

**ADDITIONAL SITE CHARACTERIZATION RESULTS FOR
SOUTHERN PORTION OF
CRESENT MILLS INDUSTRIAL SITE
15690 CALIFORNIA HIGHWAY 89
CRESENT MILLS, CALIFORNIA**

Prepared for:

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Attention: Jonathan Kusel Ph.D.

Project: Crescent Mills Industrial Site
15690 California Highway 89
Crescent Mills, California

Transmittal: Report of Additional Site Characterization Results for Southern Portion
of Crescent Mills Industrial Site

Dear Mr. Kusel:

Sierra Streams Institute prepared this report documenting Additional Site Characterization Results for the Southern Portion of Crescent Mills Industrial Site located at 15690 California Highway 89 in Crescent Mills, California. Soil sampling and analysis was performed to provide additional pre-purchase information regarding environmental and geotechnical conditions at the site. The site is a former lumber mill facility and is comprised of three parcels identified by the Plumas County Assessor's Parcel Numbers (APNs) as 111-050-065, 111-050-066, and 111-050-067. This report summarizes the results of Sierra Streams Institute's recent assessment of southern portion of the Site and evaluates environmental conditions of near surface soil and geotechnical suitability of soil and wood waste stockpiles.

If you have any questions regarding this report, please contact the undersigned.

Sincerely,

Sierra Streams Institute

Kyle Leach, P.G. 7108
Project Geologist

copies: Plumas County Community Development Commission: Attn:
Plumas County Environmental Health Department / Attn: Jerry Sipe
USEPA / Attn: Eric Byous

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1 INTRODUCTION

This report presents the results of additional site characterization investigation conducted in the southern portion of the Crescent Mills Industrial Site (the Site) located at 15690 California Highway 89 in Crescent Mills, California. The site is a former lumber mill facility and is comprised of three parcels identified by the Plumas County Assessor's Parcel Numbers (APNs) as 111-050-065, 111-050-066, and 111-050-067. Soil sampling and analysis was performed by Sierra Streams Institute in October 2017 to complete characterization of the southern portion of the site and for use in a human health risk assessment for the site. Geotechnical soil samples were obtained from soil and wood waste stockpiles to determine if an on-site source of structural fill was available for use during proposed site remediation activities.

2 PURPOSE AND SCOPE

The purpose of the additional soil sampling and analysis was to further characterize soil conditions in the southern portion of the site and to determine the extent of any constituents of concern exceeding established Regional Screening Levels (RSLs) or site specific background arsenic concentrations. A subsurface investigation of soil and wood waste stockpiles was also conducted to identify potential on-site sources of fill material which could be used during site remediation and redevelopment. Eleven soil samples and one duplicate soil sample were obtained from near surface soils in the southern portion of the site and analyzed for potential constituents of concern. Fifteen trenches and potholes were advanced in the large soil stockpiles in the southern portion of the site. Bulk samples of soil obtained from selected stockpile locations were analyzed for geotechnical soil characterization.

3 SITE DESCRIPTION

The Site is located on the southwestern portion of Indian Valley, to the west of Indian Creek, a perennial stream which flows generally from north to south in the vicinity of the Site. According to the 1994 United States Geological Survey, Crescent Mills 7.5 Minute Quadrangle topographic map, the ground surface elevation of the Site is approximately 3,510 feet above mean sea level. Site topography in this portion of Indian Valley is relatively flat, with drainage from the Site to the east towards Indian Creek. Surface drainage at the Site is likely directed towards the creek through overland flow and below the ground surface through storm drains. Figure 1 is a Site Location Map

The Site is currently vacant with the exception of lumber mill remains including stockpiles of wood waste and soil, asphalt paving, concrete floor slabs, building foundations, and residual construction and industrial debris. The property is secured with a perimeter fence. The Site is zoned as light industrial and commercial by the Plumas County Assessor's office (Plumas County GIS Division, 2017).

The southern area of the site which is the subject of this investigation is occupied by three wood waste and soil stockpiles, former mill roads extending from the northern areas of the site to and around the stockpiles, an earth berm and ditch drainage structures which direct site runoff to a pond identified as the southern log deck recycling pond, located along the southeast edge of the site. The pond was dry at the time of the October 2017 investigation.

Stockpile 5 consisted of a tall stockpile approximately 25 to 30 feet high of predominantly shredded wood waste located in the northwest portion of the southern site area. Portions of the stockpile appear to have been recently excavated and hauled off leaving near vertical faces on the north and west sides.

Stockpile 6 was a large stockpile approximately 8 to 15 feet high covering much of the southern portion of the southern site area. The majority of the stockpile generally consisted of silt and fine sand with varying quantities of decomposing wood waste. A mounded area in the southwestern portion of the stockpile consisted of a sandy gravel with varying amounts of wood waste.

Stockpile 6N was located immediately north of Stockpile 6 in the northern portion of the southern site area. This stockpile was 10 to 12 feet high and generally consisted of varying amounts of sandy gravel and wood waste with abundant bark fragments and with occasional weathered metal and other debris. The wood waste exposed in Stockpile 6N appeared less decomposed than wood waste in Stockpile 6. Figure 2 is a Site Map.

4 SITE HISTORY

The Site history was summarized by CH2M Hill (1991) and E&E (2014a). The Site was initially developed as a lumber mill in the late 1940s to early 1950s. Before the lumber mill was built, the property was likely used for agriculture. The Site was reportedly purchased by LP in the early 1970s and the mill was expanded. Prior to the acquisition by LP, the property reportedly contained a planing mill, several dry kilns, a boiler, office buildings, dry lumber storage sheds, several USTs, and a teepee burner for burning wood waste (which is currently located off Site). The structures were predominantly on the north and west portions of the property. After purchasing

the Site, LP added several features to the property including a log deck recycle pond, a sawmill facility, additional dry kilns, a planing mill, and a woodwaste disposal area which was reportedly located outside of the current property boundaries adjacent to the creek. LP reportedly operated the Site as a lumber mill until it was closed in 1986. Based on available aerial imagery of the Site, structures appeared to have been gradually removed after the lumber mill closed. The current Site owner, Greg Lehman, purchased the property from LP in 1998. In 2002, the California Department of Transportation (Caltrans) purchased the eastern portion of the Site along Indian Creek from Mr. Lehman for a wetland and riparian mitigation area. Aerial imagery indicated that the Site was cleared of structures, except for building foundations and residual debris, and remained relatively unchanged from 1998 to present.

5 SUMMARY OF PREVIOUS SITE INVESTIGATIONS

Five previous investigations have been conducted at the site from 1991 to 2017:

- Property Transfer Environmental Site Assessment (CH2M Hill, 1991);
- Supplemental Site Investigation Report (Geocon, 2002);
- Phase 1 Environmental Site Assessment (E&E, 2014a);
- Targeted Brownfields Assessment Report (E&E, 2014b), and
- Targeted Site Investigation (Geosyntec, 2017).

The results of previous site investigation activities in the southern portion of the site generally indicated TPH-motor oil and arsenic were the primary constituents of concern detected. TPH-diesel, PCP, PAHs, Dioxins and Furans were also considered potential constituents of concern.

Results of previous site investigations are presented in the 2017 Geosyntec Targeted Site Investigation and are summarized in the Sampling and Analysis Plan for the current investigation. Results of all site investigations to date will be included in a Remedial Action Plan for the site.

6 ENVIRONMENTAL SOIL SAMPLING

Trenching and soil sampling was performed in the southern portion of the Site in order to provide additional information regarding the extent of contamination related to previous site use as a lumber mill and related activities.

Additional surface samples were obtained from 11 locations in the southern portion of the site including 8 samples from mill road surfaces and one each from the former log storage area, the southern log deck recycling pond and from the wood waste stockpile 5. These locations included areas not previously sampled, particularly the area north of decision unit (DU) 20 and east of DU 18 as identified in the 2017 Targeted Site Investigation. Sample locations were determined based on a review of previous sample locations, analytical results and field observations of surface conditions and conversations with persons familiar with site history. Figure 3 is a Sample Location Map.

Soil sampling analytical laboratory analysis was conducted according to the procedures described in the October 2017 Sampling and Analysis Plan (SAP) prepared by Sierra Streams Institute for the investigation and approved by EPA prior to implementation. A pre-cleaned trowel was used to collect approximately 10 to 12 ounces of soil from each sampling point. Surface samples were generally collected from a depth of 0-6 inches below ground surface after removal of any loose organic material except for one sample, (SP5-S11) which was obtained from the face of a near vertical sidewall of wood waste stockpile 5. Discrete samples collected for analytical laboratory analysis were screened with a number 10 stainless steel screen and thoroughly homogenized to ensure sample uniformity. Homogenization was performed by thoroughly mixing the sample prior to obtaining a portion for submittal to the analytical laboratory. Soil was placed directly into clean 4-ounce glass containers provided by the laboratory. Sample containers were sealed, labeled and placed in a chilled cooler for transport to the laboratory.

QA/QC Samples

One field duplicate soil sample was obtained as a collocated sample with sample SMR-5. The duplicate sample was obtained from the screened soil obtained from location SMR-5 and identified on the laboratory chain of custody as SMR-12.

One equipment blank sample was obtained at the end of the sampling day by collecting De-ionized (DI) water rinsate poured over sampling equipment (pick, trowel and sieve) after the decontamination procedures outlined in the sampling and analysis plan were performed.

7 ANALYTICAL LABORATORY ANALYSIS

All discrete soil samples obtained from mill road surface soil areas were analyzed for Title 22 Metals by EPA 6010A/7471B and Total petroleum hydrocarbons as diesel and motor oil (TPH-d and TPH-o) by EPA 8015. Additional analysis was performed on six unbiased selected samples (alternating samples with numeric suffix 1, 3 etc) including, PAH's and PCP/TCP by EPA Method 8270 and Dioxins and Furans by EPA Method 1613/8290.

QA/QC samples were analyzed for Title 22 Metals by EPA 6010A/7471B and TPH-d and TPH-o by EPA 8015.

8 GEOTECHNICAL SOIL SAMPLING

Seven trenches (excavations extending to the base of stockpiles) and eight potholes (excavations extending into the upper portion of stockpiles) were advanced in soil and wood waste stockpiles located in areas of the southern portion of the Site where only limited previous sampling has been performed.

Trenches and potholes were advanced with a rubber tired backhoe through the soil/ wood waste stockpiles to expose the extent and variability of the stockpiled material. Groundwater was not encountered in any of the trenches or potholes. Visual observations of the soil were performed to identify potential sources of structural or non-structural fill with suitable grain size distribution and relatively low organic content. Bulk samples were obtained from potentially suitable fill material and analyzed for geotechnical characterization as described below.

Soil exposed in backhoe trenches was visually observed and logged by the Unified Soil Classification System to identify homogeneous soil layers which appeared to be potential fill sources. Three general soil types were observed within the trenches and exposures of these soil types with the best potential for use as fill were selected based on field observations. Bulk geotechnical samples were obtained from trench sidewalls, composited in the field, placed in sealed plastic buckets and transported to a Geotechnical Laboratory for analysis.

Samples obtained from backhoe trenches were obtained from trench sidewalls at depths selected based on visual observations of the material. Samples were composited from depths distributed within the upper, middle and lower portions of each homogeneous soil layer selected to be sampled. Trench sidewall samples were obtained after clearing off surface exposures of the sidewall with a pre-cleaned sample trowel. Each bulk soil sample was approximately 2 gallons in volume.

Backhoe trench locations and soil sample locations were geospatially identified using a GPS unit capable of sub meter accuracy. Each composite sample was identified with an alphanumeric numbering system referring to the corresponding site feature, trench or soil sample number and/or distinguishing soil type. Figure 4 is a Trench Location Map

9 GEOTECHNICAL LABORATORY ANALYSIS

Three bulk Geotechnical Samples were analyzed for Grain Size Analysis by ASTM Method D422 with #200 sieve wash, Atterberg Indices; Plasticity index and group symbol by ASTM D-2487 and for Organic Content by ASTM D2974.

Soil samples obtained from the soil / wood waste stockpiles were not submitted for analytical laboratory testing based on the results of geotechnical evaluation (discussed below) which did not identify suitable structural fill material in the stockpiles.

10 ANALYTICAL LABORATORY RESULTS

Analytical results of soil samples from the site were compared with screening levels utilized in the 2017 Geosyntec Targeted Site Investigation including Regional Screening Levels (RSLs) and Human Health Risk Assessment Screening Levels (HHRA SLs). Arsenic concentrations were compared with the site specific background concentration determined for the site (9.8 milligrams per kilogram (mg/kg) as discussed in the Geosyntec Targeted Site Investigation. Soil sample results for each of the COC are included in attached Tables 1 through 4 and are summarized below:

Total Metals

With the exception of arsenic, no metals were detected at concentrations exceeding applicable RSLs in any of the soil samples obtained during the southern site area investigation. Total arsenic was detected in all soil samples at concentrations that ranged from 2.4 mg/kg to 13 mg/kg. The mean arsenic concentration was 6.5 mg/kg. All of the results exceed the RSL for arsenic at industrial sites of 0.36 mg/kg. However, only one sample exceeded the site specific background level of arsenic (9.8 mg/kg) and the mean concentration was below the site specific background level.

Hydrocarbons

TPH-d was not detected in any of the samples at concentrations exceeding the laboratory reporting limit of 1.0 mg/kg. TPH-mo was detected in all 11 samples and the duplicate sample at concentrations ranging from 19.1 mg/kg to 596 mg/kg with a mean concentration of 108.3 mg/kg. These results are all below the Environmental screening level (ESL) for TPH-mo of 5,100 mg/kg.

PAHs

Analytical results of the six samples analyzed for PAHs indicated no PAH analytes were detected at concentrations exceeding laboratory reporting limits. Laboratory Practical Quantitation Limits (PQLs) ranged from 5.0 micrograms per kilogram (ug/kg) to 10 ug/kg. All PQLs were below the RSL for Benzo(a)pyrene of 290 ug/kg.

PCP and TCP

Analytical results of the six samples analyzed for Pentachlorophenol (PCP) and 2,4,6 Trichlorophenol (TCP) indicated no PCP or TCP were detected at concentrations exceeding laboratory reporting limits. Laboratory PQLs for PCP ranged from 1,600 ug/kg to 3,300 ug/kg) PQLs for TCP ranged from 330 ug/kg to 660 ug/kg. These PQLs were below the PQL for TCP of 210,000ug/kg and the PQL for PCP of 4,000ug/kg.

Dioxins and Furans

Analytical results of dioxin and furan analytes were compared with the HHRA screening level for 2,3,7,8 TCDD and with laboratory calculated toxic

equivalency (TEQ) values. TEQs are a weighted quantity measure based on the toxicity of each member of the dioxin and dioxin-like compounds category relative to the most toxic members of the category. The HHRA Screening level for TEQ used for the site is 200 picograms per gram (pg/g). The HHRA SL for 2,3,7,8 TCDD was also 200 pg/g.

TEQ results ranged from 0.773 pg/g to 12.6 pg/g and results for 2,3,7,8 TCDD ranged from 0.336 pg/g to 1.16 pg/g, all well below the HHRA Screening levels used for the site.

QA/QC Samples

Results of the rinsate blank sample RWS-1 indicated no metals were detected at concentrations exceeding laboratory reporting limits except for a low concentration of zinc detected at 0.098 milligrams per liter (mg/L). TPH-mo was not detected at concentrations exceeding laboratory reporting limits. TPH-d was detected at 153 micrograms per liter (ug/L). The laboratory report noted: *The sample chromatogram does not match the standard diesel chromatogram. All peaks were integrated within the diesel range. The result is an estimated value.*

11 ANALYTICAL LABORATORY RESULTS DISCUSSION

Metals results indicated the only potential metal of concern was arsenic. One sample obtained from near surface mill road soil, sample SMR-8 at 13 mg/kg arsenic, exceeded the site specific background arsenic concentration of 9.8 mg/kg. All 10 other samples were below background and the mean arsenic concentration was 6.5 mg/kg. Therefore arsenic in near surface soil does not appear to be a significant concern in the southern area of the site.

Hydrocarbon results indicated TPH-diesel was not detected in near surface soils above the laboratory reporting limit of 1.0 mg/kg which is less than the environmental screening level (ESL) for TPH-d of 230 mg/kg. TPH-motor oil was detected in all samples at concentrations below the applicable ESL for TPH-mo. Therefore THP

does not appear to be a significant concern for near surface soils in the southern area of the site.

PAH results for all six samples analyzed were all below laboratory practical quantitative limits of 5.0 to 10.0 micrograms per kilogram ($\mu\text{g}/\text{kg}$) which is less than the regional screening level (RSL) for benzo(a)pyrene of 290 $\mu\text{g}/\text{kg}$. Therefore additional analysis of the other five soil samples for PAHs was not deemed necessary and PAHs do not appear to be a significant concern for near surface soils in the southern area of the site.

Dioxins and Furans results for 2,3,7,8 TCDD and the calculated TEQ did not exceed the HHRA SL of 200 pg/g in any of the six samples analyzed. Therefore additional analysis of the other five soil samples for dioxins and furans was not deemed necessary and dioxins and furans do not appear to be a significant concern for near surface soils in the southern area of the site.

QA/QC results

Comparison of detected analyte results for the duplicate sample SMR-12 with the original sample SMR-5 indicate arsenic at 7.7 mg/kg vs. 7.8 mg/kg and TPH-mo at 30 mg/kg vs. 25.3 mg/kg . These result variabilities are within an acceptable range indicating the duplicate sample is within laboratory and field quality control limits.

Two analytes were detected at very low concentrations in the field rinsate QA/QC sample RSW-1. Zinc was detected at 0.098 mg/L compared with soil detections of zinc ranging from 33 mg/kg to 90 mg/kg . No other metals were detected above laboratory reporting limits. TPH-diesel was detected at 153 $\mu\text{g}/\text{L}$ in the rinsate sample but was not detected in any of the soil samples. These relatively low detections do not indicate a significant QA/QC concern.

12 GEOTECHNICAL LABORATORY RESULTS

Geotechnical results for sample SP6N-GM-comp, obtained from composited material from the upper 6 feet of the Stockpile 6N (northern south area stockpile) indicated the soil was classified as; very dark grey (7.5YR 3/2) Poorly Graded Gravel with Silt. Sieve analysis was performed on the sample twice, once before bark was

removed and once after bark fragments were removed by flotation. The laboratory determined that 11.60% by weight of the sample was bark fragments. The Atterberg Indices determined for material passing the #200 sieve were: Plasticity Index; Non-plastic (NP) and Group Symbol ML; inorganic silts and very fine sands. The organic content of the sample after bark removal was 8.5% or 20.1% with bark included.

Geotechnical results for sample SP6-GM comp, obtained from the upper 4 feet of the mounded gravelly portion of large southern Stockpile 6 indicated the soil was classified as: very dark Brown (10YR 2/2) Well Graded Gravel with Sand. The Atterberg Indices determined for material passing the #200 sieve were: Plasticity Index; 12 and Group Symbol MH; inorganic silts. The organic content of the sample was 5.4%

Geotechnical results for sample SP6-T1, T4 comp, obtained from composited soil from the sidewalls of trenches T-1 and T-4 at depths of 0-10 feet in Stockpile 6 indicated the soil was classified as very dark Brown (10YR 2/2) Silty Sand. The Atterberg Indices determined for material passing the #200 sieve were: Plasticity Index; Non-plastic (NP) and Group Symbol ML; inorganic silts and very fine sands. The organic content of the sample was 4.5%.

13 GEOTECHNICAL RESULTS DISCUSSION

Based on observations of the 15 trenches and potholes advanced into Stockpiles SP6 and SP6N, three general soil types were evaluated to determine if they were suitable for use as structural fill or cover soil during the proposed site remediation. The three general soil types are described below.

The bulk of the larger Stockpile SP6, generally consisted of fine sand and silt with decomposed organic layers of varying thickness within the relatively inorganic sands and silts. Exposures of this soil which appeared to have the lowest organic content are represented by sample SP6-T1, T4 comp. This soil is consistent with the reported source of bottom ash from TP burners which historically burned sawdust and wood waste from the mill site. The waste was reportedly dumped on the adjacent property to the east (formerly part of the mill site). Periodic flooding may have resulted in

fluvial deposition of fine sand and silt which along with decomposition of organics appear to have resulted in the current composition of the material. The soil was later excavated by Caltrans during a wetland mitigation project and stockpiled in the present location. Wood ash products are not typically suitable for reuse due to low specific gravity and low shear strength and may also have high alkalinity.

A smaller mounded area in the southwestern portion of the stockpile consisted of well graded gravel with silt and sand and layered organic matter of varying thickness up to several inches. Exposures of this soil which appeared to have the lowest organic content are represented by sample SP6- GM comp. The source of this soil is unknown but may have been from other areas of the wetland mitigation project.

Stockpile SP6N consisted of a variable mixture of poorly graded gravel with silt and wood waste fragments consisting of primarily bark. The wood waste and organics appear less weathered than organics in SP6. Debris such as metal and processed wood included in the stockpile suggest an on-site source, possibly material graded from northern areas of the site. Exposures of this soil which appeared to have the lowest organic content are represented by sample SP6N- GM comp.

Based on the organic content results indicating the three samples with between 4.5% organics and 8.5% (20.1% including bark) organics and considering these samples represent the areas of the stockpile with the least visible organics, none of the soil evaluated in this assessment appears to be suitable for use as structural fill. Structural fill generally should be free of organic matter since future decomposition could result in settling and structural failure. According to Caltrans Standard Specifications (2015); All fill must be free of organic material.

If the site remediation plan identifies areas where a soil cover is needed and where structural fill is not required such as landscaped areas or vegetated buffers, soil from stockpile SP6 may be acceptable for such purposes. If this use is proposed, additional soil sampling and analysis would be required to determine if contaminants present in other areas of the site impact the stockpiled soil. Sampling and analysis should be performed in accordance with California Department of Toxic Substances Control (DTSC)s *Information Advisory Clean Imported Fill Material* (October 2001).

Additional analysis may also be necessary to determine if the soil is suitable to support vegetation or if added soil amendments would be required.

14 CONCLUSIONS AND RECOMMENDATIONS

Environmental sampling and analysis of 11 near surface samples and one duplicate sample indicate significant concentrations of constituents of concern were not detected in areas tested in the southern portion of the site including; mill road surfaces, the former log storage area, the southern log deck recycling pond and from wood waste stockpile 5. Analytical results from the southern area soil investigation should be included in a human health risk assessment for the site.

The three bulk composite samples obtained from soil and wood waste stockpiles in the southern portion of the site were selected from exposures within the 15 trenches and potholes which appeared to have the lowest organic content. However, results of the geotechnical evaluation and in particular the organic content of all three samples testing indicate the fill from these stockpiles is not suitable for use as structural fill. Selected fill may be acceptable for use in landscaped or vegetated buffer areas provided additional environmental sampling and analysis indicates the soil meets DTSC criteria for clean fill. If soil is proposed to be used as non-structural fill, additional analysis for agricultural constituents should be performed to determine if the soil will support landscape or native plants.

TABLES

Table 1
Southern Area Soil Sample Analytical Results- Title 22 Metals in Soil

Sample ID	Sample Location	Sample Depth (ft. bgs)	Sample Type	Matrix	Date Sampled	Metals (U.S. EPA 6010B/7471A) (mg/kg)							
						Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper
HHRA SL						--	0.36	--	210	7.3	--	--	--
RSL						470	--	220,000	--	--	1,800,000	350	47,000
SMR-1	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<2.0	6.8	120	<1.0	<1.0	14	7.9	93
SMR-2	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<2.0	2.4	60	<1.0	<1.0	24	7.1	52
SLS-3	Southern Log Storage	0-5	Discreet	Soil	10/9/2017	<2.0	4.3	85	<1.0	<1.0	11	5.0	64
SMR-4	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<2.0	5.4	71	<1.0	<1.0	12	8.3	62
SMR-5	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<2.0	7.8	69	<1.0	<1.0	13	8.1	84
SLDRP-6	Southern Log Deck Recycling Pond	0-5	Discreet	Soil	10/9/2017	<2.0	4.3	110	<1.0	<1.0	21	9.7	190
SMR-7	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<2.0	8.1	94	<1.0	<1.0	14	10	160
SMR-8	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<2.0	13	90	<1.0	<1.0	12	8.4	170
SMR-9	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<2.0	5.8	110	<1.0	<1.0	14	10	340
SMR-10	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<2.0	4.3	56	<1.0	<1.0	8.7	6.9	67
SP5-S11	Wood waste Stockpile 5	0-5	Discreet	Soil	10/9/2017	<2.0	9.1	70	<1.0	<1.0	9.6	6.0	95
SMR-12	Field Duplicate of SMR-5	0-5	Discreet	Soil	10/9/2017	<2.0	7.7	65	<1.0	<1.0	13	8.0	88

Table 1-Cont.
Southern Area Soil Sample Analytical Results- Title 22 Metals in Soil

Sample ID	Sample Location	Sample Depth (ft. bgs)	Sample Type	Matrix	Date Sampled	Metals (U.S. EPA 6010B/7471A) (mg/kg)								
						Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
HHRA SL						320	4.5	--	--	--	1,500	--	1,000	--
RSL						--	--	5,800	3,100	5,800	--	1.2	--	350,000
SMR-1	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	14	0.18	<1.0	8.4	<1.0	<0.12	<1.0	35	43
SMR-2	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	4.8	<0.10	<1.0	13	<1.0	<0.12	<1.0	34	33
SLS-3	Southern Log Storage	0-5	Discreet	Soil	10/9/2017	9.7	0.20	<1.0	6.7	<1.0	<0.12	<1.0	25	38
SMR-4	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	19	0.18	<1.0	10	<1.0	<0.12	<1.0	27	41
SMR-5	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	10	0.18	<1.0	11	<1.0	<0.12	<1.0	31	41
SLDRP-6	Southern Log Deck Recycling Pond	0-5	Discreet	Soil	10/9/2017	12	0.23	<1.0	15	<1.0	<0.12	<1.0	46	90
SMR-7	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	10	0.16	<1.0	11	<1.0	<0.12	<1.0	37	57
SMR-8	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	6.6	<0.10	<1.0	11	<1.0	<0.12	<1.0	29	43
SMR-9	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	9.3	0.26	<1.0	14	<1.0	<0.12	<1.0	32	65
SMR-10	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	4.3	<0.10	<1.0	5.8	<1.0	<0.12	<1.0	27	38
SP5-S11	Wood Waste Stockpile 5	0-5	Discreet	Soil	10/9/2017	19	0.43	<1.0	6.5	<1.0	<0.12	<1.0	24	38
SMR-12	Field Duplicate of SMR-5	0-5	Discreet	Soil	10/9/2017	9.8	0.20	<1.0	11	<1.0	<0.12	<1.0	32	42

Table 2
Southern Area Soil Sample Analytical Results- Hydrocarbons in Soil

Sample ID	Sample Location	Sample Depth (ft. bgs)	Sample Type	Matrix	Date Sampled	TPH U.S. EPA Method 8015M (mg/kg)	
						TPH as Diesel	TPH as Motor Oil
ESL						230	5100
SMR-1	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<1.00	154
SMR-2	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<1.00	68.4
SLS-3	Southern Log Storage	0-5	Discreet	Soil	10/9/2017	<1.00	151
SMR-4	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<1.00	40.6
SMR-5	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<1.00	25.3
SLDRP-6	Southern Log Deck Recycling Pond	0-5	Discreet	Soil	10/9/2017	<1.00	47.1
SMR-7	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<1.00	32.5
SMR-8	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<1.00	56.6
SMR-9	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<1.00	78.5
SMR-10	Southern Mill Road	0-5	Discreet	Soil	10/9/2017	<1.00	19.1
SP5-S11	Wood Waste Stockpile 5	0-5	Discreet	Soil	10/9/2017	<1.00	596
SMR-12	Field Duplicate of SMR-5	0-5	Discreet	Soil	10/9/2017	<1.00	30.0

Table 4 - Cont.
Southern Area Soil Sample Analytical Results- Dioxins and Furans in Soil

Sample ID	Dioxins and Furans (U.S. EPA Method 8290) (pg/g)															
	1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDF	2,3,4,6,7,8-HxCDF	2,3,4,7,8-PeCDF	2,3,7,8-TCDD TEQ	2,3,7,8-TCDF	OCDD	OCDF	Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	Total PeCDD	Total PeCDF	Total TCDD	Total TCDF
HHRA SL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SMR-1	0.89	1.46	1.83	2.28	1.01	1.43	629	31.6	279	74.3	74.1	103	0.89	71.2	1.01	30.6
SMR-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SLS-3	1.57	2.22	3.8	3.17	1.16	2.67	553	33	351	144	98	153	2.91	126	1.16	36.3
SMR-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SMR-5	0.636	0.543	0.545	0.692	0.336	0.444	272	18.6	109	24.6	28.1	22.6	1.2	18.1	0.336	9.72
SLDRP-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SMR-7	0.762	0.895	0.851	0.789	0.965	0.483	299	21.7	86.7	28.1	20.9	16.5	0.762	11.9	1.92	5.26
SMR-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SMR-9	0.71	0.534	0.742	0.577	0.433	0.466	113	7.51	44.9	9.58	13.6	7	0.71	5.28	0.433	5.37
SMR-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP5-S11	0.925	0.527	1.16	0.894	0.33	0.74	254	15.1	191	51.6	62.1	63.6	0.925	42.1	0.33	21.1
SMR-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes

ESL = Environmental Screening Level
 U.S. EPA = United States Environmental Protection Agency
 RSL = Regional Screening Levels US EPA Region 9 (2015)
 Human Health Risk Assessment Screening Levels (HHRA SL) Note 3 - DTSC, revised 2018 for commercial/industrial soil. HHRA screening levels applied when available.

ft bgs = feet below ground surface
 < = Analyte not detected. Method Detection Limits shown.
 - = Not Analyzed
 NA = not applicable
 mg/kg = milligrams per kilograms
 pg/g = picograms per gram

PAHs = polycyclic aromatic hydrocarbons
 PCP = pentachlorophenol
 TCP = 2,4,6-trichlorophenol
 TPH = total petroleum hydrocarbons
 VOCs = volatile organic compounds
 PeCDD = pentachlorodibenzo-p-dioxin
 PeCDF = pentachlorodibenzofuran
 TCDD = tetrachlorodibenzo-p-dioxin
 TCDF = tetrachlorodibenzofuran
 OCDF = 1,2,3,4,6,7,8,9-octachlorodibenzofuran
 OCDD = 1,2,3,4,6,7,8,9-octachlorodibenzodioxin
 HxCDF = hexachlorodibenzofuran
 HxCDD = hexachlorodibenzo-p-dioxin
 2,3,7,8-TCDD TEQ = 2,3,7,8-tetrachlorodibenzo-p-dioxin Toxic Equivalency
 HpCDD = heptachlorodibenzo-p-dioxin
 HpCDF = heptachlorodibenzofuran
 TEQ = toxic equivalency quotient

HxCDD = hexachlorodibenzo-p-dioxin
 HxCDF = hexachlorodibenzofuran
 PAHs = polycyclic aromatic hydrocarbons
 OCDD = 1,2,3,4,6,7,8,9-octachlorodibenzodioxin
 OCDF = 1,2,3,4,6,7,8,9-octachlorodibenzofuran
 PeCDD = pentachlorodibenzo-p-dioxin
 PeCDF = pentachlorodibenzofuran
 pg/g = picograms per gram
 REC = recognized environmental condition
 TCDD = tetrachlorodibenzo-p-dioxin
 TCDF = tetrachlorodibenzofuran
 HpCDD = heptachlorodibenzo-p-dioxin
 HpCDF = heptachlorodibenzofuran

FIGURES



Figure 1: Site Location Map





Figure 3: Soil Sample Location Map

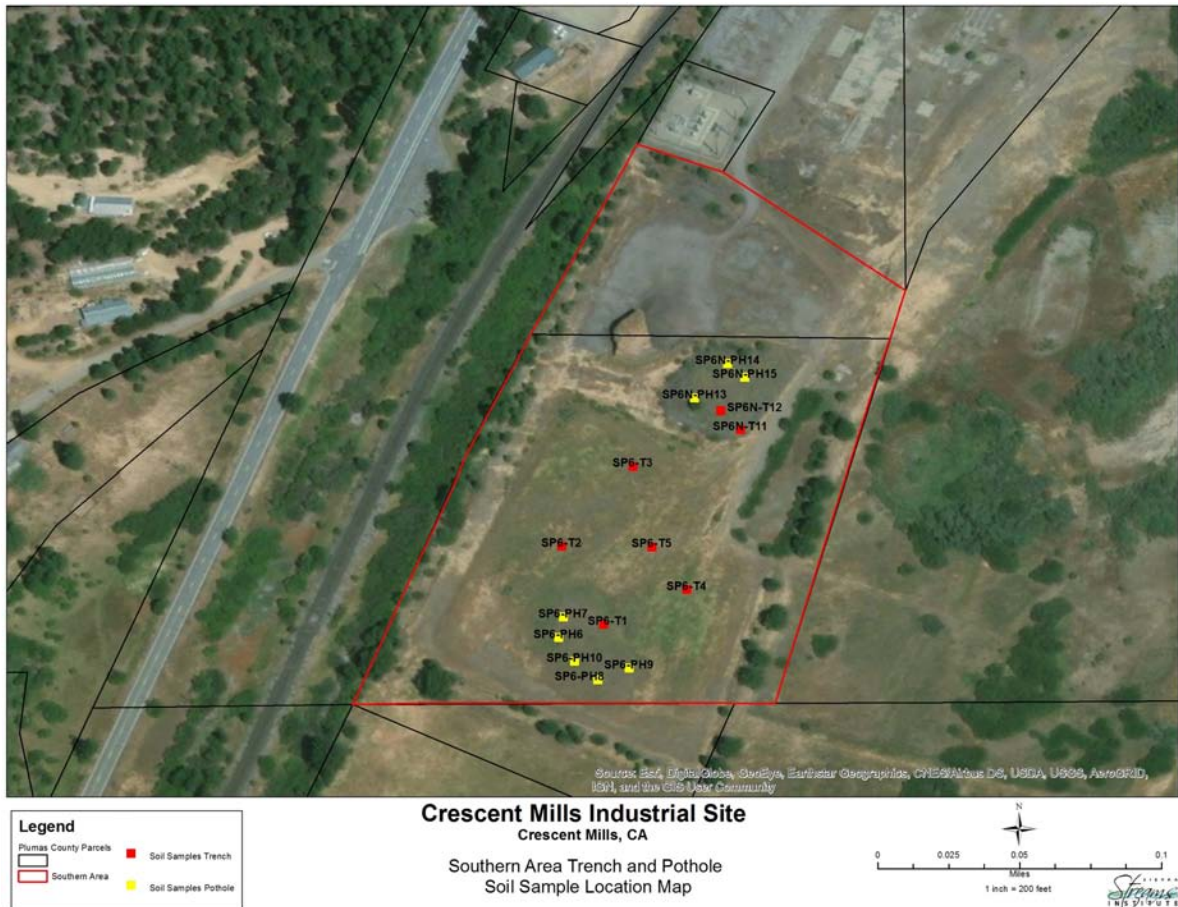


Figure 4: Trench Location Map

EXCELCHEM
Environmental Labs

1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

18 October 2017

Kyle Leach

Sierra Streams Institute

431 Uren St., Suite C

Nevada City, CA 95959

RE: Plumas BF

Work order number:1710070

Enclosed are the results of analyses for samples received by the laboratory on 10/11/17 17:00. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read "John Somers", on a light-colored rectangular background.

John Somers, Lab Director

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SMR-1	1710070-01	Soil	10/09/17 14:00	10/11/17 17:00
SMR-2	1710070-02	Soil	10/09/17 14:10	10/11/17 17:00
SLS-3	1710070-03	Soil	10/09/17 14:20	10/11/17 17:00
SMR-4	1710070-04	Soil	10/09/17 14:30	10/11/17 17:00
SMR-5	1710070-05	Soil	10/09/17 14:35	10/11/17 17:00
SLDRP-6	1710070-06	Soil	10/09/17 14:45	10/11/17 17:00
SMR-7	1710070-07	Soil	10/09/17 14:55	10/11/17 17:00
SMR-8	1710070-08	Soil	10/09/17 15:10	10/11/17 17:00
SMR-9	1710070-09	Soil	10/09/17 15:20	10/11/17 17:00
SMR-10	1710070-10	Soil	10/09/17 15:30	10/11/17 17:00
SP5-S11	1710070-11	Soil	10/10/17 13:00	10/11/17 17:00
SMR-12	1710070-12	Soil	10/09/17 14:40	10/11/17 17:00
RWS-1	1710070-13	Water	10/09/17 15:50	10/11/17 17:00

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SMR-1 1710070-01 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	154	10.0	"	"	"	"	"	D-06

EPA 1613B

Total HxCDD	74.1		pg/g	1672	10/12/17	10/13/17	EPA 1613B	
1,2,3,7,8-PeCDD	0.89	5.02	"	"	"	"	"	
1,2,3,7,8-PeCDF	1.46	5.02	"	"	"	"	"	J
2,3,4,6,7,8-HxCDF	1.83	5.02	"	"	"	"	"	J
2,3,7,8-TCDD	1.01	1	"	"	"	"	"	
OCDD	629	10	"	"	"	"	"	
OCDF	31.6	10	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	0.779	5.02	"	"	"	"	"	
Total HpCDD	279		"	"	"	"	"	
2,3,4,7,8-PeCDF	2.28	5.02	"	"	"	"	"	J
Total HxCDF	103		"	"	"	"	"	X
Total PeCDD	0.89		"	"	"	"	"	
Total PeCDF	71.2		"	"	"	"	"	X
Total TCDD	1.01		"	"	"	"	"	
Total TCDF	30.6		"	"	"	"	"	X
Totals HpCDF	74.3		"	"	"	"	"	
TEQ	7.28		"	"	"	"	"	
1,2,3,4,6,7,8-HpCDD	165	5.02	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	2.37	5.02	"	"	"	"	"	J
1,2,3,6,7,8-HxCDD	20.7	5.02	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	3.56	5.02	"	"	"	"	"	J
1,2,3,4,7,8-HxCDD	0.931	5.02	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	2.4	5.02	"	"	"	"	"	J
1,2,3,4,6,7,8-HpCDF	27	5.02	"	"	"	"	"	
2,3,7,8-TCDF	1.43	1	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	4.08	5.02	"	"	"	"	"	J

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Laboratory Representative

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SMR-2
1710070-02 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	69.4	10.0	"	"	"	"	"	D-06

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Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SLS-3 1710070-03 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	151	10.0	"	"	"	"	"	D-06

EPA 1613B

TEQ	12.6		pg/g	1672	10/12/17	10/13/17	EPA 1613B	
OCDF	33	10.2	"	"	"	"	"	
Total HpCDD	351		"	"	"	"	"	
2,3,7,8-TCDF	2.67	1.02	"	"	"	"	"	
2,3,7,8-TCDD	1.16	1.02	"	"	"	"	"	
2,3,4,7,8-PeCDF	3.17	5.12	"	"	"	"	"	J
OCDD	553	10.2	"	"	"	"	"	
Total HxCDD	98		"	"	"	"	"	
Total HxCDF	153		"	"	"	"	"	
Total TCDF	36.3		"	"	"	"	"	
Total TCDD	1.16		"	"	"	"	"	
Total PeCDF	126		"	"	"	"	"	
Total PeCDD	2.91		"	"	"	"	"	
2,3,4,6,7,8-HxCDF	3.8	5.12	"	"	"	"	"	J
1,2,3,4,7,8-HxCDF	5.53	5.12	"	"	"	"	"	
Totals HpCDF	144		"	"	"	"	"	
1,2,3,4,7,8-HxCDD	1.25	5.12	"	"	"	"	"	J
1,2,3,6,7,8-HxCDF	3.11	5.12	"	"	"	"	"	J
1,2,3,4,6,7,8-HpCDD	217	5.12	"	"	"	"	"	
1,2,3,7,8-PeCDF	2.22	5.12	"	"	"	"	"	J
1,2,3,4,7,8,9-HpCDF	2.31	5.12	"	"	"	"	"	J
1,2,3,6,7,8-HxCDD	38.4	5.12	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	5.11	5.12	"	"	"	"	"	J
1,2,3,7,8,9-HxCDF	0.563	5.12	"	"	"	"	"	
1,2,3,7,8-PeCDD	1.57	5.12	"	"	"	"	"	J
1,2,3,4,6,7,8-HpCDF	48.9	5.12	"	"	"	"	"	

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Nevada City, CA 95959

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Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SMR-4 1710070-04 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	40.6	10.0	"	"	"	"	"	D-06

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Project Number: Plumas Brownfield
Project Manager: Kyle Leach

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10/18/17 10:45

SMR-5 1710070-05 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	25.3	10.0	"	"	"	"	"	D-06

EPA 1613B

1,2,3,7,8-PeCDF	0.543	5.01	pg/g	1672	10/12/17	10/13/17	EPA 1613B	
2,3,4,7,8-PeCDF	0.692	5.01	"	"	"	"	"	
2,3,7,8-TCDF	0.444	1	"	"	"	"	"	
OCDD	272	10	"	"	"	"	"	
1,2,3,7,8-PeCDD	0.636	5.01	"	"	"	"	"	
TEQ	1.8		"	"	"	"	"	
1,2,3,4,6,7,8-HpCDF	8.41	5.01	"	"	"	"	"	
Total HpCDD	109		"	"	"	"	"	
Total HxCDD	28.1		"	"	"	"	"	
OCDF	18.6	10	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	0.593	5.01	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	2.09	5.01	"	"	"	"	"	J
1,2,3,6,7,8-HxCDF	0.486	5.01	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	6.7	5.01	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	1.23	5.01	"	"	"	"	"	J
1,2,3,4,7,8,9-HpCDF	1.54	5.01	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDD	62.9	5.01	"	"	"	"	"	
2,3,7,8-TCDD	0.336	1	"	"	"	"	"	
Total HxCDF	22.6		"	"	"	"	"	
1,2,3,4,7,8-HxCDD	0.696	5.01	"	"	"	"	"	
Total PeCDF	18.1		"	"	"	"	"	
Total TCDD	0.336		"	"	"	"	"	
Total TCDF	9.72		"	"	"	"	"	X
Totals HpCDF	24.6		"	"	"	"	"	
2,3,4,6,7,8-HxCDF	0.545	5.01	"	"	"	"	"	
Total PeCDD	1.2		"	"	"	"	"	

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Laboratory Representative

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SLDRP-6 1710070-06 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J]0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	47.1	10.0	"	"	"	"	"	D-06

Excelchem Environmental Lab.



Laboratory Representative

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Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SMR-7 1710070-07 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	32.5	10.0	"	"	"	"	"	D-06

EPA 1613B

OCDF	21.7	10.1	pg/g	1672	10/12/17	10/13/17	EPA 1613B	
Total HpCDD	86.7		"	"	"	"	"	
Total HxCDF	16.5		"	"	"	"	"	
Total PeCDD	0.762		"	"	"	"	"	
Total PeCDF	11.9		"	"	"	"	"	
Total TCDD	1.92		"	"	"	"	"	
OCDD	299	10.1	"	"	"	"	"	
Totals HpCDF	28.1		"	"	"	"	"	
TEQ	2.32		"	"	"	"	"	
Total TCDF	5.26		"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	0.948	5.05	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDD	48.5	5.05	"	"	"	"	"	
Total HxCDD	20.9		"	"	"	"	"	
1,2,3,4,6,7,8-HpCDF	10.3	5.05	"	"	"	"	"	
2,3,7,8-TCDF	0.483	1.01	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	0.863	5.05	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	0.81	5.05	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	4.46	5.05	"	"	"	"	"	J
1,2,3,6,7,8-HxCDF	0.862	5.05	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	1.21	5.05	"	"	"	"	"	
1,2,3,7,8-PeCDD	0.762	5.05	"	"	"	"	"	
1,2,3,7,8-PeCDF	0.895	5.05	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	0.851	5.05	"	"	"	"	"	
2,3,4,7,8-PeCDF	0.789	5.05	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	2.29	5.05	"	"	"	"	"	J
2,3,7,8-TCDD	0.965	1.01	"	"	"	"	"	J

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Laboratory Representative

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SMR-8 1710070-08 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J]0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	56.6	10.0	"	"	"	"	"	D-06

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SMR-9 1710070-09 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	78.5	10.0	"	"	"	"	"	D-06

EPA 1613B

Total HpCDD	44.9		pg/g	1672	10/12/17	10/13/17	EPA 1613B	
Total HxCDF	7		"	"	"	"	"	
Total PeCDD	0.71		"	"	"	"	"	
Total PeCDF	5.28		"	"	"	"	"	
Total TCDD	0.433		"	"	"	"	"	
Total TCDF	5.37		"	"	"	"	"	
TEQ	0.773		"	"	"	"	"	
Totals HpCDF	9.58		"	"	"	"	"	
Total HxCDD	13.6		"	"	"	"	"	
1,2,3,6,7,8-HxCDD	2.99	5.06	"	"	"	"	"	J
1,2,3,4,7,8-HxCDF	0.699	5.06	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	0.733	5.06	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	0.795	5.06	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDF	3.8	5.06	"	"	"	"	"	J
1,2,3,6,7,8-HxCDF	0.64	5.06	"	"	"	"	"	
OCDF	7.51	10.1	"	"	"	"	"	J
1,2,3,4,6,7,8-HpCDD	23.6	5.06	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	1.64	5.06	"	"	"	"	"	J
1,2,3,7,8,9-HxCDF	1.08	5.06	"	"	"	"	"	
1,2,3,7,8-PeCDD	0.71	5.06	"	"	"	"	"	
1,2,3,7,8-PeCDF	0.534	5.06	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	0.742	5.06	"	"	"	"	"	
2,3,4,7,8-PeCDF	0.577	5.06	"	"	"	"	"	
2,3,7,8-TCDD	0.433	1.01	"	"	"	"	"	
2,3,7,8-TCDF	0.466	1.01	"	"	"	"	"	
OCDD	113	10.1	"	"	"	"	"	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Project Number: Project Manager:	Plumas BF Plumas Brownfield Kyle Leach	Date Reported: 10/18/17 10:45
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**SMR-10
1710070-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J]0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	19.1	10.0	"	"	"	"	"	D-06

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

SP5-S11 1710070-11 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
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EPA 1613B

Total PeCDD	0.925		pg/g	1672	10/12/17	10/14/17	EPA 1613B	
Total PeCDF	42.1		"	"	"	"	"	X
OCDF	15.1	10	"	"	"	"	"	
2,3,4,7,8-PeCDF	0.894	5.01	"	"	"	"	"	J
TEQ	4.16		"	"	"	"	"	
Total HpCDD	191		"	"	"	"	"	
Total HxCDD	62.1		"	"	"	"	"	
Totals HpCDF	51.6		"	"	"	"	"	
1,2,3,7,8,9-HxCDF	1.59	5.01	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDD	112	5.01	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDF	19.2	5.01	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	1.14	5.01	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	1.12	5.01	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	2.65	5.01	"	"	"	"	"	J
1,2,3,6,7,8-HxCDD	17	5.01	"	"	"	"	"	
2,3,7,8-TCDF	0.74	1	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	4.57	5.01	"	"	"	"	"	J
Total TCDD	0.33		"	"	"	"	"	
1,2,3,7,8-PeCDD	0.925	5.01	"	"	"	"	"	
1,2,3,7,8-PeCDF	0.527	5.01	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	1.16	5.01	"	"	"	"	"	
OCDD	254	10	"	"	"	"	"	
2,3,7,8-TCDD	0.33	1	"	"	"	"	"	
Total HxCDF	63.6		"	"	"	"	"	X
Total TCDF	21.1		"	"	"	"	"	X
1,2,3,6,7,8-HxCDF	1.15	5.01	"	"	"	"	"	

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45


SP5-S11
1710070-11RE1 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Motor Oil	596	30.0	mg/kg	A[J0123	10/13/17	10/17/17	EPA 8015Mod	D-06
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Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Project Number: Project Manager:	Plumas BF Plumas Brownfield Kyle Leach	Date Reported: 10/18/17 10:45
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**SMR-12
1710070-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A[J0123	10/13/17	10/16/17	EPA 8015Mod	
TPH as Motor Oil	30.0	10.0	"	"	"	"	"	D-06

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Project Number: Project Manager:	Plumas BF Plumas Brownfield Kyle Leach	Date Reported: 10/18/17 10:45
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**RWS-1
1710070-13 (Water)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Petroleum Hydrocarbons by FID

TPH as Diesel	153	50.0	ug/l	A[J0117	10/13/17	10/13/17	EPA 8015Mod	D-18
TPH as Motor Oil	ND	500	"	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

Total Petroleum Hydrocarbons by FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A|J0117 - EPA 8015Mod

Blank (A|J0117-BLK1)

Prepared: 10/12/17 Analyzed: 10/13/17

TPH as Diesel	ND	50.0	ug/l						
TPH as Motor Oil	ND	500	"						

LCS (A|J0117-BS1)

Prepared: 10/12/17 Analyzed: 10/13/17

TPH as Diesel	4130	50.0	ug/l	5000	82.5	70-130			
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LCS (A|J0117-BS2)

Prepared: 10/12/17 Analyzed: 10/13/17

TPH as Motor Oil	3520	500	ug/l	5000	70.4	70-130			
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LCS Dup (A|J0117-BSD1)

Prepared: 10/12/17 Analyzed: 10/13/17

TPH as Diesel	4490	50.0	ug/l	5000	89.7	70-130	8.36	30	
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LCS Dup (A|J0117-BSD2)

Prepared: 10/12/17 Analyzed: 10/13/17

TPH as Motor Oil	3500	500	ug/l	5000	70.1	70-130	0.499	30	
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Batch A|J0123 - EPA 8015Mod

Blank (A|J0123-BLK1)

Prepared: 10/13/17 Analyzed: 10/16/17

TPH as Diesel	ND	1.00	mg/kg						
TPH as Motor Oil	ND	10.0	"						

LCS (A|J0123-BS1)

Prepared: 10/13/17 Analyzed: 10/16/17


TPH as Diesel	72.4	1.00	mg/kg	100	72.4	70-130			
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LCS (A|J0123-BS2)

Prepared: 10/13/17 Analyzed: 10/16/17

TPH as Motor Oil	70.0	10.0	mg/kg	100	70.0	70-130			
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Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

Total Petroleum Hydrocarbons by FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A[J0123 - EPA 8015Mod

LCS Dup (A[J0123-BSD1)

Prepared: 10/13/17 Analyzed: 10/16/17

TPH as Diesel	74.5	1.00	mg/kg	100		74.5	70-130	2.85	30
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LCS Dup (A[J0123-BSD2)

Prepared: 10/13/17 Analyzed: 10/16/17

TPH as Motor Oil	72.8	10.0	mg/kg	100		72.8	70-130	3.89	30
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Matrix Spike (A[J0123-MS1)

Source: 1710070-10

Prepared: 10/13/17 Analyzed: 10/16/17

TPH as Diesel	72.6	1.00	mg/kg	100	ND	72.6	70-130		
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Matrix Spike Dup (A[J0123-MSD1)

Source: 1710070-10

Prepared: 10/13/17 Analyzed: 10/16/17

TPH as Diesel	72.0	1.00	mg/kg	100	ND	72.0	70-130	0.751	30
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Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumlas BF
Project Number: Plumlas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

EPA 1613B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1672 - EPA 1613B

MB (1672-Blank)

Prepared: 10/12/17 Analyzed: 10/13/17

1,2,3,6,7,8-HxCDF	0.469	5	pg/g				-			
2,3,4,6,7,8-HxCDF	0.59	5	"				-			
1,2,3,7,8-PeCDF	0.44	5	"				-			
1,2,3,7,8-PeCDD	0.508	5	"				-			
1,2,3,7,8,9-HxCDF	0.793	5	"				-			
1,2,3,7,8,9-HxCDD	0.827	5	"				-			
1,2,3,6,7,8-HxCDD	0.878	5	"				-			
1,2,3,4,7,8-HxCDF	0.504	5	"				-			
1,2,3,4,7,8-HxCDD	0.843	5	"				-			
1,2,3,4,7,8,9-HpCDF	0.774	5	"				-			
2,3,7,8-TCDD	0.365	1	"				-			
1,2,3,4,6,7,8-HpCDD	0.937	5	"				-			
2,3,7,8-TCDF	0.358	1	"				-			
1,2,3,4,6,7,8-HpCDF	0.542	5	"				-			
Total PeCDF	0.582		"				-			
2,3,4,7,8-PeCDF	0.582	5	"				-			
Total TCDD	0.365		"				-			
Total PeCDD	0.508		"				-			
Total HxCDF	0.793		"				-			
Total HxCDD	0.878		"				-			
Total HpCDD	0.937		"				-			
TEQ	0		"				-			
OCDF	1.32	10	"				-			
OCDD	1.01	10	"				-			
Total TCDF	0.358		"				-			

LCS (1672-LCS)

Prepared: 10/12/17 Analyzed: 10/13/17

1,2,3,4,7,8,9-HpCDF	49.3	69	%				-			
1,2,3,7,8-PeCDD	54.3	71	"				-			
OCDD	118	144	"				-			
2,3,7,8-TCDF	12.5	15.8	"				-			
2,3,7,8-TCDD	11.3	15.8	"				-			
2,3,4,7,8-PeCDF	53.8	80	"				-			
2,3,4,6,7,8-HxCDF	55.6	78	"				-			
1,2,3,7,8-PeCDF	51.5	67	"				-			
1,2,3,7,8,9-HxCDF	58.1	65	"				-			
1,2,3,7,8,9-HxCDD	63	81	"				-			
1,2,3,6,7,8-HxCDF	54.1	65	"				-			
1,2,3,6,7,8-HxCDD	61.2	67	"				-			
1,2,3,4,7,8-HxCDD	58	82	"				-			

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Project Number: Project Manager:	Plumas BF Plumas Brownfield Kyle Leach	Date Reported: 10/18/17 10:45
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EPA 1613B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1672 - EPA 1613B

LCS (1672-LCS)

Prepared: 10/12/17 Analyzed: 10/13/17

OCDF	119	170	%				-			
1,2,3,4,6,7,8-HpCDF	51.5	61	"				-			
1,2,3,4,6,7,8-HpCDD	63.6	70	"				-			
1,2,3,4,7,8-HxCDF	56.1	67	"				-			

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

Notes and Definitions

- X The concentration found is estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample
- J Concentration found below the lower quantitation limit but greater than zero.
- D-18 The sample chromatogram does not match the standard diesel chromatogram. All peaks were integrated within the diesel range. The result is an estimated value.
- D-06 The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
- ND Analyte not detected at reporting limit.
- NR Not reported

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumas BF
Project Number: Plumas Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

Excelchem Environmental Labs 1135 W. Sunset Blvd. Unit A Rocklin, CA. 95765 Ph: 916-543-4445 Fx: 916-543-4449		CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST						
Project Manager: <i>Kyle Leach</i>		Phone #: <i>530 265-6090</i>						
Company/Address: <i>Sierra Streams Institute 431 Uren St Nevada City 95959</i>		Fax #:						
Project Number/P.O#: <i>Plumas Brownfield</i>		Project Name: <i>Plumas BF</i>						
Project Location: <i>Crescent Mills</i>		Sampler Signature: <i>[Signature]</i>						
Sample ID	Sampling		Container	Method Preserved	Matrix	BTEX - TPH as Gasoline (802/801/8015) TPH as Diesel (8015m) TPH as Oil (8015m) Total Oil & Grease (SM-18th 5520)1664 Pesticides (608/8081A) - PCBs (8082) Organophosphorous Pesticide (8141) Chlorinated Herbicides (8151) Semi VOC Full List (8270C) VOC Full list (8260B) MTBE (8021/8260B) circle the method Methanol (8015M) Ethanol (8260) 5 Oxygenates (8260B) Lead Scavengers DCA/EDB (8260B) Tphg/BTEX/5 Oxygenates (8260B) Metals = Metals = Metals = Nitrate, Nitrite, Ammonia, Kjeldahl Chloride, Sulfate, Sulfide, ph, conductance	Wet Total Requested TAT: <i>5 day</i> 12hr/24hr/48hr/72hr/Standard	Bin# Due Date: Work Order: LAB USE ONLY:
	Date	Time	VOA SLEEVE GLASS PLASTIC Summa or Tedlar	HCl HNO3 ICE NONE	WATER SOIL AIR			
SMR-1	10/9/17	2:00	X	X	X	X	X	X
SMR-2	10/9/17	2:10	X	X	X	X	X	X
SLS-3	10/9/17	2:20	X	X	X	X	X	X
SMR-4	10/9/17	2:30	X	X	X	X	X	X
SMR-5	10/9/17	2:35	X	X	X	X	X	X
SLDRP-6	10/9/17	2:45	X	X	X	X	X	X
SMR-7	10/9/17	2:55	X	X	X	X	X	X
SMR-8	10/9/17	3:10	X	X	X	X	X	X
SMR-9	10/9/17	3:20	X	X	X	X	X	X
SMR-10	10/9/17	7:30	X	X	X	X	X	X
SP5-S11	10/10/17	10:00	X	X	X	X	X	X
SMR-12	10/9/17	2:40	X	X	X	X	X	X
Relinquished by: <i>[Signature]</i>			Date: <i>10/17/17</i>	Time: <i>5:00</i>	Received by:	Remarks/Condition of Sample: <i>5 Day TAT - Need results by 10/18/17 or 10/19 am Hold for possible additional analyses if requested.</i>		
Relinquished by:			Date: <i>10/11/17</i>	Time: <i>17:00</i>	Received by Laboratory: <i>Amber Taylor</i>	Bill To:		

ANALYSIS REQUEST Page 1 of 2

1710070
BIN *25*

Dioxins/Furans (1613/8290)

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Sierra Streams Institute
 431 Uren St., Suite C
 Nevada City, CA 95959

Project: Plumias BF
 Project Number: Plumias Brownfield
 Project Manager: Kyle Leach

Date Reported:
 10/18/17 10:45

Excelchem Environmental Labs

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Excelchem Environmental Labs
 1135 W. Sunset Blvd. Unit A
 Rocklin, CA. 95765
 Ph: 916-543-4445 Fax: 916-543-4449

Project Manager: *Kyle Leach* Phone #: *530 265 6090*
 Company/Address: *SSI 431 Uren St Nevada City CA 95959* Fax #:

Electronic Data Deliverables Request: *No* Email Address: *klead@sscgm.com*

ANALYSIS REQUEST

Page *2* of *2*

Project Number/P.O#: *Plumias BF* Project Name: *Plumias BF*
 Project Location: *Crescent Mills* Sampler Signature: *[Signature]*

Sample ID	Sampling		Container				Method Preserved				Matrix			BTEX - TPH as Gasoline (602/8021/8015)	TPH as Diesel (8015m)	TPH as Oil (8015m)	Total Oil & Grease (SM-18th 5520)1664	Pesticides (608/8081A) - PCBs (8082)	Organophosphorous Pesticide (8141)	Chlorinated Herbicides (8151)	Semi VOC Full List (8270C)	VOC Full list (8260B)	MTBE (8021/8260B) circle the method	Methanol (8015M) Ethanol (8260)	5 Oxygenates (8260B)	Lead Scavengers DCA/EDB (8260B)	Triph/BTEX/5 Oxygenates (8260B)	Metals =			Nitrate, Nitrite, Ammonia, Kjeldahl	Chloride, Sulfate, Sulfide, ph, conductance	Requested TAT: 12hr/24hr/48hr/72hr/Standard	LAB USE ONLY
	Date	Time	VOA	SLEEVE	1L GLASS	PLASTIC	Summa or Teclair	HCl	HNO3	ICE	NONE	WATER	SOIL															AIR	Wet	Total				
RWS-1	10/17	3:50			X				X		X				X	X																X		

Relinquished by: *[Signature]* Date: *10/11/17* Time: *5:00* Received by:
 Relinquished by: Date: *10/11/17* Time: *17:00* Received by Laboratory: *A. Taylor*

Remarks/Condition of Sample:
 Bill To:

Excelchem Environmental Lab.

[Signature]

Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project: Plumus BF
Project Number: Plumus Brownfield
Project Manager: Kyle Leach

Date Reported:
10/18/17 10:45

Sample Integrity

WORK ORDER : 1710070

Date Received: 10/11/2017

Section 1 – Sample Arrival Info.	
Sample Transport: <u>Walk-In</u>	Transported In: <u>Box</u>
Describe type of packing materials: <u>None</u>	Samples Received: <u>Ambient</u>
Has chilling process begun? <u>No</u>	Ice Chest Temperature(s) (°C): <u>n/a</u>
Temperature of Samples (°C): <u>12</u>	

Section 2 – Bottle/Analysis Info.					
	Yes	No	N/A	-	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			-	
Did all bottle labels agree with COC?	<input checked="" type="checkbox"/>			-	
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			-	
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			-	
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			-	
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>		

Section 3 – Summa/Flow regulator Info.	
Used Summa#:	N/A
Unused Summa#:	
Cleaning Summa#:	
Regulator#:	
Was there any visual damage to summa canisters or flow regulators? Explain.	

Section 4 – COC Info.						
	Completed		Info From	Completed		
	Yes	No	Comment	Yes	No	Comments
Was COC Received	<input checked="" type="checkbox"/>		-	Analysis Requested		<input checked="" type="checkbox"/>
Date Sampled	<input checked="" type="checkbox"/>		-	Samples arrived within holding time		<input checked="" type="checkbox"/>
Time Sampled	<input checked="" type="checkbox"/>		-	Any hold times less than 72 hrs		<input checked="" type="checkbox"/>
Sample ID	<input checked="" type="checkbox"/>		-	Client Name		<input checked="" type="checkbox"/>
Rush TAT	<input checked="" type="checkbox"/>	-	5 Day TAT	Address/Telephone #		<input checked="" type="checkbox"/>

Section 5 – Comments / Discrepancies	
Was Client notified of discrepancies: <u>N/A</u>	Notified by: <u>N/A</u>
Explanations / Comments: -	
-	
-	

Samples Labeled by:	AT
Bin #s:	25
COC Scanned/Attached by:	AT
Sample labels reviewed by:	AT

Filled out by: <i>Amber Taylor</i>	Date: 10/11/2017
	Time : 13:20





October 20, 2017

Kyle Leach
Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959
Tel: (530) 265-6090
Fax:

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1703679

Client Reference : Plumas Brownfields, Crescent Mills

Enclosed are the results for sample(s) received on October 13, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small initial "ER" at the start.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SMR-1	1703679-01	Soil	10/09/17 14:00	10/13/17 10:14
SMR-2	1703679-02	Soil	10/09/17 14:10	10/13/17 10:14
SLS-3	1703679-03	Soil	10/09/17 14:20	10/13/17 10:14
SMR-4	1703679-04	Soil	10/09/17 14:30	10/13/17 10:14
SMR-5	1703679-05	Soil	10/09/17 14:35	10/13/17 10:14
SLDRP-6	1703679-06	Soil	10/09/17 14:45	10/13/17 10:14
SMR-7	1703679-07	Soil	10/09/17 14:55	10/13/17 10:14
SMR-8	1703679-08	Soil	10/09/17 15:10	10/13/17 10:14
SMR-9	1703679-09	Soil	10/09/17 15:20	10/13/17 10:14
SMR-10	1703679-10	Soil	10/09/17 15:30	10/13/17 10:14
SP5-S11	1703679-11	Soil	10/09/17 15:40	10/13/17 10:14
SMR-12	1703679-12	Soil	10/09/17 14:40	10/13/17 10:14
RWS-1	1703679-13	Water	10/09/17 15:50	10/13/17 10:14



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-1 Lab ID: 1703679-01

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Arsenic	6.8	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Barium	120	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Chromium	14	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Cobalt	7.9	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Copper	93	2.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Lead	14	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Nickel	8.4	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Vanadium	35	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	
Zinc	43	1.0	1	B7J0522	10/18/2017	10/19/17 11:43	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.18	0.10	1	B7J0524	10/18/2017	10/19/17 16:38	

Semivolatile Organic Compounds by EPA 8270C

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,4,6-Trichlorophenol	ND	660	2	B7J0452	10/17/2017	10/17/17 15:12	D1
Pentachlorophenol	ND	3300	2	B7J0452	10/17/2017	10/17/17 15:12	D1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>57.3 %</i>	<i>38 - 93</i>		B7J0452	10/17/2017	<i>10/17/17 15:12</i>	
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>74.3 %</i>	<i>27 - 124</i>		B7J0452	10/17/2017	<i>10/17/17 15:12</i>	
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>54.8 %</i>	<i>36 - 96</i>		B7J0452	10/17/2017	<i>10/17/17 15:12</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>65.5 %</i>	<i>44 - 100</i>		B7J0452	10/17/2017	<i>10/17/17 15:12</i>	
<i>Surrogate: 2-Fluorophenol</i>	<i>45.7 %</i>	<i>32 - 89</i>		B7J0452	10/17/2017	<i>10/17/17 15:12</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>61.3 %</i>	<i>49 - 123</i>		B7J0452	10/17/2017	<i>10/17/17 15:12</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>51.3 %</i>	<i>38 - 104</i>		B7J0452	10/17/2017	<i>10/17/17 15:12</i>	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills

Report To : Kyle Leach

Reported : 10/20/2017

Client Sample ID SMR-1

Lab ID: 1703679-01

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Acenaphthene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Acenaphthylene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Benzo(a)anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Benzo(a)pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Benzo(b)fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Benzo(g,h,i)perylene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Benzo(k)fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Chrysene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Dibenz(a,h)anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Fluorene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Indeno(1,2,3-cd)pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Naphthalene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Phenanthrene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
Pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 14:37	D1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>57.0 %</i>	<i>29 - 109</i>		B7J0451	10/17/2017	<i>10/17/17 14:37</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>72.1 %</i>	<i>39 - 108</i>		B7J0451	10/17/2017	<i>10/17/17 14:37</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>77.3 %</i>	<i>0 - 146</i>		B7J0451	10/17/2017	<i>10/17/17 14:37</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>58.1 %</i>	<i>39 - 123</i>		B7J0451	10/17/2017	<i>10/17/17 14:37</i>	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-2
Lab ID: 1703679-02

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Arsenic	2.4	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Barium	60	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Chromium	24	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Cobalt	7.1	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Copper	52	2.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Lead	4.8	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Nickel	13	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Vanadium	34	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	
Zinc	33	1.0	1	B7J0522	10/18/2017	10/19/17 11:44	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	1	B7J0524	10/18/2017	10/19/17 16:40	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SLS-3

Lab ID: 1703679-03

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Arsenic	4.3	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Barium	85	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Chromium	11	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Cobalt	5.0	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Copper	64	2.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Lead	9.7	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Nickel	6.7	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Vanadium	25	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	
Zinc	38	1.0	1	B7J0522	10/18/2017	10/19/17 11:45	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.20	0.10	1	B7J0524	10/18/2017	10/19/17 16:42	

Semivolatile Organic Compounds by EPA 8270C

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,4,6-Trichlorophenol	ND	660	2	B7J0452	10/17/2017	10/17/17 15:39	D1
Pentachlorophenol	ND	3300	2	B7J0452	10/17/2017	10/17/17 15:39	D1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>48.4 %</i>	<i>38 - 93</i>		B7J0452	10/17/2017	<i>10/17/17 15:39</i>	
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>61.6 %</i>	<i>27 - 124</i>		B7J0452	10/17/2017	<i>10/17/17 15:39</i>	
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>45.7 %</i>	<i>36 - 96</i>		B7J0452	10/17/2017	<i>10/17/17 15:39</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>56.7 %</i>	<i>44 - 100</i>		B7J0452	10/17/2017	<i>10/17/17 15:39</i>	
<i>Surrogate: 2-Fluorophenol</i>	<i>37.1 %</i>	<i>32 - 89</i>		B7J0452	10/17/2017	<i>10/17/17 15:39</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>53.3 %</i>	<i>49 - 123</i>		B7J0452	10/17/2017	<i>10/17/17 15:39</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>44.3 %</i>	<i>38 - 104</i>		B7J0452	10/17/2017	<i>10/17/17 15:39</i>	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SLS-3

Lab ID: 1703679-03

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Acenaphthene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Acenaphthylene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Benzo(a)anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Benzo(a)pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Benzo(b)fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Benzo(g,h,i)perylene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Benzo(k)fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Chrysene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Dibenz(a,h)anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Fluorene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Indeno(1,2,3-cd)pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Naphthalene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Phenanthrene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1
Pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:05	D1

<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>50.3 %</i>	<i>29 - 109</i>		B7J0451	10/17/2017	<i>10/17/17 15:05</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>65.5 %</i>	<i>39 - 108</i>		B7J0451	10/17/2017	<i>10/17/17 15:05</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>72.4 %</i>	<i>0 - 146</i>		B7J0451	10/17/2017	<i>10/17/17 15:05</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>53.2 %</i>	<i>39 - 123</i>		B7J0451	10/17/2017	<i>10/17/17 15:05</i>	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-4
Lab ID: 1703679-04

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Arsenic	5.4	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Barium	71	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Chromium	12	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Cobalt	8.3	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Copper	62	2.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Lead	19	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Nickel	10	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Vanadium	27	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	
Zinc	41	1.0	1	B7J0522	10/18/2017	10/19/17 11:46	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.18	0.10	1	B7J0524	10/18/2017	10/19/17 16:44	



Certificate of Analysis

Sierra Streams Institute
 431 Uren St., Suite C
 Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
 Report To : Kyle Leach
 Reported : 10/20/2017

Client Sample ID SMR-5 Lab ID: 1703679-05

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Arsenic	7.8	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Barium	69	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Chromium	13	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Cobalt	8.1	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Copper	84	2.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Lead	10	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Nickel	11	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Vanadium	31	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	
Zinc	41	1.0	1	B7J0522	10/18/2017	10/19/17 11:47	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.18	0.10	1	B7J0524	10/18/2017	10/19/17 16:45	

Semivolatile Organic Compounds by EPA 8270C

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,4,6-Trichlorophenol	ND	330	1	B7J0452	10/17/2017	10/17/17 13:26	
Pentachlorophenol	ND	1600	1	B7J0452	10/17/2017	10/17/17 13:26	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>41.4 %</i>	<i>38 - 93</i>		B7J0452	10/17/2017	<i>10/17/17 13:26</i>	
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>55.9 %</i>	<i>27 - 124</i>		B7J0452	10/17/2017	<i>10/17/17 13:26</i>	
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>40.9 %</i>	<i>36 - 96</i>		B7J0452	10/17/2017	<i>10/17/17 13:26</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>52.0 %</i>	<i>44 - 100</i>		B7J0452	10/17/2017	<i>10/17/17 13:26</i>	
<i>Surrogate: 2-Fluorophenol</i>	<i>36.4 %</i>	<i>32 - 89</i>		B7J0452	10/17/2017	<i>10/17/17 13:26</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>51.2 %</i>	<i>49 - 123</i>		B7J0452	10/17/2017	<i>10/17/17 13:26</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>38.0 %</i>	<i>38 - 104</i>		B7J0452	10/17/2017	<i>10/17/17 13:26</i>	



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Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-5
Lab ID: 1703679-05

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Acenaphthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Acenaphthylene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Benzo(a)anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Benzo(a)pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Benzo(b)fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Benzo(g,h,i)perylene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Benzo(k)fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Chrysene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Dibenz(a,h)anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Fluorene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Indeno(1,2,3-cd)pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Naphthalene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Phenanthrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	
Pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:30	

<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>54.3 %</i>	<i>29 - 109</i>		B7J0451	10/17/2017	10/17/17 16:30	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>71.9 %</i>	<i>39 - 108</i>		B7J0451	10/17/2017	10/17/17 16:30	
<i>Surrogate: Nitrobenzene-d5</i>	<i>74.7 %</i>	<i>0 - 146</i>		B7J0451	10/17/2017	10/17/17 16:30	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>60.4 %</i>	<i>39 - 123</i>		B7J0451	10/17/2017	10/17/17 16:30	



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Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SLDRP-6

Lab ID: 1703679-06

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Arsenic	4.3	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Barium	110	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Chromium	21	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Cobalt	9.7	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Copper	190	2.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Lead	12	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Nickel	15	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Vanadium	46	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	
Zinc	90	1.0	1	B7J0522	10/18/2017	10/19/17 11:48	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.23	0.10	1	B7J0524	10/18/2017	10/19/17 16:47	



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Sierra Streams Institute
 431 Uren St., Suite C
 Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
 Report To : Kyle Leach
 Reported : 10/20/2017

Client Sample ID SMR-7
Lab ID: 1703679-07

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Arsenic	8.1	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Barium	94	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Chromium	14	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Cobalt	10	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Copper	160	2.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Lead	10	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Nickel	11	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Vanadium	37	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	
Zinc	57	1.0	1	B7J0522	10/18/2017	10/19/17 11:50	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.16	0.10	1	B7J0524	10/18/2017	10/19/17 16:49	

Semivolatile Organic Compounds by EPA 8270C

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,4,6-Trichlorophenol	ND	330	1	B7J0452	10/17/2017	10/17/17 16:35	
Pentachlorophenol	ND	1600	1	B7J0452	10/17/2017	10/17/17 16:35	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>50.7 %</i>	<i>38 - 93</i>		B7J0452	10/17/2017	<i>10/17/17 16:35</i>	
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>67.8 %</i>	<i>27 - 124</i>		B7J0452	10/17/2017	<i>10/17/17 16:35</i>	
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>50.6 %</i>	<i>36 - 96</i>		B7J0452	10/17/2017	<i>10/17/17 16:35</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>61.1 %</i>	<i>44 - 100</i>		B7J0452	10/17/2017	<i>10/17/17 16:35</i>	
<i>Surrogate: 2-Fluorophenol</i>	<i>43.1 %</i>	<i>32 - 89</i>		B7J0452	10/17/2017	<i>10/17/17 16:35</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>56.4 %</i>	<i>49 - 123</i>		B7J0452	10/17/2017	<i>10/17/17 16:35</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>46.9 %</i>	<i>38 - 104</i>		B7J0452	10/17/2017	<i>10/17/17 16:35</i>	



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Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-7
Lab ID: 1703679-07

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Acenaphthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Acenaphthylene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Benzo(a)anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Benzo(a)pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Benzo(b)fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Benzo(g,h,i)perylene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Benzo(k)fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Chrysene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Dibenz(a,h)anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Fluorene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Indeno(1,2,3-cd)pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Naphthalene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Phenanthrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
Pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 16:58	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>45.4 %</i>	<i>29 - 109</i>		B7J0451	10/17/2017	<i>10/17/17 16:58</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>59.5 %</i>	<i>39 - 108</i>		B7J0451	10/17/2017	<i>10/17/17 16:58</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>63.7 %</i>	<i>0 - 146</i>		B7J0451	10/17/2017	<i>10/17/17 16:58</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>51.1 %</i>	<i>39 - 123</i>		B7J0451	10/17/2017	<i>10/17/17 16:58</i>	



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Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-8
Lab ID: 1703679-08

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Arsenic	13	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Barium	90	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Chromium	12	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Cobalt	8.4	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Copper	170	2.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Lead	6.6	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Nickel	11	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Vanadium	29	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	
Zinc	43	1.0	1	B7J0522	10/18/2017	10/19/17 11:51	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	1	B7J0524	10/18/2017	10/19/17 16:51	



Certificate of Analysis

Sierra Streams Institute
 431 Uren St., Suite C
 Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
 Report To : Kyle Leach
 Reported : 10/20/2017

Client Sample ID SMR-9

Lab ID: 1703679-09

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Arsenic	5.8	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Barium	110	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Chromium	14	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Cobalt	10	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Copper	340	2.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Lead	9.3	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Nickel	14	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Vanadium	32	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	
Zinc	65	1.0	1	B7J0522	10/18/2017	10/19/17 11:54	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.26	0.10	1	B7J0524	10/18/2017	10/19/17 16:53	

Semivolatile Organic Compounds by EPA 8270C

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,4,6-Trichlorophenol	ND	330	1	B7J0452	10/17/2017	10/17/17 17:03	
Pentachlorophenol	ND	1600	1	B7J0452	10/17/2017	10/17/17 17:03	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>49.8 %</i>	<i>38 - 93</i>		B7J0452	10/17/2017	<i>10/17/17 17:03</i>	
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>68.5 %</i>	<i>27 - 124</i>		B7J0452	10/17/2017	<i>10/17/17 17:03</i>	
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>49.6 %</i>	<i>36 - 96</i>		B7J0452	10/17/2017	<i>10/17/17 17:03</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>60.7 %</i>	<i>44 - 100</i>		B7J0452	10/17/2017	<i>10/17/17 17:03</i>	
<i>Surrogate: 2-Fluorophenol</i>	<i>42.8 %</i>	<i>32 - 89</i>		B7J0452	10/17/2017	<i>10/17/17 17:03</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>57.8 %</i>	<i>49 - 123</i>		B7J0452	10/17/2017	<i>10/17/17 17:03</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>48.4 %</i>	<i>38 - 104</i>		B7J0452	10/17/2017	<i>10/17/17 17:03</i>	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-9
Lab ID: 1703679-09

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Acenaphthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Acenaphthylene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Benzo(a)anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Benzo(a)pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Benzo(b)fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Benzo(g,h,i)perylene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Benzo(k)fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Chrysene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Dibenz(a,h)anthracene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Fluoranthene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Fluorene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Indeno(1,2,3-cd)pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Naphthalene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Phenanthrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
Pyrene	ND	5.0	1	B7J0451	10/17/2017	10/17/17 14:04	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>49.4 %</i>	<i>29 - 109</i>		B7J0451	10/17/2017	<i>10/17/17 14:04</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>63.7 %</i>	<i>39 - 108</i>		B7J0451	10/17/2017	<i>10/17/17 14:04</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>66.6 %</i>	<i>0 - 146</i>		B7J0451	10/17/2017	<i>10/17/17 14:04</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>57.4 %</i>	<i>39 - 123</i>		B7J0451	10/17/2017	<i>10/17/17 14:04</i>	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City , CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-10

Lab ID: 1703679-10

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Arsenic	4.3	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Barium	56	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Chromium	8.7	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Cobalt	6.9	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Copper	67	2.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Lead	4.3	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Nickel	5.8	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Vanadium	27	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	
Zinc	38	1.0	1	B7J0522	10/18/2017	10/19/17 11:56	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	1	B7J0524	10/18/2017	10/19/17 16:59	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SP5-S11

Lab ID: 1703679-11

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Arsenic	9.1	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Barium	70	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Chromium	9.6	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Cobalt	6.0	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Copper	95	2.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Lead	19	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Nickel	6.5	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Vanadium	24	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	
Zinc	38	1.0	1	B7J0522	10/18/2017	10/19/17 11:57	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.43	0.10	1	B7J0524	10/18/2017	10/19/17 17:00	

Semivolatile Organic Compounds by EPA 8270C

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,4,6-Trichlorophenol	ND	660	2	B7J0452	10/17/2017	10/17/17 16:07	D1
Pentachlorophenol	ND	3300	2	B7J0452	10/17/2017	10/17/17 16:07	D1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>49.8 %</i>	<i>38 - 93</i>		B7J0452	10/17/2017	<i>10/17/17 16:07</i>	
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>69.8 %</i>	<i>27 - 124</i>		B7J0452	10/17/2017	<i>10/17/17 16:07</i>	
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>48.2 %</i>	<i>36 - 96</i>		B7J0452	10/17/2017	<i>10/17/17 16:07</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>62.7 %</i>	<i>44 - 100</i>		B7J0452	10/17/2017	<i>10/17/17 16:07</i>	
<i>Surrogate: 2-Fluorophenol</i>	<i>41.7 %</i>	<i>32 - 89</i>		B7J0452	10/17/2017	<i>10/17/17 16:07</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>55.1 %</i>	<i>49 - 123</i>		B7J0452	10/17/2017	<i>10/17/17 16:07</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>46.7 %</i>	<i>38 - 104</i>		B7J0452	10/17/2017	<i>10/17/17 16:07</i>	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SP5-S11
Lab ID: 1703679-11

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: SP

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Acenaphthene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Acenaphthylene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Benzo(a)anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Benzo(a)pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Benzo(b)fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Benzo(g,h,i)perylene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Benzo(k)fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Chrysene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Dibenz(a,h)anthracene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Fluoranthene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Fluorene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Indeno(1,2,3-cd)pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Naphthalene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Phenanthrene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
Pyrene	ND	10	2	B7J0451	10/17/2017	10/17/17 15:34	D1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>49.9 %</i>	<i>29 - 109</i>		B7J0451	10/17/2017	<i>10/17/17 15:34</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>64.2 %</i>	<i>39 - 108</i>		B7J0451	10/17/2017	<i>10/17/17 15:34</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>70.9 %</i>	<i>0 - 146</i>		B7J0451	10/17/2017	<i>10/17/17 15:34</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>51.9 %</i>	<i>39 - 123</i>		B7J0451	10/17/2017	<i>10/17/17 15:34</i>	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID SMR-12

Lab ID: 1703679-12

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Arsenic	7.7	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Barium	65	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Beryllium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Cadmium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Chromium	13	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Cobalt	8.0	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Copper	88	2.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Lead	9.8	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Molybdenum	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Nickel	11	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Selenium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Silver	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Thallium	ND	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Vanadium	32	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	
Zinc	42	1.0	1	B7J0522	10/18/2017	10/19/17 11:58	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.20	0.10	1	B7J0524	10/18/2017	10/19/17 17:02	



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City , CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Client Sample ID RWS-1
Lab ID: 1703679-13

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	0.010	1	B7J0455	10/17/2017	10/17/17 17:35	
Arsenic	ND	0.010	1	B7J0455	10/17/2017	10/17/17 17:35	
Barium	ND	0.0030	1	B7J0455	10/17/2017	10/17/17 17:35	
Beryllium	ND	0.0030	1	B7J0455	10/17/2017	10/17/17 17:35	
Cadmium	ND	0.0030	1	B7J0455	10/17/2017	10/17/17 17:35	
Chromium	ND	0.0030	1	B7J0455	10/17/2017	10/17/17 17:35	
Cobalt	ND	0.0030	1	B7J0455	10/17/2017	10/17/17 17:35	
Copper	ND	0.0090	1	B7J0455	10/17/2017	10/17/17 17:35	
Lead	ND	0.0050	1	B7J0455	10/17/2017	10/17/17 17:35	
Molybdenum	ND	0.0050	1	B7J0455	10/17/2017	10/17/17 17:35	
Nickel	ND	0.0050	1	B7J0455	10/17/2017	10/17/17 17:35	
Selenium	ND	0.010	1	B7J0455	10/17/2017	10/17/17 17:35	
Silver	ND	0.0030	1	B7J0455	10/17/2017	10/17/17 17:35	
Thallium	ND	0.015	1	B7J0455	10/17/2017	10/17/17 17:35	
Vanadium	ND	0.0030	1	B7J0455	10/17/2017	10/17/17 17:35	
Zinc	0.098	0.025	1	B7J0455	10/17/2017	10/17/17 17:35	

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: KEK

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	1	B7J0458	10/17/2017	10/20/17 15:25	



Certificate of Analysis

Sierra Streams Institute
 431 Uren St., Suite C
 Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
 Report To : Kyle Leach
 Reported : 10/20/2017

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7J0455 - EPA 3010A_W

Blank (B7J0455-BLK1)

Prepared: 10/17/2017 Analyzed: 10/17/2017

Antimony	ND	0.010	0.0088
Arsenic	ND	0.010	0.0078
Barium	ND	0.0030	0.0026
Beryllium	ND	0.0030	0.0016
Cadmium	ND	0.0030	0.0024
Chromium	ND	0.0030	0.0020
Cobalt	ND	0.0030	0.0016
Copper	ND	0.0090	0.0038
Lead	ND	0.0050	0.0047
Molybdenum	ND	0.0050	0.0030
Nickel	ND	0.0050	0.0046
Selenium	ND	0.010	0.0093
Silver	ND	0.0030	0.0024
Thallium	ND	0.015	0.0085
Vanadium	ND	0.0030	0.0022
Zinc	ND	0.025	0.0057

LCS (B7J0455-BS1)

Prepared: 10/17/2017 Analyzed: 10/17/2017

Antimony	0.929102	0.010	0.0088	1.00000	92.9	80 - 120
Arsenic	0.941062	0.010	0.0078	1.00000	94.1	80 - 120
Barium	0.969431	0.0030	0.0026	1.00000	96.9	80 - 120
Beryllium	0.952237	0.0030	0.0016	1.00000	95.2	80 - 120
Cadmium	0.923200	0.0030	0.0024	1.00000	92.3	80 - 120
Chromium	0.964497	0.0030	0.0020	1.00000	96.4	80 - 120
Cobalt	0.960800	0.0030	0.0016	1.00000	96.1	80 - 120
Copper	0.947343	0.0090	0.0038	1.00000	94.7	80 - 120
Lead	0.953769	0.0050	0.0047	1.00000	95.4	80 - 120
Molybdenum	0.936200	0.0050	0.0030	1.00000	93.6	80 - 120
Nickel	0.929993	0.0050	0.0046	1.00000	93.0	80 - 120
Selenium	0.907008	0.010	0.0093	1.00000	90.7	80 - 120
Silver	1.18499	0.0030	0.0024	1.00000	118	80 - 120
Thallium	0.946903	0.015	0.0085	1.00000	94.7	80 - 120
Vanadium	0.953132	0.0030	0.0022	1.00000	95.3	80 - 120
Zinc	0.930909	0.025	0.0057	1.00000	93.1	80 - 120

Matrix Spike (B7J0455-MS1)

Source: 1703640-01

Prepared: 10/17/2017 Analyzed: 10/17/2017

Antimony	2.45296	0.010	0.0088	2.50000	ND	98.1	60 - 130
Arsenic	2.51904	0.010	0.0078	2.50000	ND	101	69 - 123



Certificate of Analysis

Sierra Streams Institute
 431 Uren St., Suite C
 Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
 Report To : Kyle Leach
 Reported : 10/20/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B7J0455 - EPA 3010A_W (continued)

Matrix Spike (B7J0455-MS1) - Continued

Source: 1703640-01

Prepared: 10/17/2017 Analyzed: 10/17/2017

Barium	2.59554	0.0030	0.0026	2.50000	0.106382	99.6	67 - 129
Beryllium	2.52702	0.0030	0.0016	2.50000	ND	101	74 - 120
Cadmium	2.37069	0.0030	0.0024	2.50000	ND	94.8	69 - 116
Chromium	2.49293	0.0030	0.0020	2.50000	0.014934	99.1	74 - 120
Cobalt	2.43594	0.0030	0.0016	2.50000	0.002840	97.3	70 - 116
Copper	2.53772	0.0090	0.0038	2.50000	0.01129	101	76 - 123
Lead	2.42425	0.0050	0.0047	2.50000	ND	97.0	69 - 117
Molybdenum	2.53677	0.0050	0.0030	2.50000	0.026825	100	68 - 120
Nickel	2.38734	0.0050	0.0046	2.50000	0.011243	95.0	70 - 115
Selenium	2.39006	0.010	0.0093	2.50000	ND	95.6	66 - 120
Silver	2.66866	0.0030	0.0024	2.50000	ND	107	73 - 123
Thallium	2.34797	0.015	0.0085	2.50000	ND	93.9	57 - 124
Vanadium	2.52252	0.0030	0.0022	2.50000	0.010942	100	72 - 123
Zinc	2.38635	0.025	0.0057	2.50000	0.023691	94.5	73 - 111

Matrix Spike Dup (B7J0455-MSD1)

Source: 1703640-01

Prepared: 10/17/2017 Analyzed: 10/17/2017

Antimony	2.42439	0.010	0.0088	2.50000	ND	97.0	60 - 130	1.17	20
Arsenic	2.47205	0.010	0.0078	2.50000	ND	98.9	69 - 123	1.88	20
Barium	2.56504	0.0030	0.0026	2.50000	0.106382	98.3	67 - 129	1.18	20
Beryllium	2.49000	0.0030	0.0016	2.50000	ND	99.6	74 - 120	1.48	20
Cadmium	2.33304	0.0030	0.0024	2.50000	ND	93.3	69 - 116	1.60	20
Chromium	2.44862	0.0030	0.0020	2.50000	0.014934	97.3	74 - 120	1.79	20
Cobalt	2.39427	0.0030	0.0016	2.50000	0.002840	95.7	70 - 116	1.73	20
Copper	2.50095	0.0090	0.0038	2.50000	0.01129	99.6	76 - 123	1.46	20
Lead	2.39216	0.0050	0.0047	2.50000	ND	95.7	69 - 117	1.33	20
Molybdenum	2.50298	0.0050	0.0030	2.50000	0.026825	99.0	68 - 120	1.34	20
Nickel	2.35861	0.0050	0.0046	2.50000	0.011243	93.9	70 - 115	1.21	20
Selenium	2.34170	0.010	0.0093	2.50000	ND	93.7	66 - 120	2.04	20
Silver	2.62202	0.0030	0.0024	2.50000	ND	105	73 - 123	1.76	20
Thallium	2.34150	0.015	0.0085	2.50000	ND	93.7	57 - 124	0.276	20
Vanadium	2.48646	0.0030	0.0022	2.50000	0.010942	99.0	72 - 123	1.44	20
Zinc	2.35433	0.025	0.0057	2.50000	0.023691	93.2	73 - 111	1.35	20



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Project Number : Plumas Brownfields, Crescent Mills
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Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B7J0522 - EPA 3050B_S

Blank (B7J0522-BLK1)

Prepared: 10/18/2017 Analyzed: 10/19/2017

Antimony	ND	2.0	0.51
Arsenic	ND	1.0	0.12
Barium	ND	1.0	0.12
Beryllium	ND	1.0	0.03
Cadmium	ND	1.0	0.14
Chromium	ND	1.0	0.26
Cobalt	ND	1.0	0.07
Copper	ND	2.0	0.19
Lead	ND	1.0	0.18
Molybdenum	ND	1.0	0.12
Nickel	ND	1.0	0.18
Selenium	ND	1.0	0.40
Silver	ND	1.0	0.12
Thallium	ND	1.0	0.38
Vanadium	ND	1.0	0.06
Zinc	ND	1.0	0.15

LCS (B7J0522-BS1)

Prepared: 10/18/2017 Analyzed: 10/19/2017

Antimony	44.0054	2.0	0.51	50.0000	88.0	80 - 120
Arsenic	43.7278	1.0	0.12	50.0000	87.5	80 - 120
Barium	47.6076	1.0	0.12	50.0000	95.2	80 - 120
Beryllium	44.0730	1.0	0.03	50.0000	88.1	80 - 120
Cadmium	43.4271	1.0	0.14	50.0000	86.9	80 - 120
Chromium	47.0347	1.0	0.26	50.0000	94.1	80 - 120
Cobalt	46.2982	1.0	0.07	50.0000	92.6	80 - 120
Copper	45.7400	2.0	0.19	50.0000	91.5	80 - 120
Lead	44.7014	1.0	0.18	50.0000	89.4	80 - 120
Molybdenum	45.8167	1.0	0.12	50.0000	91.6	80 - 120
Nickel	44.5192	1.0	0.18	50.0000	89.0	80 - 120
Selenium	42.3748	1.0	0.40	50.0000	84.7	80 - 120
Silver	46.9070	1.0	0.12	50.0000	93.8	80 - 120
Thallium	44.5632	1.0	0.38	50.0000	89.1	80 - 120
Vanadium	46.2541	1.0	0.06	50.0000	92.5	80 - 120
Zinc	44.4701	1.0	0.15	50.0000	88.9	80 - 120

Matrix Spike (B7J0522-MS1)

Source: 1703672-05

Prepared: 10/18/2017 Analyzed: 10/19/2017

Antimony	55.3796	2.0	0.51	125.000	ND	44.3	33 - 98
Arsenic	77.4801	1.0	0.12	125.000	0.237066	61.8	48 - 101
Barium	156.386	1.0	0.12	125.000	98.8874	46.0	25 - 131
Beryllium	76.9417	1.0	0.03	125.000	ND	61.6	56 - 97
Cadmium	69.6659	1.0	0.14	125.000	ND	55.7	53 - 94



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B7J0522 - EPA 3050B_S (continued)

Matrix Spike (B7J0522-MS1) - Continued

Source: 1703672-05

Prepared: 10/18/2017 Analyzed: 10/19/2017

Chromium	79.7975	1.0	0.26	125.000	7.45795	57.9	45 - 113
Cobalt	75.9180	1.0	0.07	125.000	3.69589	57.8	51 - 97
Copper	84.9218	2.0	0.19	125.000	7.57142	61.9	51 - 113
Lead	71.4824	1.0	0.18	125.000	ND	57.2	33 - 127
Molybdenum	75.1120	1.0	0.12	125.000	ND	60.1	54 - 97
Nickel	75.5334	1.0	0.18	125.000	5.76752	55.8	46 - 102
Selenium	74.6554	1.0	0.40	125.000	ND	59.7	52 - 93
Silver	86.2298	1.0	0.12	125.000	ND	69.0	58 - 98
Thallium	67.5519	1.0	0.38	125.000	ND	54.0	46 - 93
Vanadium	88.0594	1.0	0.06	125.000	15.4392	58.1	55 - 104
Zinc	85.3713	1.0	0.15	125.000	25.5268	47.9	26 - 118

Matrix Spike Dup (B7J0522-MSD1)

Source: 1703672-05

Prepared: 10/18/2017 Analyzed: 10/19/2017

Antimony	59.4024	2.0	0.51	125.000	ND	47.5	33 - 98	7.01	20
Arsenic	82.6520	1.0	0.12	125.000	0.237066	65.9	48 - 101	6.46	20
Barium	164.454	1.0	0.12	125.000	98.8874	52.5	25 - 131	5.03	20
Beryllium	83.0842	1.0	0.03	125.000	ND	66.5	56 - 97	7.68	20
Cadmium	74.1982	1.0	0.14	125.000	ND	59.4	53 - 94	6.30	20
Chromium	84.5824	1.0	0.26	125.000	7.45795	61.7	45 - 113	5.82	20
Cobalt	80.6244	1.0	0.07	125.000	3.69589	61.5	51 - 97	6.01	20
Copper	89.4858	2.0	0.19	125.000	7.57142	65.5	51 - 113	5.23	20
Lead	75.3280	1.0	0.18	125.000	ND	60.3	33 - 127	5.24	20
Molybdenum	79.0384	1.0	0.12	125.000	ND	63.2	54 - 97	5.09	20
Nickel	79.8602	1.0	0.18	125.000	5.76752	59.3	46 - 102	5.57	20
Selenium	79.5914	1.0	0.40	125.000	ND	63.7	52 - 93	6.40	20
Silver	91.4008	1.0	0.12	125.000	ND	73.1	58 - 98	5.82	20
Thallium	71.8481	1.0	0.38	125.000	ND	57.5	46 - 93	6.16	20
Vanadium	93.7148	1.0	0.06	125.000	15.4392	62.6	55 - 104	6.22	20
Zinc	93.1380	1.0	0.15	125.000	25.5268	54.1	26 - 118	8.70	20



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Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
Batch B7J0458 - EPA 245.1/7470_W										
Blank (B7J0458-BLK1)					Prepared: 10/17/2017 Analyzed: 10/18/2017					
Mercury	ND	0.20	0.05							
LCS (B7J0458-BS1)					Prepared: 10/17/2017 Analyzed: 10/18/2017					
Mercury	9.54958	0.20	0.05	10.0000		95.5	80 - 120			
Matrix Spike (B7J0458-MS1)					Source: 1703640-01 Prepared: 10/17/2017 Analyzed: 10/18/2017					
Mercury	9.82494	0.20	0.05	10.0000	0.066603	97.6	70 - 130			
Matrix Spike Dup (B7J0458-MSD1)					Source: 1703640-01 Prepared: 10/17/2017 Analyzed: 10/18/2017					
Mercury	10.2498	0.20	0.05	10.0000	0.066603	102	70 - 130	4.23	20	
Post Spike (B7J0458-PS1)					Source: 1703640-01 Prepared: 10/17/2017 Analyzed: 10/18/2017					
Mercury	4.94797			5.00000	0.066603	97.6	85 - 115			



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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
Batch B7J0524 - EPA 7471_S										
Blank (B7J0524-BLK1)					Prepared: 10/18/2017 Analyzed: 10/19/2017					
Mercury	ND	0.10	0.005							
LCS (B7J0524-BS1)					Prepared: 10/18/2017 Analyzed: 10/19/2017					
Mercury	0.767508	0.10	0.005	0.833333		92.1	80 - 120			
Matrix Spike (B7J0524-MS1)					Source: 1703672-05 Prepared: 10/18/2017 Analyzed: 10/19/2017					
Mercury	0.829618	0.10	0.005	0.833333	0.014933	97.8	70 - 130			
Matrix Spike Dup (B7J0524-MSD1)					Source: 1703672-05 Prepared: 10/18/2017 Analyzed: 10/19/2017					
Mercury	0.755244	0.10	0.005	0.833333	0.014933	88.8	70 - 130	9.39	20	
Post Spike (B7J0524-PS1)					Source: 1703672-05 Prepared: 10/18/2017 Analyzed: 10/19/2017					
Mercury	0.005499			5.00000E-3	0.000179	106	85 - 115			



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Reported : 10/20/2017

Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7J0452 - MSSEMI_S

Blank (B7J0452-BLK1)

Prepared: 10/17/2017 Analyzed: 10/17/2017

2,4,6-Trichlorophenol	ND	330	220							
Pentachlorophenol	ND	1600	190							
<i>Surrogate: 1,2-Dichlorobenzene-</i>	1903			3333.33		57.1	38 - 93			
<i>Surrogate: 2,4,6-Tribromophenol</i>	2769			3333.33		83.1	27 - 124			
<i>Surrogate: 2-Chlorophenol-d4</i>	1792			3333.33		53.8	36 - 96			
<i>Surrogate: 2-Fluorobiphenyl</i>	2173			3333.33		65.2	44 - 100			
<i>Surrogate: 2-Fluorophenol</i>	1630			3333.33		48.9	32 - 89			
<i>Surrogate: 4-Terphenyl-d14</i>	3105			3333.33		93.2	49 - 123			
<i>Surrogate: Nitrobenzene-d5</i>	1737			3333.33		52.1	38 - 104			

LCS (B7J0452-BS1)

Prepared: 10/17/2017 Analyzed: 10/17/2017

2,4,6-Trichlorophenol	3264.33	330	220	3333.33		97.9	61 - 119			
Pentachlorophenol	3224.33	1600	190	3333.33		96.7	53 - 115			
<i>Surrogate: 1,2-Dichlorobenzene-</i>	2166			3333.33		65.0	38 - 93			
<i>Surrogate: 2,4,6-Tribromophenol</i>	3376			3333.33		101	27 - 124			
<i>Surrogate: 2-Chlorophenol-d4</i>	2120			3333.33		63.6	36 - 96			
<i>Surrogate: 2-Fluorobiphenyl</i>	2815			3333.33		84.4	44 - 100			
<i>Surrogate: 2-Fluorophenol</i>	1890			3333.33		56.7	32 - 89			
<i>Surrogate: 4-Terphenyl-d14</i>	2943			3333.33		88.3	49 - 123			
<i>Surrogate: Nitrobenzene-d5</i>	2024			3333.33		60.7	38 - 104			

Matrix Spike (B7J0452-MS1)

Source: 1703679-05

Prepared: 10/17/2017 Analyzed: 10/17/2017

2,4,6-Trichlorophenol	2571.33	330	220	3333.33	ND	77.1	46 - 121			
Pentachlorophenol	2361.67	1600	190	3333.33	ND	70.9	32 - 128			
<i>Surrogate: 1,2-Dichlorobenzene-</i>	1276			3333.33		38.3	38 - 93			
<i>Surrogate: 2,4,6-Tribromophenol</i>	2481			3333.33		74.4	27 - 124			
<i>Surrogate: 2-Chlorophenol-d4</i>	1383			3333.33		41.5	36 - 96			
<i>Surrogate: 2-Fluorobiphenyl</i>	1919			3333.33		57.6	44 - 100			
<i>Surrogate: 2-Fluorophenol</i>	1200			3333.33		36.0	32 - 89			
<i>Surrogate: 4-Terphenyl-d14</i>	2019			3333.33		60.6	49 - 123			
<i>Surrogate: Nitrobenzene-d5</i>	1365			3333.33		41.0	38 - 104			

Matrix Spike Dup (B7J0452-MSD1)

Source: 1703679-05

Prepared: 10/17/2017 Analyzed: 10/17/2017

2,4,6-Trichlorophenol	2774.67	330	220	3333.33	ND	83.2	46 - 121	7.61	20	
Pentachlorophenol	2511.00	1600	190	3333.33	ND	75.3	32 - 128	6.13	20	
<i>Surrogate: 1,2-Dichlorobenzene-</i>	1387			3333.33		41.6	38 - 93			
<i>Surrogate: 2,4,6-Tribromophenol</i>	2458			3333.33		73.8	27 - 124			
<i>Surrogate: 2-Chlorophenol-d4</i>	1475			3333.33		44.3	36 - 96			
<i>Surrogate: 2-Fluorobiphenyl</i>	2123			3333.33		63.7	44 - 100			
<i>Surrogate: 2-Fluorophenol</i>	1261			3333.33		37.8	32 - 89			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B7J0452 - MSSEMI_S (continued)

Matrix Spike Dup (B7J0452-MSD1) - Continued

Source: 1703679-05

Prepared: 10/17/2017 Analyzed: 10/17/2017

Surrogate: 4-Terphenyl-d14	2086		3333.33		62.6	49 - 123			
Surrogate: Nitrobenzene-d5	1492		3333.33		44.8	38 - 104			



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Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B7J0451 - EPA 1311_S (SVOA_GCMS)

Blank (B7J0451-BLK1)

Prepared: 10/17/2017 Analyzed: 10/17/2017

2-Methylnaphthalene	ND	5.0	0.60	
Acenaphthene	ND	5.0	0.41	
Acenaphthylene	ND	5.0	0.41	
Anthracene	ND	5.0	0.56	
Benzo(a)anthracene	ND	5.0	0.56	
Benzo(a)pyrene	ND	5.0	0.69	
Benzo(b)fluoranthene	ND	5.0	2.2	
Benzo(g,h,i)perylene	ND	5.0	0.80	
Benzo(k)fluoranthene	ND	5.0	0.70	
Chrysene	ND	5.0	0.61	
Dibenz(a,h)anthracene	ND	5.0	0.88	
Fluoranthene	ND	5.0	0.45	
Fluorene	ND	5.0	0.35	
Indeno(1,2,3-cd)pyrene	ND	5.0	0.82	
Naphthalene	ND	5.0	0.56	
Phenanthrene	ND	5.0	0.34	
Pyrene	ND	5.0	0.51	

<i>Surrogate: 1,2-Dichlorobenzene-</i>	25.84		33.3333	77.5	29 - 109
<i>Surrogate: 2-Fluorobiphenyl</i>	29.70		33.3333	89.1	39 - 108
<i>Surrogate: Nitrobenzene-d5</i>	31.82		33.3333	95.5	0 - 146
<i>Surrogate: 4-Terphenyl-d14</i>	37.87		33.3333	114	39 - 123

LCS (B7J0451-BS1)

Prepared: 10/17/2017 Analyzed: 10/17/2017

2-Methylnaphthalene	19.1893	5.0	0.60	33.3333	57.6	23 - 127
Acenaphthene	23.3423	5.0	0.41	33.3333	70.0	35 - 91
Acenaphthylene	23.9160	5.0	0.41	33.3333	71.7	35 - 92
Anthracene	24.1743	5.0	0.56	33.3333	72.5	43 - 109
Benzo(a)anthracene	26.2543	5.0	0.56	33.3333	78.8	46 - 121
Benzo(a)pyrene	23.7787	5.0	0.69	33.3333	71.3	49 - 126
Benzo(b)fluoranthene	28.2593	5.0	2.2	33.3333	84.8	34 - 137
Benzo(g,h,i)perylene	25.8367	5.0	0.80	33.3333	77.5	40 - 124
Benzo(k)fluoranthene	27.2847	5.0	0.70	33.3333	81.9	21 - 132
Chrysene	25.9293	5.0	0.61	33.3333	77.8	51 - 124
Dibenz(a,h)anthracene	26.7347	5.0	0.88	33.3333	80.2	38 - 123
Fluoranthene	27.3077	5.0	0.45	33.3333	81.9	47 - 105
Fluorene	23.9170	5.0	0.35	33.3333	71.8	34 - 95
Indeno(1,2,3-cd)pyrene	26.0093	5.0	0.82	33.3333	78.0	45 - 124
Naphthalene	23.2187	5.0	0.56	33.3333	69.7	26 - 110
Phenanthrene	24.5200	5.0	0.34	33.3333	73.6	39 - 108
Pyrene	26.8843	5.0	0.51	33.3333	80.7	47 - 107



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Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B7J0451 - EPA 1311_S (SVOA_GCMS) (continued)

LCS (B7J0451-BS1) - Continued

Prepared: 10/17/2017 Analyzed: 10/17/2017

Surrogate: 1,2-Dichlorobenzene-	24.07		33.3333		72.2	29 - 109		
Surrogate: 2-Fluorobiphenyl	28.50		33.3333		85.5	39 - 108		
Surrogate: Nitrobenzene-d5	30.43		33.3333		91.3	0 - 146		
Surrogate: 4-Terphenyl-d14	34.91		33.3333		105	39 - 123		

Matrix Spike (B7J0451-MS1)

Source: 1703679-09

Prepared: 10/17/2017 Analyzed: 10/17/2017

2-Methylnaphthalene	13.1260	5.0	0.60	33.3333	ND	39.4	30 - 141	
Acenaphthene	15.1393	5.0	0.41	33.3333	ND	45.4	9 - 155	
Acenaphthylene	17.0413	5.0	0.41	33.3333	2.65067	43.2	43 - 110	
Anthracene	15.4727	5.0	0.56	33.3333	ND	46.4	33 - 146	
Benzo(a)anthracene	17.9023	5.0	0.56	33.3333	0.713000	51.6	49 - 130	
Benzo(a)pyrene	14.1577	5.0	0.69	33.3333	ND	42.5	36 - 134	
Benzo(b)fluoranthene	17.0667	5.0	2.2	33.3333	ND	51.2	26 - 148	
Benzo(g,h,i)perylene	16.4503	5.0	0.80	33.3333	1.21500	45.7	16 - 156	
Benzo(k)fluoranthene	13.9833	5.0	0.70	33.3333	ND	42.0	29 - 132	
Chrysene	15.7017	5.0	0.61	33.3333	1.40600	42.9	0 - 184	
Dibenz(a,h)anthracene	16.0207	5.0	0.88	33.3333	ND	48.1	29 - 149	
Fluoranthene	18.8333	5.0	0.45	33.3333	1.91067	50.8	14 - 162	
Fluorene	15.6817	5.0	0.35	33.3333	0.539667	45.4	48 - 111	M2
Indeno(1,2,3-cd)pyrene	15.6677	5.0	0.82	33.3333	ND	47.0	37 - 135	
Naphthalene	16.0377	5.0	0.56	33.3333	0.596667	46.3	34 - 126	
Phenanthrene	16.1000	5.0	0.34	33.3333	0.948667	45.5	19 - 155	
Pyrene	17.9860	5.0	0.51	33.3333	1.19800	50.4	13 - 162	

Surrogate: 1,2-Dichlorobenzene-	15.53		33.3333		46.6	29 - 109		
Surrogate: 2-Fluorobiphenyl	19.17		33.3333		57.5	39 - 108		
Surrogate: Nitrobenzene-d5	20.34		33.3333		61.0	0 - 146		
Surrogate: 4-Terphenyl-d14	17.86		33.3333		53.6	39 - 123		

Matrix Spike Dup (B7J0451-MSD1)

Source: 1703679-09

Prepared: 10/17/2017 Analyzed: 10/17/2017

2-Methylnaphthalene	14.7920	5.0	0.60	33.3333	ND	44.4	30 - 141	11.9	20
Acenaphthene	17.1057	5.0	0.41	33.3333	ND	51.3	9 - 155	12.2	20
Acenaphthylene	19.9313	5.0	0.41	33.3333	2.65067	51.8	43 - 110	15.6	20
Anthracene	17.9160	5.0	0.56	33.3333	ND	53.7	33 - 146	14.6	20
Benzo(a)anthracene	20.3453	5.0	0.56	33.3333	0.713000	58.9	49 - 130	12.8	20
Benzo(a)pyrene	15.7273	5.0	0.69	33.3333	ND	47.2	36 - 134	10.5	20
Benzo(b)fluoranthene	18.3107	5.0	2.2	33.3333	ND	54.9	26 - 148	7.03	20
Benzo(g,h,i)perylene	16.8937	5.0	0.80	33.3333	1.21500	47.0	16 - 156	2.66	20
Benzo(k)fluoranthene	16.2780	5.0	0.70	33.3333	ND	48.8	29 - 132	15.2	20
Chrysene	17.6690	5.0	0.61	33.3333	1.40600	48.8	0 - 184	11.8	20
Dibenz(a,h)anthracene	17.1670	5.0	0.88	33.3333	ND	51.5	29 - 149	6.91	20
Fluoranthene	19.2853	5.0	0.45	33.3333	1.91067	52.1	14 - 162	2.37	20



Certificate of Analysis

Sierra Streams Institute
 431 Uren St., Suite C
 Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
 Report To : Kyle Leach
 Reported : 10/20/2017

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B7J0451 - EPA 1311_S (SVOA_GCMS) (continued)

Matrix Spike Dup (B7J0451-MSD1) - Continued

Source: 1703679-09

Prepared: 10/17/2017 Analyzed: 10/17/2017

Fluorene	17.5333	5.0	0.35	33.3333	0.539667	51.0	48 - 111	11.1	20	
Indeno(1,2,3-cd)pyrene	16.6873	5.0	0.82	33.3333	ND	50.1	37 - 135	6.30	20	
Naphthalene	17.5313	5.0	0.56	33.3333	0.596667	50.8	34 - 126	8.90	20	
Phenanthrene	17.8570	5.0	0.34	33.3333	0.948667	50.7	19 - 155	10.3	20	
Pyrene	18.2027	5.0	0.51	33.3333	1.19800	51.0	13 - 162	1.20	20	
<i>Surrogate: 1,2-Dichlorobenzene-</i>	<i>17.61</i>			<i>33.3333</i>		<i>52.8</i>	<i>29 - 109</i>			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>22.61</i>			<i>33.3333</i>		<i>67.8</i>	<i>39 - 108</i>			
<i>Surrogate: Nitrobenzene-d5</i>	<i>23.46</i>			<i>33.3333</i>		<i>70.4</i>	<i>0 - 146</i>			
<i>Surrogate: 4-Terphenyl-d14</i>	<i>20.50</i>			<i>33.3333</i>		<i>61.5</i>	<i>39 - 123</i>			



Certificate of Analysis

Sierra Streams Institute
431 Uren St., Suite C
Nevada City, CA 95959

Project Number : Plumas Brownfields, Crescent Mills
Report To : Kyle Leach
Reported : 10/20/2017

Notes and Definitions

M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page 1 of 2

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOC Ver: 20130715				
Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
<input type="checkbox"/> Client	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # OF SAMPLES MATCH COC	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	2. HEADSPACE (VOA)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO	3. CONTAINER INTACT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP. deg C:		
<input type="checkbox"/> Other:	4. SEALED	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Company: <u>Sierra Streams Institute</u>	Address: <u>431 Uren St Ste C</u>	Tel: <u>(530) 265-6090 x 203</u>
	City: <u>Nevada City</u>	State: <u>CA</u> Zip: <u>95959</u> Fax: _____
SEND REPORT TO:		SEND INVOICE TO: <input type="checkbox"/> same as SEND REPORT TO
Attn: <u>Kyle Leach</u>	Email: <u>kleach08@gmail.com</u>	Attn: _____
Company: <u>Sierra Streams Inst</u>	Company: <u>Same</u>	
Address: <u>431 Uren St Suite C</u>	Address: _____	
City: <u>Nevada City</u>	State: <u>CA</u>	Zip: <u>95959</u>

Project Name: <u>Crescent Mills Plumas Brownfields</u>	Quote No: <u>D17J091</u>	Special Instructions/Comments: <u>Need results by 10/20/17</u>	Encircle or Write Requested Analysis										Encircle Sample Matrix				Container	QA/QC							
Project No.: <u>Crescent Mills</u>	PO #: _____		8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-volatiles)	8081 (Organochlorine Pesticides)	8082 (PCBs)	6010 / 7000 (Title 22 Metals)	TO-15	<u>Titile</u>	<u>Semi Organic</u>	<u>PAHs 8270C</u>	<u>PCP, 1,2,4 TCP 8270 SM</u>	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type: 1=Tube, 2=VOA, 3=Filter, 4=Pin, 5=Jar, 6=Bedbar, 7=Canister	Material: 1=Glass, 2=Plastic, 3=Metal	Preservative: 1=HCl, 2=HNO3, 3=H2SO4, 4=AC, 5=Zn (Ac2), 6=NaOH, 7=Na2S2O3	REMARKS
Sampler: <u>Kyle Leach</u>																									
ITEM	Lab No.	Sample ID / Location	Date	Time																					
1	SMR-1-01	<u>SMR-1</u>	<u>10/9/17</u>	<u>200</u>					X						X										
2	SMR-2-02	<u>SMR-2</u>		<u>210</u>					X						X										
3	SLS-3-03	<u>SLS-3</u>		<u>220</u>					X						X										
4	-04	<u>SMR-4</u>		<u>230</u>					X						X										
5	-05	<u>SMR-5</u>		<u>245</u>					X						X										
6	-07	<u>SLDRP-6</u>		<u>245</u>					X						X										
7	-08	<u>SMR-7</u>		<u>255</u>					X						X										
8	-09	<u>SMR-8</u>		<u>310</u>					X						X										
9	-10	<u>SMR-9</u>		<u>320</u>					X						X										
10	-11	<u>SMR-10</u>		<u>330</u>					X						X										

- Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
- Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
- The following turnaround time conditions apply:
TAT = 0: 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
- Weekend, holiday, after-hours work - ask for quote.
- Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab - ask for quote.
- Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
- Electronic records maintained for five (5) years from report date.
- Hard copy reports will be disposed of after 45 calendar days from report date.
- Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35 per reproccessed EDD.
- Rush TCEP/STIC samples: add 2 days to analysis TAT for extraction on procedure.
- Unanalyzed samples will incur a disposal fee of \$7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name _____ Signature _____

Relinquished by: (Signature and Printed Name) <u>Kyle Leach</u>	Date: <u>10/12/17</u>	Time: _____	Received by: (Signature and Printed Name) <u>[Signature]</u>	Date: <u>10/13/17</u>	Time: <u>1644</u>
Relinquished by: (Signature and Printed Name)	Date: _____	Time: _____	Received by: (Signature and Printed Name)	Date: _____	Time: _____
Relinquished by: (Signature and Printed Name)	Date: _____	Time: _____	Received by: (Signature and Printed Name)	Date: _____	Time: _____

CUSTOMER

PROJECT SAMPLES

Page 34 of 35

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: *Kyle Leech* Phone #: *530 265 6090*

Electronic Data Deliverables Request:
Email Address:

Company/Address: *SSI* Fax #:

ANALYSIS REQUEST Page 2 of 2

Project Number/P.O.#: *Plumas BF* Project Name: *Plumas BF*

Project Location: *Crescent Mills* Sampler Signature: *[Signature]*

Sample ID	Sampling		Container					Method Preserved				Matrix		
	Date	Time	VOA	SLEEVE	1L GLASS	PLASTIC	Summa or Tedlar	HCl	HNO3	ICE	NONE	WATER	SOIL	AIR
<i>D03679</i>														
<i>SP5-S11</i>	<i>10/9/17</i>	<i>340</i>			X				X			X		
<i>SMR-12</i>	<i>↓</i>	<i>240</i>			X				X		X	X		
<i>RWS-1</i>	<i>↓</i>	<i>350</i>				X			X		X			

BTEX - TPH as Gasoline (602/8021/8015)	
TPH as Diesel (8015m)	
TPH as Oil (8015m)	
Total Oil & Grease (SM-18th 5520)1664	
Pesticides (608/8081A) - PCBs (8082)	
Organophosphorous Pesticide (8141)	
Chlorinated Herbicides (8151)	
Semi VOC Full List (8270C)	
VOC Full list (8260B)	
MTBE (8021/8260B) circle the method	
Methanol (8015M) Ethanol (8260)	
5 Oxygenates (8260B)	
Lead Scavengers DCA/EDB (8260B)	
Tphg/BTEX/5 Oxygenates (8260B)	
Metals = <i>Titile 22</i>	<input checked="" type="checkbox"/>
Metals =	
Metals =	
Nitrate, Nitrite, Ammonia, Kjeldahl	
Chloride, Sulfate, Sulfide, ph, conductance	
<i>8270C</i>	<input checked="" type="checkbox"/>
<i>8270 SIM</i>	<input checked="" type="checkbox"/>
Requested TAT: 12hr/24hr/48hr/72hr/Standard	

Bin#
Due Date:
Work Order:
LAB USE ONLY:

Relinquished by: *[Signature]* Date: *10/12/17* Time:
Received by:
Relinquished by: Date: *10/13/17* Time: *1014*
Received by Laboratory: *MFR 0812*

Remarks/Condition of Sample:
Bill To:

Summary Report

Project No.: PL17215	Project Name: Indian Valley Wood Waste Utilization Campus	Date: 10/23/17
Sample No.: GM-comp	Boring/Trench: SP6N Depth, ft.: 0-6	Tested By: MLH/NGH
Description: Very Dark Grey (7.5YR 3/1) Poorly Graded Gravel with Silt		Checked By: MLH
Sample Location:		Lab. No.: 15-17-596

TEST	METHOD	RESULTS	
Sieve Analyses		Percent Passing	Percent Passing
Sieve Size Designation:		without bark	with bark
U.S. Standard	Millimeters		
6.0 inch	152	100	100
3.0 inch	75	96	96
2.0 inch	50.0	81	81
1.5 inch	37.5	72	73
1.0 Inch	25.0	60	61
3/4 Inch	19.0	48	50
1/2 Inch	12.5	32	34
3/8 Inch	9.50	23	26
#4	4.75	19	22
#10	2.00	19	21
#20	0.850	17	19
#40	0.425	15	17
#60	0.250	13	15
#100	0.150	11	13
#200	0.075	8.1	10.1
ASTM D422			
Coefficient of Uniformity (Cu):	ASTM D-2487	260.00	357.14
Coefficient of Curvature (Cc):	ASTM D-2487	65.00	82.29

ADDITIONAL INFORMATION / RESULTS

TEST	METHOD	RESULTS	SPECIFICATIONS
			Operating Range Contract Compliance
Atterberg Indices, Plasticity Index	ASTM D-4318	NP	
Atterberg Indices, Group Symbol	ASTM D-4318	ML	
Percent Bark in sample		11.60%	

Summary Report

Project No.: PL17215	Project Name: Indian Valley Wood Waste Utilization Campus	Date: 10/23/17
Sample No.: GM-comp	Boring/Trench: SP6 Depth, ft.: 0-4	Tested By: MLH/NGH
Description: Very Dark Brown (10YR 2/2) Well Graded Gravel with Silt and Sand		Checked By: MLH
Sample Location:		Lab. No.: 15-17-596

TEST	METHOD	RESULTS	SPECIFICATIONS
Sieve Analyses		Percent Passing	
<u>Sieve Size Designation:</u>			
U.S. Standard	Millimeters		
6.0 inch	152	100	
3.0 inch	75	100	
2.0 inch	50.0	85	
1.5 inch	37.5	79	
1.0 Inch	25.0	66	
3/4 Inch	19.0	61	
1/2 Inch	12.5	50	
3/8 Inch	9.50	45	
#4	4.75	37	
#10	2.00	30	
#20	0.850	26	
#40	0.425	23	
#60	0.250	20	
#100	0.150	16	
#200	0.075	10.6	
		ASTM D422	
Coefficient of Uniformity (Cu):		ASTM D-2487	
Coefficient of Curvature (Cc):		ASTM D-2487	

ADDITIONAL INFORMATION / RESULTS

TEST	METHOD	RESULTS	SPECIFICATIONS
			Operating Range Contract Compliance
Atterberg Indices, Plasticity Index	ASTM D-4318	12	
Atterberg Indices, Group Symbol	ASTM D-4318	MH	

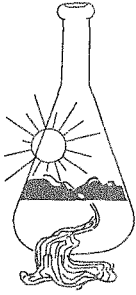
Summary Report

Project No.: PL17215	Project Name: Indian Valley Wood Waste Utilization Campus	Date: 10/23/17
Sample No.: T1, T4 comp	Boring/Trench: SP6 Depth, ft.: 0-10	Tested By: MLH/NGH
Description: Very Dark Brown (10YR 2/2) Silty Sand		Checked By: MLH
Sample Location:		Lab. No.: 15-17-596

TEST	METHOD	RESULTS	SPECIFICATIONS
Sieve Analyses		Percent Passing	
<u>Sieve Size Designation:</u>			
U.S. Standard	Millimeters		
6.0 inch	152	100	
3.0 inch	75	100	
2.0 inch	50.0	100	
1.5 inch	37.5	100	
1.0 Inch	25.0	100	
3/4 Inch	19.0	100	
1/2 Inch	12.5	99	
3/8 Inch	9.50	99	
#4	4.75	99	
#10	2.00	98	
#20	0.850	96	
#40	0.425	92	
#60	0.250	82	
#100	0.150	65	
#200	0.075	44	
		ASTM D422	
Coefficient of Uniformity (Cu):	ASTM D-2487	-	
Coefficient of Curvature (Cc):	ASTM D-2487	-	

ADDITIONAL INFORMATION / RESULTS

TEST	METHOD	RESULTS	SPECIFICATIONS
			Operating Range Contract Compliance
Atterberg Indices, Plasticity Index	ASTM D-4318	NP	
Atterberg Indices, Group Symbol	ASTM D-4318	ML	



Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 11/08/2017
Date Submitted 11/02/2017

To: Kyle Leach
Sierra Streams Institute
431 Uren Street Ste.C
Nevada City, CA 95959

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The following is analysis requested on SUN Order 75555.

Thank you for your business.

SOIL ANALYSIS

SUN#	Sample Source	Samp ID	Organic Matter
157689	CRESCENT MILLS IS	SP6-GM COMP	5.4 %
157690	CRESCENT MILLS IS	SP6-TI,T4 COMP	4.5 %
157691	CRESCENT MILLS IS	SP6N-GM COMP	8.5 %

METHOD: LOI

Detection limit = 0.1 (ND = below det.lim.)

SUNLAND ANALYTICAL LAB
11419 Sunrise Gold Cr., Ste.10
Rancho Cordova, CA 95742
(916)852-8557

INVOICE
=====

Sierra Streams Institute
431 Uren Street Ste.C
Nevada City, CA 95959

Inv.No. 95555

Date 11/08/2017

Terms: NET 30, 30+ 15%

Customer P.O.#

Requestor: Leach

* Please indicate Invo.# on remittance

ATTENTION ACCOUNTS PAYABLE

SUN NOS.	SAMPLE LOCATION	ANALYSIS	PRICE
157689	CRESCENT MILLS IS SP6-GM COMP	OM	18.00
157690	CRESCENT MILLS IS SP6-TI,T4 COMP	OM	18.00
157691	CRESCENT MILLS IS SP6N-GM COMP	OM	18.00
***** Total *****			54.00