



McGinley & Associates

Reno Office

815 Maestro Dr.
Reno, NV 89511
Ph: 775.829.2245
Fax: 775.829.2213

Las Vegas Office

6280 S. Valley View Blvd.
Suite 604
Las Vegas, NV 89118
Ph: 702.260.4961
Fax: 702.260.4968

www.mcgin.com

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LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

**Lackawanna Mill Site
Portion of APN: 010-420-06
Latitude: 39°16'59"
Longitude: 114°52'04"
Ely, Nevada
NDEP Contract #10-008
Task M24-12**

Prepared for:

*State of Nevada
Department of Conservation & Natural Resources
Division of Environmental Protection
901 South Stewart Street, Suite 4001
Carson City, Nevada 89701*

On behalf of: City of Ely

June 30, 2012

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EXECUTIVE SUMMARY

McGinley & Associates (MGA) conducted a Limited Phase II Environmental Site Assessment (ESA) on a former mill site located approximately two miles north of Ely, Nevada on Lackawanna Road. The site is located on a portion of one parcel of land identified as White Pine County Assessor's Parcel Number (APN) 010-420-06. The investigation was conducted within a 40-acre area located in the northwestern portion of the site. The objective of the ESA activities was to assess for the presence of soil contamination within the three main areas of the former mill site. The soil investigation was performed concurrently with a Phase I ESA recently completed by MGA. Due to time constraints and increasing pressure from local residents to determine if the site may be hazardous, soil sampling activities conducted for this Limited Phase II ESA were performed concurrent with the Phase I site inspection.

For the Limited Phase II ESA, surface samples were collected at depths of zero to six inches below ground surface (bgs). In addition, samples were collected within soil and material piles found in the vicinity of the ore crushing and processing areas. Sample locations were chosen based on visual observation of potential contamination and previously available historical information. All collected soil samples were delivered to Alpha Analytical, Inc. (the laboratory) under proper Chain of Custody (COC) protocol and analyzed for poly-chlorinated biphenyls (PCBs), CAM 17 metals, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), soil pH, and dioxins/furans. Analytical suites were chosen based upon MGA's conceptual understanding of the site and its uses.

The results of the analysis indicate that elevated levels of metals above the Nevada Division of Environmental Protection (NDEP) reportable concentration (RC), including antimony, arsenic, cadmium, chromium, cobalt, copper, lead, mercury, selenium, silver, and zinc, are present in all soil samples collected at the site. In addition, one sample collected from a processed soil pile exhibited a concentration of benzo(a)pyrene above the NDEP RC and two samples collected in the vicinity of discarded power capacitors exhibited PCB concentrations greater than the NDEP RC for PCBs.

Upon conclusion of our Limited Phase II ESA, and based on analytical laboratory data for samples collected at the site, MGA is of the opinion that past mining practices performed on the former mill site have impacted the soil found on the site. However, the impact is not yet fully delineated. Therefore, further action is warranted at the subject property in order to fully characterize the site. This further action should include collection of additional soil samples proximal to the processing area and ball mill as well as within tailings ponds located beyond Lackawanna Road to the east.

At a minimum, two samples shall be collected from each stockpile. Multiple samples should be collected from larger stockpiles in order to provide a representative characterization. The debris pile located proximal to the processing area should also be characterized through sampling and analysis. Therefore, the collection of multiple samples located at various locations and depths within the pile is recommended.

In order to properly characterize the tailings ponds located east of Lackawanna Road, it is recommended that one sample per quarter acre be collected. In addition, it is recommended that groundwater samples beneath the tailings pond and downgradient of the ponds should be collected and analyzed for target analytes as well.

Lastly, a main concern of local residents is the discarded capacitors and potential PCB contamination proximal to those capacitors. Therefore, due to these immediate concerns, it is recommended that all capacitors and soil or material proximal to the capacitors be collected and disposed under local, state, and federal regulations.

1. INTRODUCTION

McGinley & Associates (MGA) conducted a Limited Phase II Environmental Site Assessment (ESA) on a former mill site located approximately two miles north of the City of Ely, Nevada. The site lies on a portion of one parcel of land that is listed with White Pine County, Nevada as Assessor's Parcel Number (APN) 010-420-06.

Based on the historical mining processes utilized at the mill site between the 1950s and 1980, a Phase II ESA was conducted in conjunction with a Phase I ESA recently completed by MGA to assess environmental impacts to soils from these past practices.

2. OBJECTIVES AND SCOPE OF SERVICES

The objective of the ESA activities was to assess for the presence of contaminants within processed soil/material piles and/or surface soil with the boundaries of the site and proximal to the portions of the site previously utilized during ore processing activities. As required by the State of Nevada Administrative Code (NAC) 459, all MGA services were supervised and reviewed by a Nevada Certified Environmental Manager (CEM).

The ESA activities performed by MGA for the limited Phase II ESA consisted of the following:

- Collection of surface soil samples from 13 locations within the site based upon visual observations and the understanding of the historical uses of the site;
- Collection of soil samples from stockpiles of unprocessed and processed material;
- Collection of an equipment rinsate blank;
- Laboratory analysis of these samples;
- Preparation of a technical report complete with findings and recommendations.

3. BACKGROUND

In April of 2012, a City of Ely Councilman toured the former mill site and found multiple discarded capacitors scattered around the former processing and refining area. The capacitors were found to be broken and/or damaged with staining noted on concrete proximal to the discarded equipment. Previously, the Councilman had received complaints that the site may be dangerous and had also discovered that the former mill site was a known gathering place for some local residents and local children. After his discovery, the Councilman contacted the Board of Commissioners and the Ely Fire Chief to discuss his concerns. At that time, MGA was introduced to representatives from the City of Ely and the Ely Fire Department to determine the necessary steps needed to initiate assessment of the site.

Soon thereafter, the City of Ely was granted funds through the State of Nevada Brownfields program to perform a Phase I ESA and collect initial soil samples within the boundaries of the mill site to determine environmental impacts from past activities. Therefore, in conjunction with the Phase I ESA site visit, surface soil sample collection was performed by MGA at the site.

The study area (the Site) occupies approximately 40 acres in Ely, Nevada (Figure 1). The area is bounded on the east by Steptoe Valley, on the south by undeveloped land, on the west by Squaw Peak, and on the north by undeveloped land with a residential home and commercial construction business located beyond. As shown on Figure 2, the Site consists of three distinct areas including the Processing Area, the Ore Crushing Area, and the Tailing Pond Area. Historical information and interviews indicate that the mill site was first developed in the 1950s and was utilized by multiple mining companies until 1980 when the mill was finally shut down indefinitely.

4. ENVIRONMENTAL INVESTIGATION

Limited Phase II ESA field activities were performed by MGA on June 13, 2012. Based on visual identification of potentially contaminated areas and MGA's understanding of the historical uses of the site, 16 soil samples were collected throughout the site. Soil sample locations included both 13 surface samples and three stockpile samples. Surface samples were collected at depths ranging between zero and six inches below ground surface. Stockpile samples were collected at a depth to provide an undisturbed sample for analysis. Laboratory-provided glass sample jars were filled at each sampling location using decontaminated sampling tools consisting of a stainless steel shovel or pick-axe, stainless steel sampling scoop, and a stainless steel sample collection bowl. All sampling tools were decontaminated between each sampling event and an equipment rinsate sample was collected during the investigation to ensure decontamination field procedures are acceptable. Samples were labeled SS- or SP- which designates the type of sample collected. SS refers to a surface soil sample and SP refers to a stockpile sample. Global positioning system (GPS) data was collected at each sampling location. These locations are shown on Figure 2.

5. ANALYTICAL TESTING

Collected soil samples were delivered under chain-of-custody protocol to Alpha Analytical, Inc. located in Sparks, Nevada. The following analyses were requested to be performed on the soil samples submitted:

- Poly-chlorinated biphenyls (PCBs): EPA Method SW8082;
- CAM 17 metals (dry weight): EPA Method 6020;
- Semi-volatile organic compounds (SVOCs): EPA Method 8270C;
- Volatile organic compounds (VOCs): EPA Method 8260B;
- Soil pH: EPA Method SW9045D; and
- Dioxins/Furans: EPA Method 1613B/8290

The chain-of-custody records for the soil samples are provided in Appendix A.

6. ANALYTICAL RESULTS

6.1 Summary of Results

Each collected soil sample was analyzed for parameters selected from the following: PCBs, CAM 17 metals, SVOCs, VOCs, soil pH, and dioxins/furans. The analytical results for the detected soil samples and each analytes corresponding NDEP Reportable Concentration (RC) based on the NDEP Draft Guidelines for Discovery Events (NAC 445A.345 to 445A.348 as amended by R125-07) are summarized in Table 1 through Table 6.

6.2 PCBs

Two surface soil samples collected proximal to discarded power capacitors contained PCB concentrations in excess of the NDEP RC. The capacitors did not appear to be leaking, but were rusty in appearance. One of the analyzed samples contained an estimated 1,500 mg/Kg of Aroclor 1242, which is above the NDEP RC (0.22 mg/Kg). This indicates a possible leak from

the capacitor. The other sample contained Aroclor 1248 at a concentration of 2.4 mg/Kg and Aroclor 1254 at 2.2 mg/Kg. The corresponding RCs for both Aroclor 1248 and 1254 is 0.22 mg/Kg. Two other samples had detected concentrations of Aroclor 1248 and Aroclor 1254. However, the concentrations were below the NDEP RC for each analyte.

6.3 Metals

All collected samples were analyzed for 17 metals commonly analyzed for sites similar to the subject property. The metals analyzed include Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc. According to the analytical results, collected samples contained metals at concentrations above NDEP RCs. A range of concentrations for each metal is listed below:

- Antimony: < 1.0 – 2,600 mg/Kg (14 of 16 samples above the NDEP RC of 5 mg/Kg);
- Arsenic: 7.8 – 3,200 mg/Kg (16 of 16 samples above the NDEP RC of 11.1 mg/Kg);
- Barium: 57 – 1,500 mg/Kg (zero of 16 samples above the NDEP RC of 1,600 mg/Kg);
- Beryllium: < 0.52 – 1.0 mg/Kg (zero of 16 samples above the NDEP RC of 63 mg/Kg);
- Cadmium: 0.79 – 110 mg/Kg (10 of 16 samples above the NDEP RC of 8 mg/Kg);
- Chromium: 3.1 – 220 mg/Kg (two of 16 samples above the NDEP RC of 38 mg/Kg);
- Cobalt: 2.3 – 37 mg/Kg (two of 16 samples above the NDEP RC of 23 mg/Kg);
- Copper: 14 – 3,900 mg/Kg (one of 16 samples above the NDEP RC of 3,100 mg/Kg);
- Lead: 47 – 18,000 mg/Kg (10 of 16 samples above the NDEP RC of 400 mg/Kg);
- Mercury: 0.21 – 20 mg/Kg (four of 16 samples above the NDEP RC of 6.7 mg/Kg);
- Molybdenum: < 0.53 – 24 (zero of 16 samples above the NDEP RC of 390 mg/Kg);
- Nickel: 7.8 – 95 (zero of 16 samples above the NDEP RC of 130 mg/Kg);
- Selenium: < 0.53 – 12 mg/Kg (two of 16 samples above the NDEP RC of 5 mg/Kg);
- Silver: 7.1 – 810 mg/Kg (six of 16 samples above the NDEP RC of 34 mg/Kg);
- Thallium: < 0.52 – 2.4 mg/Kg (zero of 16 samples above the NDEP RC 5.1 mg/Kg);
- Vanadium: 9.4 – 45 mg/Kg (zero of 16 samples above the NDEP RC of 390 mg/Kg); and
- Zinc: 67 – 13,000 mg/Kg (two of 16 samples above the NDEP RC of 12,000 mg/Kg).

6.4 SVOCs

Several SVOC analytes were detected at concentrations greater than the laboratory reporting limits. However, only one collected sample contained a detected SVOC analyte, benzo(a)pyrene, above its corresponding NDEP RC of 0.015 mg/Kg for soils. The sample was collected from a stockpile located near the southern boundary of the processing area (see Figures 3 and 4). Laboratory results for this sample show benzo(a)pyrene at a concentration of 0.062 mg/Kg.

6.5 VOCs

There were no VOCs detected above laboratory reporting limits for any of the samples collected.

6.6 Soil pH

Results for pH in collected samples show that all samples were alkaline and ranged between 7.7 and 12.0. However, it should be noted that only one sample (SP-01) was higher than 9.6 while the remaining 15 samples ranged from 7.7 to 9.5. The one sample with a pH of 12.0 (SP-01) was collected from a stockpile located proximal to the upper portion of the processing area. This soil may have been material stockpiled as a source of lime for pH adjustment prior to cyanide treatment of ore material.

6.7 Dioxins/Furans

There were no dioxin- and/or furan-compounds detected above NDEP RCs for any of the samples collected.

7. DATA QUALITY

7.1 Soil Sampling

The soil samples were collected in accordance with EPA and MGA SOPs. Care was taken to minimize sample disturbance. Soil samples were preserved in coolers with ice until they were received by the laboratory (see chain-of-custody records provided in Appendix A). At the request of NDEP, no duplicate soil samples were collected for this limited assessment.

7.2 Laboratory Analytical Data for Soils

The laboratory analytical data for the soil samples were in compliance with the data quality objectives established in the laboratory's SOP. According to the QC Summary Report supplied by Alpha Analytical, several qualifiers were noted in the analysis of the sample matrix spike (MS) and sample matrix spike duplicate (MSD). These qualifiers indicate that the accuracy of the spike recovery value is reduced due to a disproportionate analyte concentration in relation to the spike level. However, analysis of the method blank and laboratory control spike (LCS) samples were all within control limits. These data are all believed to be usable for their intended purpose. Quality Control data can be found within the laboratory analytical package in Appendix A.

8. SUMMARY OF FIELD ACTIVITIES

- The 40 acre site was assessed for potential contamination in surface soils;
- Surface soil samples were collected from 13 locations throughout the site;
- Surface soil samples were collected at depths of zero to six inches below ground surface at each sample location;
- Stockpile samples were collected from three locations throughout the site;
- Stockpile samples were collected at a depth within the stockpile to provide a sample representative of the entire stockpile;
- One field equipment rinsate sample was collected during the sampling event;
- Laboratory supplied soil jars were collected at each soil sample location; and
- Decontamination of field equipment was performed between collections of soil samples from each sample location.

9. FINDINGS

- Soil samples were analyzed for PCBs, CAM-17 metals, SVOCs, VOCs, soil pH, and dioxins/furans;
- Complete soil analytical results are summarized in Table 1 through Table 6;
- Two soil samples submitted contained PCB concentrations above the NDEP RC in soil;
- All soil samples submitted contained at least one analyte at a concentration above the NDEP RC in soil;
- One soil sample submitted contained benzo(a)pyrene at a concentration above the NDEP RC

in soil;

- None of the samples submitted contained VOCs or dioxins/furans above the discovery event NDEP RC in soils;
- None of the samples submitted contained barium, beryllium, molybdenum, nickel, thallium, or vanadium above the NDEP RC in soil;
- All samples submitted contained arsenic above the NDEP RC of 0.39 mg/Kg and ranged between 7.8 and 3,200 mg/Kg.
- One soil sample collected from an area that appears to have been utilized by the mill as a flotation pond contained arsenic, lead, and zinc at concentrations greater than those of all other soil samples collected for this assessment;

10. CONCLUSIONS AND RECOMMENDATIONS

McGinley & Associates was contracted by the NDEP on behalf of the City of Ely to perform a Limited Phase II ESA on the subject property located approximately two miles north of the City of Ely in White Pine County, Nevada. The former mill site exists on a portion of one parcel of land that is listed with White Pine County, Nevada as APN 010-420-06. The ESA activities were supervised and reviewed by a Nevada Certified Environmental Manager (CEM) as required by the State of Nevada NAC 459.

The field work conducted by MGA included collection of thirteen surface soil samples, three stockpile samples, and one equipment rinsate sample. Surface samples were collected at depths of zero to six inches below ground surface, while stockpile samples were collected at a depth within the stockpile to provide an undisturbed sample for analysis. All samples were delivered under Chain of Custody protocol to Alpha Analytical, Inc. for analysis of PCBs, metals, SVOCs, VOCs, soil pH, and dioxins/furans. The results of the soil sample analyses are described below:

- The soil sample analyses for metals showed concentrations of arsenic, antimony, cadmium, chromium, cobalt, copper, lead, mercury, selenium, silver, and zinc above NDEP RCs in various samples collected. Concentrations reported indicate a possible concentration effect from past mill site processing activities.
- The soil samples collected proximal to discarded power capacitors showed concentrations of PCBs well above the NDEP RC in soil. At the time of the sampling event, the discarded capacitors at these locations appeared to be rusty and without leaks. Additionally, only two other samples collected during this assessment exhibited concentrations of PCBs above laboratory detection limits. These samples were located beneath the smelter equipment and within the debris pile respectively. At the time of the sampling event, a capacitor was noted within a portion of the debris pile. It is unknown if more capacitors exist within the pile. Based on these results, it appears that any capacitor found at the mill location should be treated as a possible contributor to PCB soil contamination in the immediate vicinity of the capacitor.
- The soil sample analyses for SVOCs showed that only one sample collected exhibited concentrations of target analytes above NDEP RC in soil. The sample had a concentration of benzo(a)pyrene approximately four times the NDEP RC of 0.015 mg/Kg. The sample was collected within a stockpile of reddish, fine/silty material located near the southern boundary of the processing area (see Figure 4). According to historical information, this stockpile appears to be tailings material.
- Laboratory analysis indicates that none of the samples collected contained concentrations of VOCs or dioxins/furans at levels above NDEP RC in soil.
- Laboratory analysis indicates that all samples collected for the assessment were alkaline in nature. Of the sixteen samples, fifteen exhibited pH values between 7.7 and 9.5. One

sample exhibited a pH of 12.0 and appears to have been collected from a grayish-white stockpile that may contain a high percentage of lime that was used for pH adjustment in the processing of ore.

Upon conclusion of our Limited Phase II ESA, and based on analytical laboratory data for samples collected at the site, MGA is of the opinion that past mining practices performed on the former mill site have impacted the soil found on the site. However, the impact is not yet fully delineated. Therefore, further action is warranted at the subject property in order to fully characterize the site. This further action should include collection of additional soil samples proximal to the processing area and ball mill as well as within tailings ponds located beyond Lackawanna Road to the east.

At a minimum, two samples shall be collected from each stockpile. Multiple samples should be collected from larger stockpiles in order to provide a representative characterization. The debris pile located proximal to the processing area should also be characterized through sampling and analysis. Therefore, the collection of multiple samples located at various locations and depths within the pile is recommended.

In order to properly characterize the tailings ponds located east of Lackawanna Road, it is recommended that one sample per quarter acre be collected. In addition, it is recommended that groundwater samples beneath the tailings pond and downgradient of the ponds should be collected and analyzed for target analytes as well.

Lastly, a main concern of local residents is the discarded capacitors and potential PCB contamination proximal to those capacitors. Therefore, due to these immediate concerns, it is recommended that all capacitors and soil or material proximal to the capacitors be collected and disposed under local, state, and federal regulations.

11. LIMITATIONS

The conclusions presented herein are based on analytical data and observations. MGA makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. The results reported herein are applicable to the time the sampling occurred. Changes in site conditions may occur as a result of illegal dumping practices, prevailing winds, rainfall, or other factors.

It should be recognized that definition and evaluation of environmental conditions is a difficult and inexact science. Judgments and opinions leading to conclusions and recommendations are generally made with an incomplete knowledge of the conditions present. More extensive studies, including additional environmental investigations, can tend to reduce the inherent uncertainties associated with such studies. Additional information not found or unavailable to MGA at the time of writing this report may result in a modification to the conclusions and recommendations contained herein.

This report is not a legal opinion. The services performed by MGA have been conducted in a manner consistent with the level of care ordinarily exercised by members of our profession currently practicing under similar conditions. No other warranty, expressed or implied, is made.

The use of the word "certify" in this document constitutes an expression of professional opinion regarding those facts or findings which are the subject of the certification and does not constitute a warranty or guarantee, either expressed or implied.

12. CLOSING

Should you have any questions regarding this report please contact Brett Bottenberg at (702) 260-4961, ext.-7003.

Respectfully submitted,

McGinley and Associates, Inc.

We hereby certify that we are responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations, and ordinances.



Brett C. Bottenberg, C.E.M. #1690, Exp. 10/07/13
Senior Project Manager

Reviewed by:



Joseph M. McGinley, P.E., C.E.M. #1036, Exp. 11/12
Principal

13. REFERENCES

NDEP Draft Guidelines for Discovery Events, Issues relating to required notification under NAC445A.345 to 445A.348 (Soil RCs) as amended by R125-07. Nevada Division of Environmental Protection, February 2009.

Nevada Division of Environmental Protection Screening/Action Level for Arsenic in Surface Soil in the Carson River Basin, NDEP.

Statistical Analysis of Background Concentrations of Selected Metals in Surface and Near-Surface Soils, Fiesta Park, Henderson, Nevada, CivilWorks, Inc., May 2004.

Water Quality in the Las Vegas Valley Area and the Carson and Truckee River Basins, Nevada and California, Bevans, H.E.; Lico, M.S.; Lawrence, S.J.; 1992-96; updated March 19, 1998.

Table 1 - Summary of Soil PCB Data

Location	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
LVBRN014-SS-02	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-03	ND	ND	ND	ND	0.05	0.13	ND
LVBRN014-SS-05	ND	ND	ND	ND	0.18	0.035	ND
LVBRN014-SS-07	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-09	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-11	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-13	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-15	ND	ND	ND	1,500^J	ND	ND	ND
LVBRN014-SS-16	ND	ND	ND	ND	2.4	2.2	ND
NDEP RC	3.9	0.17	0.17	0.22	0.22	0.22	0.22

Notes:

1. Detected concentrations are presented in bold.
2. Concentrations greater than the NDEP Reportable Concentration are highlighted in yellow.
3. NDEP RC = NDEP Reportable Concentration
4. All concentrations are in (mg/Kg).
5. ND = Not Detectable
6. J = Estimated Concentration

Table 2 - Summary of Soil Metals Data

Location	<i>Antimony (Sb)</i>	<i>Arsenic (As)</i>	<i>Barium (Ba)</i>	<i>Beryllium (Be)</i>	<i>Cadmium (Cd)</i>	<i>Chromium (Cr)</i>	<i>Cobalt (Co)</i>	<i>Copper (Cu)</i>	<i>Lead (Pb)</i>	<i>Mercury (Hg)</i>	<i>Molybdenum (Mo)</i>	<i>Nickel (Ni)</i>	<i>Selenium (Se)</i>	<i>Silver (Ag)</i>	<i>Thallium (Tl)</i>	<i>Vanadium (V)</i>	<i>Zinc (Zn)</i>	<i>Percent Moisture (%)</i>
LVBRN014-SP-01	2600	170	170	< 1.4	100	220	37	3,900	2,700	20	9.8	95	3.3	810	1.5	45	12,000	27
LVBRN014-SS-02	63	400	130	< 1.0	49	14	20	2,600	5,900	1.2	5.6	25	9.9	190	< 1.0	21	7,100	3.2
LVBRN014-SS-03	64	27	140	< 1.1	13	13	4.6	69	3,600	4.2	< 1.1	16	1.2	77	< 1.1	20	1,800	5.3
LVBRN014-SP-04	1,700	2,700	92	< 1.0	74	3.1	4	1,000	11,000	9.3	12	8.4	2.8	68	2.4	14	10,000	3.3
LVBRN014-SS-05	660	140	260	< 1.1	46	91	13	970	7,100	11	4.8	45	3.9	520	< 1.1	35	3,700	7.2
LVBRN014-SS-06	11	7.8	84	< 0.53	0.58	8.1	2.3	14	130	0.3	< 0.53	7.8	< 0.53	9.4	< 0.53	9.4	67	5.3
LVBRN014-SS-07	<1.0	12	190	<1.0	<1.0	16	4.3	20	47	0.21	<1.0	15	<1.0	7.1	< 1.0	22	84	3
LVBRN014-SS-08	13	18	160	< 1.0	1.8	20	4.9	52	140	0.53	< 1.0	17	< 1.0	30	< 1.0	24	220	1.7
LVBRN014-SS-09	3.8	12	130	< 0.52	0.79	12	3.5	22	63	0.61	0.63	13	0.58	8.4	< 0.52	18	120	3.4
LVBRN014-SP-10	30	83	57	1	53	52	24	400	1,500	0.98	24	36	12	25	< 0.56	36	4,000	10
LVBRN014-SS-11	2,000	3,200	330	< 1.1	110	7.9	3	580	18,000	11	18	9.6	3.9	41	2.2	18	13,000	8.4
LVBRN014-SS-12	690	900	1,500	< 1.0	40	8.8	3.7	310	6,000	4.8	5.1	13	2.2	21	< 1.0	10	7,300	1.7
LVBRN014-SS-13	49	78	220	< 1.0	10	16	5.6	150	840	3.6	18	18	2.4	29	< 1.0	22	1,100	2.1
LVBRN014-SS-14	51	61	190	< 1.0	13	22	6.5	200	960	1.1	6.7	17	3.8	21	< 1.0	26	1,200	1.9
LVBRN014-SS-15	9.7	15	170	< 1.0	1.7	16	5.2	35	160	0.45	< 1.0	17	< 1.0	16	< 1.0	21	200	1.8
LVBRN014-SS-16	8.9	15	210	< 1.0	1.4	20	5.9	31	110	0.47	< 1.0	20	1.2	24	< 1.0	25	250	3
NDEP RC	5	0.39	1,600	63	8	38	23	3,100	400	6.7	390	130	5	34	5.1	390	12,000	

Notes:

- 1. Detected concentrations are presented in bold.
- 2. Concentrations greater than the NDEP Reportable Concentration are highlighted in yellow.
- 3. NDEP RC = NDEP Reportable Concentration
- 4. All concentrations are in (mg/Kg - dry weight).
- 5. ND = Not Detectable
- 6. NA = Not Analyzed
- 7. SP = Soil Pile
- 8. SS = Surface Soil

* Background Sample collected upgradient of mill site by EPA (1980)

Table 3 - Summary of Soil SVOC Data

Location	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b&k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
LVBRN014-SP-01	ND	ND	ND	ND	ND	ND	ND	0.04	ND	0.064	ND	ND	ND	ND	ND	0.06	0.055
LVBRN014-SS-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SP-04	ND	ND	ND	0.067	0.062	0.084	0.026	0.07	ND	0.16	ND	0.036	ND	ND	ND	0.089	0.15
LVBRN014-SS-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.028	ND	ND	ND	ND	ND	ND	0.035
LVBRN014-SS-06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SP-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NDEP RC	570	NA	12,000	0.15	0.015	0.15	NA	15	0.015	2,300	560	0.15	22	310	4	NA	1,700

Notes:

- 1. Detected concentrations are presented in bold.
- 2. Concentrations greater than the NDEP Reportable Concentration are highlighted in yellow.
- 3. NDEP RC = NDEP Reportable Concentration
- 4. All concentrations are in (mg/Kg).
- 5. ND = Not Detectable
- 6. NA = Not Available

Table 4 - Summary of Soil VOC Data

Location	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dichloromethane	Ethylbenzene	m,p-Xylene	o-Xylene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride
LVBRN014-SS-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LVBRN014-SS-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Equipment Blank	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NDEP RC	2000	3	20	3400	60	17000	20	30	NA	2000	30	600	800	200	70	1000	NA	300	1700	400	NA	400	NA	5700	210000	210000	60	12000	700	NA	60	800000	10

Notes:

- 1. Detected concentrations are presented in bold.
- 2. Concentrations greater than the NDEP Reportable Concentration are highlighted in yellow.
- 3. NDEP RC = NDEP Reportable Concentration
- 4. All concentrations are in (µg/Kg).
- 5. ND = Not Detectable
- 6. NA = Not Available

Table 5 - Summary of Soil pH Data

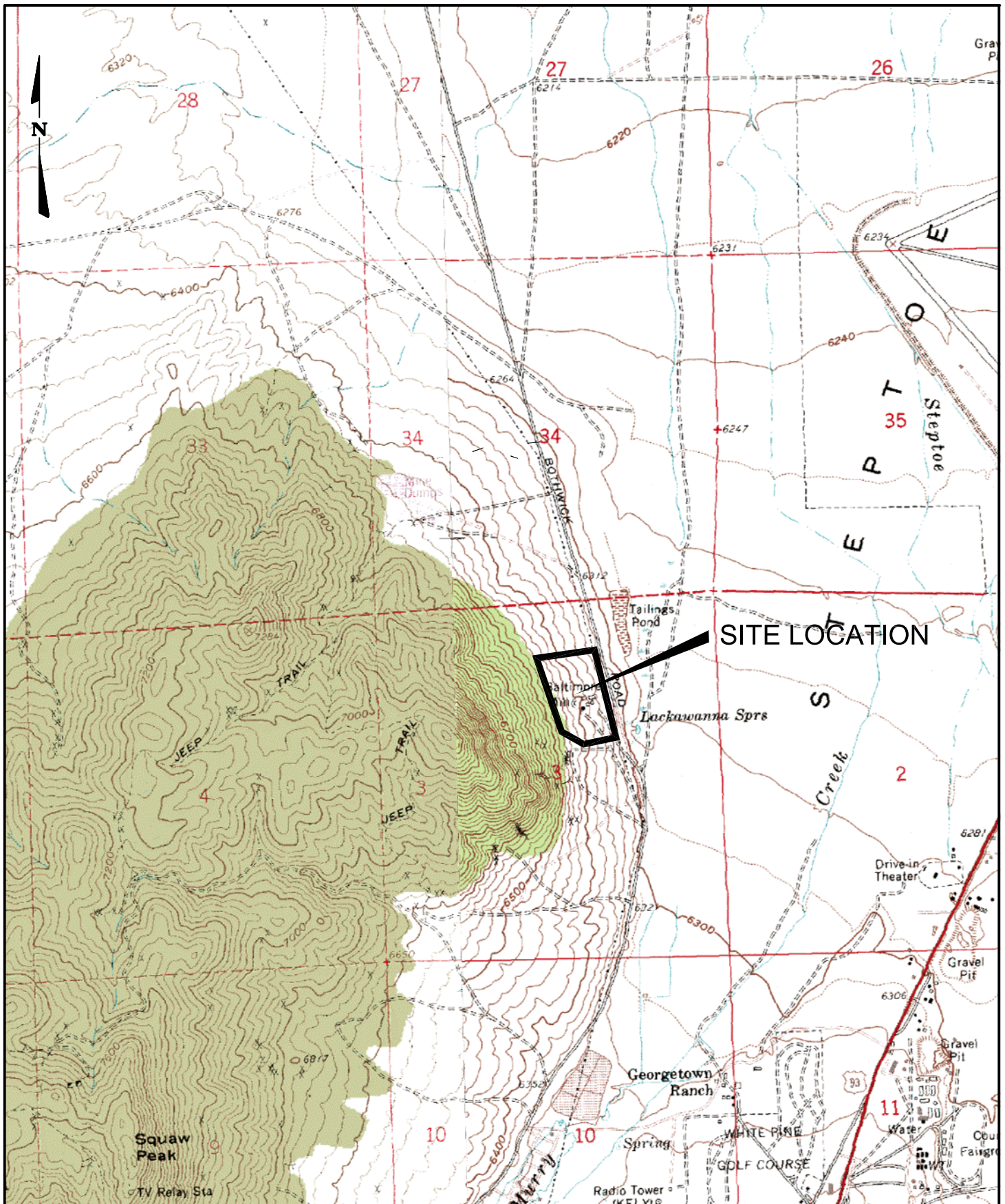
Location	pH
LVBRN014-SP-01	12.0
LVBRN014-SS-02	7.7
LVBRN014-SS-03	8.8
LVBRN014-SP-04	8.8
LVBRN014-SS-05	9.5
LVBRN014-SS-06	8.8
LVBRN014-SS-07	8.5
LVBRN014-SS-08	8.1
LVBRN014-SS-09	8.6
LVBRN014-SP-10	7.8
LVBRN014-SS-11	8.5
LVBRN014-SS-12	8.8
LVBRN014-SS-13	8.2
LVBRN014-SS-14	8.3
LVBRN014-SS-15	7.8
LVBRN014-SS-16	8.0

Table 6 - Summary of Soil Dioxins/Furans Data

Location	2,3,7,8-TCDD	1,2,3,7,8-PeCDD	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD	1,2,3,4,6,7,8-HpCDD	OCDD	2,3,7,8-TCDF	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	OCDF	Percent Moisture (%)
LVBRN014-SP-01	ND	ND	ND	0.287	0.199	5.95	43.9	ND	ND	0.138	0.0871	0.0892	0.0887	ND	0.423	ND	1.33	7.3
LVBRN014-SP-04	ND	ND	ND	ND	ND	1.33	8.7	ND	ND	ND	ND	ND	ND	ND	0.133	ND	0.316	2.8
LVBRN014-SS-11	ND	0.101	0.192	1.12	0.506	19.1	105	ND	ND	0.213	0.0821	0.0994	0.165	ND	0.614	0.0713	1.14	7.1
NDEP RC	4.5	4.5	45	45	45	450	15,000	37	120	12	37	37	37	37	370	370	12,000	--

Notes:

- 1. Detected concentrations are presented in bold.
- 2. Concentrations greater than the NDEP Reportable Concentration are highlighted in yellow.
- 3. NDEP RC = NDEP Reportable Concentration
- 4. All concentrations are in (pg/g - dry weight).
- 5. ND = Not Detectable
- 6. NA = Not Analyzed
- 7. SP = Soil Pile
- 8. SS = Surface Soil
- * Background Sample collected upgradient of mill site by EPA in 1980



0 100 200
FEET

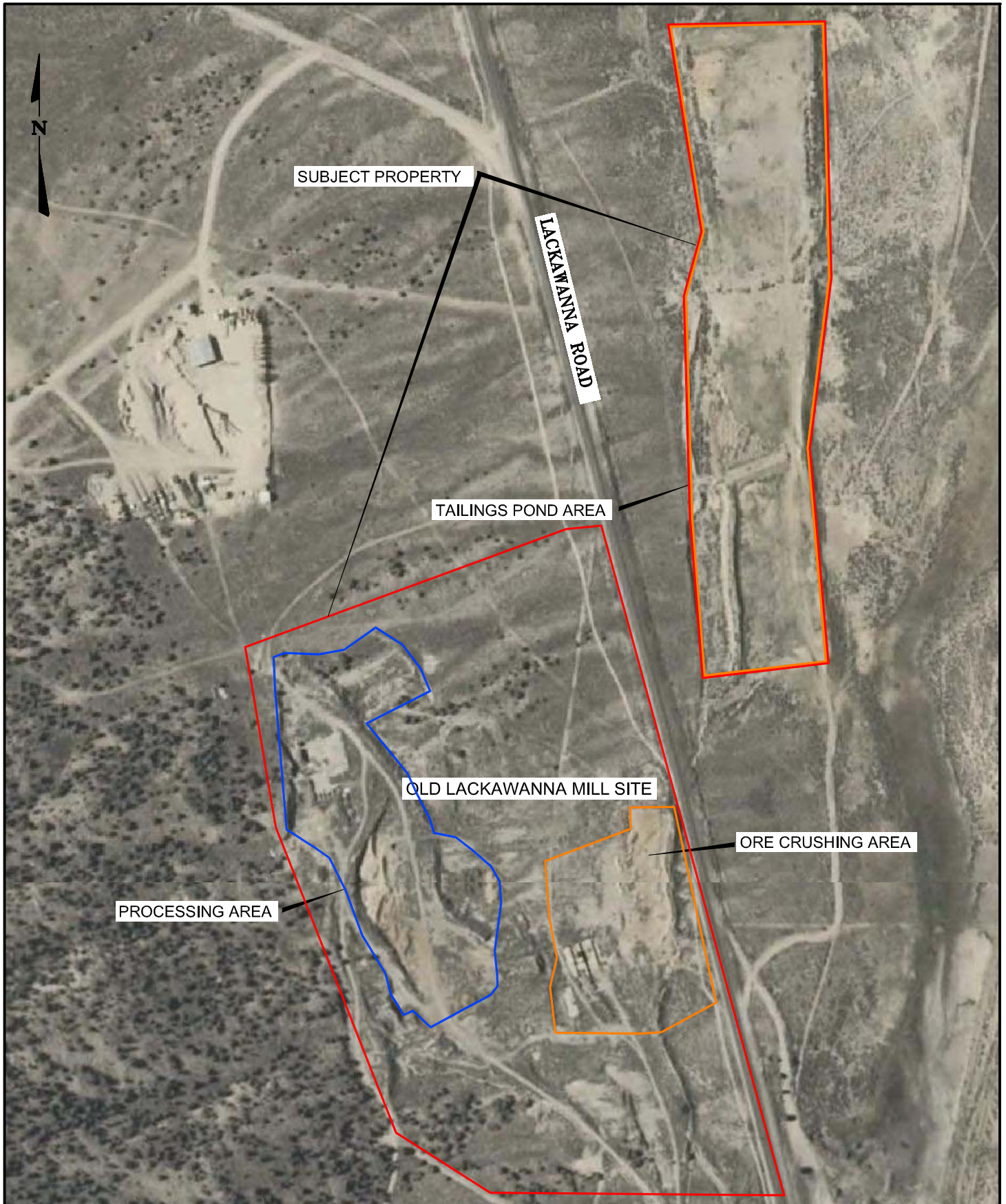
REVISIONS	DESIGNED	BH
	DRAWN	TAD
	CHECKED	
	APPROVED	
	No. DESCRIPTION BY DATE	
1		
2		
3		

FIGURE 1

PROJECT LOCATION
-SHOWING-
PARCEL 010-420-06
OLD LACKAWANNA MILL SITE
WHITE PINE COUNTY, NEVADA



SCALE: AS SHOWN	REVISION
JOB NO. BRN-WP	A



0 150 300
FEET

REVISIONS	DESIGNED	BH
	DRAWN	TAD
	CHECKED	
	APPROVED	
	No. DESCRIPTION BY DATE	

FIGURE 2

SITE MAP
-SHOWING-
PARCEL 010-420-06
OLD LACKAWANNA MILL SITE
WHITE PINE COUNTY, NEVADA




SCALE: AS SHOWN	REVISION
JOB NO. LV-BRN-014	A



LEGEND	
⊗	SOIL SAMPLE LOCATION
SP	STOCKPILE
SS	SURFACE SOIL

DESIGNED		BB
DRAWN	CHECKED	TAD
APPROVED	BY	DATE
No.	DESCRIPTION	
✓		
✓		
✓		
✓		
✓		
✓		

FIGURE 3
LACKAWANNA MILL SITE SOIL SAMPLING
-SHOWING-
SAMPLING LOCATIONS
OLD LACKAWANNA MILL SITE
WHITE PINE COUNTY, NEVADA



McGinley & Associates

SCALE: AS SHOWN

JOB NO. BRN-014

REVISION

A



ANALYTE	CONCENTRATION
Arsenic	7.8 mg/Kg
Antimony	11 mg/Kg
pH	8.8

ANALYTE	CONCENTRATION
Arsenic	140 mg/Kg
Antimony	660 mg/Kg
Cadmium	46 mg/Kg
Lead	7,100 mg/Kg
Mercury	11 mg/Kg
Silver	520 mg/Kg
pH	9.5

ANALYTE	CONCENTRATION
Arsenic	15 mg/Kg
Antimony	8.9 mg/Kg
Aroclor 1248	2.4 mg/Kg
Aroclor 1254	2.2 mg/Kg
pH	8.0

ANALYTE	CONCENTRATION
Arsenic	12 mg/Kg
pH	8.6

ANALYTE	CONCENTRATION
Arsenic	27 mg/Kg
Antimony	64 mg/Kg
Cadmium	13 mg/Kg
Lead	3,600 mg/Kg
Silver	77 mg/Kg
pH	8.8

ANALYTE	CONCENTRATION
Arsenic	170 mg/Kg
Antimony	2,600 mg/Kg
Cadmium	100 mg/Kg
Chromium	220 mg/Kg
Cobalt	37 mg/Kg
Copper	3,900 mg/Kg
Lead	2,700 mg/Kg
Mercury	20 mg/Kg
Silver	810 mg/Kg
Zinc	12,000 mg/Kg
pH	12

ANALYTE	CONCENTRATION
Arsenic	400 mg/Kg
Antimony	63 mg/Kg
Cadmium	49 mg/Kg
Lead	5,900 mg/Kg
Selenium	9.9 mg/Kg
Silver	190 mg/Kg
pH	7.7

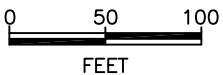
ANALYTE	CONCENTRATION
Arsenic	170 mg/Kg
Antimony	2,600 mg/Kg
Cadmium	100 mg/Kg
Lead	2,700 mg/Kg
Mercury	20 mg/Kg
Silver	810 mg/Kg
Benzo (a) pyrene	0.062 mg/Kg
pH	12

ANALYTE	CONCENTRATION
Arsenic	12 mg/Kg
pH	8.5

ANALYTE	CONCENTRATION
Arsenic	18 mg/Kg
Antimony	13 mg/Kg
pH	8.1

ANALYTE	CONCENTRATION
Arsenic	15 mg/Kg
Antimony	9.7 mg/Kg
Aroclor 1248	1,500 mg/Kg
pH	7.8

ANALYTE	CONCENTRATION
Arsenic	83 mg/Kg
Antimony	30 mg/Kg
Cadmium	53 mg/Kg
Chromium	52 mg/Kg
Cobalt	24 mg/Kg
Lead	1,500 mg/Kg
Selenium	12 mg/Kg
pH	7.8



LEGEND

- ⊗ SOIL SAMPLE LOCATION
- SP STOCKPILE PILE
- SS SURFACE SOIL

REVISIONS	DESIGNED	BB		
	DRAWN	TAD		
	CHECKED			
	APPROVED			
	No.	DESCRIPTION	BY	DATE
	▲			
	▲			
	▲			
	▲			
	▲			

FIGURE 4
LACKAWANNA MILL SITE SOIL SAMPLING
-SHOWING-
ANALYTICAL RESULTS
ABOVE NDEP ACTION LEVEL
PROCESSING AREA
OLD LACKAWANNA MILL SITE
WHITE PINE COUNTY, NEVADA



SCALE: AS SHOWN	REVISION
JOB NO. BRN-014	A

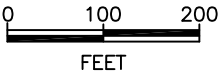


ANALYTE	CONCENTRATION
Arsenic	3,200 mg/Kg
Antimony	2,000 mg/Kg
Cadmium	110 mg/Kg
Lead	18,000 mg/Kg
Mercury	11 mg/Kg
Silver	41 mg/Kg
Zinc	13,000 mg/Kg
pH	8.5

ANALYTE	CONCENTRATION
Arsenic	900 mg/Kg
Antimony	690 mg/Kg
Cadmium	40 mg/Kg
Lead	6,000 mg/Kg
pH	8.8

ANALYTE	CONCENTRATION
Arsenic	61 mg/Kg
Antimony	51 mg/Kg
Cadmium	13 mg/Kg
Lead	960 mg/Kg
pH	8.3

ANALYTE	CONCENTRATION
Arsenic	78 mg/Kg
Antimony	49 mg/Kg
Cadmium	10 mg/Kg
Lead	840 mg/Kg
pH	8.2



LEGEND

- ⊗ SOIL SAMPLE LOCATION
- SP STOCKPILE
- SS SURFACE SOIL

DESIGNED	BB
DRAWN	TAD
CHECKED	
APPROVED	
No.	DESCRIPTION
BY	DATE
REVISIONS	
REFERENCE	

FIGURE 5
LACKAWANNA MILL SITE SOIL SAMPLING
-SHOWING-
ANALYTICAL RESULTS
ABOVE NDEP ACTION LEVEL
ORE CRUSHING AREA
OLD LACKAWANNA MILL SITE
WHITE PINE COUNTY, NEVADA



SCALE: AS SHOWN	REVISION
JOB NO. BRN-014	A

APPENDIX A

Chain-of-Custody Records and Laboratory Reports for Soil Samples



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968
Date Received : 06/15/12

Job: LVRRN014/Lackawanna Mill

Polychlorinated Biphenyls (PCBs)

EPA Method SW8082

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: LVBRN014-SS-02				
Lab ID: MGA12061524-02A Aroclor 1016	ND D	330 µg/Kg	06/18/12	06/21/12
Date Sampled 06/13/12 10:40 Aroclor 1221	ND D	330 µg/Kg	06/18/12	06/21/12
Aroclor 1232	ND D	330 µg/Kg	06/18/12	06/21/12
Aroclor 1242	ND D	330 µg/Kg	06/18/12	06/21/12
Aroclor 1248	ND D	330 µg/Kg	06/18/12	06/21/12
Aroclor 1254	ND D	330 µg/Kg	06/18/12	06/21/12
Aroclor 1260	ND D	330 µg/Kg	06/18/12	06/21/12
Surr: Tetrachloro-m-xylene	91	(41-152) %REC	06/18/12	06/21/12
Surr: Decachlorobiphenyl	51	(39-163) %REC	06/18/12	06/21/12
Client ID: LVBRN014-SS-03				
Lab ID: MGA12061524-03A Aroclor 1016	ND	33 µg/Kg	06/18/12	06/21/12
Date Sampled 06/13/12 11:05 Aroclor 1221	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1232	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1242	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1248	50	33 µg/Kg	06/18/12	06/21/12
Aroclor 1254	130	33 µg/Kg	06/18/12	06/21/12
Aroclor 1260	ND	33 µg/Kg	06/18/12	06/21/12
Surr: Tetrachloro-m-xylene	114	(41-152) %REC	06/18/12	06/21/12
Surr: Decachlorobiphenyl	119	(39-163) %REC	06/18/12	06/21/12
Client ID: LVBRN014-SS-05				
Lab ID: MGA12061524-06A Aroclor 1016	ND	33 µg/Kg	06/18/12	06/21/12
Date Sampled 06/13/12 11:40 Aroclor 1221	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1232	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1242	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1248	180	33 µg/Kg	06/18/12	06/21/12
Aroclor 1254	35	33 µg/Kg	06/18/12	06/21/12
Aroclor 1260	ND	33 µg/Kg	06/18/12	06/21/12
Surr: Tetrachloro-m-xylene	109	(41-152) %REC	06/18/12	06/21/12
Surr: Decachlorobiphenyl	116	(39-163) %REC	06/18/12	06/21/12
Client ID: LVBRN014-SS-07				
Lab ID: MGA12061524-08A Aroclor 1016	ND	33 µg/Kg	06/18/12	06/21/12
Date Sampled 06/13/12 12:05 Aroclor 1221	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1232	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1242	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1248	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1254	ND	33 µg/Kg	06/18/12	06/21/12
Aroclor 1260	ND	33 µg/Kg	06/18/12	06/21/12
Surr: Tetrachloro-m-xylene	110	(41-152) %REC	06/18/12	06/21/12
Surr: Decachlorobiphenyl	114	(39-163) %REC	06/18/12	06/21/12



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID: LVBRN014-SS-09

Lab ID : MGA12061524-10A	Aroclor 1016	ND	33 µg/Kg	06/18/12	06/21/12
Date Sampled 06/13/12 12:40	Aroclor 1221	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1232	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1242	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1248	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1254	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1260	ND	33 µg/Kg	06/18/12	06/21/12
	Surr: Tetrachloro-m-xylene	118	(41-152) %REC	06/18/12	06/21/12
	Surr: Decachlorobiphenyl	123	(39-163) %REC	06/18/12	06/21/12

Client ID: LVBRN014-SS-11

Lab ID : MGA12061524-12A	Aroclor 1016	ND	33 µg/Kg	06/18/12	06/21/12
Date Sampled 06/13/12 14:55	Aroclor 1221	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1232	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1242	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1248	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1254	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1260	ND	33 µg/Kg	06/18/12	06/21/12
	Surr: Tetrachloro-m-xylene	118	(41-152) %REC	06/18/12	06/21/12
	Surr: Decachlorobiphenyl	123	(39-163) %REC	06/18/12	06/21/12

Client ID: LVBRN014-SS-13

Lab ID : MGA12061524-14A	Aroclor 1016	ND	33 µg/Kg	06/18/12	06/21/12
Date Sampled 06/13/12 15:25	Aroclor 1221	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1232	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1242	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1248	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1254	ND	33 µg/Kg	06/18/12	06/21/12
	Aroclor 1260	ND	33 µg/Kg	06/18/12	06/21/12
	Surr: Tetrachloro-m-xylene	119	(41-152) %REC	06/18/12	06/21/12
	Surr: Decachlorobiphenyl	122	(39-163) %REC	06/18/12	06/21/12

Client ID: LVBRN014-SS-15

Lab ID : MGA12061524-16A	Aroclor 1016	ND	33,000 µg/Kg	06/18/12	06/22/12
Date Sampled 06/13/12 16:10	Aroclor 1221	ND	33,000 µg/Kg	06/18/12	06/22/12
	Aroclor 1232	ND	33,000 µg/Kg	06/18/12	06/22/12
	Aroclor 1242	1,500,000 J	33,000 µg/Kg	06/18/12	06/22/12
	Aroclor 1248	ND	33,000 µg/Kg	06/18/12	06/22/12
	Aroclor 1254	ND	33,000 µg/Kg	06/18/12	06/22/12
	Aroclor 1260	ND	33,000 µg/Kg	06/18/12	06/22/12
	Surr: Tetrachloro-m-xylene	0 S50	(41-152) %REC	06/18/12	06/22/12
	Surr: Decachlorobiphenyl	0 S50	(39-163) %REC	06/18/12	06/22/12

Client ID: LVBRN014-SS-16

Lab ID : MGA12061524-17A	Aroclor 1016	ND	33 µg/Kg	06/18/12	06/22/12
Date Sampled 06/13/12 16:20	Aroclor 1221	ND	33 µg/Kg	06/18/12	06/22/12
	Aroclor 1232	ND	33 µg/Kg	06/18/12	06/22/12
	Aroclor 1242	ND	33 µg/Kg	06/18/12	06/22/12
	Aroclor 1248	2,400	33 µg/Kg	06/18/12	06/22/12
	Aroclor 1254	2,200	33 µg/Kg	06/18/12	06/22/12
	Aroclor 1260	ND	33 µg/Kg	06/18/12	06/22/12
	Surr: Tetrachloro-m-xylene	118	(41-152) %REC	06/18/12	06/22/12
	Surr: Decachlorobiphenyl	132	(39-163) %REC	06/18/12	06/22/12



Alpha Analytical, Inc.

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D = Reporting Limits were increased due to high concentrations of non-target analytes.

J = The analyte was positively identified, the associated numerical value is the approximate concentration of the analyte in the sample.

S50 = The analysis of the sample required a dilution such that the surrogate concentration was diluted below the laboratory acceptance criteria. The laboratory control sample recovery was acceptable.

Sample results were calculated on a wet weight basis.

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAP unless footnoted otherwise.

Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV00016.

CH

6/22/12

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968
Date Received : 06/15/12

Job: LVRRN014/Lackawanna Mill

Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: EQUIP. BLANK				
Lab ID : MGA12061524-04A Beryllium (Be)	ND	0.0040 mg/L	06/18/12	06/19/12
Date Sampled 06/13/12 11:20 Vanadium (V)	ND	0.0050 mg/L	06/18/12	06/19/12
Chromium (Cr)	ND	0.0050 mg/L	06/18/12	06/19/12
Cobalt (Co)	ND	0.0050 mg/L	06/18/12	06/19/12
Nickel (Ni)	ND	0.010 mg/L	06/18/12	06/19/12
Copper (Cu)	0.011	0.010 mg/L	06/18/12	06/19/12
Zinc (Zn)	ND	0.10 mg/L	06/18/12	06/19/12
Arsenic (As)	ND	0.0050 mg/L	06/18/12	06/19/12
Selenium (Se)	ND	0.0050 mg/L	06/18/12	06/19/12
Molybdenum (Mo)	ND	0.0050 mg/L	06/18/12	06/19/12
Silver (Ag)	ND	0.0050 mg/L	06/18/12	06/19/12
Cadmium (Cd)	ND	0.0050 mg/L	06/18/12	06/19/12
Antimony (Sb)	ND	0.0050 mg/L	06/18/12	06/19/12
Barium (Ba)	ND	0.0050 mg/L	06/18/12	06/19/12
Mercury (Hg)	ND	0.0010 mg/L	06/18/12	06/19/12
Thallium (Tl)	ND	0.0020 mg/L	06/18/12	06/19/12
Lead (Pb)	0.034	0.0050 mg/L	06/18/12	06/19/12

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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6/21/12

Report Date



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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968
Date Received : 06/15/12

Job: LVRRN014/Lackawanna Mill

Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter		Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID: LVBRN014-SP-01						
Lab ID :	MGA12061524-01A	Beryllium (Be)	ND	1.4 mg/Kg-dry	06/18/12	06/19/12
Date Sampled	06/13/12 10:00	Vanadium (V)	45	1.4 mg/Kg-dry	06/18/12	06/19/12
		Chromium (Cr)	220	1.4 mg/Kg-dry	06/18/12	06/19/12
		Cobalt (Co)	37	1.4 mg/Kg-dry	06/18/12	06/19/12
		Nickel (Ni)	95	2.7 mg/Kg-dry	06/18/12	06/19/12
		Copper (Cu)	3,900	2.7 mg/Kg-dry	06/18/12	06/19/12
		Zinc (Zn)	12,000	140 mg/Kg-dry	06/18/12	06/19/12
		Arsenic (As)	170	1.4 mg/Kg-dry	06/18/12	06/19/12
		Selenium (Se)	3.3	1.4 mg/Kg-dry	06/18/12	06/19/12
		Molybdenum (Mo)	9.8	1.4 mg/Kg-dry	06/18/12	06/19/12
		Silver (Ag)	810	6.8 mg/Kg-dry	06/18/12	06/19/12
		Cadmium (Cd)	100	1.4 mg/Kg-dry	06/18/12	06/19/12
		Antimony (Sb)	2,600	6.8 mg/Kg-dry	06/18/12	06/19/12
		Barium (Ba)	170	1.4 mg/Kg-dry	06/18/12	06/19/12
		Mercury (Hg)	20	0.27 mg/Kg-dry	06/18/12	06/19/12
		Thallium (Tl)	1.5	1.4 mg/Kg-dry	06/18/12	06/19/12
		Lead (Pb)	2,700	6.8 mg/Kg-dry	06/18/12	06/19/12
Client ID: LVBRN014-SS-02						
Lab ID :	MGA12061524-02A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/19/12
Date Sampled	06/13/12 10:40	Vanadium (V)	21	1.0 mg/Kg-dry	06/18/12	06/19/12
		Chromium (Cr)	14	1.0 mg/Kg-dry	06/18/12	06/19/12
		Cobalt (Co)	20	1.0 mg/Kg-dry	06/18/12	06/19/12
		Nickel (Ni)	25	2.1 mg/Kg-dry	06/18/12	06/19/12
		Copper (Cu)	2,600	2.1 mg/Kg-dry	06/18/12	06/19/12
		Zinc (Zn)	7,100	21 mg/Kg-dry	06/18/12	06/19/12
		Arsenic (As)	400	1.0 mg/Kg-dry	06/18/12	06/19/12
		Selenium (Se)	9.9	1.0 mg/Kg-dry	06/18/12	06/19/12
		Molybdenum (Mo)	5.6	1.0 mg/Kg-dry	06/18/12	06/19/12
		Silver (Ag)	190	1.0 mg/Kg-dry	06/18/12	06/19/12
		Cadmium (Cd)	49	1.0 mg/Kg-dry	06/18/12	06/19/12
		Antimony (Sb)	63	1.0 mg/Kg-dry	06/18/12	06/19/12
		Barium (Ba)	130	1.0 mg/Kg-dry	06/18/12	06/19/12
		Mercury (Hg)	1.2	0.21 mg/Kg-dry	06/18/12	06/19/12
		Thallium (Tl)	ND	1.0 mg/Kg-dry	06/18/12	06/19/12
		Lead (Pb)	5,900	5.2 mg/Kg-dry	06/18/12	06/20/12



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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID: **LVBRN014-SS-03**

Lab ID : MGA12061524-03A	Beryllium (Be)	ND	1.1 mg/Kg-dry	06/18/12	06/19/12
Date Sampled 06/13/12 11:05	Vanadium (V)	20	1.1 mg/Kg-dry	06/18/12	06/19/12
	Chromium (Cr)	13	1.1 mg/Kg-dry	06/18/12	06/19/12
	Cobalt (Co)	4.6	1.1 mg/Kg-dry	06/18/12	06/19/12
	Nickel (Ni)	16	2.1 mg/Kg-dry	06/18/12	06/19/12
	Copper (Cu)	69	2.1 mg/Kg-dry	06/18/12	06/19/12
	Zinc (Zn)	1,800	21 mg/Kg-dry	06/18/12	06/19/12
	Arsenic (As)	27	1.1 mg/Kg-dry	06/18/12	06/19/12
	Selenium (Se)	1.2	1.1 mg/Kg-dry	06/18/12	06/19/12
	Molybdenum (Mo)	ND	1.1 mg/Kg-dry	06/18/12	06/19/12
	Silver (Ag)	77	1.1 mg/Kg-dry	06/18/12	06/19/12
	Cadmium (Cd)	13	1.1 mg/Kg-dry	06/18/12	06/19/12
	Antimony (Sb)	64	1.1 mg/Kg-dry	06/18/12	06/19/12
	Barium (Ba)	140	1.1 mg/Kg-dry	06/18/12	06/19/12
	Mercury (Hg)	4.2	0.21 mg/Kg-dry	06/18/12	06/19/12
	Thallium (Tl)	ND	1.1 mg/Kg-dry	06/18/12	06/19/12
	Lead (Pb)	3,600	1.1 mg/Kg-dry	06/18/12	06/19/12

Client ID: **LVBRN014-SP-04**

Lab ID : MGA12061524-05A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/19/12
Date Sampled 06/13/12 11:10	Vanadium (V)	14	1.0 mg/Kg-dry	06/18/12	06/19/12
	Chromium (Cr)	3.1	1.0 mg/Kg-dry	06/18/12	06/19/12
	Cobalt (Co)	4.0	1.0 mg/Kg-dry	06/18/12	06/19/12
	Nickel (Ni)	8.4	2.1 mg/Kg-dry	06/18/12	06/19/12
	Copper (Cu)	1,000	2.1 mg/Kg-dry	06/18/12	06/19/12
	Zinc (Zn)	10,000	100 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	2,700	1.0 mg/Kg-dry	06/18/12	06/19/12
	Selenium (Se)	2.8	1.0 mg/Kg-dry	06/18/12	06/19/12
	Molybdenum (Mo)	12	1.0 mg/Kg-dry	06/18/12	06/19/12
	Silver (Ag)	68	1.0 mg/Kg-dry	06/18/12	06/19/12
	Cadmium (Cd)	74	1.0 mg/Kg-dry	06/18/12	06/19/12
	Antimony (Sb)	1,700	1.0 mg/Kg-dry	06/18/12	06/19/12
	Barium (Ba)	92	1.0 mg/Kg-dry	06/18/12	06/19/12
	Mercury (Hg)	9.3	0.21 mg/Kg-dry	06/18/12	06/19/12
	Thallium (Tl)	2.4	1.0 mg/Kg-dry	06/18/12	06/19/12
	Lead (Pb)	11,000	5.2 mg/Kg-dry	06/18/12	06/20/12

Client ID: **LVBRN014-SS-05**

Lab ID : MGA12061524-06A	Beryllium (Be)	ND	1.1 mg/Kg-dry	06/18/12	06/19/12
Date Sampled 06/13/12 11:40	Vanadium (V)	35	1.1 mg/Kg-dry	06/18/12	06/19/12
	Chromium (Cr)	91	1.1 mg/Kg-dry	06/18/12	06/19/12
	Cobalt (Co)	13	1.1 mg/Kg-dry	06/18/12	06/19/12
	Nickel (Ni)	45	2.2 mg/Kg-dry	06/18/12	06/19/12
	Copper (Cu)	970	2.2 mg/Kg-dry	06/18/12	06/19/12
	Zinc (Zn)	3,700	22 mg/Kg-dry	06/18/12	06/19/12
	Arsenic (As)	140	1.1 mg/Kg-dry	06/18/12	06/19/12
	Selenium (Se)	3.9	1.1 mg/Kg-dry	06/18/12	06/19/12
	Molybdenum (Mo)	4.8	1.1 mg/Kg-dry	06/18/12	06/19/12
	Silver (Ag)	520	5.4 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	46	1.1 mg/Kg-dry	06/18/12	06/19/12
	Antimony (Sb)	660	1.1 mg/Kg-dry	06/18/12	06/19/12
	Barium (Ba)	260	1.1 mg/Kg-dry	06/18/12	06/19/12
	Mercury (Hg)	11	0.22 mg/Kg-dry	06/18/12	06/19/12
	Thallium (Tl)	ND	1.1 mg/Kg-dry	06/18/12	06/19/12
	Lead (Pb)	7,100	5.4 mg/Kg-dry	06/18/12	06/20/12



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Client ID: LVBRN014-SS-06

Lab ID : MGA12061524-07A	Beryllium (Be)	ND	0.53 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 11:55	Vanadium (V)	9.4	0.53 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	8.1	0.53 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	2.3	0.53 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	7.8	1.1 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	14	1.1 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	67	11 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	7.8	0.53 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	ND	0.53 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	ND	0.53 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	9.4	0.53 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	0.58	0.53 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	11	0.53 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	84	0.53 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	0.30	0.11 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	0.53 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	130	0.53 mg/Kg-dry	06/18/12	06/20/12

Client ID: LVBRN014-SS-07

Lab ID : MGA12061524-08A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 12:05	Vanadium (V)	22	1.0 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	16	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	4.3	1.0 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	15	2.1 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	20	2.1 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	84	21 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	12	1.0 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	7.1	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	190	1.0 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	0.21	0.21 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	47	1.0 mg/Kg-dry	06/18/12	06/20/12

Client ID: LVBRN014-SS-08

Lab ID : MGA12061524-09A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 12:20	Vanadium (V)	24	1.0 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	20	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	4.9	1.0 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	17	2.0 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	52	2.0 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	220	20 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	18	1.0 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	30	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	1.8	1.0 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	13	1.0 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	160	1.0 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	0.53	0.20 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	140	1.0 mg/Kg-dry	06/18/12	06/20/12



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Client ID: LVBRN014-SS-09

Lab ID : MGA12061524-10A	Beryllium (Be)	ND	0.52 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 12:40	Vanadium (V)	18	0.52 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	12	0.52 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	3.5	0.52 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	13	1.0 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	22	1.0 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	120	10 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	12	0.52 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	0.58	0.52 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	0.63	0.52 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	8.4	0.52 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	0.79	0.52 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	3.8	0.52 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	130	0.52 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	0.61	0.10 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	0.52 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	63	0.52 mg/Kg-dry	06/18/12	06/20/12

Client ID: LVBRN014-SP-10

Lab ID : MGA12061524-11A	Beryllium (Be)	1.0	0.56 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 12:50	Vanadium (V)	36	0.56 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	52	0.56 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	24	0.56 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	36	1.1 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	400	1.1 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	4,000	11 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	83	0.56 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	12	0.56 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	24	0.56 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	25	0.56 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	53	0.56 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	30	0.56 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	57	0.56 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	0.98	0.11 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	0.56 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	1,500	0.56 mg/Kg-dry	06/18/12	06/20/12

Client ID: LVBRN014-SS-11

Lab ID : MGA12061524-12A	Beryllium (Be)	ND	1.1 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 14:55	Vanadium (V)	18	1.1 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	7.9	1.1 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	3.0	1.1 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	9.6	2.2 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	580	2.2 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	13,000	110 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	3,200	1.1 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	3.9	1.1 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	18	1.1 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	41	1.1 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	110	1.1 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	2,000	5.5 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	330	1.1 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	11	0.22 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	2.2	1.1 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	18,000	5.5 mg/Kg-dry	06/18/12	06/20/12



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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

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Client ID: LVBRN014-SS-12

Lab ID : MGA12061524-13A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 15:10	Vanadium (V)	10	1.0 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	8.8	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	3.7	1.0 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	13	2.0 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	310	2.0 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	7,300	20 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	900	1.0 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	2.2	1.0 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	5.1	1.0 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	21	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	40	1.0 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	690	1.0 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	1,500	1.0 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	4.8	0.20 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	6,000	5.1 mg/Kg-dry	06/18/12	06/20/12

Client ID: LVBRN014-SS-13

Lab ID : MGA12061524-14A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 15:25	Vanadium (V)	22	1.0 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	16	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	5.6	1.0 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	18	2.0 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	150	2.0 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	1,100	20 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	78	1.0 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	2.4	1.0 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	18	1.0 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	29	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	10	1.0 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	49	1.0 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	220	1.0 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	3.6	0.20 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	840	1.0 mg/Kg-dry	06/18/12	06/20/12

Client ID: LVBRN014-SS-14

Lab ID : MGA12061524-15A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 15:35	Vanadium (V)	26	1.0 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	22	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	6.5	1.0 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	17	2.0 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	200	2.0 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	1,200	20 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	61	1.0 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	3.8	1.0 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	6.7	1.0 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	21	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	13	1.0 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	51	1.0 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	190	1.0 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	1.1	0.20 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	960	1.0 mg/Kg-dry	06/18/12	06/20/12



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

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Client ID: LVBRN014-SS-15

Lab ID : MGA12061524-16A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 16:10	Vanadium (V)	21	1.0 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	16	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	5.2	1.0 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	17	2.0 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	35	2.0 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	200	20 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	15	1.0 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	16	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	1.7	1.0 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	9.7	1.0 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	170	1.0 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	0.45	0.20 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	160	1.0 mg/Kg-dry	06/18/12	06/20/12

Client ID: LVBRN014-SS-16

Lab ID : MGA12061524-17A	Beryllium (Be)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
Date Sampled 06/13/12 16:20	Vanadium (V)	25	1.0 mg/Kg-dry	06/18/12	06/20/12
	Chromium (Cr)	20	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cobalt (Co)	5.9	1.0 mg/Kg-dry	06/18/12	06/20/12
	Nickel (Ni)	20	2.1 mg/Kg-dry	06/18/12	06/20/12
	Copper (Cu)	31	2.1 mg/Kg-dry	06/18/12	06/20/12
	Zinc (Zn)	250	21 mg/Kg-dry	06/18/12	06/20/12
	Arsenic (As)	15	1.0 mg/Kg-dry	06/18/12	06/20/12
	Selenium (Se)	1.2	1.0 mg/Kg-dry	06/18/12	06/20/12
	Molybdenum (Mo)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Silver (Ag)	24	1.0 mg/Kg-dry	06/18/12	06/20/12
	Cadmium (Cd)	1.4	1.0 mg/Kg-dry	06/18/12	06/20/12
	Antimony (Sb)	8.9	1.0 mg/Kg-dry	06/18/12	06/20/12
	Barium (Ba)	210	1.0 mg/Kg-dry	06/18/12	06/20/12
	Mercury (Hg)	0.47	0.21 mg/Kg-dry	06/18/12	06/20/12
	Thallium (Tl)	ND	1.0 mg/Kg-dry	06/18/12	06/20/12
	Lead (Pb)	110	1.0 mg/Kg-dry	06/18/12	06/20/12

Concentrations and reporting limits are based on dry weights.

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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6/21/12

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968
Date Received : 06/15/12

Job: LVRRN014/Lackawanna Mill

Percent Moisture
ASTM D2216

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: LVBRN014-SP-01 Lab ID : MGA12061524-01A Percent Moisture Date Sampled 06/13/12 10:00	27	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SS-02 Lab ID : MGA12061524-02A Percent Moisture Date Sampled 06/13/12 10:40	3.2	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SS-03 Lab ID : MGA12061524-03A Percent Moisture Date Sampled 06/13/12 11:05	5.3	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SP-04 Lab ID : MGA12061524-05A Percent Moisture Date Sampled 06/13/12 11:10	3.3	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SS-05 Lab ID : MGA12061524-06A Percent Moisture Date Sampled 06/13/12 11:40	7.2	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SS-06 Lab ID : MGA12061524-07A Percent Moisture Date Sampled 06/13/12 11:55	5.3	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SS-07 Lab ID : MGA12061524-08A Percent Moisture Date Sampled 06/13/12 12:05	3.0	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SS-08 Lab ID : MGA12061524-09A Percent Moisture Date Sampled 06/13/12 12:20	1.7	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SS-09 Lab ID : MGA12061524-10A Percent Moisture Date Sampled 06/13/12 12:40	3.4	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SP-10 Lab ID : MGA12061524-11A Percent Moisture Date Sampled 06/13/12 12:50	10	0.10 %	06/21/12	06/21/12
Client ID: LVBRN014-SS-11 Lab ID : MGA12061524-12A Percent Moisture Date Sampled 06/13/12 14:55	8.4	0.10 %	06/21/12	06/21/12



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Client ID: LVBRN014-SS-12

Lab ID: MGA12061524-13A Percent Moisture
Date Sampled 06/13/12 15:10

1.7

0.10 %

06/21/12

06/21/12

Client ID: LVBRN014-SS-13

Lab ID: MGA12061524-14A Percent Moisture
Date Sampled 06/13/12 15:25

2.1

0.10 %

06/21/12

06/21/12

Client ID: LVBRN014-SS-14

Lab ID: MGA12061524-15A Percent Moisture
Date Sampled 06/13/12 15:35

1.9

0.10 %

06/21/12

06/21/12

Client ID: LVBRN014-SS-15

Lab ID: MGA12061524-16A Percent Moisture
Date Sampled 06/13/12 16:10

1.8

0.10 %

06/21/12

06/21/12

Client ID: LVBRN014-SS-16

Lab ID: MGA12061524-17A Percent Moisture
Date Sampled 06/13/12 16:20

3.0

0.10 %

06/21/12

06/21/12

Roger Scholl

Randy Gardner

Walter Hinchman

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6/21/12

Report Date



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ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968
Date Received : 06/15/12

Job: LVRRN014/Lackawanna Mill

pH (Soil)
EPA Method SW9045D

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: LVBRN014-SP-01				
Lab ID : MGA12061524-01A pH	12	1.7 pH Units	06/20/12 10:36	06/21/12 09:47
Date Sampled 06/13/12 10:00 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 09:47
Client ID: LVBRN014-SS-02				
Lab ID : MGA12061524-02A pH	7.7	1.7 pH Units	06/20/12 10:36	06/21/12 09:51
Date Sampled 06/13/12 10:40 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 09:51
Client ID: LVBRN014-SS-03				
Lab ID : MGA12061524-03A pH	8.8	1.7 pH Units	06/20/12 10:36	06/21/12 09:54
Date Sampled 06/13/12 11:05 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 09:54
Client ID: LVBRN014-SP-04				
Lab ID : MGA12061524-05A pH	8.8	1.7 pH Units	06/20/12 10:36	06/21/12 09:57
Date Sampled 06/13/12 11:10 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 09:57
Client ID: LVBRN014-SS-05				
Lab ID : MGA12061524-06A pH	9.5	1.7 pH Units	06/20/12 10:36	06/21/12 09:59
Date Sampled 06/13/12 11:40 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 09:59
Client ID: LVBRN014-SS-06				
Lab ID : MGA12061524-07A pH	8.8	1.7 pH Units	06/20/12 10:36	06/21/12 10:03
Date Sampled 06/13/12 11:55 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:03
Client ID: LVBRN014-SS-07				
Lab ID : MGA12061524-08A pH	8.5	1.7 pH Units	06/20/12 10:36	06/21/12 10:07
Date Sampled 06/13/12 12:05 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:07
Client ID: LVBRN014-SS-08				
Lab ID : MGA12061524-09A pH	8.1	1.7 pH Units	06/20/12 10:36	06/21/12 10:10
Date Sampled 06/13/12 12:20 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:10
Client ID: LVBRN014-SS-09				
Lab ID : MGA12061524-10A pH	8.6	1.7 pH Units	06/20/12 10:36	06/21/12 10:13
Date Sampled 06/13/12 12:40 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:13
Client ID: LVBRN014-SP-10				
Lab ID : MGA12061524-11A pH	7.8	1.7 pH Units	06/20/12 10:36	06/21/12 10:24
Date Sampled 06/13/12 12:50 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:24
Client ID: LVBRN014-SS-11				
Lab ID : MGA12061524-12A pH	8.5	1.7 pH Units	06/20/12 10:36	06/21/12 10:32
Date Sampled 06/13/12 14:55 pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:32



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Client ID: LVBRN014-SS-12

Lab ID: MGA12061524-13A	pH	8.8	1.7 pH Units	06/20/12 10:36	06/21/12 10:35
Date Sampled 06/13/12 15:10	pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:35

Client ID: LVBRN014-SS-13

Lab ID: MGA12061524-14A	pH	8.2	1.7 pH Units	06/20/12 10:36	06/21/12 10:38
Date Sampled 06/13/12 15:25	pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:38

Client ID: LVBRN014-SS-14

Lab ID: MGA12061524-15A	pH	8.3	1.7 pH Units	06/20/12 10:36	06/21/12 10:41
Date Sampled 06/13/12 15:35	pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:41

Client ID: LVBRN014-SS-15

Lab ID: MGA12061524-16A	pH	7.8	1.7 pH Units	06/20/12 10:36	06/21/12 10:42
Date Sampled 06/13/12 16:10	pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:42

Client ID: LVBRN014-SS-16

Lab ID: MGA12061524-17A	pH	8.0	1.7 pH Units	06/20/12 10:36	06/21/12 10:45
Date Sampled 06/13/12 16:20	pH - Temperature	21	1.0 °C	06/20/12 10:36	06/21/12 10:45

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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6/21/12

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

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ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-01A
Client I.D. Number: LVBRN014-SP-01

Sampled: 06/13/12 10:00
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	60	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	64	25 µg/Kg
10	Pyrene	55	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	40	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	110	(54-130) %REC
19	Surr: 4-Terphenyl-d14	124	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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[Signature]

6/21/12

Report Date

Page 1 of 1



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-02A
Client I.D. Number: LVBRN014-SS-02

Sampled: 06/13/12 10:40
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	114	(54-130) %REC
19	Surr: 4-Terphenyl-d14	128	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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6/21/12

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-03A
Client I.D. Number: LVBRN014-SS-03

Sampled: 06/13/12 11:05
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	99	(54-130) %REC
19	Surr: 4-Terphenyl-d14	110	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-05A
Client I.D. Number: LVBRN014-SP-04

Sampled: 06/13/12 11:10
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	89	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	160	25 µg/Kg
10	Pyrene	150	25 µg/Kg
11	Benzo(a)anthracene	67	25 µg/Kg
12	Chrysene	70	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	84	50 µg/Kg
14	Benzo(a)pyrene	62	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	36	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	26	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	98	(54-130) %REC
19	Surr: 4-Terphenyl-d14	110	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Job: LVRN014/Lackawanna Mill

Alpha Analytical Number: MGA12061524-06A
Client I.D. Number: LVBRN014-SS-05

Sampled: 06/13/12 11:40
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	28	25 µg/Kg
10	Pyrene	35	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	108	(54-130) %REC
19	Surr: 4-Terphenyl-d14	103	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 • Las Vegas, NV • (702) 281-4848 • Carson, CA • (714) 386-2901 • info@alpha-analytical.com

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Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-07A
Client I.D. Number: LVBRN014-SS-06

Sampled: 06/13/12 11:55
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	101	(54-130) %REC
19	Surr: 4-Terphenyl-d14	92	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-08A
Client I.D. Number: LVBRN014-SS-07

Sampled: 06/13/12 12:05
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	93	(54-130) %REC
19	Surr: 4-Terphenyl-d14	102	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-09A
Client I.D. Number: LVBRN014-SS-08

Sampled: 06/13/12 12:20
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	93	(54-130) %REC
19	Surr: 4-Terphenyl-d14	90	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 • Carson, CA • (714) 386-2901 • info@alpha-analytical.com

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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-10A
Client I.D. Number: LVBRN014-SS-09

Sampled: 06/13/12 12:40
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	98	(54-130) %REC
19	Surr: 4-Terphenyl-d14	94	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-11A
Client I.D. Number: LVBRN014-SP-10

Sampled: 06/13/12 12:50
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

Compound	Concentration	Reporting Limit
1 Naphthalene	ND	25 µg/Kg
2 2-Methylnaphthalene	ND	25 µg/Kg
3 1-Methylnaphthalene	ND	25 µg/Kg
4 Acenaphthylene	ND	25 µg/Kg
5 Acenaphthene	ND	25 µg/Kg
6 Fluorene	ND	25 µg/Kg
7 Phenanthrene	ND	25 µg/Kg
8 Anthracene	ND	25 µg/Kg
9 Fluoranthene	ND	25 µg/Kg
10 Pyrene	ND	25 µg/Kg
11 Benzo(a)anthracene	ND	25 µg/Kg
12 Chrysene	ND	25 µg/Kg
13 Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14 Benzo(a)pyrene	ND	25 µg/Kg
15 Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16 Dibenzo(a,h)anthracene	ND	25 µg/Kg
17 Benzo(g,h,i)perylene	ND	25 µg/Kg
18 Surr: 2-Fluorobiphenyl	105	(54-130) %REC
19 Surr: 4-Terphenyl-d14	117	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-12A
Client I.D. Number: LVBRN014-SS-11

Sampled: 06/13/12 14:55
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	106	(54-130) %REC
19	Surr: 4-Terphenyl-d14	114	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

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Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-13A
Client I.D. Number: LVBRN014-SS-12

Sampled: 06/13/12 15:10
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	99	(54-130) %REC
19	Surr: 4-Terphenyl-d14	101	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 • Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-14A
Client I.D. Number: LVBRN014-SS-13

Sampled: 06/13/12 15:25
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

Compound	Concentration	Reporting Limit
1 Naphthalene	ND	25 µg/Kg
2 2-Methylnaphthalene	ND	25 µg/Kg
3 1-Methylnaphthalene	ND	25 µg/Kg
4 Acenaphthylene	ND	25 µg/Kg
5 Acenaphthene	ND	25 µg/Kg
6 Fluorene	ND	25 µg/Kg
7 Phenanthrene	ND	25 µg/Kg
8 Anthracene	ND	25 µg/Kg
9 Fluoranthene	ND	25 µg/Kg
10 Pyrene	ND	25 µg/Kg
11 Benzo(a)anthracene	ND	25 µg/Kg
12 Chrysene	ND	25 µg/Kg
13 Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14 Benzo(a)pyrene	ND	25 µg/Kg
15 Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16 Dibenzo(a,h)anthracene	ND	25 µg/Kg
17 Benzo(g,h,i)perylene	ND	25 µg/Kg
18 Surr: 2-Fluorobiphenyl	95	(54-130) %REC
19 Surr: 4-Terphenyl-d14	81	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-15A
Client I.D. Number: LVBRN014-SS-14

Sampled: 06/13/12 15:35
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	103	(54-130) %REC
19	Surr: 4-Terphenyl-d14	117	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118

Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-16A
Client I.D. Number: LVBRN014-SS-15

Sampled: 06/13/12 16:10
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Naphthalene	ND	25 µg/Kg
2	2-Methylnaphthalene	ND	25 µg/Kg
3	1-Methylnaphthalene	ND	25 µg/Kg
4	Acenaphthylene	ND	25 µg/Kg
5	Acenaphthene	ND	25 µg/Kg
6	Fluorene	ND	25 µg/Kg
7	Phenanthrene	ND	25 µg/Kg
8	Anthracene	ND	25 µg/Kg
9	Fluoranthene	ND	25 µg/Kg
10	Pyrene	ND	25 µg/Kg
11	Benzo(a)anthracene	ND	25 µg/Kg
12	Chrysene	ND	25 µg/Kg
13	Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14	Benzo(a)pyrene	ND	25 µg/Kg
15	Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16	Dibenz(a,h)anthracene	ND	25 µg/Kg
17	Benzo(g,h,i)perylene	ND	25 µg/Kg
18	Surr: 2-Fluorobiphenyl	98	(54-130) %REC
19	Surr: 4-Terphenyl-d14	129	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-17A
Client I.D. Number: LVBRN014-SS-16

Sampled: 06/13/12 16:20
Received: 06/15/12
Extracted: 06/18/12 12:27
Analyzed: 06/20/12

Semivolatile Organics by GC/MS - SIM EPA Method SW8270C

Compound	Concentration	Reporting Limit
1 Naphthalene	ND	25 µg/Kg
2 2-Methylnaphthalene	ND	25 µg/Kg
3 1-Methylnaphthalene	ND	25 µg/Kg
4 Acenaphthylene	ND	25 µg/Kg
5 Acenaphthene	ND	25 µg/Kg
6 Fluorene	ND	25 µg/Kg
7 Phenanthrene	ND	25 µg/Kg
8 Anthracene	ND	25 µg/Kg
9 Fluoranthene	ND	25 µg/Kg
10 Pyrene	ND	25 µg/Kg
11 Benzo(a)anthracene	ND	25 µg/Kg
12 Chrysene	ND	25 µg/Kg
13 Benzo(b&k)fluoranthene, isomeric pair	ND	50 µg/Kg
14 Benzo(a)pyrene	ND	25 µg/Kg
15 Indeno(1,2,3-cd)pyrene	ND	25 µg/Kg
16 Dibenzo(a,h)anthracene	ND	25 µg/Kg
17 Benzo(g,h,i)perylene	ND	25 µg/Kg
18 Surr: 2-Fluorobiphenyl	97	(54-130) %REC
19 Surr: 4-Terphenyl-d14	102	(24-145) %REC

Note: EPA Method 8270C CC compounds Acenaphthene, Fluoranthene and Benzo(a)pyrene were evaluated in the CV at the method criteria of 80-120% recovery.

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

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Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-03A
Client I.D. Number: LVBRN014-SS-03

Sampled: 06/13/12 11:05
Received: 06/15/12
Extracted: 06/19/12 13:54
Analyzed: 06/20/12

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Chloromethane	ND	80 µg/Kg	26 Ethylbenzene	ND	20 µg/Kg
2 Vinyl chloride	ND	20 µg/Kg	27 m,p-Xylene	ND	20 µg/Kg
3 Chloroethane	ND	20 µg/Kg	28 Bromoform	ND	20 µg/Kg
4 Bromomethane	ND	80 µg/Kg	29 o-Xylene	ND	20 µg/Kg
5 Trichlorofluoromethane	ND	20 µg/Kg	30 1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
6 1,1-Dichloroethene	ND	20 µg/Kg	31 1,3-Dichlorobenzene	ND	20 µg/Kg
7 Dichloromethane	ND	80 µg/Kg	32 1,4-Dichlorobenzene	ND	20 µg/Kg
8 trans-1,2-Dichloroethene	ND	20 µg/Kg	33 1,2-Dichlorobenzene	ND	20 µg/Kg
9 1,1-Dichloroethane	ND	20 µg/Kg	34 Surr: 1,2-Dichloroethane-d4	83	(70-130) %REC
10 cis-1,2-Dichloroethene	ND	20 µg/Kg	35 Surr: Toluene-d8	112	(70-130) %REC
11 Chloroform	ND	20 µg/Kg	36 Surr: 4-Bromofluorobenzene	90	(70-130) %REC
12 1,2-Dichloroethane	ND	20 µg/Kg			
13 1,1,1-Trichloroethane	ND	20 µg/Kg			
14 Carbon tetrachloride	ND	20 µg/Kg			
15 Benzene	ND	20 µg/Kg			
16 1,2-Dichloropropane	ND	20 µg/Kg			
17 Trichloroethene	ND	20 µg/Kg			
18 Bromodichloromethane	ND	20 µg/Kg			
19 cis-1,3-Dichloropropene	ND	20 µg/Kg			
20 trans-1,3-Dichloropropene	ND	20 µg/Kg			
21 1,1,2-Trichloroethane	ND	20 µg/Kg			
22 Toluene	ND	20 µg/Kg			
23 Dibromochloromethane	ND	20 µg/Kg			
24 Tetrachloroethene	ND	20 µg/Kg			
25 Chlorobenzene	ND	20 µg/Kg			

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-04A
Client I.D. Number: EQUIP. BLANK

Sampled: 06/13/12 11:20
Received: 06/15/12
Extracted: 06/20/12
Analyzed: 06/20/12

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Chloromethane	ND	2.0 µg/L	26 Ethylbenzene	ND	1.0 µg/L
2 Vinyl chloride	ND	1.0 µg/L	27 m,p-Xylene	ND	1.0 µg/L
3 Chloroethane	ND	1.0 µg/L	28 Bromoform	ND	1.0 µg/L
4 Bromomethane	ND	2.0 µg/L	29 o-Xylene	ND	1.0 µg/L
5 Trichlorofluoromethane	ND	1.0 µg/L	30 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
6 1,1-Dichloroethene	ND	1.0 µg/L	31 1,3-Dichlorobenzene	ND	1.0 µg/L
7 Dichloromethane	ND	2.0 µg/L	32 1,4-Dichlorobenzene	ND	1.0 µg/L
8 trans-1,2-Dichloroethene	ND	1.0 µg/L	33 1,2-Dichlorobenzene	ND	1.0 µg/L
9 1,1-Dichloroethane	ND	1.0 µg/L	34 Surr: 1,2-Dichloroethane-d4	128	(70-130) %REC
10 cis-1,2-Dichloroethene	ND	1.0 µg/L	35 Surr: Toluene-d8	95	(70-130) %REC
11 Chloroform	ND	1.0 µg/L	36 Surr: 4-Bromofluorobenzene	102	(70-130) %REC
12 1,2-Dichloroethane	ND	1.0 µg/L			
13 1,1,1-Trichloroethane	ND	1.0 µg/L			
14 Carbon tetrachloride	ND	1.0 µg/L			
15 Benzene	ND	1.0 µg/L			
16 1,2-Dichloropropane	ND	1.0 µg/L			
17 Trichloroethene	ND	1.0 µg/L			
18 Bromodichloromethane	ND	1.0 µg/L			
19 cis-1,3-Dichloropropene	ND	1.0 µg/L			
20 trans-1,3-Dichloropropene	ND	1.0 µg/L			
21 1,1,2-Trichloroethane	ND	1.0 µg/L			
22 Toluene	ND	1.0 µg/L			
23 Dibromochloromethane	ND	1.0 µg/L			
24 Tetrachloroethene	ND	1.0 µg/L			
25 Chlorobenzene	ND	1.0 µg/L			

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-06A
Client I.D. Number: LVBRN014-SS-05

Sampled: 06/13/12 11:40
Received: 06/15/12
Extracted: 06/19/12 13:54
Analyzed: 06/20/12

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Chloromethane	ND	80 µg/Kg	26 Ethylbenzene	ND	20 µg/Kg
2 Vinyl chloride	ND	20 µg/Kg	27 m,p-Xylene	ND	20 µg/Kg
3 Chloroethane	ND	20 µg/Kg	28 Bromoform	ND	20 µg/Kg
4 Bromomethane	ND	80 µg/Kg	29 o-Xylene	ND	20 µg/Kg
5 Trichlorofluoromethane	ND	20 µg/Kg	30 1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
6 1,1-Dichloroethene	ND	20 µg/Kg	31 1,3-Dichlorobenzene	ND	20 µg/Kg
7 Dichloromethane	ND	80 µg/Kg	32 1,4-Dichlorobenzene	ND	20 µg/Kg
8 trans-1,2-Dichloroethene	ND	20 µg/Kg	33 1,2-Dichlorobenzene	ND	20 µg/Kg
9 1,1-Dichloroethane	ND	20 µg/Kg	34 Surr: 1,2-Dichloroethane-d4	84	(70-130) %REC
10 cis-1,2-Dichloroethene	ND	20 µg/Kg	35 Surr: Toluene-d8	114	(70-130) %REC
11 Chloroform	ND	20 µg/Kg	36 Surr: 4-Bromofluorobenzene	83	(70-130) %REC
12 1,2-Dichloroethane	ND	20 µg/Kg			
13 1,1,1-Trichloroethane	ND	20 µg/Kg			
14 Carbon tetrachloride	ND	20 µg/Kg			
15 Benzene	ND	20 µg/Kg			
16 1,2-Dichloropropane	ND	20 µg/Kg			
17 Trichloroethene	ND	20 µg/Kg			
18 Bromodichloromethane	ND	20 µg/Kg			
19 cis-1,3-Dichloropropene	ND	20 µg/Kg			
20 trans-1,3-Dichloropropene	ND	20 µg/Kg			
21 1,1,2-Trichloroethane	ND	20 µg/Kg			
22 Toluene	ND	20 µg/Kg			
23 Dibromochloromethane	ND	20 µg/Kg			
24 Tetrachloroethene	ND	20 µg/Kg			
25 Chlorobenzene	ND	20 µg/Kg			

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

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255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

McGinley & Associates
6280 S. Valley View Blvd
Las Vegas, NV 89118
Job: LVRRN014/Lackawanna Mill

Attn: Brett Bottenberg
Phone: (702) 260-4961
Fax: (702) 260-4968

Alpha Analytical Number: MGA12061524-18A
Client I.D. Number: Trip Blank

Sampled: 06/13/12 00:00
Received: 06/15/12
Extracted: 06/20/12
Analyzed: 06/20/12

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Chloromethane	ND	2.0 µg/L	26 Ethylbenzene	ND	1.0 µg/L
2 Vinyl chloride	ND	1.0 µg/L	27 m,p-Xylene	ND	1.0 µg/L
3 Chloroethane	ND	1.0 µg/L	28 Bromoform	ND	1.0 µg/L
4 Bromomethane	ND	2.0 µg/L	29 o-Xylene	ND	1.0 µg/L
5 Trichlorofluoromethane	ND	1.0 µg/L	30 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
6 1,1-Dichloroethene	ND	1.0 µg/L	31 1,3-Dichlorobenzene	ND	1.0 µg/L
7 Dichloromethane	ND	2.0 µg/L	32 1,4-Dichlorobenzene	ND	1.0 µg/L
8 trans-1,2-Dichloroethene	ND	1.0 µg/L	33 1,2-Dichlorobenzene	ND	1.0 µg/L
9 1,1-Dichloroethane	ND	1.0 µg/L	34 Surr: 1,2-Dichloroethane-d4	95	(70-130) %REC
10 cis-1,2-Dichloroethene	ND	1.0 µg/L	35 Surr: Toluene-d8	101	(70-130) %REC
11 Chloroform	ND	1.0 µg/L	36 Surr: 4-Bromofluorobenzene	102	(70-130) %REC
12 1,2-Dichloroethane	ND	1.0 µg/L			
13 1,1,1-Trichloroethane	ND	1.0 µg/L			
14 Carbon tetrachloride	ND	1.0 µg/L			
15 Benzene	ND	1.0 µg/L			
16 1,2-Dichloropropane	ND	1.0 µg/L			
17 Trichloroethene	ND	1.0 µg/L			
18 Bromodichloromethane	ND	1.0 µg/L			
19 cis-1,3-Dichloropropene	ND	1.0 µg/L			
20 trans-1,3-Dichloropropene	ND	1.0 µg/L			
21 1,1,2-Trichloroethane	ND	1.0 µg/L			
22 Toluene	ND	1.0 µg/L			
23 Dibromochloromethane	ND	1.0 µg/L			
24 Tetrachloroethene	ND	1.0 µg/L			
25 Chlorobenzene	ND	1.0 µg/L			

Sample results were calculated on a wet weight basis.
ND = Not Detected

Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 • info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAP unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV00016.

[Signature]

6/21/12

Report Date

Page 1 of 1



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: MGA12061524

Job: LVRRN014/Lackawanna Mill

Alpha's Sample ID	Client's Sample ID	Matrix	pH
12061524-04A	EQUIP. BLANK	Aqueous	2
12061524-18A	Trip Blank	Aqueous	2

6/21/12

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
22-Jun-12

QC Summary Report

Work Order:
12061524

Method Blank

File ID: 12061921.D

Type: MBLK Test Code: EPA Method SW8082

Batch ID: 28936A

Analysis Date: 06/19/2012 18:06

Sample ID: MBLK-28936

Units: µg/Kg

Run ID: ECD_1_120618B

Prep Date: 06/18/2012 16:22

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Aroclor 1016	ND	33								
Aroclor 1221	ND	33								
Aroclor 1232	ND	33								
Aroclor 1242	ND	33								
Aroclor 1248	ND	33								
Aroclor 1254	ND	33								
Aroclor 1260	ND	33								
Surr: Tetrachloro-m-xylene	22.1		20		110	41	152			
Surr: Decachlorobiphenyl	23.5		20		117	39	163			

Laboratory Control Spike

File ID: 12061922.D

Type: LCS Test Code: EPA Method SW8082

Batch ID: 28936A

Analysis Date: 06/19/2012 18:19

Sample ID: LCS-28936

Units: µg/Kg

Run ID: ECD_1_120618B

Prep Date: 06/18/2012 16:22

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Aroclor 1232	173	33	200		86	40	157			
Surr: Tetrachloro-m-xylene	21.5		20		108	41	152			
Surr: Decachlorobiphenyl	23		20		115	39	163			

Sample Matrix Spike

File ID: 12061924.D

Type: MS Test Code: EPA Method SW8082

Batch ID: 28936A

Analysis Date: 06/19/2012 18:46

Sample ID: 12061524-03AMS

Units: µg/Kg

Run ID: ECD_1_120618B

Prep Date: 06/18/2012 16:22

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Aroclor 1232	268	33	200	0	134	32	165			
Surr: Tetrachloro-m-xylene	22.1		20		111	41	152			
Surr: Decachlorobiphenyl	23		20		115	39	163			

Sample Matrix Spike Duplicate

File ID: 12061927.D

Type: MSD Test Code: EPA Method SW8082

Batch ID: 28936A

Analysis Date: 06/19/2012 19:27

Sample ID: 12061524-03AMSD

Units: µg/Kg

Run ID: ECD_1_120618B

Prep Date: 06/18/2012 16:22

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Aroclor 1232	276	33	200	0	138	32	165	268.3	2.8(44)	
Surr: Tetrachloro-m-xylene	21.2		20		106	41	152			
Surr: Decachlorobiphenyl	22.9		20		114	39	163			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Alpha Analytical, Inc.

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Date:
22-Jun-12

QC Summary Report

Work Order:
12061524

Method Blank

Type: MBLK Test Code: EPA Method SW6020 / SW6020A

File ID: 061812.B\151_M.D\

Batch ID: 28933

Analysis Date: 06/19/2012 19:24

Sample ID: MB-28933

Units : mg/L

Run ID: ICP/MS_120619C

Prep Date: 06/18/2012 13:53

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Vanadium (V)	ND	0.005								
Chromium (Cr)	ND	0.005								
Cobalt (Co)	ND	0.005								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Molybdenum (Mo)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Barium (Ba)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type: LCS Test Code: EPA Method SW6020 / SW6020A

File ID: 061812.B\240_M.D\

Batch ID: 28933

Analysis Date: 06/20/2012 09:43

Sample ID: LCS-28933

Units : mg/L

Run ID: ICP/MS_120619C

Prep Date: 06/18/2012 13:53

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.243	0.002	0.25		97	80	120			
Vanadium (V)	0.243	0.01	0.25		97	80	120			
Chromium (Cr)	0.297	0.01	0.25		119	80	120			
Cobalt (Co)	0.295	0.005	0.25		118	80	120			
Nickel (Ni)	0.252	0.01	0.25		101	80	120			
Copper (Cu)	0.255	0.02	0.25		102	80	120			
Zinc (Zn)	0.259	0.1	0.25		104	80	120			
Arsenic (As)	0.278	0.005	0.25		111	80	120			
Selenium (Se)	0.279	0.005	0.25		112	80	120			
Molybdenum (Mo)	0.262	0.005	0.25		105	80	120			
Silver (Ag)	0.259	0.005	0.25		104	80	120			
Cadmium (Cd)	0.266	0.002	0.25		106	80	120			
Antimony (Sb)	0.277	0.003	0.25		111	80	120			
Barium (Ba)	2.82	0.005	2.5		113	80	120			
Mercury (Hg)	0.00467	0.001	0.005		93	80	120			
Thallium (Tl)	0.212	0.002	0.25		85	80	120			
Lead (Pb)	0.266	0.005	0.25		106	80	120			

Sample Matrix Spike

Type: MS Test Code: EPA Method SW6020 / SW6020A

File ID: 061812.B\157_M.D\

Batch ID: 28933

Analysis Date: 06/19/2012 19:58

Sample ID: 12061501-01AMS

Units : mg/L

Run ID: ICP/MS_120619C

Prep Date: 06/18/2012 13:53

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.306	0.002	0.25	0	122	75	125			
Vanadium (V)	0.277	0.01	0.25	0.00904	107	75	125			
Chromium (Cr)	0.336	0.01	0.25	0.04803	115	75	125			
Cobalt (Co)	0.288	0.005	0.25	0	115	75	125			
Nickel (Ni)	0.286	0.01	0.25	0	114	75	125			
Copper (Cu)	0.337	0.02	0.25	0.08751	99.7	75	125			
Zinc (Zn)	0.502	0.1	0.25	0.2583	98	75	125			
Arsenic (As)	0.254	0.005	0.25	0	101	75	125			
Selenium (Se)	0.273	0.005	0.25	0	109	75	125			
Molybdenum (Mo)	0.275	0.005	0.25	0	110	75	125			
Silver (Ag)	0.261	0.005	0.25	0	104	75	125			
Cadmium (Cd)	0.273	0.002	0.25	0	109	75	125			
Antimony (Sb)	0.28	0.003	0.25	0	112	75	125			
Barium (Ba)	2.99	0.005	2.5	0.01595	119	75	125			
Mercury (Hg)	0.00463	0.001	0.005	0	93	75	125			
Thallium (Tl)	0.228	0.002	0.25	0	91	75	125			
Lead (Pb)	0.281	0.005	0.25	0	112	75	125			



Alpha Analytical, Inc.

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Date:

22-Jun-12

QC Summary Report

Work Order:

12061524

Sample Matrix Spike Duplicate

Type: MSD

Test Code: EPA Method SW6020 / SW6020A

File ID: 061812.B\158_M.D\

Batch ID: 28933

Analysis Date: 06/19/2012 20:04

Sample ID: 12061501-01AMSD

Units : mg/L

Run ID: ICP/MS_120619C

Prep Date: 06/18/2012 13:53

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.334	0.002	0.25	0	134	75	125	0.3058	8.9(20)	M1
Vanadium (V)	0.302	0.01	0.25	0.00904	117	75	125	0.2771	8.6(20)	
Chromium (Cr)	0.375	0.01	0.25	0.04803	131	75	125	0.336	11.0(20)	M1
Cobalt (Co)	0.314	0.005	0.25	0	125	75	125	0.2882	8.4(20)	
Nickel (Ni)	0.311	0.01	0.25	0	124	75	125	0.286	8.3(20)	
Copper (Cu)	0.375	0.02	0.25	0.08751	115	75	125	0.3368	10.7(20)	
Zinc (Zn)	0.553	0.1	0.25	0.2583	118	75	125	0.5021	9.7(20)	
Arsenic (As)	0.268	0.005	0.25	0	107	75	125	0.2537	5.5(20)	
Selenium (Se)	0.288	0.005	0.25	0	115	75	125	0.2728	5.4(20)	
Molybdenum (Mo)	0.306	0.005	0.25	0	122	75	125	0.2748	10.6(20)	
Silver (Ag)	0.271	0.005	0.25	0	108	75	125	0.2606	3.9(20)	
Cadmium (Cd)	0.294	0.002	0.25	0	118	75	125	0.2733	7.3(20)	
Antimony (Sb)	0.305	0.003	0.25	0	122	75	125	0.2801	8.5(20)	
Barium (Ba)	3.22	0.005	2.5	0.01595	128	75	125	2.993	7.4(20)	M1
Mercury (Hg)	0.0048	0.001	0.005	0	96	75	125	0.004632	3.5(20)	
Thallium (Tl)	0.251	0.002	0.25	0	101	75	125	0.2284	9.6(20)	
Lead (Pb)	0.298	0.005	0.25	0	119	75	125	0.2811	5.8(20)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
21-Jun-12

QC Summary Report

Work Order:
12061524

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **061812.B\177_M.D**

Batch ID: **28935**

Analysis Date: **06/19/2012 22:33**

Sample ID: **MB-28935**

Units: **mg/Kg**

Run ID: **ICP/MS_120619E**

Prep Date: **06/18/2012 16:32**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	1								
Vanadium (V)	ND	1								
Chromium (Cr)	ND	1								
Cobalt (Co)	ND	1								
Nickel (Ni)	ND	2								
Copper (Cu)	ND	2								
Zinc (Zn)	ND	20								
Arsenic (As)	ND	1								
Selenium (Se)	ND	1								
Molybdenum (Mo)	ND	1								
Silver (Ag)	ND	1								
Cadmium (Cd)	ND	1								
Antimony (Sb)	ND	1								
Barium (Ba)	ND	1								
Mercury (Hg)	ND	0.2								
Thallium (Tl)	ND	1								
Lead (Pb)	ND	1								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **061812.B\178_M.D**

Batch ID: **28935**

Analysis Date: **06/19/2012 22:38**

Sample ID: **LCS-28935**

Units: **mg/Kg**

Run ID: **ICP/MS_120619E**

Prep Date: **06/18/2012 16:32**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	24.7	1	25		99	80	120			
Vanadium (V)	23.4	1	25		94	80	120			
Chromium (Cr)	26.9	1	25		108	80	120			
Cobalt (Co)	26.1	1	25		104	80	120			
Nickel (Ni)	26.1	2	25		104	80	120			
Copper (Cu)	26.7	2	25		107	80	120			
Zinc (Zn)	26.4	20	25		106	80	120			
Arsenic (As)	26.1	1	25		104	80	120			
Selenium (Se)	26.3	1	25		105	80	120			
Molybdenum (Mo)	25.8	1	25		103	80	120			
Silver (Ag)	27.4	1	25		110	80	120			
Cadmium (Cd)	26.3	1	25		105	80	120			
Antimony (Sb)	25.6	1	25		102	80	120			
Barium (Ba)	243	1	250		97	80	120			
Mercury (Hg)	0.441	0.2	0.5		88	80	120			
Thallium (Tl)	20.9	1	25		83	80	120			
Lead (Pb)	26.4	1	25		105	80	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **061812.B\183_M.D**

Batch ID: **28935**

Analysis Date: **06/19/2012 23:07**

Sample ID: **12061524-01AMS**

Units: **mg/Kg**

Run ID: **ICP/MS_120619E**

Prep Date: **06/18/2012 16:32**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	28.1	1	25	0	112	75	125			
Vanadium (V)	58.9	1	25	33.08	103	75	125			
Chromium (Cr)	191	1	25	163.1	112	75	125			
Cobalt (Co)	61.4	1	25	27.4	136	75	125			M1
Nickel (Ni)	101	2	25	69.48	125	75	125			
Copper (Cu)	3120	2	25	2820	1200	75	125			M3
Zinc (Zn)	8960	20	25	8759	820	75	125			M3
Arsenic (As)	166	1	25	127.8	154	75	125			M3
Selenium (Se)	29.2	1	25	2.451	107	75	125			
Molybdenum (Mo)	35.8	1	25	7.188	114	75	125			
Silver (Ag)	503	1	25	596.4	-370	75	125			M3
Cadmium (Cd)	96	1	25	76.16	79	75	125			
Antimony (Sb)	2250	1	25	1898	1420	75	125			M3
Barium (Ba)	425	1	250	124.3	120	75	125			
Mercury (Hg)	16.6	0.2	0.5	14.9	342	75	125			M3
Thallium (Tl)	25.1	1	25	1.082	96	75	125			
Lead (Pb)	24700	1	25	19960	19100	75	125			M3



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
21-Jun-12

QC Summary Report

Work Order:
12061524

Sample Matrix Spike Duplicate

File ID: 061812.B\184_M.D\

Sample ID: 12061524-01AMSD

Type: MSD

Test Code: EPA Method SW6020 / SW6020A

Batch ID: 28935

Analysis Date: 06/19/2012 23:13

Run ID: ICP/MS_120619E

Prep Date: 06/18/2012 16:32

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	26.4	1	25	0	105	75	125	28.11	6.4(20)	
Vanadium (V)	63.4	1	25	33.08	121	75	125	58.85	7.4(20)	
Chromium (Cr)	149	1	25	163.1	-56	75	125	191.1	24.6(20)	M3 R58
Cobalt (Co)	55.5	1	25	27.4	112	75	125	61.36	10.0(20)	
Nickel (Ni)	99.9	2	25	69.48	122	75	125	100.7	0.8(20)	
Copper (Cu)	3060	2	25	2820	948	75	125	3119	2.0(20)	M3
Zinc (Zn)	8660	20	25	8759	-380	75	125	8964	3.4(20)	M3
Arsenic (As)	165	1	25	127.8	150	75	125	166.2	0.5(20)	M3
Selenium (Se)	28.5	1	25	2.451	104	75	125	29.24	2.5(20)	
Molybdenum (Mo)	37.8	1	25	7.188	122	75	125	35.75	5.5(20)	
Silver (Ag)	483	1	25	596.4	-460	75	125	503.1	4.2(20)	M3
Cadmium (Cd)	105	1	25	76.16	113	75	125	95.97	8.5(20)	
Antimony (Sb)	2220	1	25	1898	1290	75	125	2253	1.4(20)	M3
Barium (Ba)	398	1	250	124.3	110	75	125	424.5	6.4(20)	
Mercury (Hg)	17.9	0.2	0.5	14.9	594	75	125	16.61	7.3(20)	M3
Thallium (Tl)	25.8	1	25	1.082	99	75	125	25.12	2.8(20)	
Lead (Pb)	17400	1	25	19960	-10000	75	125	24730	35.1(20)	M3 R58

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

R58 = MS/MSD RPD exceeded the laboratory control limit.



Alpha Analytical, Inc.

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Date:
22-Jun-12

QC Summary Report

Work Order:
12061524

Laboratory Control Spike

Type: LCS

Test Code: EPA Method SW9045D

File ID:

Batch ID: S0621PH

Analysis Date: 06/21/2012 09:36

Sample ID: LCS-S0621PH

Units : pH Units

Run ID: WETLAB_120621B

Prep Date: 06/21/2012 09:36

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

pH

5.05

1.7

5

101

90

110

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date:
22-Jun-12

QC Summary Report

Work Order:
12061524

Method Blank

Type: MBLK Test Code: EPA Method SW8270C

File ID: 12062004.D

Batch ID: 28930

Analysis Date: 06/20/2012 11:22

Sample ID: MBLK-28930

Units: µg/Kg

Run ID: MSD_16_120618A

Prep Date: 06/18/2012 12:27

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Naphthalene	ND	25								
2-Methylnaphthalene	ND	25								
1-Methylnaphthalene	ND	25								
Acenaphthylene	ND	25								
Acenaphthene	ND	25								
Fluorene	ND	25								
Phenanthrene	ND	25								
Anthracene	ND	25								
Fluoranthene	ND	25								
Pyrene	ND	25								
Benzo(a)anthracene	ND	25								
Chrysene	ND	25								
Benzo(b&k)fluoranthene, isomeric pair	ND	50								
Benzo(a)pyrene	ND	25								
Indeno(1,2,3-cd)pyrene	ND	25								
Dibenz(a,h)anthracene	ND	25								
Benzo(g,h,i)perylene	ND	25								
Surr: 2-Fluorobiphenyl	349		312.5		112	54	130			
Surr: 4-Terphenyl-d14	328		312.5		105	24	145			

Laboratory Control Spike

Type: LCS Test Code: EPA Method SW8270C

File ID: 12062025.D

Batch ID: 28930

Analysis Date: 06/20/2012 20:22

Sample ID: LCS-28930

Units: µg/Kg

Run ID: MSD_16_120618A

Prep Date: 06/18/2012 12:27

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Acenaphthene	346	25	312.5		111	53	130			
Pyrene	316	25	312.5		101	26	137			
Surr: 2-Fluorobiphenyl	334		312.5		107	54	130			
Surr: 4-Terphenyl-d14	331		312.5		106	24	145			

Sample Matrix Spike

Type: MS Test Code: EPA Method SW8270C

File ID: 12062023.D

Batch ID: 28930

Analysis Date: 06/20/2012 19:31

Sample ID: 12061524-01AMS

Units: µg/Kg

Run ID: MSD_16_120618A

Prep Date: 06/18/2012 12:27

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Acenaphthene	365	25	312.5	0	117	26	142			
Pyrene	379	25	312.5	55.08	104	5	154			
Surr: 2-Fluorobiphenyl	325		312.5		104	54	130			
Surr: 4-Terphenyl-d14	314		312.5		101	24	145			

Sample Matrix Spike Duplicate

Type: MSD Test Code: EPA Method SW8270C

File ID: 12062024.D

Batch ID: 28930

Analysis Date: 06/20/2012 19:57

Sample ID: 12061524-01AMSD

Units: µg/Kg

Run ID: MSD_16_120618A

Prep Date: 06/18/2012 12:27

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Acenaphthene	349	25	312.5	0	112	26	142	365.4	4.5(38)	
Pyrene	340	25	312.5	55.08	91	5	154	379.5	10.9(50)	
Surr: 2-Fluorobiphenyl	332		312.5		106	54	130			
Surr: 4-Terphenyl-d14	301		312.5		96	24	145			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
26-Jun-12

QC Summary Report

Work Order:
12061524

Method Blank

File ID: 12062024.D

Type: MBLK

Test Code: EPA Method SW8260B

Batch ID: MS08S8941A

Analysis Date: 06/20/2012 17:23

Sample ID: MBLK MS08S8941A

Units: µg/Kg

Run ID: MSD_08_120619B

Prep Date: 06/20/2012 17:23

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	40								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	20								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	20								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	20								
m,p-Xylene	ND	20								
Bromoform	ND	20								
o-Xylene	ND	20								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								
Surr: 1,2-Dichloroethane-d4	166		200		83	70	130			
Surr: Toluene-d8	227		200		114	70	130			
Surr: 4-Bromofluorobenzene	176		200		88	70	130			

Laboratory Control Spike

File ID: 12062025.D

Type: LCS

Test Code: EPA Method SW8260B

Batch ID: MS08S8941A

Analysis Date: 06/20/2012 17:46

Sample ID: LCS MS10S8941A

Units: µg/Kg

Run ID: MSD_08_120619B

Prep Date: 06/20/2012 17:46

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	254	20	400		64	10	132			
Benzene	365	10	400		91	70	138			
Trichloroethene	415	20	400		104	70	150			
Toluene	359	10	400		90	70	137			
Chlorobenzene	371	20	400		93	10	137			
Ethylbenzene	389	10	400		97	70	138			
m,p-Xylene	405	10	400		101	70	145			
o-Xylene	425	10	400		106	70	145			
Surr: 1,2-Dichloroethane-d4	375		400		94	70	130			
Surr: Toluene-d8	373		400		93	70	130			
Surr: 4-Bromofluorobenzene	418		400		104	70	130			



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
26-Jun-12

QC Summary Report

Work Order:
12061524

Sample Matrix Spike

File ID: 12062026.D

Type: MS

Test Code: EPA Method SW8260B

Batch ID: MS08S8941A

Analysis Date: 06/20/2012 18:10

Sample ID: 12061524-03AMS

Units: µg/Kg

Run ID: MSD_08_120619B

Prep Date: 06/20/2012 18:10

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	184	20	400		0	46	10	132		
Benzene	411	10	400		0	103	53	150		
Trichloroethene	480	20	400		0	120	48	165		
Toluene	405	10	400		0	101	51	149		
Chlorobenzene	418	20	400		0	105	51	147		
Ethylbenzene	441	10	400		0	110	54	150		
m,p-Xylene	460	10	400		0	115	50	161		
o-Xylene	480	10	400		0	120	35	177		
Surr: 1,2-Dichloroethane-d4	361		400			90	70	130		
Surr: Toluene-d8	378		400			94	70	130		
Surr: 4-Bromofluorobenzene	417		400			104	70	130		

Sample Matrix Spike Duplicate

File ID: 12062027.D

Type: MSD

Test Code: EPA Method SW8260B

Batch ID: MS08S8941A

Analysis Date: 06/20/2012 18:33

Sample ID: 12061524-03AMSD

Units: µg/Kg

Run ID: MSD_08_120619B

Prep Date: 06/20/2012 18:33

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	216	20	400		0	54	10	132	183.6	16.2(40)
Benzene	390	10	400		0	98	53	150	410.5	5.0(26)
Trichloroethene	443	20	400		0	111	48	165	479.5	7.8(26)
Toluene	376	10	400		0	94	51	149	405.4	7.6(26)
Chlorobenzene	390	20	400		0	98	51	147	418	6.8(40)
Ethylbenzene	412	10	400		0	103	54	150	440.9	6.7(29)
m,p-Xylene	427	10	400		0	107	50	161	460.1	7.6(38)
o-Xylene	454	10	400		0	114	35	177	479.8	5.4(40)
Surr: 1,2-Dichloroethane-d4	384		400			96	70	130		
Surr: Toluene-d8	367		400			92	70	130		
Surr: 4-Bromofluorobenzene	419		400			105	70	130		

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Alpha Analytical, Inc.

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Date:
27-Jun-12

QC Summary Report

Work Order:
12061524

Method Blank

File ID: 12062010.D

Type: MBLK

Test Code: EPA Method SW8260B

Batch ID: MS15W0620A

Analysis Date: 06/20/2012 11:43

Sample ID: MBLK MS15W0620A

Units: µg/L

Run ID: MSD_15_120620B

Prep Date: 06/20/2012 11:43

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	ND	2								
Vinyl chloride	ND	1								
Chloroethane	ND	1								
Bromomethane	ND	2								
Trichlorofluoromethane	ND	1								
1,1-Dichloroethene	ND	1								
Dichloromethane	ND	2								
trans-1,2-Dichloroethene	ND	1								
1,1-Dichloroethane	ND	1								
cis-1,2-Dichloroethene	ND	1								
Chloroform	ND	1								
1,2-Dichloroethane	ND	1								
1,1,1-Trichloroethane	ND	1								
Carbon tetrachloride	ND	1								
Benzene	ND	1								
1,2-Dichloropropane	ND	1								
Trichloroethene	ND	1								
Bromodichloromethane	ND	1								
cis-1,3-Dichloropropene	ND	1								
trans-1,3-Dichloropropene	ND	1								
1,1,2-Trichloroethane	ND	1								
Toluene	ND	1								
Dibromochloromethane	ND	1								
Tetrachloroethene	ND	1								
Chlorobenzene	ND	1								
Ethylbenzene	ND	1								
m,p-Xylene	ND	1								
Bromoform	ND	1								
o-Xylene	ND	1								
1,1,2,2-Tetrachloroethane	ND	1								
1,3-Dichlorobenzene	ND	1								
1,4-Dichlorobenzene	ND	1								
1,2-Dichlorobenzene	ND	1								
Surr: 1,2-Dichloroethane-d4	9.09		10		91	70	130			
Surr: Toluene-d8	10.4		10		104	70	130			
Surr: 4-Bromofluorobenzene	10.4		10		104	70	130			

Laboratory Control Spike

File ID: 12062009.D

Type: LCS

Test Code: EPA Method SW8260B

Batch ID: MS15W0620A

Analysis Date: 06/20/2012 11:16

Sample ID: LCS MS15W0620A

Units: µg/L

Run ID: MSD_15_120620B

Prep Date: 06/20/2012 11:16

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	9.96	1	10		99.6	80	120			
Benzene	9.32	0.5	10		93	70	130			
Trichloroethene	9.98	1	10		99.8	65	144			
Toluene	9.33	0.5	10		93	80	120			
Chlorobenzene	9.52	1	10		95	70	130			
Ethylbenzene	9.47	0.5	10		95	80	120			
m,p-Xylene	9.48	0.5	10		95	70	130			
o-Xylene	9.25	0.5	10		93	70	130			
Surr: 1,2-Dichloroethane-d4	10.1		10		101	70	130			
Surr: Toluene-d8	10.2		10		102	70	130			
Surr: 4-Bromofluorobenzene	10.8		10		108	70	130			



Alpha Analytical, Inc.

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Date:
27-Jun-12

QC Summary Report

Work Order:
12061524

Sample Matrix Spike

File ID: 12062614.D

Type: MS

Test Code: EPA Method SW8260B

Batch ID: MS15W0620A

Analysis Date: 06/26/2012 16:55

Sample ID: 12062040-05AMS

Units: µg/L

Run ID: MSD_15_120620B

Prep Date: 06/26/2012 16:55

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	50.8	2.5	50	0	102	64	130			
Benzene	52.1	1.3	50	0	104	59	138			
Trichloroethene	47.4	2.5	50	0	95	65	144			
Toluene	47.9	1.3	50	0	96	68	130			
Chlorobenzene	48.7	2.5	50	0	97	70	130			
Ethylbenzene	48.3	1.3	50	0	97	68	130			
m,p-Xylene	46.4	1.3	50	0	93	68	131			
o-Xylene	46.2	1.3	50	0	92	70	130			
Surr: 1,2-Dichloroethane-d4	41.4		50		83	70	130			
Surr: Toluene-d8	49.4		50		99	70	130			
Surr: 4-Bromofluorobenzene	54.6		50		109	70	130			

Sample Matrix Spike Duplicate

File ID: 12062615.D

Type: MSD

Test Code: EPA Method SW8260B

Batch ID: MS15W0620A

Analysis Date: 06/26/2012 17:16

Sample ID: 12062040-05AMSD

Units: µg/L

Run ID: MSD_15_120620B

Prep Date: 06/26/2012 17:16

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	50.2	2.5	50	0	100	64	130	50.82	1.3(21)	
Benzene	51.2	1.3	50	0	102	59	138	52.08	1.8(21)	
Trichloroethene	46.5	2.5	50	0	93	65	144	47.41	2.0(20)	
Toluene	46.8	1.3	50	0	94	68	130	47.9	2.2(20)	
Chlorobenzene	47.7	2.5	50	0	95	70	130	48.73	2.1(20)	
Ethylbenzene	47.3	1.3	50	0	95	68	130	48.31	2.2(20)	
m,p-Xylene	45.7	1.3	50	0	91	68	131	46.39	1.5(20)	
o-Xylene	45.3	1.3	50	0	91	70	130	46.18	2.0(20)	
Surr: 1,2-Dichloroethane-d4	41.3		50		83	70	130			
Surr: Toluene-d8	49.2		50		98	70	130			
Surr: 4-Bromofluorobenzene	55.1		50		110	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Laboratory Report

Report ID: 121418



**Sierra
Environmental
Monitoring, Inc.**

Alpha Analytical
Attn: Reyna Vallejo
255 Glendale Avenue Suite 21
Sparks, NV 89431

Date: 6/22/2012
Client: ALP-855
Taken by: B. Bottenberg
PO #:

Dear Reyna Vallejo,

It is the policy of Sierra Environmental Monitoring, Inc to strictly adhere to a comprehensive Quality Assurance Plan that insures the data presented in this report are both accurate and precise. Sierra Environmental Monitoring, Inc. maintains accreditation in the State of Nevada (NV-15 and NV-921) and the State of California (ELAP 2526).

The data presented in this report were obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within the hold time for the requested analyses. Any anomalies associated with the analysis of the samples have been flagged with appropriate explanation in the Analysis Report section of this Laboratory Report.

General Comments:

- There are no general comments for this report.

Individual Sample Comments:

- There are no specific comments that are associated with these samples.

Approved By:

Date:


Sierra Environmental Monitoring, Inc.

6/22/2012

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.



Laboratory Report

Report ID: 121418

Sierra
Environmental
Monitoring, Inc.

Alpha Analytical
Attn: Reyna Vallejo
255 Glendale Avenue Suite 21
Sparks, NV 89431

Date: 6/22/2012
Client: ALP-855
Taken by: B. Bottenberg
PO #:

Analysis Report

Laboratory Sample ID	Customer Sample ID	Date Sampled	Time Sampled	Date Received			
S201206-0927	MGA12061524-07 - LVBRN014-SS-06	6/13/2012	11:55 AM	6/15/2012			
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Cyanide, Total	SM 4500 CN C	<0.5	mg/Kg	0.5	Kobza	6/20/2012	J1

Laboratory Sample ID	Customer Sample ID	Date Sampled	Time Sampled	Date Received			
S201206-0928	MGA12061524-08 - LVBRN014-SS-07	6/13/2012	12:05 PM	6/15/2012			
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Cyanide, Total	SM 4500 CN C	<0.5	mg/Kg	0.5	Kobza	6/20/2012	J1

Laboratory Sample ID	Customer Sample ID	Date Sampled	Time Sampled	Date Received			
S201206-0929	MGA12061524-09 - LVBRN014-SS-08	6/13/2012	12:20 PM	6/15/2012			
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Cyanide, Total	SM 4500 CN C	<0.5	mg/Kg	0.5	Kobza	6/20/2012	J1

Data Flag Legend:

J1 - The batch MS and/or MSD were outside acceptance limits. The batch LCS was acceptable.

Laboratory Report
Report ID: 121418



**Sierra
Environmental
Monitoring, Inc.**

Alpha Analytical
Attn: Reyna Vallejo
255 Glendale Avenue Suite 21
Sparks, NV 89431

Date: 6/22/2012
Client: ALP-855
Taken by: B. Bottenberg
PO #:

Quality Control Report

<i>Parameter</i>	<i>LCS, % Recovery</i>	<i>MS, % Recovery</i>	<i>MSD, % Recovery</i>	<i>RPD, %</i>	<i>Method Blank</i>
Cyanide, Total	94.0	68.0			<0.005 mg/L

Legend: *LCS- Laboratory Control Standard*
RPD- Relative Percent Difference

MS- Matrix Spike

MSD- Matrix Spike Duplicate

July 03, 2012

Vista Project I.D.: 33838

Ms. Reyna Vallejo
Alpha Analytical, Inc.
255 Glendale Avenue
Suite 21
Sparks, NV 89431

Dear Ms. Vallejo,

Enclosed are the results for the three soil samples received at Vista Analytical Laboratory on June 16, 2012 under your Project Name "MGA12061524". This work was authorized under your Purchase Order No. MGA12061524. These samples were extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at calvin@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Calvin Tanaka
Senior Scientist



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.



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Section I: Sample Inventory Report

Date Received: 6/16/2012

Vista Lab. ID

Client Sample ID

33838-001

MGA12061524-01A

33838-002

MGA12061524-05A

33838-003

MGA12061524-12A

ANALYTICAL RESULTS

Method Blank				EPA Method 8290			
Matrix:	Soil	QC Batch No.:	4511	Lab Sample:	0-MB001		
Sample Size:	10.0 g	Date Extracted:	21-Jun-12	Date Analyzed DB-5:	29-Jun-12	Date Analyzed DB-225:	NA
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.0594			IS 13C-2,3,7,8-TCDD	95.9	40 - 135
1,2,3,7,8-PeCDD	ND	0.0715			13C-1,2,3,7,8-PeCDD	100	40 - 135
1,2,3,4,7,8-HxCDD	ND	0.0654			13C-1,2,3,4,7,8-HxCDD	85.9	40 - 135
1,2,3,6,7,8-HxCDD	ND	0.0763			13C-1,2,3,6,7,8-HxCDD	91.5	40 - 135
1,2,3,7,8,9-HxCDD	ND	0.0805			13C-1,2,3,7,8,9-HxCDD	85.0	40 - 135
1,2,3,4,6,7,8-HpCDD	ND	0.131			13C-1,2,3,4,6,7,8-HpCDD	87.9	40 - 135
OCDD	ND		0.270		13C-OCDD	80.9	40 - 135
2,3,7,8-TCDF	ND	0.0672			13C-2,3,7,8-TCDF	93.4	40 - 135
1,2,3,7,8-PeCDF	ND	0.0356			13C-1,2,3,7,8-PeCDF	112	40 - 135
2,3,4,7,8-PeCDF	ND	0.0395			13C-2,3,4,7,8-PeCDF	106	40 - 135
1,2,3,4,7,8-HxCDF	ND	0.0332			13C-1,2,3,4,7,8-HxCDF	93.5	40 - 135
1,2,3,6,7,8-HxCDF	ND	0.0333			13C-1,2,3,6,7,8-HxCDF	99.6	40 - 135
2,3,4,6,7,8-HxCDF	ND	0.0380			13C-2,3,4,6,7,8-HxCDF	94.4	40 - 135
1,2,3,7,8,9-HxCDF	ND	0.0534			13C-1,2,3,7,8,9-HxCDF	93.4	40 - 135
1,2,3,4,6,7,8-HpCDF	ND	0.0393			13C-1,2,3,4,6,7,8-HpCDF	91.5	40 - 135
1,2,3,4,7,8,9-HpCDF	ND	0.0558			13C-1,2,3,4,7,8,9-HpCDF	88.7	40 - 135
OCDF	ND	0.138			13C-OCDF	87.9	40 - 135
CRS	37Cl-2,3,7,8-TCDD					101	40 - 135
Totals				Toxic Equivalent Quotient (TEQ) Data ^e			
Total TCDD	ND	0.0594			TEQ (Min):	0	
Total PeCDD	ND	0.0715			a. Sample specific estimated detection limit.		
Total HxCDD	ND	0.0805			b. Estimated maximum possible concentration.		
Total HpCDD	ND	0.131			c. Method detection limit.		
Total TCDF	ND	0.0672			d. Lower control limit - upper control limit.		
Total PeCDF	ND	0.0395			e. TEQ based on (2005) World Health Organization Toxic Equivalent Factors (WHO)		
Total HxCDF	ND	0.0534			The results are reported in dry weight. The sample size is reported in wet weight.		
Total HpCDF	ND	0.0558					

Analyst: FEB

Approved By: Calvin Tanaka 03-Jul-2012 12:31

OPR Results				EPA Method 8290			
Matrix:	Soil	QC Batch No.:	4511	Lab Sample:	0-OPR001		
Sample Size:	10.0 g	Date Extracted:	21-Jun-12	Date Analyzed DB-5:	29-Jun-12	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.3	7 - 13	IS 13C-2,3,7,8-TCDD	98.5	40 - 135	
1,2,3,7,8-PeCDD	50.0	57.0	35 - 65	13C-1,2,3,7,8-PeCDD	99.9	40 - 135	
1,2,3,4,7,8-HxCDD	50.0	56.6	35 - 65	13C-1,2,3,4,7,8-HxCDD	86.0	40 - 135	
1,2,3,6,7,8-HxCDD	50.0	58.1	35 - 65	13C-1,2,3,6,7,8-HxCDD	91.4	40 - 135	
1,2,3,7,8,9-HxCDD	50.0	57.5	35 - 65	13C-1,2,3,7,8,9-HxCDD	84.5	40 - 135	
1,2,3,4,6,7,8-HpCDD	50.0	55.4	35 - 65	13C-1,2,3,4,6,7,8-HpCDD	88.2	40 - 135	
OCDD	100	114	70 - 130	13C-OCDD	81.7	40 - 135	
2,3,7,8-TCDF	10.0	11.1	7 - 13	13C-2,3,7,8-TCDF	94.0	40 - 135	
1,2,3,7,8-PeCDF	50.0	51.8	35 - 65	13C-1,2,3,7,8-PeCDF	111	40 - 135	
2,3,4,7,8-PeCDF	50.0	51.6	35 - 65	13C-2,3,4,7,8-PeCDF	108	40 - 135	
1,2,3,4,7,8-HxCDF	50.0	49.9	35 - 65	13C-1,2,3,4,7,8-HxCDF	93.0	40 - 135	
1,2,3,6,7,8-HxCDF	50.0	47.2	35 - 65	13C-1,2,3,6,7,8-HxCDF	99.4	40 - 135	
2,3,4,6,7,8-HxCDF	50.0	47.9	35 - 65	13C-2,3,4,6,7,8-HxCDF	94.8	40 - 135	
1,2,3,7,8,9-HxCDF	50.0	48.2	35 - 65	13C-1,2,3,7,8,9-HxCDF	95.7	40 - 135	
1,2,3,4,6,7,8-HpCDF	50.0	47.5	35 - 65	13C-1,2,3,4,6,7,8-HpCDF	92.0	40 - 135	
1,2,3,4,7,8,9-HpCDF	50.0	47.7	35 - 65	13C-1,2,3,4,7,8,9-HpCDF	89.4	40 - 135	
OCDF	100	99.0	70 - 130	13C-OCDF	88.7	40 - 135	
CRS 37Cl-2,3,7,8-TCDD					107	40 - 135	

Analyst: FEB

Approved By: Calvin Tanaka 03-Jul-2012 12:31

Sample ID: MGA12061524-01A				EPA Method 8290			
Client Data		Sample Data		Laboratory Data			
Name:	Alpha Analytical, Inc.	Matrix:	Soil	Lab Sample:	33838-001	Date Received:	16-Jun-12
Project:	MGA12061524	Sample Size:	10.9 g	QC Batch No.:	4511	Date Extracted:	21-Jun-12
Date Collected:	13-Jun-12	%Solids:	92.7	Date Analyzed DB-5:	29-Jun-12	Date Analyzed DB-225:	NA
Time Collected:	1000						
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.0810			IS 13C-2,3,7,8-TCDD	95.6	40 - 135
1,2,3,7,8-PeCDD	ND	0.0937			13C-1,2,3,7,8-PeCDD	100	40 - 135
1,2,3,4,7,8-HxCDD	ND	0.0731			13C-1,2,3,4,7,8-HxCDD	85.5	40 - 135
1,2,3,6,7,8-HxCDD	0.287			J	13C-1,2,3,6,7,8-HxCDD	90.6	40 - 135
1,2,3,7,8,9-HxCDD	0.199			J	13C-1,2,3,7,8,9-HxCDD	85.8	40 - 135
1,2,3,4,6,7,8-HpCDD	5.95				13C-1,2,3,4,6,7,8-HpCDD	89.7	40 - 135
OCDD	43.9				13C-OCDD	84.7	40 - 135
2,3,7,8-TCDF	ND	0.121			13C-2,3,7,8-TCDF	92.3	40 - 135
1,2,3,7,8-PeCDF	ND	0.0683			13C-1,2,3,7,8-PeCDF	108	40 - 135
2,3,4,7,8-PeCDF	0.138			J	13C-2,3,4,7,8-PeCDF	105	40 - 135
1,2,3,4,7,8-HxCDF	0.0871			J	13C-1,2,3,4,7,8-HxCDF	93.5	40 - 135
1,2,3,6,7,8-HxCDF	0.0892			J	13C-1,2,3,6,7,8-HxCDF	98.3	40 - 135
2,3,4,6,7,8-HxCDF	0.0887			J	13C-1,2,3,4,6,7,8-HxCDF	92.8	40 - 135
1,2,3,7,8,9-HxCDF	ND	0.102			13C-1,2,3,7,8,9-HxCDF	92.3	40 - 135
1,2,3,4,6,7,8-HpCDF	0.423			J	13C-1,2,3,4,6,7,8-HpCDF	91.5	40 - 135
1,2,3,4,7,8,9-HpCDF	ND	0.0656			13C-1,2,3,4,7,8,9-HpCDF	89.0	40 - 135
OCDF	1.33			J	13C-OCDF	88.3	40 - 135
					CRS 37Cl-2,3,7,8-TCDD	103	40 - 135
Totals				Toxic Equivalent Quotient (TEQ) Data ^e			
Total TCDD	ND	0.0810		TEQ (Min): 0.194			
Total PeCDD	0.152			a. Sample specific estimated detection limit.			
Total HxCDD	2.48		2.65	b. Estimated maximum possible concentration.			
Total HpCDD	16.0			c. Method detection limit.			
Total TCDF	0.164			d. Lower control limit - upper control limit.			
Total PeCDF	1.16		1.25	e. TEQ based on (2005) World Health Organization Toxic Equivalent Factors (WHO)			
Total HxCDF	1.10			The results are reported in dry weight. The sample size is reported in wet weight.			
Total HpCDF	1.01						

Analyst: FEB

Approved By: Calvin Tanaka 03-Jul-2012 12:31

Sample ID: MGA12061524-05A				EPA Method 8290			
Client Data		Sample Data		Laboratory Data			
Name:	Alpha Analytical, Inc.	Matrix:	Soil	Lab Sample:	33838-002	Date Received:	16-Jun-12
Project:	MGA12061524	Sample Size:	10.4 g	QC Batch No.:	4511	Date Extracted:	21-Jun-12
Date Collected:	13-Jun-12	%Solids:	97.2	Date Analyzed DB-5:	29-Jun-12	Date Analyzed DB-225:	NA
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.0596			IS 13C-2,3,7,8-TCDD	94.9	40 - 135
1,2,3,7,8-PeCDD	ND	0.0707			13C-1,2,3,7,8-PeCDD	97.0	40 - 135
1,2,3,4,7,8-HxCDD	ND	0.0785			13C-1,2,3,4,7,8-HxCDD	85.4	40 - 135
1,2,3,6,7,8-HxCDD	ND	0.0874			13C-1,2,3,6,7,8-HxCDD	92.2	40 - 135
1,2,3,7,8,9-HxCDD	ND	0.0922			13C-1,2,3,7,8,9-HxCDD	86.5	40 - 135
1,2,3,4,6,7,8-HpCDD	1.33			J	13C-1,2,3,4,6,7,8-HpCDD	90.9	40 - 135
OCDD	8.70				13C-OCDD	87.5	40 - 135
2,3,7,8-TCDF	ND	0.0847			13C-2,3,7,8-TCDF	94.1	40 - 135
1,2,3,7,8-PeCDF	ND	0.0542			13C-1,2,3,7,8-PeCDF	111	40 - 135
2,3,4,7,8-PeCDF	ND	0.0565			13C-2,3,4,7,8-PeCDF	105	40 - 135
1,2,3,4,7,8-HxCDF	ND	0.0418			13C-1,2,3,4,7,8-HxCDF	92.9	40 - 135
1,2,3,6,7,8-HxCDF	ND	0.0416			13C-1,2,3,6,7,8-HxCDF	97.3	40 - 135
2,3,4,6,7,8-HxCDF	ND	0.0484			13C-2,3,4,6,7,8-HxCDF	93.2	40 - 135
1,2,3,7,8,9-HxCDF	ND	0.0644			13C-1,2,3,7,8,9-HxCDF	91.8	40 - 135
1,2,3,4,6,7,8-HpCDF	0.133			J	13C-1,2,3,4,6,7,8-HpCDF	91.0	40 - 135
1,2,3,4,7,8,9-HpCDF	ND	0.0705			13C-1,2,3,4,7,8,9-HpCDF	91.0	40 - 135
OCDF	0.316			J	13C-OCDF	91.0	40 - 135
					CRS 37Cl-2,3,7,8-TCDD	105	40 - 135
Totals				Toxic Equivalent Quotient (TEQ) Data ^e			
Total TCDD	ND	0.0596		TEQ (Min):	0.0173		
Total PeCDD	ND	0.0707					
Total HxCDD	0.258						
Total HpCDD	2.68						
Total TCDF	ND	0.0847					
Total PeCDF	0.190		0.320				
Total HxCDF	0.110		0.243				
Total HpCDF	0.305						

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (2005) World Health Organization Toxic Equivalent Factors (WHO)

The results are reported in dry weight. The sample size is reported in wet weight.

Analyst: FEB

Approved By: Calvin Tanaka 03-Jul-2012 12:31

Sample ID: MGA12061524-12A				EPA Method 8290			
Client Data		Sample Data		Laboratory Data			
Name:	Alpha Analytical, Inc.	Matrix:	Soil	Lab Sample:	33838-003	Date Received:	16-Jun-12
Project:	MGA12061524	Sample Size:	10.8 g	QC Batch No.:	4511	Date Extracted:	21-Jun-12
Date Collected:	13-Jun-12	%Solids:	92.9	Date Analyzed DB-5:	29-Jun-12	Date Analyzed DB-225:	NA
Time Collected:	1455						
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.0959			IS 13C-2,3,7,8-TCDD	97.7	40 - 135
1,2,3,7,8-PeCDD	0.101			J	13C-1,2,3,7,8-PeCDD	100	40 - 135
1,2,3,4,7,8-HxCDD	0.192			J	13C-1,2,3,4,7,8-HxCDD	89.5	40 - 135
1,2,3,6,7,8-HxCDD	1.12			J	13C-1,2,3,6,7,8-HxCDD	93.5	40 - 135
1,2,3,7,8,9-HxCDD	0.506			J	13C-1,2,3,7,8,9-HxCDD	87.9	40 - 135
1,2,3,4,6,7,8-HpCDD	19.1				13C-1,2,3,4,6,7,8-HpCDD	94.1	40 - 135
OCDD	105				13C-OCDD	88.1	40 - 135
2,3,7,8-TCDF	ND	0.0964			13C-2,3,7,8-TCDF	94.3	40 - 135
1,2,3,7,8-PeCDF	ND	0.0433			13C-1,2,3,7,8-PeCDF	112	40 - 135
2,3,4,7,8-PeCDF	0.213			J	13C-2,3,4,7,8-PeCDF	108	40 - 135
1,2,3,4,7,8-HxCDF	0.0821			J	13C-1,2,3,4,7,8-HxCDF	96.3	40 - 135
1,2,3,6,7,8-HxCDF	0.0994			J	13C-1,2,3,6,7,8-HxCDF	101	40 - 135
2,3,4,6,7,8-HxCDF	0.165			J	13C-2,3,4,6,7,8-HxCDF	96.5	40 - 135
1,2,3,7,8,9-HxCDF	ND	0.0849			13C-1,2,3,7,8,9-HxCDF	97.7	40 - 135
1,2,3,4,6,7,8-HpCDF	0.614			J	13C-1,2,3,4,6,7,8-HpCDF	95.3	40 - 135
1,2,3,4,7,8,9-HpCDF	0.0713			J	13C-1,2,3,4,7,8,9-HpCDF	93.6	40 - 135
OCDF	1.14			J	13C-OCDF	92.6	40 - 135
CRS 37Cl-2,3,7,8-TCDD						107	40 - 135
Totals				Toxic Equivalent Quotient (TEQ) Data ^e			
Total TCDD	ND	0.0959		TEQ (Min):	0.611		
Total PeCDD	0.207		0.313	a. Sample specific estimated detection limit.			
Total HxCDD	7.37			b. Estimated maximum possible concentration.			
Total HpCDD	36.5			c. Method detection limit.			
Total TCDF	1.66			d. Lower control limit - upper control limit.			
Total PeCDF	3.02		3.11	e. TEQ based on (2005) World Health Organization Toxic Equivalent Factors (WHO)			
Total HxCDF	2.28			The results are reported in dry weight. The sample size is reported in wet weight.			
Total HpCDF	1.75						

Analyst: FEB

Approved By: Calvin Tanaka 03-Jul-2012 12:31

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The amount detected is above the High Calibration Limit.
P	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
H	Recovery was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Low Calibration Limit.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated detection limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that correspond to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	CA00413
Alabama Dept of Environmental Management	41610
Arizona Department Of Health Services	AZ0639
Arkansas Dept of Environmental Quality	11-035-0
California Dept of Health – NELAP	02102CA
Colorado Dept of Public Health & Environment	N/A
Connecticut Dept of Public Health	PH-0182
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Dept of Health	E87777
Indiana Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Louisiana Department of Health and Hospitals	LA110017
Maine Department of Health	2010021
Michigan Department of Natural Resources	9932
Mississippi Department of Health	N/A
Nevada Division of Environmental Protection	CA004132011-1
New Jersey Dept of Environmental Protection	CA003
New York Department of Health	11411
North Carolina Dept of Health & Human Services	06700
North Dakota Dept of Health	R-078
Oklahoma Dept of Environmental Quality	2011-120
Oregon Laboratory Accreditation Program	CA200001
Pennsylvania Dept of Environmental Protection	68-00490
South Carolina Dept of Health	87002001
Tennessee Dept of Environment and Conservation	TN02996
Texas Commission on Environmental Quality	T104704189-11-2
Utah Dept of Health	CA16400
Virginia Dept of General Services	00013
Washington Department of Ecology	C584
Wisconsin Dept of Natural Resources	998036160

Alpha Analytical, Inc.

255 Glendale Avenue

Suite 21

Sparks, Nevada 89431-5778

Phone: (775) 355-1044

Fax: (775) 355-0406

Subcontractor:

Vista Analytical Laboratory
1104 Windfield Way

El Dorado Hills, CA 95762

SUB CHAIN-OF-CUSTODY RECORD

Work Order : MGA12061524

*Please reference the Work Order number on all reports and invoices.

*Also please include the dates of analysis and detection limits.

Please send the report to Alpha Analytical (Sparks).

Attention To Reyna Vallejo (reyna@alpha-analytical.com).

TEL: (916) 673-1520

FAX: (916) 673-0106

Accl #:

Required QC:

Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Sampled by : Brett Bottenberg

15-Jun-12

33838 1.20 Page 1 of 1

Report Due By : 5:00 PM

On : 17-Jul-12

Alpha's Sample ID	Client's Sample ID	Matrix	Collection Date	Type (#) of Bottles		Requested Tests	Sample Comments
				Preserved	Other		
MGA12061524-01A	LVBRN014-SP-01	Soil	06/13/12 10:00	80ZCG-U (1)		Dioxins	
MGA12061524-05A	LVBRN014-SP-04	Soil	06/13/12 11:10	80ZCG-U (1)		Dioxins	
MGA12061524-12A	LVBRN014-SS-11	Soil	06/13/12 14:55	80ZCG-U (1)		Dioxins	

Comments:

Standard TAT

Relinquished by: <u>K. Murray</u>	Date/Time: <u>6/16/12 0913</u>
Relinquished by: _____	Date/Time: _____

Received by: Alison Clarke

6/16/12 1600

Received by:

Received by:

Alpha Analytical, Inc.

Phone : (775) 355-1044 FAX : (775) 355-0406

Subcontract Sample Receipt Checklist

Date Report is due at Alpha : 17-Jul-12

Date of Notice : 6/15/2012 12:52:22

If any items are checkmarked NO or are non-compliant, a phone call back to Alpha Analytical is required immediately. If all items are acceptable, a faxed copy of the signed sub chain of custody (COC) and the completed sample receipt check list is required within 24 hours of sample receipt.

Alpha's Work Order Number : MGA12061524

SubContract Work Order Number :

Date Received : 6/16/12

Chain of Custody (COC) Information

Carrier name FedEx

Chain of custody present ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Custody seals intact on shipping container/cooler ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No <input type="checkbox"/> Not Present
Custody seals intact on sample bottles ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No <input type="checkbox"/> Not Present
Chain of custody signed when relinquished and received ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Chain of custody agrees with sample labels ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> Non-Compliant
Internal Chain of Custody (COC) requested ?	Yes <input type="checkbox"/>	<input checked="" type="checkbox"/> No

Sample Receipt Information

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No <input type="checkbox"/> Not Present
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> Non-Compliant
Sample containers intact?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> Non-Compliant
Cooler Temperature : <u>1.2°C</u> Is Wet Ice present in Cooler ?	Yes <input checked="" type="checkbox"/>	If YES, then temperature is 4°C.
	No <input type="checkbox"/>	If NO, then actual cooler temperature is : _____ °C

Analytical Requirement Information

Are non-Standard or Modified methods requested ?	Yes <input type="checkbox"/>	<input checked="" type="checkbox"/> No
SubContract Lab NV STATE certified?	Yes <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> No <u>CT 6/18/12</u>
SubContract Lab NELAP certified?	Yes <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> No <u>CT 6/18/12</u>
SubContract Lab CERTIFIED for the various methods requested	Yes <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> No <u>CT 6/18/12</u>
Will the SubContract Lab be able to meet the turn-around time (TAT) requirements ?	Yes <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> No <u>CT 6/18/12</u>

Comments :

SAMPLE LOG-IN CHECKLIST



Vista Project #: 33838

TAT std.

Samples Arrival:	Date/Time <u>6/16/12 0910</u>	Initials: <u>AC</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>6/18/12 0816</u>	Initials: <u>MSB</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>F-2</u>
Delivered By:	<u>FedEx</u>	UPS	On Trac
		DHL	Hand Delivered
Other			
Preservation:	<u>Ice</u>	Blue Ice	Dry Ice
		None	
Temp °C	<u>1.2°</u>	Time: <u>0912</u>	Thermometer ID: <u>IR-1</u>

	YES	NO	NA
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Airbill	Trk # <u>9809 3521 1931</u>	<input checked="" type="checkbox"/>	
Sample Container Intact?	<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?	<input checked="" type="checkbox"/>		
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>
Na ₂ S ₂ O ₃ Preservation Documented?	<u>N/A</u>	COC	Sample Container
		None	
Shipping Container	Vista	<u>Client</u>	Retain
		<u>Return</u>	Dispose

Comments:

MGA12061524-01A
MGA12061524-05A
MGA12061524-12A

Billing Information :

CHAIN-OF-CUSTODY RECORD

Page: 1 of 4

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406Workorder : MGAL12061524
Report Due By : 5:00 PM On : 21-Jun-12

Client:

McGinley & Associates
6280 S. Valley View Blvd
Ste 604
Las Vegas, NV 89118

Report Attention

Phone Number

Email Address

Brett Bottenberg (702) 260-4961 x 7003 bbotenberg@mcgin.com

EDD Required : Yes

Sampled by : Brett Bottenberg

Cooler Temp

Samples Received

Date Printed

0 °C

15-Jun-12

15-Jun-12

PO :

Client's COC # : 54655, 54656

Job : LVRRN014/Lackawanna Mill

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix Date	No. of Bottles Alpha	Sub	TAT	Requested Tests								Sample Remarks
						8082_S	CYANIDE_T OTAL	DIOXIN_FU RAN_S	METALS_A Q	METALS_S O	P_MOIST	PH_S	PNA_SIM_S	
MGAL12061524-01A	LVBRN014-SP-01	SO 06/13/12 10:00	2	1	4			Dioxins		CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-02A	LVBRN014-SS-02	SO 06/13/12 10:40	3	0	4	8082				CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-03A	LVBRN014-SS-03	SO 06/13/12 11:05	4	0	4	8082				CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-04A	EQUIP. BLANK	AQ 06/13/12 11:20	4	0	4				CAM_17_TT LC					
MGAL12061524-05A	LVBRN014-SP-04	SO 06/13/12 11:10	2	1	4			Dioxins		CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-06A	LVBRN014-SS-05	SO 06/13/12 11:40	4	0	4	8082				CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-07A	LVBRN014-SS-06	SO 06/13/12 11:55	2	1	4		Total Cyanide			CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-08A	LVBRN014-SS-07	SO 06/13/12 12:05	3	1	4	8082	Total Cyanide			CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-09A	LVBRN014-SS-08	SO 06/13/12 12:20	2	1	4		Total Cyanide			CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-10A	LVBRN014-SS-09	SO 06/13/12 12:40	3	0	4	8082				CAM_17_TT LC	Percent Moisture	pH	SIM	

Comments: Security seals intact. Frozen ice. Dioxins by 8290 subbed to Vista Analytical on standard 21 day TAT, due 7/17/12. Total Cyanide subbed to SEM. Trip Blank added to chain by lab and logged in for 8260, per Brett. Report CAM 17 in dry weight. :

Logged in by:

Signature

Print Name

Company

Date/Time

Alpha Analytical, Inc.

6/15/12 1350

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN-OF-CUSTODY RECORD

NV

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

Workorder : MGAL12061524

Report Due By : 5:00 PM On : 21-Jun-12

Client:

McGinley & Associates
 6280 S. Valley View Blvd
 Ste 604
 Las Vegas, NV 89118

Report Attention

Phone Number

Email Address

Brett Bottenberg (702) 260-4961 x 7003 bbottenberg@mcgin.com

EDD Required : Yes

Sampled by : Brett Bottenberg

Cooler Temp

Samples Received

Date Printed

PO :

Job : LVRRN014/Lackawanna Mill

0 °C

15-Jun-12

15-Jun-12

Client's COC # : 54655, 54656 = Final Rpt, MBLK, LCS, MS/MSD with Surrogates

Alpha Sample ID	Client Sample ID	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests							Sample Remarks
						8082_S	CYANIDE_T OTAL	DIOXIN_FU_RAN_S	METALS_A Q	METALS_S O	P_MOIST	PH_S	
MGAL12061524-11A	LVBRN014-SP-10	06/13/12 12:50	2	0	4				CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-12A	LVBRN014-SS-11	06/13/12 14:55	3	1	4	8082		Dioxins	CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-13A	LVBRN014-SS-12	06/13/12 15:10	2	0	4				CAM_17_TT LC	Percent Moisture	pH	SIM	Jars received with no sample ID, date or time. Matched up by process of elimination.
MGAL12061524-14A	LVBRN014-SS-13	06/13/12 15:25	3	0	4	8082			CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-15A	LVBRN014-SS-14	06/13/12 15:35	3	0	4				CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-16A	LVBRN014-SS-15	06/13/12 16:10	3	0	4	8082			CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-17A	LVBRN014-SS-16	06/13/12 16:20	3	0	4	8082			CAM_17_TT LC	Percent Moisture	pH	SIM	
MGAL12061524-18A	Trip Blank	06/13/12 00:00	1	0	4								Client provided Trip Blank

Comments:

Security seals intact. Frozen ice. Dioxins by 8290 subbed to Vista Analytical on standard 21 day TAT, due 7/17/12. Total Cyanide subbed to SEM. Trip Blank added to chain by lab and logged in for 8260, per Brett. Report CAM 17 in dry weight.

Logged in by:

K Murray

Signature

Print Name

K Murray

Company

Alpha Analytical, Inc.

Date/Time

6/15/12 1350

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Vial S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

Page: 3 of 4

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406Workorder : MGAL12061524
Report Due By : 5:00 PM On : 21-Jun-12

Client:

McGinley & Associates
6280 S. Valley View Blvd
Ste 604
Las Vegas, NV 89118

Report Attention

Phone Number

Email Address

Brett Bottenberg

(702) 260-4961 x 7003 bbotenberg@mcgin.com

EDD Required : Yes

Sampled by : Brett Bottenberg

Cooler Temp

Samples Received

Date Printed

0 °C

15-Jun-12

15-Jun-12

PO :

Client's COC # : 54655, 54656

Job : LVRRN014/Lackawanna Mill

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Date	No. of Bottles Alpha Sub	TAT	Requested Tests				Sample Remarks
					VOC_S	VOC_W			
MGAL12061524-01A	LVBRN014-SP-01	SO 06/13/12 10:00	2	1	4				
MGAL12061524-02A	LVBRN014-SS-02	SO 06/13/12 10:40	3	0	4				
MGAL12061524-03A	LVBRN014-SS-03	SO 06/13/12 11:05	4	0	4	\$260_Ns			
MGAL12061524-04A	EQUIP. BLANK	AQ 06/13/12 11:20	4	0	4		\$260_Ns		
MGAL12061524-05A	LVBRN014-SP-04	SO 06/13/12 11:10	2	1	4				
MGAL12061524-06A	LVBRN014-SS-05	SO 06/13/12 11:40	4	0	4	\$260_Ns			
MGAL12061524-07A	LVBRN014-SS-06	SO 06/13/12 11:55	2	1	4				
MGAL12061524-08A	LVBRN014-SS-07	SO 06/13/12 12:05	3	1	4				
MGAL12061524-09A	LVBRN014-SS-08	SO 06/13/12 12:20	2	1	4				
MGAL12061524-10A	LVBRN014-SS-09	SO 06/13/12 12:40	3	0	4				

Comments:

Security seals intact. Frozen ice. Dioxins by 8290 subbed to Vista Analytical on standard 2.1 day TAT, due 7/17/12. Total Cyanide subbed to SEM. Trip Blank added to chain by lab and logged in for 8260, per Brett. Report CAM 17 in dry weight.

Logged in by:

K Murray

Signature

Print Name

Alpha Analytical, Inc.

Company

Date/Time

6/15/12 1350

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AC(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orto T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

Page: 4 of 4

NV

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

McGinley & Associates

6280 S. Valley View Blvd

Ste 604

Las Vegas, NV 89118

Report Attention

Brett Bottenberg

Phone Number

(702) 260-4961 x 7003 bbotenberg@mcgin.com

Email Address

WorkOrder : MGAL12061524
Report Due By : 5:00 PM On : 21-Jun-12

EDD Required : Yes

Sampled by : Brett Bottenberg

Cooler Temp

0 °C

Samples Received

15-Jun-12

Date Printed

15-Jun-12

PO :

Client's COC # : 54655, 54656

Job : LVRRN014/Lackawanna Mill

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Date	No. of Bottles Alpha Sub TAT	Requested Tests				Sample Remarks
				VOC_S	VOC_W			
MGAL12061524-11A	LVBRN014-SP-10	SO 06/13/12 12:50	2 0 4					
MGAL12061524-12A	LVBRN014-SS-11	SO 06/13/12 14:55	3 1 4					
MGAL12061524-13A	LVBRN014-SS-12	SO 06/13/12 15:10	2 0 4					Jars received with no sample ID, date or time. Matched up by process of elimination.
MGAL12061524-14A	LVBRN014-SS-13	SO 06/13/12 15:25	3 0 4					
MGAL12061524-15A	LVBRN014-SS-14	SO 06/13/12 15:35	3 0 4					
MGAL12061524-16A	LVBRN014-SS-15	SO 06/13/12 16:10	3 0 4					
MGAL12061524-17A	LVBRN014-SS-16	SO 06/13/12 16:20	3 0 4					
MGAL12061524-18A	Trip Blank	AQ 06/13/12 00:00	1 0 4		8260_Ns			Client provided Trip Blank

Comments:

Security seals intact. Frozen ice. Dioxins by 8290 subbed to Vista Analytical on standard 21 day TAT, due 7/17/12. Total Cyanide subbed to SEM. Trip Blank added to chain by lab and logged in for 8260, per Brett. Report CAM 17 in dry weight.

Logged in by:

Signature

Print Name

Company

Date/Time

Alpha Analytical, Inc.

6/15/12 1350

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Alpha Analytical, Inc.

Phone : (775) 355-1044 FAX : (775) 355-0406

Date Report is due to Client : 6/21/2012

Sample Receipt Checklist

Date of Notice : 6/15/2012 1:51:24 PM

Please take note of any NO check marks. If we receive no response concerning these items within 24 hours of the date of this notice, all of the samples will be analyzed as requested.

Client Name: **McGinley & Associates**

Project ID : **LVRN014/Lackawanna Mill**

Project Manager: **Brett Bottenberg**

Client's EMail: **bbottenberg@mcgin.com**

Work Order Number: **MGA12061524**

Client's Phone: **(702) 260-4961**

Client's FAX: **(702) 260-4968**

Date Received: **6/15/2012**

Received by: **Kathryn Murray**

Chain of Custody (COC) Information

Carrier name OnTrac

Chain of custody present ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Custody seals intact on shipping container/cooler ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Chain of custody signed when relinquished and received ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample ID noted by Client on COC ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and time of collection noted by Client on COC ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samplers's name noted on COC ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Internal Chain of Custody (COC) requested ?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Sub Contract Lab Used :	None <input type="checkbox"/>	See Comments <input checked="" type="checkbox"/>	

Sample Receipt Information

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Cooler Temperature
Container/Temp Blank temperature in compliance (0-6°C)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		0 °C
Samples arrived in a timely manner?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Client attempted to be contacted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If YES : see Comments	
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
TOC Water - pH acceptable upon receipt (H2SO4 pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Are NV non-SDWA 314 samples field filtered (0.2µ)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Analytical Requirement Information

Are non-Standard or Modified methods requested ?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Are there client specific Project requirements ?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If YES : see the Chain of Custody (COC)
Is this a Drinking Water regulatory sample ?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Comments : For 13A: Jars received with no sample ID, date or time. Matched up by process of elimination. Dioxins by 8290 subbed to Vista Analytical on standard 21 day TAT, due 7/17/12. Total Cyanide subbed to SEM. Trip Blank added to chain by lab and logged in for 8260, per Brett.

Billing Information:

Company Name: McGraw Hill Construction
 Attn: Brett Bertram
 Address: 6250 S. Valley View Blvd #604
 City, State, Zip: Las Vegas, NV 89118
 Phone Number: (702) 260-4961 Fax: (702) 260-4968



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431-5778
 Phone (775) 355-1044
 Fax (775) 355-0406

Samples Collected From Which State?
 AZ ☐ CA ☐ NV ☒ WA ☐ OR ☐ ID ☐
DOD Site 1 of 2
 Page # 1

Consultant / Client Name		Job #		Job Name		Analyses Required		Data Validation	
Address		Name:		Report Attention / Project Manager		Level: III or IV		Level: III or IV	
City, State, Zip		Email:		bbertram@mcgraw-hill.com					
Time Sampled		Date Sampled		Matrix* See Key Below		P.O. #		EDD / EDP? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
Sampled		Sampled		Lab ID Number (Use Only)		Sample Description		TAT	
1000 6/13		50		MGH12061524-01		LVRND014-SP-01		35	
1040 6/13		50				SS-02		35	
1105 6/13		50				SS-03		45	
1120 6/13		AQ				Equip. Sample		35	
1110 6/13		50				LVRND014-SP-04		35	
1140 6/13		50				SS-05		45	
1155 6/13		50				SS-06		35	
1205 6/13		50				SS-07		45	
1220 6/13		50				SS-08		35	
1240 6/13		50				SS-09		35	
1250 6/13		50				SP-10		35	
1455 6/13		50				SS-11		45	
1510 6/13		50				SS-12		25	

ADDITIONAL INSTRUCTIONS:

I, (field sampler), attest to the validity and authenticity of the samples from which that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled By: [Signature]

Relinquished by: (Signature/Affiliation) [Signature] MCH 6-14-12

Relinquished by: (Signature/Affiliation) [Signature] MCH 6-14-12

Relinquished by: (Signature/Affiliation) [Signature] MCH 6-14-12

Relinquished by: (Signature/Affiliation) [Signature] MCH 6-14-12

Received by: (Signature/Affiliation) [Signature] MCH 6-14-12

Received by: (Signature/Affiliation) [Signature] MCH 6-14-12

Date: 6-14-12 Time: 3:30

Date: 6/15/12 Time: 12:15

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air ** - L-Liter V-Voa S-Soil Jar O-Orto T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

54656

Samples Collected From Which State?

AZ _____ CA _____ NV X WA _____

OR _____ OTHER _____

DOD Site _____

Page # 2 of 7

Analyses Required

Data Validation Level: III or IV

[illegible]

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled By: [Signature]

Received by: (Signature/Attestation)

Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

--	--

*Key: AQ - Aqueous
SO - Soil
WA - Waste
OT - Other
AR - Air
*: L-Liter
V-Voa
S-Soil Jar
O-Orbo
T-Tedlar
B-Brass
P-Plastic
OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.