH Paste	7.45		

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 3/1/2004

Quality Assurance Statement for Sample: **AM03921**

Original: AM03921 **Spike Sample:** AM04033 **Blank Sample:** AM04035

Duplicate: AM04032 **Blank Sample:** AM04034 **Reference Sample:** AM04036 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	14	16	-13.33	100	111	**97**	Below MDL	100	**100**	136	129	105
Lead	1	129	128	0.78	100	258	**130**	Below MDL	98	**98**	62	61	102

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Date 3/3/2004

EHUD ARDON

Submission Date: 2/13/2004
Matrix: Soil

Sample Preparation: SW846 Method 3050B

QC Sample AM03055
Total Metal

Sample Analysis: SW846 Method 6010

Lab Number	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM03055	BSX-21						
		2/12/04	2/26/04	Soil Paste Conductivity	180		umhos/cm
		2/12/04	2/17/04	Arsenic	9	2	mg/kg
		2/12/04	2/17/04	Lead	37	0.05	mg/kg
		2/12/04	2/26/04	pH Paste	7.71		
AM03056	BSX-22						
		2/12/04	2/17/04	Arsenic	8	2	mg/kg
		2/12/04	2/17/04	Lead	29	0.05	mg/kg
		2/12/04	2/26/04	pH Paste	7.99		
		2/12/04	2/26/04	Soil Paste Conductivity	230		umhos/cm
AM03057	BSX-23						
		2/12/04	2/26/04	Soil Paste Conductivity	130		umhos/cm
		2/12/04	2/17/04	Arsenic	13	2	mg/kg
		2/12/04	2/17/04	Lead	198	0.05	mg/kg
		2/12/04	2/26/04	pH Paste	6.99		

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 2/17/2004

Quality Assurance Statement for Sample: **AM03055**

Original: AM03055 **Spike Sample:** AM03208 **Blank Sample:** AM03209

Duplicate: AM03207 **Blank Sample:** AM03209 **Reference Sample:** AM03210 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	9	9	0.00	100	103	**94**	Below MDL	98	**98**	132	129	102
Lead	1	37	37	0.00	100	138	**101**	Below MDL	95	**95**	57	60.6	94

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Date 6/3/2004

EHUD ARDON

Sample Preparation: SW846 Method 3050B

Sample Analysis: SW846 Method 6010

Submission Date: 3/15/2004
Matrix: Soil
QC Sample AM05108
Total Metal

Lab Number	*Description*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM05107	BSX-24						
		3/9/04	3/17/04	Arsenic	21	2	mg/kg
		3/9/04	3/25/04	Soil Paste Conductivity	190		umhos/cm
		3/9/04	3/17/04	Lead	427	1	mg/kg
		3/9/04	3/25/04	pH Paste	7.34		
AM05108	BSX-25						
		3/9/04	3/17/04	Silver	Below MDL	1	mg/kg
		3/9/04	3/17/04	Arsenic	14	2	mg/kg
		3/9/04	3/17/04	Barium	84	2	mg/kg
		3/9/04	3/17/04	Cadmium	4.7	0.5	mg/kg
		3/9/04	3/25/04	Soil Paste Conductivity	220		umhos/cm
		3/9/04	3/17/04	Chromium	13	1.0	mg/kg
		3/9/04	3/17/04	Copper	166	1.0	mg/kg
		3/9/04	3/17/04	Lead	50	1	mg/kg
		3/9/04	3/25/04	pH Paste	7.77		
		3/9/04	3/17/04	Selenium	9.4	2	mg/kg

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 3/16/2004

Quality Assurance Statement for Sample: **AM05108**

Original: AM05108 **Spike Sample:** AM05123 **Blank Sample:** AM05125

Duplicate: AM05122 **Blank Sample:** AM05124 **Reference Sample:** AM05126 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	Below MDL	Below MDL	**	100	99	**99**	Below MDL	96	**96**			
Arsenic	2	14	15	-6.90	100	117	**103**	Below MDL	99	**99**	138	129	107
Barium	2	84	77	8.70	100	182	**98**	Below MDL	99	**99**	213	220	97
Cadmium	0.5	4.7	4	**	100	96	**91**	Below MDL	97	**97**	88	89.2	99
Chromium	1	13	13	0.00	100	112	**99**	Below MDL	98	**98**	105	105	100
Lead	1	50	50	0.00	100	143	**93**	Below MDL	96	**96**	61	61	100
Selenium	2	9.4	9.5	**	100	108	**108**	Below MDL	94	**94**	97.5	88.9	110
Copper	1	166	204	-20.54	100	308	**104**	Below MDL	100	**100**	101	95	106

* = Sample concentration is 10 times higher than the spike amount.

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CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 30-Mar-07

3325 South 9200 West
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To: EHUD ARDON

Sample Preparation: ***SWA 846 Method 3050 B***

Metals Analysis: ***SWA846 Methods 60100B and 7471***

Submission Date: 3/19/2004

QC Reference Sample: **am05529**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AM05523	BSX-26	3/18/2004	3/25/2004	pH Paste	**8.06**		
			3/22/2004	Arsenic	**20**	2	mg/kg
			3/22/2004	Lead	**54**	3	mg/kg
			3/25/2004	Soil Paste Conductivity	**210**		umhos/cm
AM05524	BSX-27	3/18/2004	3/25/2004	pH Paste	**6.26**		
			3/22/2004	Arsenic	**37**	2	mg/kg
			3/22/2004	Lead	**954**	3	mg/kg
			3/25/2004	Soil Paste Conductivity	**150**		umhos/cm
AM05525	BSX-28	3/18/2004	3/25/2004	pH Paste	**7.75**		
			3/22/2004	Arsenic	**105**	2	mg/kg
			3/22/2004	Lead	**2630**	3	mg/kg
			3/25/2004	Soil Paste Conductivity	**220**		umhos/cm
AM05526	BSX-29	3/18/2004	3/25/2004	pH Paste	**5.92**		
			3/22/2004	Arsenic	**83**	2	mg/kg
			3/22/2004	Lead	**3010**	3	mg/kg
			3/25/2004	Soil Paste Conductivity	**180**		umhos/cm
AM05527	BSX-30	3/18/2004	3/25/2004	pH Paste	**7.90**		
			3/22/2004	Arsenic	**14**	2	mg/kg
			3/22/2004	Lead	**259**	3	mg/kg
			3/25/2004	Soil Paste Conductivity	**180**		umhos/cm
AM05528	BSX-31	3/18/2004	3/25/2004	pH Paste	**6.33**		
			3/22/2004	Arsenic	**54**	2	mg/kg
			3/22/2004	Lead	**2000**	3	mg/kg
			3/25/2004	Soil Paste Conductivity	**100**		umhos/cm
AM05529	BSX-32	3/18/2004	3/25/2004	pH Paste	**7.76**		
			3/22/2004	Arsenic	**10**	2	mg/kg
			3/23/2004	Barium	**131**	2	mg/kg
			3/23/2004	Cadmium	**4**	1	mg/kg
			3/23/2004	Chromium	**14**	2	mg/kg
			3/23/2004	Copper	**509**	2.0	mg/kg
			3/22/2004	Lead	**54**	3	mg/kg
			3/23/2004	Selenium	**19**	2	mg/kg
			3/23/2004	Silver	**Below MDL**	1	mg/kg
			3/25/2004	Soil Paste Conductivity	**220**		umhos/cm

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 3/22/2004

Quality Assurance Statement for Sample: **AM05529**

Original: AM05529 **Spike Sample:** AM05617 **Blank Sample:** AM05619

Duplicate: AM05616 **Blank Sample:** AM05618 **Reference Sample:** AM05620 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	B	Below MDL	**	100	100	**100**	Below MDL	105	**105**			
Arsenic	2	10	10	0.00	100	111	**101**	Below MDL	100	**100**	136	129	105
Barium	2	131	123	6.30	100	228	**97**	Below MDL	99	**99**	213	220	97
Cadmium	0.5	4	3	**	100	93	**89**	Below MDL	97	**97**	88	89.2	99
Chromium	1	14	14	0.00	100	114	**100**	Below MDL	100	**100**	107	105	102
Lead	1	54	56	-3.64	100	150	**94**	Below MDL	98	**98**	59	61	97
Selenium	2	19	15	**	100	111	**111**	Below MDL	99	**99**	100	88.9	112
Copper	1	509	569	-11.13	100	655	**86**	Below MDL	113	**113**	105	95	111

* = Sample concentration is 10 times higher than the spike amount.

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Date 6/3/2004

EHUD ARDON

Sample Preparation: SW846 Method 3050B

Sample Analysis: SW846 Method 6010

Submission Date: 4/28/2004
Matrix: Soil
QC Sample AM08500
Total Metal

Lab Number	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM08598	BSX-033						
		4/23/04	5/7/04	Soil Paste Conductivity	170		umhos/cm
		4/23/04	5/7/04	pH Paste	6.90		
		4/23/04	4/29/04	Arsenic	19	2	mg/kg
		4/23/04	4/29/04	Lead	366	0.05	mg/kg
AM08599	BSX-034						
		4/23/04	4/29/04	Arsenic	13	2	mg/kg
		4/23/04	4/29/04	Lead	330	0.05	mg/kg
		4/23/04	5/7/04	Soil Paste Conductivity	260		umhos/cm
		4/23/04	5/7/04	pH Paste	6.93		

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 4/29/2004

Quality Assurance Statement for Sample: **AM08500**

Original: AM08500 **Spike Sample:** AM08662 **Blank Sample:** AM08664

Duplicate: AM08661 **Blank Sample:** AM08663 **Reference Sample:** AM08665 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	18	17	5.71	100	120	**102**	Below MDL	99	**99**	138	129	107
Lead	1	46	45	2.20	100	138	**93**	Below MDL	100	**106**	58	61	95

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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Certificate of Analysis

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Fax: (801) 569-7901

Date 5/19/2004

EHUD ARDON

Sample Preparation: SW846 Method 3050B

Sample Analysis: SW846 Method 6010

Submission Date: 5/7/2004
Matrix: Soil
QC Sample AM09282
Total Metal

Lab Number	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM09240	BSX-35						
		5/6/04	5/10/04	Arsenic	18	2	mg/kg
		5/6/04	5/12/04	Soil Paste Conductivity	160		umhos/cm
		5/6/04	5/10/04	Lead	132	0.05	mg/kg
		5/6/04	5/12/04	pH Paste	7.77		
AM09241	BSX-36						
		5/6/04	5/10/04	Arsenic	20	2	mg/kg
		5/6/04	5/12/04	Soil Paste Conductivity	140		umhos/cm
		5/6/04	5/10/04	Lead	311	0.05	mg/kg
		5/6/04	5/12/04	pH Paste	7.35		
AM09242	BSX-37						
		5/6/04	5/10/04	Arsenic	20	2	mg/kg
		5/6/04	5/12/04	Soil Paste Conductivity	170		umhos/cm
		5/6/04	5/10/04	Lead	410	0.05	mg/kg
		5/6/04	5/12/04	pH Paste	7.14		
AM09243	BSX-38						
		5/6/04	5/10/04	Arsenic	14	2	mg/kg
		5/6/04	5/12/04	Soil Paste Conductivity	210		umhos/cm
		5/6/04	5/10/04	Lead	206	0.05	mg/kg
		5/6/04	5/12/04	pH Paste	6.56		
AM09244	BSX-39						
		5/6/04	5/10/04	Arsenic	18	2	mg/kg
		5/6/04	5/12/04	Soil Paste Conductivity	170		umhos/cm
		5/6/04	5/10/04	Lead	212	0.05	mg/kg
		5/6/04	5/12/04	pH Paste	6.51		
AM09245	BSX-40						
		5/6/04	5/10/04	Arsenic	14	2	mg/kg
		5/6/04	5/12/04	Soil Paste Conductivity	260		umhos/cm
		5/6/04	5/10/04	Lead	143	0.05	mg/kg
		5/6/04	5/12/04	pH Paste	6.53		

roved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 5/10/2004

Quality Assurance Statement for Sample: **AM09282**

Original: AM09282 **Spike Sample:** AM09367 **Blank Sample:** AM09369

Duplicate: AM09366 **Blank Sample:** AM09368 **Reference Sample:** AM09370 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	16	15	6.45	100	112	**96**	Below MDL	99	**99**	136	129	105
Lead	1	50	46	8.33	100	138	**92**	Below MDL	93	**106**	54	61	89

* = Sample concentration is 10 times higher than the spike amount.

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Phone (801) 569-7950
Fax: (801) 569-7901

To: LARRY ELKIN

Sample Preparation: *SW 846 Method 3050B*
Sample Analysis: *SW 846 Method 6010B*
SW846 Method 7471A for H g
Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 6/22/2004
QC: Sample#: AM12932
Login Group: 06220840

Total Metal

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM12925	BSX-41						
		6/21/04	6/24/04	Arsenic	12	2	mg/kg
		6/21/04	7/2/04	Soil Paste Conductivity	240		umhos/cm
		6/21/04	6/24/04	Lead	232	0.05	mg/kg
		6/21/04	7/2/04	pH Paste	7.52		
AM12926	BSX-42						
		6/21/04	6/24/04	Arsenic	10	2	mg/kg
		6/21/04	7/2/04	Soil Paste Conductivity	430		umhos/cm
		6/21/04	6/24/04	Lead	126	0.05	mg/kg
		6/21/04	7/2/04	pH Paste	7.85		
AM12927	BSX-43						
		6/21/04	6/24/04	Arsenic	12	2	mg/kg
		6/21/04	7/2/04	Soil Paste Conductivity	180		umhos/cm
		6/21/04	6/24/04	Lead	216	0.05	mg/kg
		6/21/04	7/2/04	pH Paste	8.07		
AM12928	BSX-44						
		6/21/04	6/24/04	Arsenic	22	2	mg/kg
		6/21/04	6/24/04	Lead	630	0.05	mg/kg
		6/21/04	7/2/04	pH Paste	6.14		
AM12929	BSX-45						
		6/21/04	6/24/04	Arsenic	20	2	mg/kg
		6/21/04	6/24/04	Lead	427	0.05	mg/kg
		6/21/04	7/2/04	pH Paste	6.11		
AM12930	BSX-46						
		6/21/04	6/24/04	Arsenic	33	2	mg/kg
		6/21/04	6/24/04	Lead	569	0.05	mg/kg
		6/21/04	7/2/04	pH Paste	6.55		
AM12931	BSX-47						
		6/21/04	6/24/04	Arsenic	26	2	mg/kg
		6/21/04	7/2/04	Soil Paste Conductivity	170		umhos/cm
		6/21/04	6/24/04	Lead	730	0.05	mg/kg
		6/21/04	7/2/04	pH Paste	7.25		
AM12932	BSX-48						
		6/21/04	6/24/04	Silver	Below MDL	1	mg/kg
		6/21/04	6/24/04	Arsenic	23	2	mg/kg
		6/21/04	6/24/04	Barium	131	2	mg/kg
		6/21/04	6/24/04	Cadmium	2.2	0.5	mg/kg
		6/21/04	7/2/04	Soil Paste Conductivity	350		umhos/cm
		6/21/04	6/24/04	Chromium	20	1.0	mg/kg
		6/21/04	6/24/04	Copper	1050	1.0	mg/kg
		6/21/04	6/24/04	Lead	553	0.05	mg/kg
		6/21/04	7/2/04	pH Paste	7.60		
		6/21/04	6/24/04	Selenium	Below MDL	2	mg/kg
		6/21/04	6/30/04	Strontium	29	1.0	mg/kg

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 6/23/2004

Quality Assurance Statement for Samples: **AM09520 - AM09530**
AM12859
AM12925 - AM12932

Original: AM12932 **Spike Sample:** AM13000 **Blank SPIKE:** AM13002

Duplicate: AM12999 **Blank Sample:** AM13001 **Reference Sample:** AM13003 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	Below MDL	Below MDL	**	100	96	**96**	Below MDL	99	**99**	NA	NA	NA
Arsenic	2	23	28	-19.61	100	129	**106**	Below MDL	100	**96**	135	129	105
Barium	2	131	122	2.00	100	244	**113**	Below MDL	105	**105**	215	220	98
Cadmium	0.5	2.2	2.9	**	100	95	**93**	Below MDL	99	**99**	86	89.2	96
Chromium	1	20	19	5.13	100	118	**98**	Below MDL	104	**104**	106	105	101
Lead	1	553	573	-3.55	100	1200	*	Below MDL	102	**106**	59	61	97
Selenium	2	Below MDL	2	**	100	83	**83**	Below MDL	90	**90**	80	88.9	90
Copper	1	1050	1070	-1.89	100	1570	*	Below MDL	108	**108**	101	95	106

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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Fax: (801) 569-7901

LARRY ELKIN

Sample Preparation: *SW 846 Method 3050B*
Sample Analysis: *SW 846 Method 6010B*
SW846 Method 7471A for H g

Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 6/25/2004
QC: Sample#: AM13184
Login Group: 06250819

Total Metal

Lab	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM13182	BSX-49						
		6/24/04	6/29/04	Arsenic	16	2	mg/kg
		6/24/04	7/2/04	Soil Paste Conductivity	380		umhos/cm
		6/24/04	6/29/04	Lead	199	0.05	mg/kg
		6/24/04	7/2/04	pH Paste	7.80		
AM13183	BSX-50						
		6/24/04	6/25/04	Total Metals#2 - HNO3	RECEIVING		
		6/24/04	6/29/04	Arsenic	26	2	mg/kg
		6/24/04	7/2/04	Soil Paste Conductivity	290		umhos/cm
		6/24/04	6/29/04	Lead	495	0.05	mg/kg
		6/24/04	7/2/04	pH Paste	7.92		
AM13184	BSX-51						
		6/24/04	6/25/04	Total Metals#2 - HNO3	RECEIVING		
		6/24/04	6/29/04	Silver	Below MDL	1	mg/kg
		6/24/04	6/29/04	Arsenic	11	2	mg/kg
		6/24/04	6/29/04	Barium	212	2	mg/kg
		6/24/04	6/29/04	Cadmium	2.1	0.5	mg/kg
		6/24/04	7/2/04	Soil Paste Conductivity	210		umhos/cm
		6/24/04	6/29/04	Chromium	18	1.0	mg/kg
		6/24/04	6/29/04	Copper	105	1.0	mg/kg
		6/24/04	6/29/04	Lead	106	0.05	mg/kg
		6/24/04	7/2/04	pH Paste	7.71		
		6/24/04	6/29/04	Selenium	Below MDL	2	mg/kg

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 6/28/2004

Quality Assurance Statement for Samples: **AM13182 - AM13184**

Original: AM13184 **Spike Sample:** AM13232 **Blank SPIKE:** AM13234

Duplicate: AM13231 **Blank Sample:** AM13233 **Reference Sample:** AM13235 0017-15-09

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	Below MDL	Below MDL	**	100	92	**92**	Below MDL	98	**98**	99	98.7	100
Arsenic	2	11	12	-8.70	100	110	**99**	Below MDL	104	**96**	298	283	105
Barium	2	212	234	-9.87	100	296	**84**	Below MDL	103	**103**	552	529	104
Cadmium	0.5	2.1	1.8	**	100	89	**87**	Below MDL	98	**98**	55.6	50.7	110
Chromium	1	18	19	-5.41	100	106	**88**	Below MDL	97	**97**	66	64.8	102
Lead	1	103	88	15.71	100	188	**85**	Below MDL	102	**106**	86.5	84.7	102
Selenium	2	Below MDL	Below MDL	**	100	84	**84**	Below MDL	93	**93**	119	124	96
Copper	1	105	92	13.20	100	181	**76**	Below MDL	100	**100**	185	169	109

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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EHUD ARDON

Sample Preparation: SW 846 Method 3050B
Sample Analysis: SW 846 Method 6010B
SW846 Method 7471A for H g
Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 7/1/2004
QC: Sample#: AM13664
Login Group: 07011602

Total Metal

Lab	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM13662	BSX-52						
		7/1/04	7/2/04	Arsenic	16	2	mg/kg
		7/1/04	7/2/04	Lead	327	1	mg/kg
		7/1/04	7/22/04	Sulfate in Soils	1200	500	mg/kg
		7/1/04	7/30/04	Sulfate - Leachable	101	5	mg/Kg
AM13663	BSX-33A						
		7/1/04	7/30/04	Sulfate - Leachable	63	5	mg/Kg
		7/1/04	7/2/04	Arsenic	8	2	mg/kg
		7/1/04	7/2/04	Lead	110	1	mg/kg
		7/1/04	7/22/04	Sulfate in Soils	1500	500	mg/kg

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 7/2/2004

Quality Assurance Statement for Samples: **AM13662 - AM13663**

Original: AM13664 **Spike Sample:** AM13666 **Blank SPIKE:** AM13666

Duplicate: AM13665 **Blank Sample:** AM13667 **Reference Sample:** AM13667 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	9	10	-10.53	100	130	**120**	Below MDL	97	**97**	NA	NA	
Arsenic	2	381	421	-9.98	100	516	**95**	Below MDL	102	**96**	138	129	107
Barium	2	447	327	31.01	100	445	**118**	Below MDL	100	**100**	231	220	105
Cadmium	0.5	4	4.9	-20.22	100	103	**99**	Below MDL	94	**94**	91	89.2	102
Chromium	1	23	24	-4.26	100	130	**107**	Below MDL	99	**99**	113	105	108
Lead	1	347	478	-31.76	100	578	**100**	Below MDL	104	**106**	61	61	100
Selenium	2	Below MDL	Below MDL	**	100	90	**90**	Below MDL	92	**92**	81	88.9	91
Copper	1	19400	21000	-7.92	100	22000	*	Below MDL	106	**106**	106	95	112

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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LARRY ELKIN

Sample Preparation: *SW 846 Method 3050B*
Sample Analysis: *SW 846 Method 6010B*
SW846 Method 7471A for H g
Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 7/6/2004
QC: Sample#: AM13902
Login Group: 07061047

Total Metal

Lab	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM13889	BSX-53						
		7/2/04	7/7/04	Arsenic	12	2	mg/kg
		7/2/04	7/7/04	Lead	79	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.09		
		7/2/04	7/21/04	Soil Paste Conductivity	360		umhos/cm
AM13890	BSX-54						
		7/2/04	7/21/04	Soil Paste Conductivity	220		umhos/cm
		7/2/04	7/7/04	Arsenic	15	2	mg/kg
		7/2/04	7/7/04	Lead	156	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.31		
AM13891	BSX-55						
		7/2/04	7/7/04	Arsenic	29	2	mg/kg
		7/2/04	7/7/04	Lead	488	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.18		
		7/2/04	7/21/04	Soil Paste Conductivity	330		umhos/cm
AM13892	BSX-56						
		7/2/04	7/21/04	Soil Paste Conductivity	200		umhos/cm
		7/2/04	7/7/04	Arsenic	10	2	mg/kg
		7/2/04	7/7/04	Lead	153	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.31		
AM13893	BSX-57						
		7/2/04	7/7/04	Arsenic	19	2	mg/kg
		7/2/04	7/7/04	Lead	64	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.52		
		7/2/04	7/21/04	Soil Paste Conductivity	160		umhos/cm
AM13894	BSX-58						
		7/2/04	7/21/04	Soil Paste Conductivity	210		umhos/cm
		7/2/04	7/7/04	Arsenic	14	2	mg/kg
		7/2/04	7/7/04	Lead	105	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.28		
AM13895	BSX-59						
		7/2/04	7/7/04	Arsenic	46	2	mg/kg
		7/2/04	7/7/04	Lead	978	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.39		
		7/2/04	7/21/04	Soil Paste Conductivity	210		umhos/cm
AM13896	BSX-60						
		7/2/04	7/21/04	Soil Paste Conductivity	240		umhos/cm
		7/2/04	7/7/04	Arsenic	17	2	mg/kg
		7/2/04	7/7/04	Lead	164	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.45		
AM13897	BSX-61						
		7/2/04	7/7/04	Arsenic	13	2	mg/kg
		7/2/04	7/7/04	Lead	209	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.72		
		7/2/04	7/21/04	Soil Paste Conductivity	170		umhos/cm

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM13898	BSX-62						
		7/2/04	7/21/04	Soil Paste Conductivity	210		umhos/cm
		7/2/04	7/7/04	Arsenic	12	2	mg/kg
		7/2/04	7/7/04	Lead	122	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.50		
[illegible]99	BSX-63						
		7/2/04	7/7/04	Arsenic	10	2	mg/kg
		7/2/04	7/7/04	Lead	54	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.10		
		7/2/04	7/21/04	Soil Paste Conductivity	140		umhos/cm
AM13900	BSX-64						
		7/2/04	7/21/04	Soil Paste Conductivity	260		umhos/cm
		7/2/04	7/7/04	Arsenic	15	2	mg/kg
		7/2/04	7/7/04	Lead	202	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.01		
AM13901	BSX-65						
		7/2/04	7/7/04	Arsenic	11	2	mg/kg
		7/2/04	7/7/04	Lead	142	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.13		
		7/2/04	7/21/04	Soil Paste Conductivity	370		umhos/cm
AM13902	BSX-66						
		7/2/04	7/8/04	Cadmium	1.4	0.5	mg/kg
		7/2/04	7/21/04	Soil Paste Conductivity	110		umhos/cm
		7/2/04	7/8/04	Chromium	24	1.0	mg/kg
		7/2/04	7/8/04	Silver	Below MDL	1	mg/kg
		7/2/04	7/7/04	Arsenic	14	2	mg/kg
		7/2/04	7/8/04	Barium	182	2	mg/kg
		7/2/04	7/8/04	Copper	594	1.0	mg/kg
		7/2/04	7/7/04	Lead	315	0.05	mg/kg
		7/2/04	7/21/04	pH Paste	7.33		
		7/2/04	7/8/04	Selenium	Below MDL	2	mg/kg

[illegible]ed by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 7/7/2004

Quality Assurance Statement for Samples: **AM13889 - AM13902**

Original: AM13902 **Spike Sample:** AM14085 **Blank SPIKE:** AM14087

Duplicate: AM14084 **Blank Sample:** AM14086 **Reference Sample:** AM14088 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	Below MDL	Below MDL	#VALUE!	100	95	**95**	Below MDL	106	**106**	NA	NA	
Arsenic	2	14	12	15.38	100	108	**94**	Below MDL	103	**96**	128	129	99
Barium	2	182	178	2.22	100	292	**110**	Below MDL	109	**109**	211	220	96
Cadmium	0.5	1.4	1.5	-6.90	100	89.4	**88**	Below MDL	101	**101**	80.9	89.2	91
Chromium	1	24	24	0.00	100	124	**100**	Below MDL	111	**111**	104	105	99
Lead	1	315	207	41.38	100	328	**121**	Below MDL	101	**106**	54	61	89
Selenium	2	Below MDL	Below MDL	**	100	77	**77**	Below MDL	93	**93**	75	88.9	84
Copper	1	494	401	20.78	100	498	**97**	Below MDL	117	**117**	102	95	107

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

Kennecott
Utah Copper

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

LARRY ELKIN

Sample Preparation: *SW 846 Method 3050B*
Sample Analysis: *SW 846 Method 6010B*
SW846 Method 7471A for H g
Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 8/10/2004
QC: Sample#: AM16599
Login Group: 08100839

Total Metal

Lab	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM16598	BSX-59A						
		8/9/04	8/17/04	Arsenic	22	2	mg/kg
		8/9/04	8/25/04	Soil Paste Conductivity	220		umhos/cm
		8/9/04	8/17/04	Lead	329	1	mg/kg
		8/9/04	8/25/04	pH Paste	6.72		
AM16599	BSX-44A						
		8/9/04	8/17/04	Arsenic	23	2	mg/kg
		8/9/04	8/25/04	Soil Paste Conductivity	110		umhos/cm
		8/9/04	8/17/04	Lead	612	1	mg/kg
		8/9/04	8/25/04	pH Paste	6.57		
AM16600	BSX-46A						
		8/9/04	8/11/04	Arsenic	20	2	mg/kg
		8/9/04	8/25/04	Soil Paste Conductivity	260		umhos/cm
		8/9/04	8/11/04	Lead	341	1	mg/kg
		8/9/04	8/25/04	pH Paste	6.83		

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 8/13/2004

Quality Assurance Statement for Samples: **AM16598 - AM16599**
AM16628 - AM16629

Original: AM16599 **Spike Sample:** AM16790 **Blank SPIKE:** AM16792

Duplicate: AM16789 **Blank Sample:** AM16791 **Reference Sample:** AM16793 0017-15-09

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	23	25	-8.33	100	123	**100**	Below MDL	95	**96**	294	283	104
Lead	1	612	662	-7.85	100	750	**88**	Below MDL	94	**106**	86	84.7	102

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

To: EHUD ARDON

Sample Preparation: *SW 846 Method 3050B*
Sample Analysis: *SW 846 Method 6010B*
SW846 Method 7471A for H g

Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 7/15/2004
QC: Sample#: AM14712
Login Group: 07151018

Total Metal

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM14702	BSX-7A						
		7/13/04	7/16/04	Arsenic	14	2	mg/kg
		7/13/04	7/16/04	Lead	283	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	5.92		
		7/13/04	7/22/04	Sulfate in Soils	1500	500	mg/kg
		7/13/04	7/21/04	Soil Paste Conductivity	190		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	42	5	mg/Kg
AM14703	BSX-8A						
		7/13/04	7/21/04	Soil Paste Conductivity	130		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	103	5	mg/Kg
		7/13/04	7/16/04	Arsenic	11	2	mg/kg
		7/13/04	7/16/04	Lead	156	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	5.85		
		7/13/04	7/22/04	Sulfate in Soils	1200	500	mg/kg
AM14704	BSX-67						
		7/13/04	7/16/04	Arsenic	11	2	mg/kg
		7/13/04	7/16/04	Lead	277	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	5.91		
		7/13/04	7/22/04	Sulfate in Soils	900	500	mg/kg
		7/13/04	7/21/04	Soil Paste Conductivity	140		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	36	5	mg/Kg
AM14705	BSX-68						
		7/13/04	7/21/04	Soil Paste Conductivity	120		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	52	5	mg/Kg
		7/13/04	7/16/04	Arsenic	19	2	mg/kg
		7/13/04	7/16/04	Lead	401	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	6.06		
		7/13/04	7/22/04	Sulfate in Soils	1200	500	mg/kg
AM14706	BSX-69						
		7/13/04	7/16/04	Arsenic	16	2	mg/kg
		7/13/04	7/16/04	Lead	290	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	5.81		
		7/13/04	7/22/04	Sulfate in Soils	1500	500	mg/kg
		7/13/04	7/21/04	Soil Paste Conductivity	270		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	41	5	mg/Kg
AM14707	BSX-70						
		7/13/04	7/21/04	Soil Paste Conductivity	330		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	64	5	mg/Kg
		7/13/04	7/16/04	Arsenic	14	2	mg/kg
		7/13/04	7/16/04	Lead	197	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	6.11		
		7/13/04	7/22/04	Sulfate in Soils	900	500	mg/kg
AM14708	BSX-71						
		7/13/04	7/16/04	Arsenic	50	2	mg/kg
		7/13/04	7/16/04	Lead	1370	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	6.21		
		7/13/04	7/22/04	Sulfate in Soils	1800	500	mg/kg
		7/13/04	7/21/04	Soil Paste Conductivity	200		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	40	5	mg/Kg

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM14709	BSX-72						
		7/13/04	7/21/04	Soil Paste Conductivity	280		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	44	5	mg/Kg
		7/13/04	7/16/04	Arsenic	24	2	mg/kg
		7/13/04	7/16/04	Lead	387	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	6.68		
		7/13/04	7/22/04	Sulfate in Soils	1200	500	mg/kg
AM14710	BSX-47A						
		7/13/04	7/16/04	Arsenic	17	2	mg/kg
		7/13/04	7/16/04	Lead	182	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	6.84		
		7/13/04	7/22/04	Sulfate in Soils	600	500	mg/kg
		7/13/04	7/21/04	Soil Paste Conductivity	250		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	50	5	mg/Kg
AM14711	BSX-48A						
		7/13/04	7/21/04	Soil Paste Conductivity	220		umhos/cm
		7/13/04	7/30/04	Sulfate - Leachable	22	5	mg/Kg
		7/13/04	7/16/04	Arsenic	22	2	mg/kg
		7/13/04	7/16/04	Lead	349	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	6.77		
		7/13/04	7/22/04	Sulfate in Soils	600	500	mg/kg
AM14712	BSX-31A						
		7/13/04	7/19/04	Silver	11	1	mg/kg
		7/13/04	7/16/04	Arsenic	40	2	mg/kg
		7/13/04	7/19/04	Barium	87	2	mg/kg
		7/13/04	7/19/04	Copper	871	1.0	mg/kg
		7/13/04	7/16/04	Lead	1090	0.05	mg/kg
		7/13/04	7/21/04	pH Paste	6.80		
		7/13/04	7/19/04	Selenium	Below MDL	2	mg/kg
		7/13/04	7/22/04	Sulfate in Soils	1200	500	mg/kg
		7/13/04	7/19/04	Cadmium	3.6	0.5	mg/kg
		7/13/04	7/21/04	Soil Paste Conductivity	380		umhos/cm
		7/13/04	7/19/04	Chromium	17	1.0	mg/kg
		7/13/04	7/30/04	Sulfate - Leachable	56	5	mg/Kg

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 7/16/2004

Quality Assurance Statement for Samples: **AM14529 - AM14536**
AM14702 - AM14712

Original: AM14712 **Spike Sample:** AM14747 **Blank SPIKE:** AM14749

Duplicate: AM14746 **Blank Sample:** AM14748 **Reference Sample:** AM14750 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	11	5	**	100	103	**92**	Below MDL	101	**101**	NA	NA	
Arsenic	2	40	37	7.79	100	137	**97**	Below MDL	98	**96**	136	129	105
Barium	2	87	109	-22.45	100	206	**119**	Below MDL	103	**103**	225	220	102
Cadmium	0.5	3.6	4.8	-28.57	100	98.4	**95**	Below MDL	98.3	**98**	89	89.2	100
Chromium	1	17	18	-5.71	100	118	**101**	Below MDL	103	**103**	110	105	105
Lead	1	1090	1080	0.92	100	1220	**130**	Below MDL	1.8	**106**	6.8	61	11
Selenium	2	Below MDL	Below MDL	**	100	88	**88**	Below MDL	100	**100**	62	88.9	70
Copper	1	871	1080	-21.42	100	1120	*	Below MDL	88	**88**	80	95	84

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

To: LARRY ELKIN

Sample Preparation: SW 846 Method 3050B
Sample Analysis: SW 846 Method 6010B
SW846 Method 7471A for H g
Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 7/30/2004
QC: Sample#: AM16107
Login Group: 07301638

Total Metal

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM16100	BSX-75						
		7/30/04	8/2/04	Arsenic	23	2	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	220		umhos/cm
		7/30/04	8/2/04	Lead	202	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	7.70		
AM16101	BSX-76						
		7/30/04	8/2/04	Arsenic	45	2	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	110		umhos/cm
		7/30/04	8/2/04	Lead	200	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	7.25		
AM16102	BSX-77						
		7/30/04	8/2/04	Arsenic	24	2	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	120		umhos/cm
		7/30/04	8/2/04	Lead	250	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	7.13		
AM16103	BSX-78						
		7/30/04	8/2/04	Arsenic	16	2	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	260		umhos/cm
		7/30/04	8/2/04	Lead	93	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	7.32		
AM16104	BSX-79						
		7/30/04	8/2/04	Arsenic	34	2	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	240		umhos/cm
		7/30/04	8/2/04	Lead	388	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	7.37		
AM16105	BSX-80						
		7/30/04	8/2/04	Arsenic	15	2	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	100		umhos/cm
		7/30/04	8/2/04	Lead	93	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	7.54		
AM16106	BSX-81						
		7/30/04	8/2/04	Arsenic	67	2	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	410		umhos/cm
		7/30/04	8/2/04	Lead	1980	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	7.16		
AM16107	BSX-82						
		7/30/04	8/3/04	Silver	6	1	mg/kg
		7/30/04	8/2/04	Arsenic	95	2	mg/kg
		7/30/04	8/3/04	Barium	143	2	mg/kg
		7/30/04	8/3/04	Cadmium	1.8	0.5	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	460		umhos/cm
		7/30/04	8/3/04	Chromium	20	1.0	mg/kg
		7/30/04	8/3/04	Copper	850	1.0	mg/kg
		7/30/04	8/2/04	Lead	2340	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	6.56		
		7/30/04	8/3/04	Selenium	3	2	mg/kg

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM16108	BSX-83						
		7/30/04	8/2/04	Arsenic	36	2	mg/kg
		7/30/04	8/3/04	Soil Paste Conductivity	400		umhos/cm
		7/30/04	8/2/04	Lead	781	0.05	mg/kg
		7/30/04	8/3/04	pH Paste	6.28		

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KPL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 8/2/2004

Quality Assurance Statement for Samples: **AM15970**
AM15971
AM16097 - AM16108

Original: AM16107 **Spike Sample:** AM16122 **Blank SPIKE:** AM16124

Duplicate: AM16121 **Blank Sample:** AM16123 **Reference Sample:** AM16125 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	6	7	-15.38	100	108	**102**	Below MDL	102	**102**	NA	NA	
Arsenic	2	95	109	-13.73	100	198	**103**	Below MDL	99	**96**	135	129	105
Barium	2	143	145	-1.39	100	242	**99**	Below MDL	101	**101**	226	220	103
Cadmium	0.5	1.8	2	-10.53	100	96	**94**	Below MDL	97	**97**	89	89.2	100
Chromium	1	20	20	0.00	100	119	**99**	Below MDL	100	**100**	109	105	104
Lead	1	2340	3000	-24.72	100	2480	**140**	Below MDL	104	**106**	62	61	102
Selenium	2	3	3	0.00	100	90	**87**	Below MDL	89	**89**	86	88.9	97
Copper	1	850	1070	-22.92	100	973	**123**	Below MDL	104	**104**	105	95	111

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LARRY ELKIN

Sample Preparation: *SW 846 Method 3050B*
Sample Analysis: *SW 846 Method 6010B*
SW846 Method 7471A for H g
Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 8/2/2004
QC: Sample#: AM16181
Login Group: 08021443

Total Metal

Lab	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM16178	BSX-73						
		8/2/04	8/5/04	Arsenic	42	2	mg/kg
		8/2/04	8/5/04	Lead	735	0.05	mg/kg
		8/2/04	8/3/04	pH Paste	6.41		
		8/2/04	8/3/04	Soil Paste Conductivity	290		umhos/cm
AM16179	BSX-74						
		8/2/04	8/3/04	Soil Paste Conductivity	250		umhos/cm
		8/2/04	8/5/04	Arsenic	32	2	mg/kg
		8/2/04	8/5/04	Lead	681	0.05	mg/kg
		8/2/04	8/3/04	pH Paste	6.81		
AM16180	BSX-84						
		8/2/04	8/5/04	Arsenic	56	2	mg/kg
		8/2/04	8/5/04	Lead	1520	0.05	mg/kg
		8/2/04	8/3/04	pH Paste	6.76		
		8/2/04	8/3/04	Soil Paste Conductivity	260		umhos/cm
AM16181	BSX-85						
		8/2/04	8/6/04	Cadmium	3.0	0.5	mg/kg
		8/2/04	8/3/04	Soil Paste Conductivity	300		umhos/cm
		8/2/04	8/6/04	Chromium	17	1.0	mg/kg
		8/2/04	8/6/04	Silver	5	1	mg/kg
		8/2/04	8/5/04	Arsenic	46	2	mg/kg
		8/2/04	8/6/04	Barium	86	2	mg/kg
		8/2/04	8/6/04	Copper	778	1.0	mg/kg
		8/2/04	8/5/04	Lead	1430	0.05	mg/kg
		8/2/04	8/3/04	pH Paste	6.95		
		8/2/04	8/6/04	Selenium	Below MDL	2	mg/kg

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 8/4/2004

Quality Assurance Statement for Samples: **AM16178 - AM16181**

Original: AM16181 **Spike Sample:** AM16270 **Blank SPIKE:** AM16272

Duplicate: AM16269 **Blank Sample:** AM16271 **Reference Sample:** AM16273 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	5	5	0.00	100	102	**97**	Below MDL	99	**99**	NA	NA	
Arsenic	2	46	48	-4.26	100	152	**106**	Below MDL	98	**96**	135	129	105
Barium	2	86	86	0.00	100	189	**103**	Below MDL	101	**101**	221	220	100
Cadmium	0.5	3	3.2	-6.45	100	95.7	**93**	Below MDL	96	**96**	87.1	89.2	98
Chromium	1	17	16	6.06	100	118	**101**	Below MDL	102	**102**	110	105	105
Lead	1	1430	1530	-6.76	100	1690	*	Below MDL	101	**106**	59.7	61	98
Selenium	2	Below MDL	Below MDL	**	100	90	**90**	Below MDL	90	**90**	83	88.9	93
Copper	1	778	791	-1.66	100	106	*	Below MDL	106	**106**	104	95	109

* = Sample concentration is 10 times higher than the spike amount.

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

LARRY ELKIN

Sample Preparation: *SW 846 Method 3050B*
Sample Analysis: *SW 846 Method 6010B*
SW846 Method 7471A for H g
Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 8/5/2004
QC: Sample#: AM16387
Login Group: 08051325

Total Metal

Lab	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM16384	BSX-86						
		8/5/04	8/9/04	Arsenic	25	2	mg/kg
		8/5/04	8/25/04	Soil Paste Conductivity	260		umhos/cm
		8/5/04	8/9/04	Lead	579	0.05	mg/kg
		8/5/04	8/25/04	pH Paste	8.13		
AM16385	BSX-87						
		8/5/04	8/9/04	Arsenic	34	2	mg/kg
		8/5/04	8/25/04	Soil Paste Conductivity	160		umhos/cm
		8/5/04	8/9/04	Lead	1150	0.05	mg/kg
		8/5/04	8/25/04	pH Paste	7.87		
AM16386	BSX-88						
		8/5/04	8/9/04	Arsenic	29	2	mg/kg
		8/5/04	8/25/04	Soil Paste Conductivity	470		umhos/cm
		8/5/04	8/9/04	Lead	819	0.05	mg/kg
		8/5/04	8/25/04	pH Paste	7.58		
AM16387	BSX-89						
		8/5/04	8/10/04	Silver	Below MDL	1	mg/kg
		8/5/04	8/9/04	Arsenic	21	2	mg/kg
		8/5/04	8/10/04	Barium	206	2	mg/kg
		8/5/04	8/10/04	Cadmium	2.5	0.5	mg/kg
		8/5/04	8/25/04	Soil Paste Conductivity	960		umhos/cm
		8/5/04	8/10/04	Chromium	26	1.0	mg/kg
		8/5/04	8/10/04	Copper	1360	1.0	mg/kg
		8/5/04	8/9/04	Lead	618	0.05	mg/kg
		8/5/04	8/25/04	pH Paste	7.20		
		8/5/04	8/10/04	Selenium	Below MDL	2	mg/kg

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 8/9/2004

Quality Assurance Statement for Samples: **AM16379 - AM16387**
AM16490 - AM16500

Original: AM16387 **Spike Sample:** AM16521 **Blank SPIKE:** AM16523

Duplicate: AM16520 **Blank Sample:** AM16522 **Reference Sample:** AM16524 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	Below MDL	Below MDL	**	100	100	**100**	Below MDL	99	**99**	NA	NA	
Arsenic	2	21	20	4.88	100	124	**103**	Below MDL	99	**96**	141	129	109
Barium	2	206	201	2.46	100	291	**85**	Below MDL	103	**103**	230	220	105
Cadmium	0.5	2.5	2.4	4.08	100	98	**96**	Below MDL	100	**100**	91.2	89.2	102
Chromium	1	26	24	8.00	100	123	**97**	Below MDL	101	**101**	109	105	104
Lead	1	618	662	-6.88	100	785	**123**	Below MDL	99	**106**	61.4	61	101
Selenium	2	Below MDL	Below MDL	**	100	82	**82**	Below MDL	88	**88**	81	88.9	91
Copper	1	1360	1290	5.28	100	1260	*	Below MDL	106	**106**	106	95	112

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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Utah Copper

Kennecott Environmental Laboratory

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AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

EHUD ARDON

Sample Preparation: *SW 846 Method 3050B*
Sample Analysis: *SW 846 Method 6010B*
SW846 Method 7471A for H g
Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 9/10/2004
QC: Sample#: AM18402
Login Group: 09100858

Total Metal

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM18394	BSX-71A						
		9/8/04	9/13/04	Arsenic	15	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	350		umhos/cm
		9/8/04	9/13/04	Lead	184	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	7.38		
AM18395	BSX-81A						
		9/8/04	9/13/04	Arsenic	14	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	190		umhos/cm
		9/8/04	9/13/04	Lead	64	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	8.04		
AM18396	BSX-86A						
		9/8/04	9/13/04	Arsenic	20	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	180		umhos/cm
		9/8/04	9/13/04	Lead	102	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	8.09		
AM18397	BSX-87A						
		9/8/04	9/13/04	Arsenic	20	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	210		umhos/cm
		9/8/04	9/13/04	Lead	401	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	7.21		
AM18398	BSX-88A						
		9/8/04	9/13/04	Arsenic	41	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	220		umhos/cm
		9/8/04	9/13/04	Lead	1460	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	6.99		
AM18399	BSX-89A						
		9/8/04	9/13/04	Arsenic	35	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	690		umhos/cm
		9/8/04	9/13/04	Lead	987	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	6.98		
AM18400	BSX-90						
		9/8/04	9/13/04	Arsenic	11	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	180		umhos/cm
		9/8/04	9/13/04	Lead	128	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	7.94		
AM18401	BSX-91						
		9/8/04	9/13/04	Arsenic	20	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	500		umhos/cm
		9/8/04	9/13/04	Lead	231	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	7.71		
AM18402	BSX-44B						
		9/8/04	9/13/04	Arsenic	16	2	mg/kg
		9/8/04	9/21/04	Soil Paste Conductivity	80		umhos/cm
		9/8/04	9/13/04	Lead	163	0.05	mg/kg
		9/8/04	9/21/04	pH Paste	6.75		

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM18403	BSX-73A						
		9/9/04	9/13/04	Arsenic	91	2	mg/kg
		9/9/04	9/21/04	Soil Paste Conductivity	440		umhos/cm
		9/9/04	9/13/04	Lead	863	0.05	mg/kg
		9/9/04	9/21/04	pH Paste	7.11		
[illegible]04	BSX-74A						
		9/9/04	9/13/04	Arsenic	41	2	mg/kg
		9/9/04	9/21/04	Soil Paste Conductivity	350		umhos/cm
		9/9/04	9/13/04	Lead	949	0.05	mg/kg
		9/9/04	9/21/04	pH Paste	7.12		
AM18405	BSX-84A						
		9/9/04	9/13/04	Arsenic	41	2	mg/kg
		9/9/04	9/21/04	Soil Paste Conductivity	290		umhos/cm
		9/9/04	9/13/04	Lead	1030	0.05	mg/kg
		9/9/04	9/21/04	pH Paste	7.02		
AM18406	BSX-85A						
		9/9/04	9/13/04	Arsenic	35	2	mg/kg
		9/9/04	9/21/04	Soil Paste Conductivity	350		umhos/cm
		9/9/04	9/13/04	Lead	1030	0.05	mg/kg
		9/9/04	9/21/04	pH Paste	7.59		
AM18407	BSX-92						
		9/9/04	9/13/04	Arsenic	31	2	mg/kg
		9/9/04	9/21/04	Soil Paste Conductivity	410		umhos/cm
		9/9/04	9/13/04	Lead	758	0.05	mg/kg
		9/9/04	9/21/04	pH Paste	7.80		
AM18408	BSX-93						
		9/9/04	9/13/04	Arsenic	19	2	mg/kg
		9/9/04	9/21/04	Soil Paste Conductivity	210		umhos/cm
		9/9/04	9/13/04	Lead	499	0.05	mg/kg
		9/9/04	9/21/04	pH Paste	7.43		
AM18409	BSX-94						
		9/9/04	9/13/04	Arsenic	19	2	mg/kg
		9/9/04	9/21/04	Soil Paste Conductivity	250		umhos/cm
		9/9/04	9/13/04	Lead	396	0.05	mg/kg
		9/9/04	9/21/04	pH Paste	8.07		

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 9/10/2004

Quality Assurance Statement for Samples: **AM18394 - AM18409**
AM18422

Original: AM18402 **Spike Sample:** AM18452 **Blank SPIKE:** AM18454

Duplicate: AM18451 **Blank Sample:** AM18453 **Reference Sample:** AM18455 0017-15-09

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	16	12	28.57	100	115	**103**	Below MDL	102	**102**	295	283	104
Lead	1	163	165	-1.22	100	265	**100**	Below MDL	102	**102**	86.4	84.7	102

* = Sample concentration is 10 times higher than the spike amount.
** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 30-Mar-07

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: *SWA 846 Method 3050 B*

Metals Analysis: *SWA846 Methods 60100B and 7471*

Submission Date: 10/28/2004

QC Reference Sample: **AM20803**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AM20789	BSX-31NW	10/27/2004	11/4/2004	pH Paste	**6.88**		
			10/29/2004	Arsenic	**23**	2	mg/kg
			10/29/2004	Lead	**229**	3	mg/kg
AM20793	BSX-31C	10/27/2004	11/4/2004	pH Paste	**5.27**		
			10/29/2004	Arsenic	**67**	2	mg/kg
			10/29/2004	Lead	**1680**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**180**		umhos/cm
AM20794	BSX-73B	10/27/2004	11/4/2004	pH Paste	**7.64**		
			10/29/2004	Arsenic	**21**	2	mg/kg
			10/29/2004	Lead	**383**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**200**		umhos/cm
AM20795	BSX-74B	10/27/2004	11/4/2004	pH Paste	**7.84**		
			10/29/2004	Arsenic	**24**	2	mg/kg
			10/29/2004	Lead	**389**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**230**		umhos/cm
AM20796	BSX-81B	10/27/2004	11/4/2004	pH Paste	**8.19**		
			10/29/2004	Arsenic	**18**	2	mg/kg
			10/29/2004	Lead	**168**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**160**		umhos/cm
AM20797	BSX-82B	10/27/2004	11/4/2004	pH Paste	**7.74**		
			10/29/2004	Arsenic	**20**	2	mg/kg
			10/29/2004	Lead	**222**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**380**		umhos/cm
AM20798	BSX-83B	10/27/2004	11/4/2004	pH Paste	**8.70**		
			10/29/2004	Arsenic	**12**	2	mg/kg
			10/29/2004	Lead	**59**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**130**		umhos/cm
AM20799	BSX-84B	10/27/2004	11/4/2004	pH Paste	**7.13**		
			10/29/2004	Arsenic	**7**	2	mg/kg
			10/29/2004	Lead	**89**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**70**		umhos/cm
AM20800	BSX-85B	10/27/2004	11/4/2004	pH Paste	**6.86**		
			10/29/2004	Arsenic	**21**	2	mg/kg
			10/29/2004	Lead	**665**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**170**		umhos/cm
AM20801	BSX-88B	10/27/2004	11/4/2004	pH Paste	**7.14**		
			10/29/2004	Arsenic	**9**	2	mg/kg
			10/29/2004	Lead	**171**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**150**		umhos/cm

Lab No.	Sample Description	Collection Date	Analysis Date	Analyte	Result	Reporting Limits	Units
AM20802	BSX-89B	10/27/2004	11/4/2004	pH Paste	**6.94**		
			10/29/2004	Arsenic	**8**	2	mg/kg
			10/29/2004	Lead	**663**	3	mg/kg
			11/4/2004	Soil Paste Conductivity	**670**		umhos/cm
AM20803	BSX-92A	10/27/2004	11/4/2004	pH Paste	**7.62**		
			10/29/2004	Arsenic	**30**	2	mg/kg
			10/29/2004	Barium	**90**	2	mg/kg
			10/29/2004	Cadmium	**2.7**	1	mg/kg
			10/29/2004	Chromium	**17**	2	mg/kg
			10/29/2004	Copper	**770**	2.0	mg/kg
			10/29/2004	Lead	**693**	3	mg/kg
			10/29/2004	Selenium	**Below MDL**	2	mg/kg
			10/29/2004	Silver	**2**	1	mg/kg
			11/4/2004	Soil Paste Conductivity	**320**		umhos/cm

Approved by:

Approved By: Lynn A. Hutchinson CIH
REL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 10/29/2004

Quality Assurance Statement for Sample: **AM20789 - AM20803**
AM20853

Original: AM20803 **Spike Sample:** AM20855 **Blank Sample:** AM20857

Duplicate: AM20854 **Blank Sample:** AM20856 **Reference Sample:** AM20858 0017-15-09

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	30	22	7.70	100	109	**79**	Below MDL	94	**94**	278	283	98
Lead	2	693	425	47.9	100	436	**	Below MDL	96	**96**	82	84.7	97

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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Fax: (801) 569-7901

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

To: EHUD ARDON

Sample Preparation: SW 846 Method 3050B
Sample Analysis: SW 846 Method 6010B
SW846 Method 7471A for H g

Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 10/29/2004
QC: Sample#: AM20803
Login Group: 10290653

Total Metal

Lab	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM20853	BSX-823W						
		10/27/04	10/29/04	Arsenic	5	2	mg/kg
		10/27/04	11/4/04	Soil Paste Conductivity	130		umhos/cm
		10/27/04	10/29/04	Lead	106	0.05	mg/kg
		10/27/04	11/4/04	pH Paste	6.31		

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 10/29/2004

Quality Assurance Statement for Sample: **AM20789 - AM20803**
AM20853

Original: AM20803 **Spike Sample:** AM20855 **Blank Sample:** AM20857

Duplicate: AM20854 **Blank Sample:** AM20856 **Reference Sample:** AM20858 0017-15-09

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	30	22	7.70	100	109	**79**	Below MDL	94	**94**	278	283	98
Lead	2	693	425	47.9	100	436	**	Below MDL	96	**96**	82	84.7	97

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 20-Mar-07

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: *SWA 846 Method 3050 B*

Metals Analysis: *SWA846 Methods 60100B and 7471*

Submission Date: 11/27/2006

QC Reference Sample: **AO19206**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AO19205	BSX-95	11/20/2006	12/1/2006	pH Paste	**7.69**		
			12/5/2006	Arsenic	**18**	2	mg/kg
			12/5/2006	Lead	**349**	3	mg/kg
AO19206	BSX-96	11/20/2006	12/1/2006	pH Paste	**8.28**		
			12/5/2006	Arsenic	**7**	2	mg/kg
			12/5/2006	Lead	**43**	3	mg/kg
AO19207	BSX-97	11/20/2006	12/1/2006	pH Paste	**8.21**		
			12/5/2006	Arsenic	**6**	2	mg/kg
			12/5/2006	Lead	**39**	3	mg/kg
AO19208	BSX-98	11/20/2006	12/1/2006	pH Paste	**8.12**		
			12/5/2006	Arsenic	**9**	2	mg/kg
			12/5/2006	Lead	**148**	3	mg/kg
AO19209	BSX-31D	11/22/2006	12/1/2006	pH Paste	**7.21**		
			12/5/2006	Arsenic	**34**	2	mg/kg
			12/5/2006	Lead	**983**	3	mg/kg
AO19210	BSX-85C	11/22/2006	12/1/2006	pH Paste	**5.89**		
			12/5/2006	Arsenic	**25**	2	mg/kg
			12/5/2006	Lead	**654**	3	mg/kg
AO19211	BSX-89C	11/22/2006	12/1/2006	pH Paste	**7.90**		
			12/5/2006	Arsenic	**16**	2	mg/kg
			12/5/2006	Lead	**293**	3	mg/kg
AO19212	BSX-92B	11/22/2006	12/1/2006	pH Paste	**5.97**		
			12/5/2006	Arsenic	**14**	2	mg/kg
			12/5/2006	Lead	**399**	3	mg/kg

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 12/1/2006

Quality Assurance Satement for Samples: **AO19126-AO19128, AO19205-AO19212, AO19387, AO19388**

Original: AO19206 **Spike Sample:** AO19522 **Blank Spike:** AO19524

Duplicate: AO19521 **Blank Sample:** AO19523 **Reference Sample:** AO19525 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	7	7	0.00	100	93	**86**	Below MDL	89	**89**	137	142	**96**
Lead	1	43	63	-37.74	100	131	**88**	Below MDL	89	**89**	86	93.6	**92**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 20-Mar-07

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: ***SWA 846 Method 3050 B***

Metals Analysis: ***SWA846 Methods 60100B and 7471***

Submission Date: 12/8/2006

QC Reference Sample: **AO19910**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AO19893	BSX-99	12/7/2006	12/8/2006	pH Paste	5.79		
			12/12/2006	Arsenic	75	2	mg/kg
			12/12/2006	Lead	3020	3	mg/kg
AO19894	BSX-100	12/7/2006	12/8/2006	pH Paste	7.30		
			12/12/2006	Arsenic	13	2	mg/kg
			12/12/2006	Lead	266	3	mg/kg
AO19895	BSX-101	12/7/2006	12/8/2006	pH Paste	7.44		
			12/12/2006	Arsenic	47	2	mg/kg
			12/12/2006	Lead	1450	3	mg/kg
AO19896	BSX-102	12/7/2006	12/8/2006	pH Paste	7.74		
			12/12/2006	Arsenic	7	2	mg/kg
			12/12/2006	Lead	79	3	mg/kg
AO19897	BSX-103	12/7/2006	12/8/2006	pH Paste	7.68		
			12/12/2006	Arsenic	11	2	mg/kg
			12/12/2006	Lead	229	3	mg/kg
AO19898	BSX-104	12/7/2006	12/8/2006	pH Paste	7.94		
			12/12/2006	Arsenic	7	2	mg/kg
			12/12/2006	Lead	77	3	mg/kg
AO19899	BSX-105	12/7/2006	12/8/2006	pH Paste	7.10		
			12/12/2006	Arsenic	38	2	mg/kg
			12/12/2006	Lead	1060	3	mg/kg
AO19900	BSX-106	12/7/2006	12/8/2006	pH Paste	7.73		
			12/12/2006	Arsenic	11	2	mg/kg
			12/12/2006	Lead	184	3	mg/kg
AO19901	BSX-107	12/7/2006	12/8/2006	pH Paste	7.43		
			12/12/2006	Arsenic	13	2	mg/kg
			12/12/2006	Lead	87	3	mg/kg
AO19902	BSX-108	12/7/2006	12/8/2006	pH Paste	7.14		
			12/12/2006	Arsenic	156	2	mg/kg
			12/12/2006	Lead	3190	3	mg/kg
AO19903	BSX-109	12/7/2006	12/8/2006	pH Paste	7.07		
			12/12/2006	Arsenic	58	2	mg/kg
			12/12/2006	Lead	1960	3	mg/kg
AO[illegible]4	BSX-110	12/7/2006	12/8/2006	pH Paste	8.11		
			12/12/2006	Arsenic	12	2	mg/kg
			12/12/2006	Lead	48	3	mg/kg

Lab No.	Sample Description	Collection Date	Analysis Date	Analyte	Result	Reporting Limits	Units
AO19905	BSX-111	12/7/2006	12/8/2006	pH Paste	6.26		
			12/12/2006	Arsenic	54	2	mg/kg
			12/12/2006	Lead	1480	3	mg/kg
AO19906	BSX-112	12/7/2006	12/8/2006	pH Paste	8.00		
			12/12/2006	Arsenic	19	2	mg/kg
			12/12/2006	Lead	462	3	mg/kg
AO19907	BSX-113	12/7/2006	12/8/2006	pH Paste	8.22		
			12/12/2006	Arsenic	7	2	mg/kg
			12/12/2006	Lead	74	3	mg/kg
AO19908	BSX-114	12/7/2006	12/8/2006	pH Paste	6.57		
			12/12/2006	Arsenic	19	2	mg/kg
			12/12/2006	Lead	265	3	mg/kg
AO19909	BSX-115	12/7/2006	12/8/2006	pH Paste	6.64		
			12/12/2006	Arsenic	51	2	mg/kg
			12/12/2006	Lead	1710	3	mg/kg
AO19910	BSX-116	12/7/2006	12/8/2006	pH Paste	6.91		
			12/12/2006	Arsenic	28	2	mg/kg
			12/12/2006	Lead	808	3	mg/kg

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 12/12/2006

Quality Assurance Satement for Samples: **AO19893-AO19910**

Original: AO19910 **Spike Sample:** AO20019 **Blank Spike:** AO20021

Duplicate: AO20018 **Blank Sample:** AO20020 **Reference Sample:** AO20022 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	28	30	-6.90	100	91	**91**	Below MDL	91	**91**	138	142	**97**
Lead	1	808	840	-3.88	100	93	**93**	Below MDL	93	**93**	88	93.6	**94**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

***= possible matrix interference

Kennecott
Utah Copper

Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 20-Mar-07

3325 South 9200 West
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Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: ***SWA 846 Method 3050 B*** ***Submission Date:*** 12/18/2006

Metals Analysis: ***SWA846 Methods 60100B and 7471*** ***QC Reference Sample:*** **AO20411**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AO20400	BSX-117	12/15/2006	12/19/2006	pH Paste	6.33		
			12/20/2006	Arsenic	10	2	mg/kg
			12/20/2006	Lead	138	3	mg/kg
AO20401	BSX-118	12/15/2006	12/19/2006	pH Paste	8.20		
			12/20/2006	Arsenic	14	2	mg/kg
			12/20/2006	Lead	35	3	mg/kg
AO20402	BSX-119	12/15/2006	12/19/2006	pH Paste	7.95		
			12/20/2006	Arsenic	7	2	mg/kg
			12/20/2006	Lead	36	3	mg/kg
AO20403	BSX-120	12/15/2006	12/19/2006	pH Paste	7.77		
			12/20/2006	Arsenic	7	2	mg/kg
			12/20/2006	Lead	30	3	mg/kg
AO20404	BSX-121	12/15/2006	12/19/2006	pH Paste	7.74		
			12/20/2006	Arsenic	34	2	mg/kg
			12/20/2006	Lead	860	3	mg/kg
AO20405	BSX-122	12/15/2006	12/19/2006	pH Paste	7.96		
			12/20/2006	Arsenic	6	2	mg/kg
			12/20/2006	Lead	55	3	mg/kg
AO20406	BSX-123	12/15/2006	12/19/2006	pH Paste	7.73		
			12/20/2006	Arsenic	7	2	mg/kg
			12/20/2006	Lead	69	3	mg/kg
AO20407	BSX-124	12/15/2006	12/19/2006	pH Paste	7.97		
			12/20/2006	Arsenic	12	2	mg/kg
			12/20/2006	Lead	255	3	mg/kg
AO20408	BSX-125	12/15/2006	12/19/2006	pH Paste	8.13		
			12/20/2006	Arsenic	8	2	mg/kg
			12/20/2006	Lead	108	3	mg/kg
AO20409	BSZ-109A	12/15/2006	12/19/2006	pH Paste	7.71		
			12/20/2006	Arsenic	6	2	mg/kg
			12/20/2006	Lead	51	3	mg/kg
AO20410	BSX-115A	12/15/2006	12/19/2006	pH Paste	7.06		
			12/20/2006	Arsenic	44	2	mg/kg
			12/20/2006	Lead	1170	3	mg/kg
O20411	BSX-116A	12/15/2006	12/19/2006	pH Paste	6.72		
			12/20/2006	Arsenic	26	2	mg/kg
			12/20/2006	Lead	745	3	mg/kg

Lab No.	Sample Description	Collection Date	Analysis Date	Analyte	Result	Reporting Limits	Units

Approved by:

Approved By: Lynn A. Hutchinson CIH
REL Laboratory Director

Kennecott Enviro[illegible]ental Laboratory

Total Metals

Preparation Date: 12/19/2006

Quality Assurance Satement for Samples: **AO20400-AO20411**

Original: AO20411 **Spike Sample:** AO20492 **Blank Spike:** AO20494

Duplicate: AO20491 **Blank Sample:** AO20493 **Reference Sample:** AO20495 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	26	31	-17.54	100	112	**86**	Below MDL	94	**94**	141	142	**99**
Lead	1	745	932	-22.30	100	750	[redacted]	Below MDL	97	**97**	91	93.6	**97**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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Utah Copper

Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 20-Mar-07

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Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: SWA 846 Method 3050 B

Metals Analysis: SWA846 Methods 60100B and 7471

Submission Date: 12/21/2006

QC Reference Sample: **AO20640**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AO20627	BSX-126	12/20/2006	12/26/2006	pH Paste	**6.11**		
			12/27/2006	Arsenic	**82**	2	mg/kg
			12/27/2006	Lead	**2850**	3	mg/kg
AO20628	BSX-127	12/20/2006	12/26/2006	pH Paste	**7.43**		
			12/27/2006	Arsenic	**44**	2	mg/kg
			12/27/2006	Lead	**1130**	3	mg/kg
AO20629	BSX-128	12/20/2006	12/26/2006	pH Paste	**7.50**		
			12/27/2006	Arsenic	**31**	2	mg/kg
			12/27/2006	Lead	**1110**	3	mg/kg
AO20630	BSX-129	12/20/2006	12/26/2006	pH Paste	**7.78**		
			12/27/2006	Arsenic	**25**	2	mg/kg
			12/27/2006	Lead	**774**	3	mg/kg
AO20631	BSX-130	12/20/2006	12/26/2006	pH Paste	**7.38**		
			12/27/2006	Arsenic	**13**	2	mg/kg
			12/27/2006	Lead	**247**	3	mg/kg
AO20632	BSX-131	12/20/2006	12/26/2006	pH Paste	**7.70**		
			12/27/2006	Arsenic	**8**	2	mg/kg
			12/27/2006	Lead	**84**	3	mg/kg
AO20633	BSX-132	12/20/2006	12/26/2006	pH Paste	**7.48**		
			12/27/2006	Arsenic	**8**	2	mg/kg
			12/27/2006	Lead	**96**	3	mg/kg
AO20634	BSX-133	12/20/2006	12/26/2006	pH Paste	**6.21**		
			12/27/2006	Arsenic	**57**	2	mg/kg
			12/27/2006	Lead	**2100**	3	mg/kg
AO20635	BSX-134	12/20/2006	12/26/2006	pH Paste	**8.11**		
			12/27/2006	Arsenic	**16**	2	mg/kg
			12/27/2006	Lead	**432**	3	mg/kg
AO20636	BSX-135	12/20/2006	12/26/2006	pH Paste	**7.70**		
			12/27/2006	Arsenic	**50**	2	mg/kg
			12/27/2006	Lead	**1300**	3	mg/kg
AO20637	BSX-136	12/20/2006	12/26/2006	pH Paste	**7.25**		
			12/27/2006	Arsenic	**25**	2	mg/kg
			12/27/2006	Lead	**672**	3	mg/kg
AO20638	BSX-31E	12/20/2006	12/26/2006	pH Paste	**5.90**		
			12/27/2006	Arsenic	**10**	2	mg/kg
			12/27/2006	Lead	**81**	3	mg/kg

Lab No.	Sample Description	Collection Date	Analysis Date	Analyte	Result	Reporting Limits	Units
[illegible]0639	BSX-85D	12/20/2006	12/26/2006	pH Paste	**8.25**		
			12/27/2006	Arsenic	**12**	2	mg/kg
			12/27/2006	Lead	**64**	3	mg/kg
AO20640	BSX-108A	12/20/2006	12/26/2006	pH Paste	**7.77**		
			12/27/2006	Arsenic	**19**	2	mg/kg
			12/27/2006	Lead	**678**	3	mg/kg

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 12/27/2006

Quality Assurance Satement for Samples: **AO20627-AO20640**

Original: AO20640 **Spike Sample:** AO20682 **Blank Spike:** AO20684

Duplicate: AO20681 **Blank Sample:** AO20683 **Reference Sample:** AO20685 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	19	20	-5.13	100	107	**88**	Below MDL	90	**90**	139	142	**98**
Lead	1	678	737	-8.34	100	853*	[redacted]	Below MDL	93	**93**	91	93.6	**97**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

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Utah Copper

Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 20-Mar-07

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: ***SWA 846 Method 3050 B***

Submission Date: 12/29/2006

Metals Analysis: ***SWA846 Methods 60100B and 7471***

QC Reference Sample: **AO20241**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AO20971	BSX-137	12/29/2006	1/2/2007	pH Paste	**8.06**		
			1/2/2007	Arsenic	**6**	2	mg/kg
			1/2/2007	Lead	**30**	3	mg/kg
AO20972	BSX-138	12/29/2006	1/2/2007	pH Paste	**8.12**		
			1/2/2007	Arsenic	**10**	2	mg/kg
			1/2/2007	Lead	**124**	3	mg/kg

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 1/2/2007

Quality Assurance Satement for Samples: **AO20241-AO20256**
AO20971-AO20972

Original: AO20241 **Spike Sample:** AO20948 **Blank Spike:** AO20950

Duplicate: AO20947 **Blank Sample:** AO20949 **Reference Sample:** AO20951 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	47	47	0.00	100	140	**93**	Below MDL	91	**91**	138	142	**97**
Lead	1	357	355	0.56	100	445	**88**	Below MDL	91	**91**	87	93.6	**93**

* = Sample concentration is 5 times higher than the spike amount.
** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.
***= possible matrix interference

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Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

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Fax (801) 569-7901

Date: 20-Mar-07

To: EHUD ARDON

Sample Preparation: ***SWA 846 Method 3050 B***

Submission Date: 1/5/2007

Metals Analysis: ***SWA846 Methods 60100B and 7471***

QC Reference Sample: **AP00233**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AP00233	BSX-115B	1/3/2007	1/8/2007	pH Paste	7.12		
			1/9/2007	Arsenic	21	2	mg/kg
			1/9/2007	Lead	368	3	mg/kg
AP00234	BSX-116B	1/3/2007	1/8/2007	pH Paste	7.46		
			1/9/2007	Arsenic	12	2	mg/kg
			1/9/2007	Lead	47	3	mg/kg
AP00235	BSX-139	1/3/2007	1/8/2007	pH Paste	7.21		
			1/9/2007	Arsenic	19	2	mg/kg
			1/9/2007	Lead	153	3	mg/kg
AP00236	BSX-140	1/3/2007	1/8/2007	pH Paste	7.55		
			1/9/2007	Arsenic	14	2	mg/kg
			1/9/2007	Lead	107	3	mg/kg
AP00237	BSX-141	1/3/2007	1/8/2007	pH Paste	7.90		
			1/9/2007	Arsenic	18	2	mg/kg
			1/9/2007	Lead	168	3	mg/kg
AP00238	BSX-142	1/3/2007	1/8/2007	pH Paste	8.03		
			1/9/2007	Arsenic	26	2	mg/kg
			1/9/2007	Lead	469	3	mg/kg
AP00239	BSX-143	1/3/2007	1/8/2007	pH Paste	7.94		
			1/9/2007	Arsenic	29	2	mg/kg
			1/9/2007	Lead	430	3	mg/kg
AP00240	BSX-144	1/3/2007	1/8/2007	pH Paste	7.89		
			1/9/2007	Arsenic	12	2	mg/kg
			1/9/2007	Lead	62	3	mg/kg
AP00241	BSX-145	1/3/2007	1/8/2007	pH Paste	8.06		
			1/9/2007	Arsenic	14	2	mg/kg
			1/9/2007	Lead	121	3	mg/kg
AP00242	BSX-146	1/3/2007	1/8/2007	pH Paste	8.09		
			1/9/2007	Arsenic	10	2	mg/kg
			1/9/2007	Lead	84	3	mg/kg
AP00243	BSX-147	1/3/2007	1/8/2007	pH Paste	8.20		
			1/9/2007	Arsenic	15	2	mg/kg
			1/9/2007	Lead	63	3	mg/kg
AP[illegible]	BSX-148	1/3/2007	1/8/2007	pH Paste	7.46		
			1/9/2007	Arsenic	34	2	mg/kg
			1/9/2007	Lead	817	3	mg/kg

Lab No.	Sample Description	Collection Date	Analysis Date	Analyte	Result	Reporting Limits	Units
AP00245	BSX-149	1/3/2007	1/8/2007	pH Paste	**8.21**		
			1/9/2007	Arsenic	**36**	2	mg/kg
			1/9/2007	Lead	**92**	3	mg/kg
AP00246	BSX-150	1/3/2007	1/8/2007	pH Paste	**5.03**		
			1/9/2007	Arsenic	**8**	2	mg/kg
			1/9/2007	Lead	**206**	3	mg/kg
AP00247	BSX-151	1/3/2007	1/8/2007	pH Paste	**7.51**		
			1/9/2007	Arsenic	**42**	2	mg/kg
			1/9/2007	Lead	**723**	3	mg/kg

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 1/8/2007

Quality Assurance Satement for Samples: **AP00233-AP00247**

Original: AP00233 **Spike Sample:** AP00348 **Blank Spike:** AP00350

Duplicate: AP00347 **Blank Sample:** AP00349 **Reference Sample:** AP00351 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	21	18	15.38	100	97	**76**	Below MDL	82	**82**	139	142	**98**
Lead	1	368	318	14.58	100	377	[redacted]	Below MDL	83	**83**	90	93.6	**96**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

***= possible matrix interference

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Utah Copper

Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 20-Mar-07

3325 South 9200 West
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Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: SWA 846 Method 3050 B — ***Submission Date:*** 1/10/2007

Metals Analysis: SWA846 Methods 60100B and 7471 — ***QC Reference Sample:*** **AP00143**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AP00549	BSX-101A	1/9/2007	1/12/2007	pH Paste	**8.25**		
			1/12/2007	Arsenic	**14**	2	mg/kg
			1/12/2007	Lead	**176**	3	mg/kg
AP00550	BSX-127A	1/9/2007	1/12/2007	pH Paste	**6.76**		
			1/12/2007	Arsenic	**18**	2	mg/kg
			1/12/2007	Lead	**239**	3	mg/kg
AP00551	BSX-128A	1/9/2007	1/12/2007	pH Paste	**8.01**		
			1/12/2007	Arsenic	**17**	2	mg/kg
			1/12/2007	Lead	**114**	3	mg/kg
AP00552	BSX-129A	1/9/2007	1/12/2007	pH Paste	**7.47**		
			1/12/2007	Arsenic	**9**	2	mg/kg
			1/12/2007	Lead	**127**	3	mg/kg
AP00553	BSX-152	1/9/2007	1/12/2007	pH Paste	**6.62**		
			1/12/2007	Arsenic	**29**	2	mg/kg
			1/12/2007	Lead	**656**	3	mg/kg

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 1/11/2007

Quality Assurance Satement for Samples: **AP00140-AP00143**
AP00549-AP00553

Original: AP00143 **Spike Sample:** AP00507 **Blank Spike:** AP00509

Duplicate: AP00506 **Blank Sample:** AP00508 **Reference Sample:** AP00510 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	42	41	2.41	100	140	**98**	Below MDL	84	**84**	143	142	**101**
Lead	1	1220	1200	1.65	100	1290	**70**	Below MDL	87	**87**	93	93.6	**99**

' = Sample concentration is 5 times higher than the spike amount.
'* = Value is not greater than 10 times the MDL. An RPD cannot be calculated.
'**= possible matrix interference

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Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 20-Mar-07

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Phone (801) 569-7950
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To: EHUD ARDON

Sample Preparation: SWA 846 Method 3050 B

Metals Analysis: SWA846 Methods 60100B and 7471

Submission Date: 1/11/2007

QC Reference Sample: **AP00619**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AP00605	BSX-105A	1/10/2007	1/12/2007	pH Paste	**8.10**		
			1/12/2007	Arsenic	**6**	2	mg/kg
			1/12/2007	Lead	**28**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**210**		umhos/cm
AP00606	BSX-108B	1/10/2007	1/12/2007	pH Paste	**8.02**		
			1/12/2007	Arsenic	**7**	2	mg/kg
			1/12/2007	Lead	**85**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**250**		umhos/cm
AP00607	BSX-121A	1/10/2007	1/12/2007	pH Paste	**8.31**		
			1/12/2007	Arsenic	**15**	2	mg/kg
			1/12/2007	Lead	**38**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**240**		umhos/cm
AP00608	BSX-133A	1/10/2007	1/12/2007	pH Paste	**7.81**		
			1/12/2007	Arsenic	**10**	2	mg/kg
			1/12/2007	Lead	**71**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**810**		umhos/cm
AP00609	BSX-135A	1/10/2007	1/12/2007	pH Paste	**7.71**		
			1/12/2007	Arsenic	**65**	2	mg/kg
			1/12/2007	Lead	**1810**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**320**		umhos/cm
AP00610	BSX-136A	1/10/2007	1/12/2007	pH Paste	**7.80**		
			1/12/2007	Arsenic	**11**	2	mg/kg
			1/12/2007	Lead	**155**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**230**		umhos/cm
AP00611	BSX-148A	1/10/2007	1/12/2007	pH Paste	**7.88**		
			1/12/2007	Arsenic	**7**	2	mg/kg
			1/12/2007	Lead	**37**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**420**		umhos/cm
AP00612	BSX-151A	1/10/2007	1/12/2007	pH Paste	**7.83**		
			1/12/2007	Arsenic	**8**	2	mg/kg
			1/12/2007	Lead	**47**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**230**		umhos/cm
AP00613	BSX-153	1/10/2007	1/12/2007	pH Paste	**8.22**		
			1/12/2007	Arsenic	**18**	2	mg/kg
			1/12/2007	Lead	**136**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**100**		umhos/cm

Lab No.	Sample Description	Collection Date	Analysis Date	Analyte	Result	Reporting Limits	Units
AP00614	BSX-154	1/10/2007	1/12/2007	pH Paste	**8.16**		
			1/12/2007	Arsenic	**14**	2	mg/kg
			1/12/2007	Lead	**101**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**210**		umhos/cm
AP00615	BSX-155	1/10/2007	1/12/2007	pH Paste	**8.01**		
			1/12/2007	Arsenic	**9**	2	mg/kg
			1/12/2007	Lead	**118**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**330**		umhos/cm
AP00616	BSX-156	1/10/2007	1/12/2007	pH Paste	**6.98**		
			1/12/2007	Arsenic	**8**	2	mg/kg
			1/12/2007	Lead	**169**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**280**		umhos/cm
AP00617	BSX-157	1/10/2007	1/12/2007	pH Paste	**7.24**		
			1/12/2007	Arsenic	**10**	2	mg/kg
			1/12/2007	Lead	**149**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**230**		umhos/cm
AP00618	BSX-158	1/10/2007	1/12/2007	pH Paste	**7.90**		
			1/12/2007	Arsenic	**7**	2	mg/kg
			1/12/2007	Lead	**77**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**350**		umhos/cm
AP00619	BSX-159	1/10/2007	1/12/2007	pH Paste	**7.76**		
			1/12/2007	Arsenic	**17**	2	mg/kg
			1/12/2007	Lead	**413**	3	mg/kg
			1/12/2007	Soil Paste Conductivity	**680**		umhos/cm

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 1/12/2007

Quality Assurance Satement for Samples: **AP00605-AP00621**

Original: AP00619 **Spike Sample:** AP00678 **Blank Spike:** AP00680

Duplicate: AP00677 **Blank Sample:** AP00679 **Reference Sample:** AP00681 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	17	16	6.06	100	103	**86**	Below MDL	84	**84**	136	142	**96**
Lead	1	413	427	-3.33	100	496	**83**	Below MDL	88	**88**	91	93.6	**97**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

***= possible matrix interference

Kennecott
Utah Copper

Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

Date: 20-Mar-07

To: EHUD ARDON

Sample Preparation: SWA 846 Method 3050 B ***Submission Date:*** 1/17/2007

Metals Analysis: SWA846 Methods 60100B and 7471 ***QC Reference Sample:*** **AP00871**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AP00857	BSX-99A	1/16/2007	1/19/2007	pH Paste	7.43		
			1/19/2007	Arsenic	7	2	mg/kg
			1/19/2007	Lead	32	3	mg/kg
			1/19/2007	Soil Paste Conductivity	240		umhos/cm
AP00858	BSX-111A	1/16/2007	1/19/2007	pH Paste	8.20		
			1/19/2007	Arsenic	11	2	mg/kg
			1/19/2007	Lead	52	3	mg/kg
			1/19/2007	Soil Paste Conductivity	250		umhos/cm
AP00859	BSX-126A	1/16/2007	1/19/2007	pH Paste	8.06		
			1/19/2007	Arsenic	11	2	mg/kg
			1/19/2007	Lead	77	3	mg/kg
			1/19/2007	Soil Paste Conductivity	190		umhos/cm
AP00860	BSX-160	1/16/2007	1/19/2007	pH Paste	7.12		
			1/19/2007	Arsenic	14	2	mg/kg
			1/19/2007	Lead	82	3	mg/kg
			1/19/2007	Soil Paste Conductivity	90		umhos/cm
AP00861	BSX-161	1/16/2007	1/19/2007	pH Paste	6.43		
			1/19/2007	Arsenic	13	2	mg/kg
			1/19/2007	Lead	123	3	mg/kg
			1/19/2007	Soil Paste Conductivity	60		umhos/cm
AP00862	BSX-162	1/16/2007	1/19/2007	pH Paste	5.72		
			1/19/2007	Arsenic	10	2	mg/kg
			1/19/2007	Lead	76	3	mg/kg
			1/19/2007	Soil Paste Conductivity	40		umhos/cm
AP00863	BSX-163	1/16/2007	1/19/2007	pH Paste	6.85		
			1/19/2007	Arsenic	16	2	mg/kg
			1/19/2007	Lead	105	3	mg/kg
			1/19/2007	Soil Paste Conductivity	60		umhos/cm
AP00864	BSX-164	1/16/2007	1/19/2007	pH Paste	7.74		
			1/19/2007	Arsenic	100	2	mg/kg
			1/19/2007	Lead	2620	3	mg/kg
			1/19/2007	Soil Paste Conductivity	150		umhos/cm
AP00865	BSX-165	1/16/2007	1/19/2007	pH Paste	6.63		
			1/19/2007	Arsenic	15	2	mg/kg
			1/19/2007	Lead	209	3	mg/kg
			1/19/2007	Soil Paste Conductivity	180		umhos/cm

Lab No.	Sample Description	Collection Date	Analysis Date	Analyte	Result	Reporting Limits	Units
AP00866	BSX-166	1/16/2007	1/19/2007	pH Paste	7.84		
			1/19/2007	Arsenic	12	2	mg/kg
			1/19/2007	Lead	185	3	mg/kg
			1/19/2007	Soil Paste Conductivity	460		umhos/cm
AP00867	BSX-167	1/16/2007	1/19/2007	pH Paste	5.88		
			1/19/2007	Arsenic	7	2	mg/kg
			1/19/2007	Lead	32	3	mg/kg
			1/19/2007	Soil Paste Conductivity	300		umhos/cm
AP00868	BSX-168	1/16/2007	1/19/2007	pH Paste	7.80		
			1/19/2007	Arsenic	20	2	mg/kg
			1/19/2007	Lead	180	3	mg/kg
			1/19/2007	Soil Paste Conductivity	220		umhos/cm
AP00869	BSX-169	1/16/2007	1/19/2007	pH Paste	8.08		
			1/19/2007	Arsenic	16	2	mg/kg
			1/19/2007	Lead	50	3	mg/kg
			1/19/2007	Soil Paste Conductivity	170		umhos/cm
AP00870	BSX-152A	1/16/2007	1/19/2007	pH Paste	8.01		
			1/19/2007	Arsenic	9	2	mg/kg
			1/19/2007	Lead	44	3	mg/kg
			1/19/2007	Soil Paste Conductivity	150		umhos/cm
AP00871	BSX-135B	1/16/2007	1/19/2007	pH Paste	8.00		
			1/19/2007	Arsenic	19	2	mg/kg
			1/19/2007	Lead	381	3	mg/kg
			1/19/2007	Soil Paste Conductivity	240		umhos/cm

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 1/19/2007

Quality Assurance Satement for Samples: **AP00857-AP00871**

Original: AP00871 **Spike Sample:** AP00983 **Blank Spike:** AP00985

Duplicate: AP00982 **Blank Sample:** AP00984 **Reference Sample:** AP00986 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	19	14	30.30	100	107	**88**	Below MDL	91	**91**	136	133	**102**
Lead	1	381	248	42.29	100	469	**88**	Below MDL	90	**90**	91	82.8	**110**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

***= possible matrix interference

Kennecott
Utah Copper

Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 20-Mar-07

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: SWA 846 Method 3050 B

Metals Analysis: SWA846 Methods 60100B and 7471

Submission Date: 1/25/2007

QC Reference Sample: **AP01284**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AP01284	BSX-164A	1/24/2007	1/26/2007	pH Paste	**7.79**		
			1/26/2007	Arsenic	**8**	2	mg/kg
			1/26/2007	Lead	**32**	3	mg/kg
			1/26/2007	Soil Paste Conductivity	**1610**		umhos/cm

Approved by:

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Enviro[illegible]nental Laboratory

Total Metals

Preparation Date: 1/26/2007

Quality Assurance Satement for Samples: **AP01284**

Original: AP01284 **Spike Sample:** AP01394 **Blank Spike:** AP01396

Duplicate: AP01393 **Blank Sample:** AP01395 **Reference Sample:** AP01397 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	8	7	13.33	100	98	**90**	Below MDL	91	**91**	142	133	**107**
Lead	1	7	27	-117.65	100	118	**111**	Below MDL	91	**91**	91	82.8	**110**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

***= possible matrix interference

Laboratory Analytical Certificates and QA Statements

Split Samples

Kennecott
Utah Copper

Kennecott Environmental Laboratory
Certificate of Analysis

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax: (801) 569-7901

Date 6/3/2004

EHUD ARDON

SPLITS

Sample Preparation: SW846 Method 3050B

Sample Analysis: SW846 Method 6010

Submission Date: 2/24/2004
Matrix: Soil
QC Sample AM03767
Total Metal

Lab Number	*Descrription*	*Collection Date*	*Analysis Date*	*Analyte*	*RESULT*	MDL	Units
AM03766	BSX-15 (AM01858)						
		1/28/04	3/2/04	Arsenic	24	2	mg/kg
		1/28/04	2/26/04	Soil Paste Conductivity	410		umhos/cm
		1/28/04	3/2/04	Lead	805	0.05	mg/kg
		1/28/04	2/26/04	pH Paste	6.60		
AM03767	BSX-16 (AM01859)						
		1/28/04	3/2/04	Arsenic	20	2	mg/kg
		1/28/04	2/26/04	Soil Paste Conductivity	520		umhos/cm
		1/28/04	3/2/04	Lead	151	0.05	mg/kg
		1/28/04	2/26/04	pH Paste	7.79		

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KUL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Submission Date: 2/26/2004

Quality Assurance Statement for Sample: **AM03767**

Original: AM03767 **Spike Sample:** AM03897 **Blank Sample:** AM03899

Duplicate: AM03896 **Blank Sample:** AM03898 **Reference Sample:** AM03900 0017-15-02

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	20	20	0.00	100	114	**94**	Below MDL	97	**97**	136	129	105
Lead	1	151	148	2.01	100	239	**91**	Below MDL	99	**99**	60	61	98

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

Log-in Group No. 11545

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM03766	BSX - 15	1/28/04	1200								AM01858
2												
3	AM03767	BSX - 16	1/28/04	12:10								AM01859
4												
5												
6												
7												
8												
9												SPLIT
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: _____ **Telephone #** _____ **Fax #** _____
Report Results to : EHUD ATZMON **Telephone #** _____ **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: AEH Date/Time: 2/24/04
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
ll Free (888) 263-8686
Fax (801) 263-8687
il: awal@awal-Labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: January 28, 2004
Project: Daybreak

Contact: Larry Elkin
Date Received: March 17, 2004

Lab Sample ID:
L59380-01A

Field Sample ID:
BSX-15

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-wet	3/27/2004 6:06:03 PM	6020	0.50	**28**
Lead	mg/kg-wet	3/30/2004 9:45:25 PM	6010B	5.0	**740**

Released by: _____
Laboratory Supervisor

Report Date: March 31, 2004

ll analysis applicable to the CWA, SDWA and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached Chain-of-Custody. This eport is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection vith the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only n contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

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Salt Lake City, Utah
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ıil: awal@awal-Labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: January 28, 2004
Project: Daybreak

Contact: Larry Elkin
Date Received: March 17, 2004

Lab Sample ID:
L59380-02A

Field Sample ID:
BSX-16

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-wet	3/27/2004 6:13:03 PM	6020	0.50	**20**
Lead	mg/kg-wet	3/29/2004 4:25:42 PM	6010B	5.0	**700**

Released by: Laboratory Supervisor

Report Date: March 31, 2004

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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: January 28, 2004
Project: Daybreak

Contact: Larry Elkin
Date Received: March 17, 2004

Lab Sample ID:
L59380-01

Field Sample ID:
BSX-15

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH	pH Units	03/26/04 5:10 am	9045C	0	**6.28** *

* The sample pH was measured in water at 25 degrees Celcius

Released by: _____
Laboratory Supervisor

Report Date: March 31, 2004

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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: January 28, 2004
Project: Daybreak

Contact: Larry Elkin
Date Received: March 17, 2004

Lab Sample ID:
L59380-02

Field Sample ID:
BSX-16

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH	pH Units	03/26/04 5:10 am	9045C	0	**7.70** *

* The sample pH was measured in water at 25 degrees Celcius

Released by: _____
Laboratory Supervisor

Report Date: March 31, 2004

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INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: North American Exploration, Inc.
Date Sampled: January 28, 2004
Project: Daybreak

Contact: Larry Elkin
Date Received: March 17, 2004

Lab Sample ID:
L59380-01

Field Sample ID:
BSX-15

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH	pH Units	03/26/04 5:10am	9045C	0	**6.28 ***

Sample had expired upon receipt.
* The sample pH was measured in water at 25 degrees Celcius

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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: _____
Laboratory Supervisor

Report Date: March 31, 2004

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INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: North American Exploration, Inc.
Date Sampled: January 28, 2004
Project: Daybreak

Contact: Larry Elkin
Date Received: March 17, 2004

Lab Sample ID:
L59380-02

Field Sample ID:
BSX-16

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH	pH Units	03/26/04 5:10am	9045C	0	**7.70 ***

Sample had expired upon receipt.
* The sample pH was measured in water at 25 degrees Celcius

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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: _____
Laboratory Supervisor

Report Date: March 31, 2004

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American West Analytical Labs

WORK ORDER Summary

17-Mar-04

Work Order L59380

Client ID: NOR100

Project: Daybreak

QC Level: QC 1 HOK 4T

Comments: PH sample was received outside of hold. Paste pH - see Mark for instruction.

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Storage
L59380-01A	BSX-15	1/28/2004	3/17/2004	3/31/2004	Solids	3051A-ICPMS	df/mar 17
				3/31/2004		6020-S	df/mar 17
				3/31/2004		PH-S	df/mar 17
				3/31/2004		Soil_Prep	df/mar 17
L59380-02A	BSX-16			3/31/2004		3051A-ICPMS	df/mar 17
				3/31/2004		6020-S	df/mar 17
				3/31/2004		PH-S	df/mar 17
				3/31/2004		Soil_Prep	df/mar 17

1

Wmfaxed 3/31/04 18:49

59380

Client: North American Exploration
Address: 72 N Main
Keysville UT 84037
City State Zip

Phone _____ Fax _____
Sampler Name _____
Contact _____
Project Name _____
Project Number/P.O.#: Daybreak

AMERICAN WEST ANALYTICAL LABORATORIES
463 West 3600 South
Salt Lake City, Utah 84115
(801) 263-8686
(888) 263-8686
Fax (801) 263-8687

CHAIN OF CUSTODY

Lab Sample Set # 5930
Page _____ of _____

Circle One:
TAT 1 2 3 5 day S
QC 1 2 2+ 3 3+ 4

Lab ID	Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	Dry \ Wet Weight	Total As	Total Pb	Paste pH							COMMENTS
	BSX-15	1-28-04	S			X	X	X							
	BSX-16	"	S			X	X	X							

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered
Notes:
2 Ambient or Chilled
Notes:
3 Temperature 25.3°C
4 Received Broken/Leaking (Improperly Sealed)
Y N
Notes:
5 Properly Preserved
Y N
Notes:
6 Received Within Holding Times
Y N
Notes:
pH out of hold

COC Tape Was:
1 Present on Outer Package Y N NA
2 Unbroken on Outer Package Y N NA
3 Present on Sample Y N NA
4 Unbroken on Sample Y N NA
Notes:

Discrepancies Between Sample Labels and COC Record?
Y N
Notes:

Relinquished By: Signature	Date
Eric Johnson	3/17/04
PRINT NAME	Time
Received By: Signature	Date
Melissa Connolly	3/17/04
PRINT NAME	Time
Melissa Connolly	17:30

Relinquished By: Signature	Date
PRINT NAME	Time
Received By: Signature	Date
PRINT NAME	Time

Relinquished By: Signature	Date
PRINT NAME	Time
Received By: Signature	Date
PRINT NAME	Time

Relinquished By: Signature	Date
PRINT NAME	Time
Received By: Signature	Date
PRINT NAME	Time

Special Instructions:

Kennecott
Utah Copper

Kennecott Environmental Laboratory

A NELAP Accredited Laboratory

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax: (801) 569-7901

Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

To: EHUD ARDON

Sample Preparation: SW 846 Method 3050B
Sample Analysis: SW 846 Method 6010B
SW846 Method 7471A for H g

Sample Type: Soilds
Samples analyzed on an "as received" wet basis.

CERTIFICATE OF ANALYSIS

Date 4/22/2005

Submission Date: 8/18/2004
QC: Sample#: AM17070
Login Group: 08181554

Total Metal

Lab	Descrription	Collection Date	Analysis Date	Analyte	RESULT	MDL	Units
AM17059	BSX-44						
		6/21/04	8/23/04	Arsenic	49	2	mg/kg
		6/21/04	8/23/04	Lead	1210	0.05	mg/kg
AM17060	BSX-46						
		6/21/04	8/23/04	Arsenic	38	2	mg/kg
		6/21/04	8/23/04	Lead	516	0.05	mg/kg
AM17061	BSX-59						
		7/2/04	8/23/04	Arsenic	40	2	mg/kg
		7/2/04	8/23/04	Lead	675	0.05	mg/kg
AM17062	BSX-69						
		7/13/04	8/23/04	Arsenic	27	2	mg/kg
		7/13/04	8/25/04	Soil Paste Conductivity	230		umhos/cm
		7/13/04	8/23/04	Lead	510	0.05	mg/kg
		7/13/04	8/25/04	pH Paste	6.80		
		7/13/04	9/9/04	Sulfate - Leachable	50	5	mg/Kg
		7/13/04	9/14/04	Sulfate in Soils	1200	500	mg/kg
AM17063	BSX-70						
		7/13/04	8/23/04	Arsenic	18	2	mg/kg
		7/13/04	8/25/04	Soil Paste Conductivity	270		umhos/cm
		7/13/04	8/23/04	Lead	207	0.05	mg/kg
		7/13/04	8/25/04	pH Paste	6.86		
		7/13/04	9/9/04	Sulfate - Leachable	54	5	mg/Kg
		7/13/04	9/14/04	Sulfate in Soils	4500	500	mg/kg
AM17064	BSX-71						
		7/13/04	8/23/04	Arsenic	36	2	mg/kg
		7/13/04	8/25/04	Soil Paste Conductivity	240		umhos/cm
		7/13/04	8/23/04	Lead	846	0.05	mg/kg
		7/13/04	8/25/04	pH Paste	6.74		
		7/13/04	9/9/04	Sulfate - Leachable	48	5	mg/Kg
		7/13/04	9/14/04	Sulfate in Soils	1500	500	mg/kg

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 8/20/2004

Quality Assurance Statement for Samples: **AM17059 - AM17070**

Original: AM17070 **Spike Sample:** AM17209 **Blank SPIKE:** AM17211

Duplicate: AM17208 **Blank Sample:** AM17210 **Reference Sample:** AM17212 0017-15-09

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Silver	1	Below MDL	Below MDL	**	100	100	**100**	Below MDL	104	**104**	103	92.2	112
Arsenic	2	26	25	3.92	100	125	**99**	Below MDL	106	**96**	328	283	116
Barium	2	158	155	1.92	100	260	**102**	Below MDL	110	**110**	613	529	116
Cadmium	0.5	1.7	1.4	19.35	100	95.6	**94**	Below MDL	107	**107**	55.7	50.7	110
Chromium	1	53	47	12.00	100	150	**97**	Below MDL	108	**108**	75.5	64.8	117
Lead	1	279	278	0.36	100	369	**91**	Below MDL	102	**106**	101	84.7	119
Selenium	2	Below MDL	Below MDL	**	100	88	**88**	Below MDL	93	**93**	129	124	104
Copper	1	23	25	-8.33	100	136	*	Below MDL	111	**111**	197	169	117

* = Sample concentration is 10 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

Log-in Group No. 81554

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1												
2	AM17659	BSX-44	6/21/04	11:53								split samples
3	060	BSX-46	6/21/04	12:20								Total metal As, Pb
4	061	BSX-59	7/12/04	11:59								
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: Ehud Ardon **Telephone #** _____ **Fax #** _____
Report Results to : EHUD ARDON **Telephone #** _____ **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: AEH Date/Time: 8/18/04
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

Log-in Group No. 81602

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AM17062	BSX-69	7/13/04	7:50								AM14706
2	063	BSX-70		8:00								AM14707
3	064	BSX-71		8:07								AM14708
4												
5												
6												-Split
7												pH, Cond, As, Pb,
8												SO4
9												
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: _____ **Telephone #** _____ **Fax #** _____
Report Results to : _____ **Telephone #** _____ **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: AEH Date/Time: 8/18/04
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

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Salt Lake City, Utah
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ɔll Free (888) 263-8686
Fax (801) 263-8687
ail: awal@awal-Labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: June 21, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-01A

Field Sample ID:
BSX-44

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-wet	8/24/2004 4:54:11 PM	6020	0.50	**34**
Lead	mg/kg-wet	8/30/2004 4:18:01 PM	6010B	5.0	**980** [2]

[2] Analyte concentration is too high for accurate spike recovery.

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

All analysis applicable to the CWA, SDWA and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached Chain-of-Custody. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only

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Email: awal@awal-Labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: June 21, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-02A

Field Sample ID:
BSX-46

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-wet	8/24/2004 5:14:04 PM	6020	0.50	**30**
Lead	mg/kg-wet	8/30/2004 4:34:06 PM	6010B	5.0	**430**

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: July 2, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID: L61813-03A

Field Sample ID: BSX-59

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-wet	8/24/2004 5:19:03 PM	6020	0.50	**36**
Lead	mg/kg-wet	8/30/2004 4:38:08 PM	6010B	5.0	**590**

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: July 13, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID: L61813-04A

Field Sample ID: BSX-69

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-wet	8/24/2004 5:24:02 PM	6020	0.50	**23**
Lead	mg/kg-wet	8/30/2004 4:42:11 PM	6010B	5.0	**430**

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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ail: awal@awal-Labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc.
Date Sampled: July 13, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-05A

Field Sample ID:
BSX-70

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-wet	8/24/2004 5:44:56 PM	6020	0.50	**17**
Lead	mg/kg-wet	8/30/2004 4:54:13 PM	6010B	5.0	**180**

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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ail: awal@awal-Labs.com

Client: North American Exploration, Inc.
Date Sampled: July 13, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-06A

Field Sample ID:
BSX-71

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-wet	8/24/2004 5:49:56 PM	6020	0.50	**36**
Lead	mg/kg-wet	8/30/2004 4:58:16 PM	6010B	5.0	**710**

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: Kyle F. Gross
Laboratory Supervisor

Report Date: August 31, 2004

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INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: North American Exploration, Inc.
Date Sampled: June 21, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-01

Field Sample ID:
BSX-44

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH @ 25° C	pH Units	08/23/04 12:00 am	9045C	0	**6.29 ***

* Sample had expired upon receipt.

(801) 263-8686
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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: North American Exploration, Inc.
Date Sampled: June 21, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-02

Field Sample ID:
BSX-46

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH @ 25° C	pH Units	08/23/04 12:00 am	9045C	0	**6.88** *

* Sample had expired upon receipt.

(801) 263-8686
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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: North American Exploration, Inc.
Date Sampled: July 2, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-03

Field Sample ID:
BSX-59

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH @ 25° C	pH Units	08/23/04 12:00 am	9045C	0	**7.61 ***

* Sample had expired upon receipt.

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Email: awal@awal-Labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: North American Exploration, Inc.
Date Sampled: July 13, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-04

Field Sample ID:
BSX-69

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH @ 25° C	pH Units	08/23/04 12:00 am	9045C	0	**7.09 ***

* Sample had expired upon receipt.

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Toll Free (888) 263-8686
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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: North American Exploration, Inc.
Date Sampled: July 13, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-05

Field Sample ID:
BSX-70

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH @ 25° C	pH Units	08/23/04 12:00 am	9045C	0	**7.30 ***

* Sample had expired upon receipt.

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Toll Free (888) 263-8686
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Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

Client: North American Exploration, Inc.
Date Sampled: July 13, 2004
Project: Bastian Sink

Contact: Ehud Ardon
Date Received: August 23, 2004

Lab Sample ID:
L61813-06

Field Sample ID:
BSX-71

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
pH @ 25° C	pH Units	08/23/04 12:00 am	9045C	0	**6.45 ***

* Sample had expired upon receipt.

(801) 263-8686
Toll Free (888) 263-8686
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Email: awal@awal-Labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by: _____
Laboratory Supervisor

Report Date: August 31, 2004

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American West Analytical Labs

WORK ORDER Summary

23-Aug-04

Work Order L61813

Client ID: NOR100

Project: Bastian Sink

QC Level: QC 1 HOLD

Comments: Footnote report, pH received outside of hold. Email report to ehuda@kennecott.com

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Storage
L61813-01A	BSX-44	6/21/2004 11:53:00 AM	8/23/2004	9/6/2004	Soil	3051A-ICPMS	df/aug 23
				9/6/2004		6020-S	df/aug 23
				9/6/2004		ICP-S	df/aug 23
				9/6/2004		PH-S	df/aug 23
				9/6/2004		Soil_Prep	df/aug 23
L61813-02A	BSX-46	6/21/2004 12:20:00 PM		9/6/2004		3051A-ICPMS	df/aug 23
				9/6/2004		6020-S	df/aug 23
				9/6/2004		ICP-S	df/aug 23
				9/6/2004		PH-S	df/aug 23
				9/6/2004		Soil_Prep	df/aug 23
L61813-03A	BSX-59	7/2/2004 11:59:00 AM		9/6/2004		3051A-ICPMS	df/aug 23
				9/6/2004		6020-S	df/aug 23
				9/6/2004		ICP-S	df/aug 23
				9/6/2004		PH-S	df/aug 23
				9/6/2004		Soil_Prep	df/aug 23
L61813-04A	BSX-69	7/13/2004 7:50:00 AM		9/6/2004		3051A-ICPMS	df/aug 23
				9/6/2004		6020-S	df/aug 23
				9/6/2004		ICP-S	df/aug 23
				9/6/2004		PH-S	df/aug 23
				9/6/2004		Soil_Prep	df/aug 23
L61813-05A	BSX-70	7/13/2004 8:00:00 AM		9/6/2004		3051A-ICPMS	df/aug 23
				9/6/2004		6020-S	df/aug 23
				9/6/2004		ICP-S	df/aug 23
				9/6/2004		PH-S	df/aug 23
				9/6/2004		Soil_Prep	df/aug 23
L61813-06A	BSX-71	7/13/2004 8:07:00 AM		9/6/2004		3051A-ICPMS	df/aug 23
				9/6/2004		6020-S	df/aug 23

E-MAILED 8/31/04 17:15

1

601813

WORK ORDER Summary

23-Aug-04

Work Order L61813

Client ID: NOR100

Project: Bastian Sink **QC Level:** QC 1

Comments: Footnote report, pH received outside of hold. Email report to ehuda@kennecott.com

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Storage	
L61813-06A	BSX-71	7/13/2004 8:07:00 AM	8/23/2004	9/6/2004	Soil	ICP-S	df/aug 23	1
				9/6/2004		PH-S	df/aug 23	
				9/6/2004		Soil_Prep	df/aug 23	

Client NORTH AMERICAN MINE SERVICES
Address [redacted]72 N MAIN
KAYSVILLE UT 84037
City State Zip
Phone 253 2081 Fax 253. 5010
Contact EHUD ARDON
E-mail ehuda@kennecott.com
Project Name Bastian Sink
Project Number/P.O.#
Sampler Name EHUD ARDON

AMERICAN WEST ANALYTICAL LABORATORIES
463 West 3600 South
Salt Lake City, Utah 84115

CHAIN OF CUSTODY

(801) 263-8686
(888) 263-8686
Fax (801) 263-8687
Email:awal@awal-labs.com

Lab Sample Set # C[redacted]3
Page _____ of _____

Turn Around Time (Circle One)

1 day	2 day	3 day	4 day	5 day	Standard
QC	1	2	2+	3	3+	4

Please indicate tests needed below

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	As - Total	Pb - Total	paste pH								COMMENTS
BSX-44	6/21/04 11:53		1	↓	↓	↓								
BSX-46	6/21/04 12:20		1											
BSX-59	7/2/04 11:59		1											
BSX-69	7/13/04 7:50		1											
BSX-70	-"- 8:00		1											
BSX-71	-"- 8:07		1											

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered
Notes:
2 Ambient or Chilled
Notes:
3 Temperature
4 Received Broken/Leaking (Improperly Sealed)
Y N
Notes:
5 Properly Preserved
Y N
Notes:
6 Received Within Holding Times
Y N
Notes:

COC Tape Was:
1 Present on Outer Package Y N NA
2 Unbroken on Outer Package Y N NA
3 Present on Sample Y N NA
4 Unbroken on Sample Y N NA
Notes:

Discrepancies Between Sample Labels and COC Record?
Y N
Notes:

Relinquished By: Signature	Date	Received By: Signature
Ehud Ardon	8/21/04	Elma Hayward
PRINT NAME EHUD ARDON	Time 16:10	PRINT NAME Elma Hayward
Relinquished By: Signature	Date	Received By: Signature
PRINT NAME	Time	PRINT NAME

Relinquished By: Signature	Date	Received By: Signature
PRINT NAME	Time	PRINT NAME
Relinquished By: Signature	Date	Received By: Signature
PRINT NAME	Time	PRINT NAME

Special Instructions:
Please Send pdf report by email to ehuda@kennecott.com

Kennecott
Utah Copper

Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 21-Mar-07

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: ***SWA 846 Method 3050 B***

Submission Date: 1/4/2007

Metals Analysis: ***SWA846 Methods 60100B and 7471***

QC Reference Sample: **AP00143**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AP00140	BSX-099 (AO19893)	12/7/2006	1/12/2007	Arsenic	**102**	2	mg/kg
			1/12/2007	Lead	**3740**	3	mg/kg
AP00141	BSX-108 (AO19902)	12/7/2006	1/12/2007	Arsenic	**40**	2	mg/kg
			1/12/2007	Lead	**1180**	3	mg/kg
AP00142	BSX-126 (AO20627)	12/20/2006	1/12/2007	Arsenic	**120**	2	mg/kg
			1/12/2007	Lead	**4050**	3	mg/kg
AP00143	BSX-136 (AO20637)	12/20/2006	1/12/2007	Arsenic	**42**	2	mg/kg
			1/12/2007	Lead	**1220**	3	mg/kg

Approved by:

Lynn A. Hutchinson

Approved By: Lynn A. Hutchinson CIH
KEL Laboratory Director

Kennecott Environmental Laboratory

Total Metals

Preparation Date: 1/11/2007

Quality Assurance Satement for Samples: **AP00140-AP00143**
AP00549-AP00553

Original: AP00143 **Spike Sample:** AP00507 **Blank Spike:** AP00509

Duplicate: AP00506 **Blank Sample:** AP00508 **Reference Sample:** AP00510 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	42	41	2.41	100	140	**98**	Below MDL	84	**84**	143	142	**101**
Lead	1	1220	1200	1.65	100	1290	**70**	Below MDL	87	**87**	93	93.6	**99**

* = Sample concentration is 5 times higher than the spike amount.
** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.
***= possible matrix interference

Log-in Group No. 07 - 1082038

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data						Analyses Requested
1	AP00140	BSX-099 (A019893)	12/7/06	1330								Total Metals
2	141	BSX-108 (A019902)	12/7/06	1415								Split -P_Split
3	142	BSX-126 (A020627)	12/20/06	1400								~~Ø~~ Crush -P/Crush
4	AP00143	BSX-136 (A020637	12/20/06	1450								gtt 01-04-07
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												

Sample Submitted by: _____ **Telephone #** _____ **Fax #** _____
Report Results to : Ehud Ardon **Telephone #** _____ **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: Judy Fox Date/Time: 01/04/07 0805
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
ɔll Free (888) 263-8686
Fax (801) 263-8687
ıail: awal@awal-labs.com

January 18, 2007

Ehud Ardon
North American Exploration, Inc.
447 North 300 West, Suite 3
Kaysville, UT 84037-4203

TEL: (801) 569-7869
FAX (801) 569-6854

RE: Daybreak

Lab Set ID: L75746

Dear Ehud Ardon:

American West Analytical Labs received 4 samples on 1/10/2007 for the analyses presented in the following report.

All analyses were performed in accordance to National Environmental Laboratory Accreditation Program (NELAP) protocols unless noted otherwise. If you have any questions or concerns regarding this report please feel free to call.

Thank you.

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Approved by: _____
Laboratory Director or designee

ıll analysis applicable to the CWA, SDWA and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached Chain-of-Custody. This eport is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection vith the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only ın contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

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WEST
ANALYTICAL
LABORATORIES

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Salt Lake City, Utah
84115

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ıll Free (888) 263-8686
Fax (801) 263-8687
ail: awal@awal-labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L75746-01A
Field Sample ID: **BSX-99**
Collected: 1/4/2007
Received: 1/10/2007

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-dry	1/17/2007 3:22:32 PM	6010B	5.0	**91**
Lead	mg/kg-dry	1/17/2007 12:57:41 PM	6010B	5.0	**3200**

ll analysis applicable to the CWA, SDWA and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached Chain-of-Custody. This eport is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection ıith the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only n contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L75746-02A
Field Sample ID: **BSX-108**
Collected: 1/4/2007
Received: 1/10/2007

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-dry	1/17/2007 3:26:35 PM	6010B	5.1	**35**
Lead	mg/kg-dry	1/17/2007 1:01:40 PM	6010B	5.1	**1100**

AMERICAN WEST ANALYTICAL LABORATORIES

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Fax (801) 263-8687
ıail: awal@awal-labs.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

ıll analysis applicable to the CWA, SDWA and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached Chain-of-Custody. This eport is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection vith the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only n contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L75746-03A
Field Sample ID: **BSX-126**
Collected: 1/4/2007
Received: 1/10/2007

AMERICAN WEST ANALYTICAL LABORATORIES

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Salt Lake City, Utah
84115

(801) 263-8686
ıll Free (888) 263-8686
Fax (801) 263-8687
ıail: awal@awal-labs.com

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-dry	1/17/2007 3:30:49 PM	6010B	4.9	**100**
Lead	mg/kg-dry	1/17/2007 1:05:44 PM	6010B	4.9	**3600**

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

ll analysis applicable to the CWA, SDWA and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached Chain-of-Custody. This eport is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection vith the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only n contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L75746-04A
Field Sample ID: **BSX-136**
Collected: 1/4/2007
Received: 1/10/2007

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463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
ıll Free (888) 263-8686
Fax (801) 263-8687
ail: awal@awal-labs.com

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-dry	1/17/2007 3:34:55 PM	6010B	5.0	**34**
Lead	mg/kg-dry	1/17/2007 1:09:44 PM	6010B	5.0	**1100**

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

\ll analysis applicable to the CWA, SDWA and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached Chain-of-Custody. This eport is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection vith the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only n contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

463 West South
Salt Lake C tah 84115
(801) 263-8686, Toll Free (888) 263-8686, Fax (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Laboratory Direc

Peggy McNicol
QA Officer

CLIENT: North American Exploration, Inc. **Contact:** Ehud Ardon
LabOrder: L75746
Project: Daybreak **DateReceived:** 1/10/2007

pH @ 25° C

Lab Sample ID	Sample ID	Date Sampled	Date Analyzed	Method Used	Units	Reporting Limits	Analytical Result	
L75746-01B	BSX-99	1/4/2007	1/10/2007 6:35:00 PM	9045D	pH units	0	5.40	H
	H - Sample was received outside of holding time.							
L75746-02B	BSX-108	1/4/2007	1/10/2007 6:35:00 PM	9045D	pH units	0	7.20	H
	H - Sample was received outside of holding time.							
L75746-03B	BSX-126	1/4/2007	1/10/2007 6:35:00 PM	9045D	pH units	0	5.91	H
	H - Sample was received outside of holding time.							
L75746-04B	BSX-136	1/4/2007	1/10/2007 6:35:00 PM	9045D	pH units	0	7.51	H
	H - Sample was received outside of holding time.							

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

Amer[illegible]n West Analytical Labs

emailed 1/19/0[illegible]

WORK ORDER Summary

10-Jan-07

Work Order L75746

Client ID: NOR100 **QC Level:** 1

Project: Daybreak **Location:** **Contact:** Ehud Ardon

Comments: QCLevel: 1. Footnote report pH received out of hold. HOK DB

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Storage	
L75746-01A	BSX-99	1/4/2007	1/10/2007	1/24/2007	Solid	3051A-ICPMS	jan 10 - met	1
				1/24/2007		6020-S	jan 10 - met	1
				1/24/2007		PMOIST	jan 10 - met	1
L75746-01B				1/24/2007		PH-9045D	jan 10 - met	1
				1/24/2007		Soil_Prep	jan 10 - met	1
L75746-02A	BSX-108			1/24/2007		3051A-ICPMS	jan 10 - met	1
				1/24/2007		6020-S	jan 10 - met	1
				1/24/2007		PMOIST	jan 10 - met	1
L75746-02B				1/24/2007		PH-9045D	jan 10 - met	1
				1/24/2007		Soil_Prep	jan 10 - met	1
L75746-03A	BSX-126			1/24/2007		3051A-ICPMS	jan 10 - met	1
				1/24/2007		6020-S	jan 10 - met	1
				1/24/2007		PMOIST	jan 10 - met	1
L75746-03B				1/24/2007		PH-9045D	jan 10 - met	1
				1/24/2007		Soil_Prep	jan 10 - met	1
L75746-04A	BSX-136			1/24/2007		3051A-ICPMS	jan 10 - met	1
				1/24/2007		6020-S	jan 10 - met	1
				1/24/2007		PMOIST	jan 10 - met	1
L75746-04B				1/24/2007		PH-9045D	jan 10 - met	1
				1/24/2007		Soil_Prep	jan 10 - met	1

Client NORTH AMERICAN EXPLORATION
Address 147 N 300 W #3
KAYSVILLE UT 84037
City State Zip
Phone 801-859-6604 Fax

Contact EHUD ARDON
E-mail EHUDA@KENNECOTT.COM
Project Name DAYBREAK
Project Number/P.O.#
Sampler Name EHUD ARDON

AMERICAN WEST ANALYTICAL LABORATORIES
463 West 3600 South
Salt Lake City, Utah 84115

CHAIN OF CUSTODY

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(888) 263-8686
Fax (801) 263-8687
Email:awal@awal-labs.com

Lab Sample Set # 7746
Page 1 of 1

Turn Around Time (Circle One)
1 day 2 day 3 day 4 day 5 day Standard
QC 1 2 2+ 3 3+ 4

Please indicate tests needed below

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	pH	Total As	Total Se								COMMENTS
BSX-99	1/4/07			X	X	X								
BSX-108	1/4/07			X	X	X								
BSX-126	1/4/07			X	X	X								
BSX-136	1/4/07			X	X	X								

Relinquished By: *Signature*	Date	Received By: *Signature*
PRINT NAME	Time	PRINT NAME
Ehud Ardon	1/10/07	Rebekah Winner
	17:14	REBEKAH WINNER

Relinquished By: *Signature*	Date	Received By: *Signature*
PRINT NAME	Time	PRINT NAME

Relinquished By: *Signature*	Date	Received By: *Signature*
PRINT NAME	Time	PRINT NAME

Relinquished By: *Signature*	Date	Received By: *Signature*
PRINT NAME	Time	PRINT NAME

Special Instructions:

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered
Notes:
2 Ambient or Chilled
Notes:
3 Temperature 21°C
4 Received Broken/Leaking (Improperly Sealed)
Y N
Notes:
5 Properly Preserved
Y N
Notes:
6 Received Within Holding Times
Y N
Notes:

COC Tape Was:
1 Present on Outer Package
Y N NA
2 Unbroken on Outer Package
Y N NA
3 Present on Sample
Y N NA
4 Unbroken on Sample
Y N NA
Notes:

Discrepancies Between Sample Labels and COC Record?
Y N
Notes:

Kennecott
Utah Copper

Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 21-Mar-07

3325 South 9200 West
Magna, UT 84044-6001
Phone (801) 569-7950
Fax (801) 569-7901

To: EHUD ARDON

Sample Preparation: ***SWA 846 Method 3050 B***

Metals Analysis: ***SWA846 Methods 60100B and 7471***

Submission Date: 1/30/2007

QC Reference Sample: **AP01685**

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AP01555	BSX-148 (AP00244)	1/3/2007	2/9/2007	pH Paste	**7.36**		
			2/13/2007	Arsenic	**24**	2	mg/kg
			2/13/2007	Lead	**415**	3	mg/kg
AP01556	BSX-135A (AP00609)	1/10/2007	2/9/2007	pH Paste	**7.79**		
			2/13/2007	Arsenic	**44**	2	mg/kg
			2/13/2007	Lead	**1440**	3	mg/kg
			2/9/2007	Soil Paste Conductivity	**410**		umhos/cm
AP01557	BSX-164 (AP00864)	1/16/2007	2/9/2007	pH Paste	**7.57**		
			2/13/2007	Arsenic	**112**	2	mg/kg
			2/13/2007	Lead	**2460**	3	mg/kg
			2/9/2007	Soil Paste Conductivity	**290**		umhos/cm

Approved by:

Approved By: Lynn A. Hutchinson CIH
REL Laboratory Director

Kennecott Enviro nental Laboratory

Total Metals

Preparation Date: 2/7/2007

Quality Assurance Satement for Samples: **APO1555-APO1556**
AP01685
AP01921

Original: AP01685 **Spike Sample:** AP02046 **Blank Spike:** AP02048

Duplicate: AP02045 **Blank Sample:** AP02047 **Reference Sample:** AP02049 0017-17-26

Analyte	Reporting Limit mg/Kg	Original	Duplicate	Sample RPD %	Spike Amount	Spike Result	Spike % Recovery	Blank Result	Spike Blank Result	Spike Blank % Recovery	Reference Sample Result	Reference Value	Reference % Recovery
Arsenic	2	188	191	-1.58	100	277	**89**	Below MDL	92	**92**	146	142	**103**
Barium	2	408	408	0.00	100	499	**91**	Below MDL	95	**95**	232	224	**104**
Cadmium	0.5	67	67	**	100	154	**87**	Below MDL	94	**94**	63.3	64.5	**98**
Chromium	1	165	171	-3.57	100	265	**100**	Below MDL	97	**97**	94	86.5	**109**
Mercury	0.01	8.1	7.9	**	2	9.9	**90**	Below MDL	1.8	**90**	2.7	2.8	**96**
Lead	1	104	104	0.00	100	191	**87**	Below MDL	94	**94**	92	93.6	**98**
Selenium	2	154	151	**	100	230	**76**	Below MDL	85	**85**	108	124	**87**
Copper	1	125	128	-2.37	100	227	**102**	Below MDL	100	**100**	70.4	100	**70**

* = Sample concentration is 5 times higher than the spike amount.

** = Value is not greater than 10 times the MDL. An RPD cannot be calculated.

***= possible matrix interference

Log-in Group No. 07 0085723

KENNECOTT ENVIRONMENTAL LABORATORY
9600 West 2100 South Magna, Utah 84044

ANALYTICAL REQUEST SHEET
Sample Chain of Custody

_____ - _____ - _____
Sheet Request No.
Lab Use Only

#	Lab I.D. # (Lab Use Only)	Sample Description	Date Collected	Time Collected	Total # of Containers	Field Data							Analyses Requested
1	AP01555	BSX-148 (AP00244)	01/03/07	15:30									Split Crush
2	↓ 556	BSX-135A (AP00609)	01/10/07	13:15									
3	AP01557	BSX-114 (AP00864)	01/16/07	13:25									As Pb PH-paste
4													Cond-paste on
5													AP00609 and
6													AP00864
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													

Sample Submitted by: _____ **Telephone #** _____ **Fax #** _____
Report Results to : _____ **Telephone #** _____ **Fax #** _____

Sampler: _____ **Sampling Site:** _____ **Sampling Date:** _____ **Time:** _____

Surrendered By: _____ Received By: Jerry Fox Date/Time: 01/30/07 0855
Surrendered By: _____ Received By: _____ Date/Time: _____
Surrendered By: _____ Received By: _____ Date/Time: _____

Comments / Special Instructions: _____

AMERICAN WEST ANALYTICAL LABORATORIES

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Salt Lake City, Utah
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Fax (801) 263-8687
ail: awal@awal-labs.com

February 20, 2007

Ehud Ardon
North American Exploration, Inc.
447 North 300 West, Suite 3
Kaysville, UT 84037-4203

TEL: (801) 569-7869
FAX: (801) 569-6854

RE: Daybreak

Lab Set ID: L76163

Dear Ehud Ardon:

American West Analytical Labs received 3 samples on 2/8/2007 for the analyses presented in the following report.

All analyses were performed in accordance to National Environmental Laboratory Accreditation Program (NELAP) protocols unless noted otherwise. If you have any questions or concerns regarding this report please feel free to call.

Thank you.

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Approved by: _____
Laboratory Director or designee

All analysis applicable to the CWA, SDWA and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached Chain-of-Custody. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only in contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
ıll Free (888) 263-8686
Fax (801) 263-8687
ail: awal@awal-labs.com

Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L76163-01A
Field Sample ID: **BSX-135A**
Collected: 1/10/2007
Received: 2/8/2007

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-dry	2/19/2007 2:24:19 PM	6010B	5.1	**38**
Lead	mg/kg-dry	2/19/2007 2:24:19 PM	6010B	5.1	**1200**

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

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Laboratory Director

Peggy McNicol
QA Officer

Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L76163-02A
Field Sample ID: **BSX-148**
Collected: 1/3/2007
Received: 2/8/2007

TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-dry	2/19/2007 2:28:25 PM	6010B	5.0	**13**
Lead	mg/kg-dry	2/19/2007 2:28:25 PM	6010B	5.0	**440**

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INORGANIC ANALYSIS REPORT

Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L76163-03A
Field Sample ID: **BSX-164**
Collected: 1/16/2007
Received: 2/8/2007

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TOTAL METALS

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Arsenic	mg/kg-dry	2/19/2007 2:32:33 PM	6010B	5.1	**120**
Lead	mg/kg-dry	2/19/2007 2:32:33 PM	6010B	5.1	**2700**

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Laboratory Director

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QA Officer

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Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L76163-01
Field Sample ID: **BSX-135A**
Collected: 1/10/2007
Received: 2/8/2007

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result	
pH @ 25° C	pH units	2/8/2007 7:40:00 PM	9045D	0	**8.07**	**H**

H - Sample was received outside of holding time.

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

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Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L76163-02
Field Sample ID: **BSX-148**
Collected: 1/3/2007
Received: 2/8/2007

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result	
pH @ 25° C	pH units	2/8/2007 7:40:00 PM	9045D	0	**7.48**	**H**

H - Sample was received outside of holding time.

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INORGANIC ANALYSIS REPORT

Client: North American Exploration, Inc. Contact: Ehud Ardon
Project ID: Daybreak

Lab Sample ID: L76163-03
Field Sample ID: **BSX-164**
Collected: 1/16/2007
Received: 2/8/2007

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result	
pH @ 25° C	pH units	2/8/2007 7:40:00 PM	9045D	0	**7.71**	**H**

H - Sample was received outside of holding time.

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emailed 2/20/07

American West Analytical Labs

WORK ORDER Summary

08-Feb-07

Work Order L76163

Client ID: NOR100 **QC Level:** 1

Project: Daybreak **Location:**

Contact: Ehud Ardon

Comments: QCLevel: 1. Footnote report pH received out of hold. HOP-DB

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Storage	
L76163-01A	BSX-135A	1/10/2007	2/8/2007	2/22/2007	Solid	3051A-ICPMS	feb 8 - met	1
				2/22/2007		ICP-S	feb 8 - met	1
				2/22/2007		PMOIST	feb 8 - met	1
L76163-01B				2/22/2007		PH-9045D	feb 8 - met	1
				2/22/2007		Soil_Prep	feb 8 - met	1
L76163-02A	BSX-148	1/3/2007		2/22/2007		3051A-ICPMS	feb 8 - met	1
				2/22/2007		ICP-S	feb 8 - met	1
				2/22/2007		PMOIST	feb 8 - met	1
L76163-02B				2/22/2007		PH-9045D	feb 8 - met	1
				2/22/2007		Soil_Prep	feb 8 - met	1
L76163-03A	BSX-164	1/16/2007		2/22/2007		3051A-ICPMS	feb 8 - met	1
				2/22/2007		ICP-S	feb 8 - met	1
				2/22/2007		PMOIST	feb 8 - met	1
L76163-03B				2/22/2007		PH-9045D	feb 8 - met	1
				2/22/2007		Soil_Prep	feb 8 - met	1

Client: NORTH AMERICAN EXPLORATION
Address: 47 N 300 W #3
KAYSVILLE UT 84037
City State Zip
Phone: 859.6604 Fax:
Contact: EHUD ARDON
E-mail: KEARDON@KENNECOTT.COM
Project Name: DAYBREAK
Project Number/P.O.#:
Sampler Name: EHUD ARDON

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CHAIN OF CUSTODY

Lab Sample Set # 7[illegible]163
Page 1 of 1

Turn Around Time (Circle One)
1 day 2 day 3 day 4 day 5 day Standard

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	Total As	Total Pb	pH								COMMENTS
BSX-135A	1/10/07			X	X	X								
BSX-148	1/3/07			X	X	X								
BSX-164	1/16/07			X	X	X								

QC LEVEL
1 2 2+
3 3+ 4

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered
Notes:
2 Ambient or Chilled
Notes:
3 Temperature 21°C
4 Received Broken/Leaking (Improperly Sealed)
Y N
Notes:
5 Properly Preserved
Y N
Notes:
6 Received Within Holding Times
Y N
Notes: RW 2-8-07
pH

COC Tape Was:
1 Present on Outer Package
Y N NA
2 Unbroken on Outer Package
Y N NA
3 Present on Sample
Y N NA
4 Unbroken on Sample
Y N NA
Notes:

Discrepancies Between Sample Labels and COC Record?
Y N
Notes:

Relinquished By: Signature	Date	Received By: Signature
EHUD ARDON	2/8/07	[signature]
PRINT NAME: EHUD ARDON	Time: 1:45	PRINT NAME: YEBERAH WINKLER
Relinquished By: Signature	Date	Received By: Signature
PRINT NAME	Time	PRINT NAME
Relinquished By: Signature	Date	Received By: Signature
PRINT NAME	Time	PRINT NAME
Relinquished By: Signature	Date	Received By: Signature
PRINT NAME	Time	PRINT NAME

Special Instructions:

Appendix D

Photographs