

Sierra Institute for Community and Environment
P.O. Box 11, 4438 Main Street
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Attention: Camille Swezy

November 2018
(revised February 2019)

Project: **CRESCENT MILLS INDUSTRIAL SITE**
 15690 CALIFORNIA HIGHWAY 89
 CRESCENT MILLS, CALIFORNIA

Summary of On-site Fill Investigation Results for Crescent Mills Industrial Site

Dear Ms. Swezy:

Sierra Streams Institute (SSI) has prepared this summary report documenting the results of an additional soil investigation to identify potential on-site sources of fill at the Crescent Mills Industrial Site located at 15690 California Highway 89 in Crescent Mills, California. The investigation was conducted in order to supplement the results of previous Site investigations including the Targeted Site Investigation (“TSI”) conducted by (Geosyntec, 2017) and Southern Area Site Characterization (SSI, 2018). For Site background information, sampling methodology and other information, please refer to the previous reports. Soil sampling frequency and analysis was performed in general accordance with DTSC’s Clean Fill Advisory (DTSC, 2001).

This report presents the following attachments documenting the results of the investigation:

- Trench Location Map
- Trench Log Summary
- Tables 1-4 Onsite Fill Investigation Soil Sample Analytical Results
- NV5 Summary Report of Geotechnical Soil Analysis
- Exelchem Report of Analytical Laboratory Results for TPH-D, Dioxins and Furans and Semi Volatile Organic Compounds
- Advanced Technology Laboratory Report for Title 22 Metals

Field Activities

The soil investigation was conducted on June 28 and 29, 2018. Eight shallow trenches (T1-T-8) were advanced using a track mounted excavator along the eastern edge of the site where no subsurface contamination has been documented other than above ground wood waste stockpiles. Trenches were advanced into existing soil or compacted fill,

after the above ground wood waste stockpiles were removed (Trenches T-1, T-2 and T-3) or after all near surface organic debris was removed. Trenches were excavated to depths of approximately 5 to 6 feet below ground surface ("bgs")¹. Observations of trench spoils and sidewalls identified three general soil types: an Upper Fill (sample prefix F1; approximately 0 to 2 feet bgs), Lower Fill (F2; approximately 2 to 3.5 feet bgs) and Native Soil (N; approximately 3 to 6 feet bgs). Groundwater was encountered in one trench (T-2). Groundwater in trench T-2 stabilized at a depth of 5.5 feet bgs. Significant organic material was not observed in the trench spoils of sidewalls other than limited surface accumulations.

Geotechnical Soil Sampling and Analysis

Representative bulk soil samples were obtained from trench sidewall spoils and composited to form a representative sample from each of the three potential fill types (Upper fill- F1, Lower Fill- F2 and Native Soil- N). Bulk samples were analyzed at a geotechnical soil laboratory for Sieve analysis. The fine grained fraction of each sample was analyzed for Atterberg indices.

Environmental Soil Sampling and Analysis

Representative discrete soil samples were obtained from each of the three soil types (F1, F2 and N) in trenches T-2 through T-8. Samples were composited each soil type exposed in the trench sidewalls into plastic bags, mixed thoroughly and placed in laboratory supplied glass soil jars. Samples were initially screened by SSI and EPA staff using a handheld X-ray fluorescent (XRF) analyzer to provide initial quantification of total arsenic. XRF arsenic concentrations were to compare with the site specific background screening level (9.8 milligrams per kilogram ("mg/kg")). Based on the XRF results, soil from Trench T1 was eliminated from consideration as a fill source due to elevated arsenic concentrations (up to 22.71 mg/kg +/- 5.34 mg/kg) exceeding the site specific background screening level of 9.8 mg/kg. XRF sample results were utilized for screening purposes only since the error range was significantly higher than applicable EPA analytical methodology. XRF results are not included in this report but are available upon request.

All other discrete samples were analyzed for previously detected site primary Constituents of Concern (COCs) identified in the TSI (Geosyntec, 2017) including Title 22 Metals by EPA 6010A/7471B and TPH-diesel (TPH-d) by EPA 8015M. Three and four point composite samples were analyzed for other potential site COCs where only low detections on non-detect results had been obtained in previous investigations. These analyses included Dioxins and Furans by EPA Method 1613/8290 and polycyclic aromatic hydrocarbons ("PAHs") and pentachlorophenol ("PCP") by EPA Method 8270.

¹ Sampling depths for previous soil samples, collected by Geosyntec in the area of the T-1 to T-3 trenches, used the top of the above ground wood waste stockpiles as the reference point for ground surface (Geosyntec, 2017). These above ground wood waste stockpiles range from 6 to 8 feet in height above surrounding ground surface.

Samples were composited by the analytical laboratory from discrete samples as follows:

<u>Composite Sample</u>	<u>Discrete Samples</u>
Comp 1:	T2-F1, T3-F1, T4-F1
Comp 2:	T5-F1, T6-F1, T7-F1, T8-F1
Comp 3:	T2-F2, T3-F2, T4-F2
Comp 4:	T5-F2, T6-F2, T7-F2, T8-F2
Comp 5:	T2-N, T3-N, T4-N
Comp 6:	T5-N, T6-N, T7-N, T8-N

Results and Discussion

Geotechnical Sample Results

Geotechnical laboratory results indicate the following soil types: the Upper Fill (F1) consisted of well graded gravel with silt and sand, the Lower Fill (F2) consisted of poorly graded gravel with silt and sand and the native soil (N) consisted of silty sand with gravel. Fine grained soil from each soil type consisted of lean silt (ML). Based on these results, all three soil types would likely be acceptable from for use as on-site fill. Geotechnical laboratory results should be evaluated by the Geotechnical Engineering firm preparing final grading plans for the project. The Geotechnical Soil Sample Report is attached.

Analytical Laboratory Results

Analytical laboratory results for all samples obtained from Trenches T2 through T-8 indicate no COCs were detected at concentrations exceeding applicable screening levels or the site specific background concentration for arsenic (9.8 mg/kg). Composite sample results were all less than 1/3 of applicable screening levels for the three point composites and less than 1/4 of screening levels for four point composites, indicating no discrete samples exceed screening levels. Analytical laboratory results are summarized in Tables 1-4. Laboratory Reports are attached.

Conclusions

SSI conducted an on-site fill investigation in June 2018 to identify potential sources of on-site fill to be used during Site remediation or redevelopment. Eight trenches were advanced along the eastern portion of the Site in areas assumed to be outside areas of previous lumber mill operations. The investigation was performed to identify soil in general accordance with DTSC's Clean Fill Advisory (DTSC, 2001). Results of samples obtained from seven of the eight trenches (T2-T-8) indicated no COCs were detected above applicable remedial goals.

Recommendations for On-Site Borrow Area

Based on an evaluation of the results of the on-site fill investigation summarized above, subsurface soil situated above groundwater (approximately 5 feet bgs) in the vicinity of trenches T-2 through T-8 could be used as a source of on-site fill during proposed site remediation activities. Based on discussions with the Project Engineer, a proposed borrow area is presented on Figure 1. Based on the recommended sampling frequency in the DTSC Clean Fill Guidance document (2 acres or less; minimum of 4 soil samples), the 4 samples obtained from each soil type from trenches T-2 through T-5, (12 samples) located within the proposed (less than 2 acre) borrow area would be an acceptable sampling frequency. If additional borrow area is proposed, the expanded borrow area should extend to the south to areas characterized by acceptable trench samples from trenches T-6 though T-8.

The two wood waste stockpiles located within the proposed borrow area which are identified as DU-16 and DU-17 in the Draft RAW, should be excavated and relocated to the southern area of the site prior to excavation of borrow soil as described in the Draft RAW. Additional soil sampling of the upper fill (F1) beneath stockpile DU-17 should be performed prior to borrow excavation. Samples should be analyzed for Title 22 metals including total and if warranted soluble arsenic and copper. Results should be compared with site screening levels. No borrow excavation shall occur in this area if soil samples exceed screening levels.

Additional soil characterizations is also recommended if an expanded borrow area is proposed which extends to the north or west of the proposed borrow area shown on Figure 1 or if the borrow area is extended to encroach on the former log deck recycling pond in the southern portion of the site.

The preceding information has been provided for engineering and environmental review and planning purposes. Additional information and reporting can be provided upon request. For more information please contact the undersigned.

Sincerely,

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cc. US EPA Region 9 attn. Eric Byous

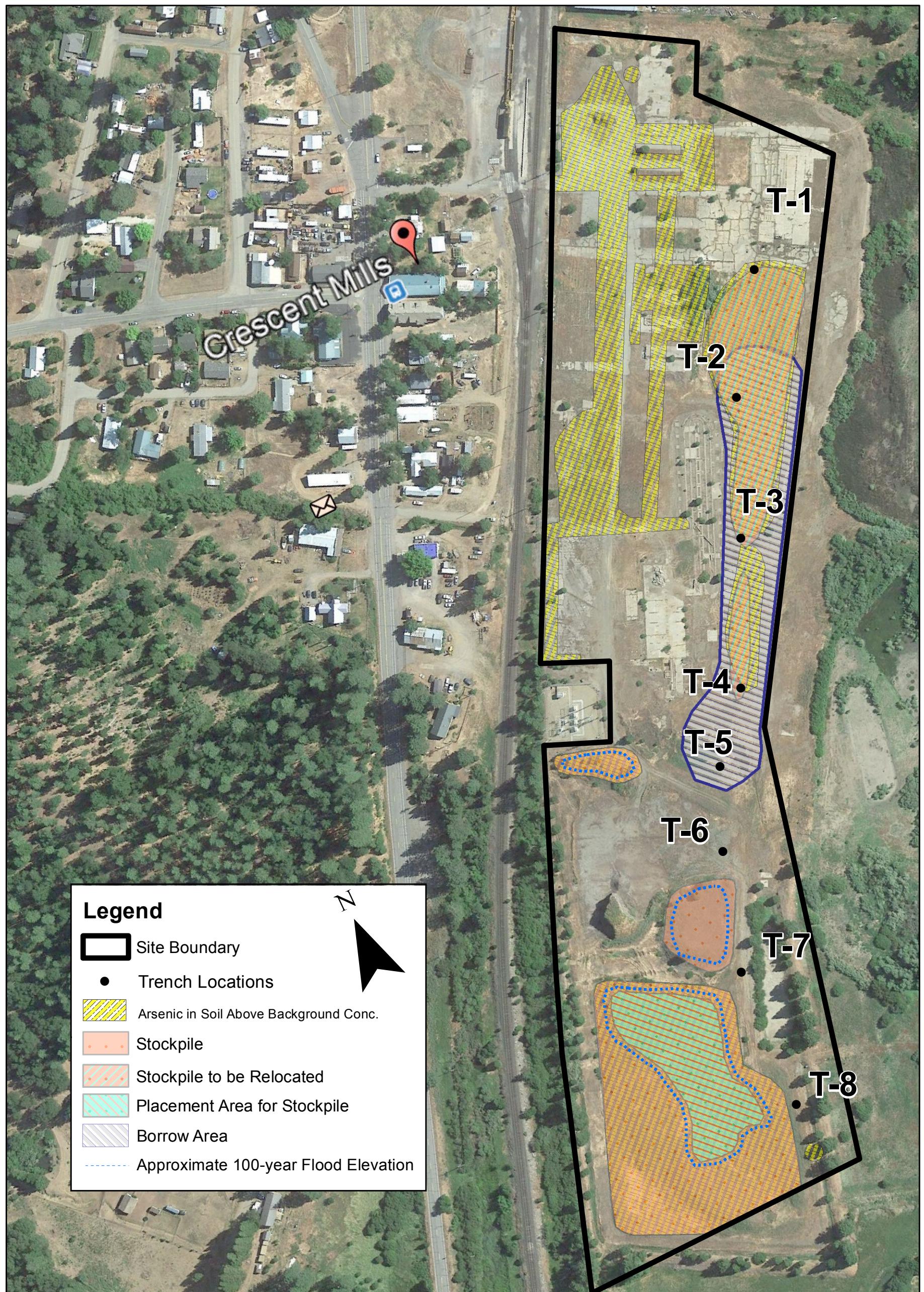


Figure 1
Trench Locations and Proposed Borrow Area
On Site Fill Investigation

Crescent Mills Industrial Site
 Crescent Mills, CA

0 125 250 500
 Feet

Table 1
Onsite Fill Investigation 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
T2-F1	Trench 2	0-2'	Discrete	Soil	6/28/2018	<2.0	4.3	64	<1.0	<1.0	11	6.6	93
T2-F2	Trench 2	2-3.5'	Discrete	Soil	6/28/2018	<2.0	6.4	55	<1.0	<1.0	12	8.3	60
T2-N	Trench 2	3-4.5'	Discrete	Soil	6/28/2018	<2.0	3.3	110	<1.0	<1.0	4.7	5.6	30
T3-F1	Trench 3	0-1.5'	Discrete	Soil	6/28/2018	<2.0	4.5	64	<1.0	<1.0	8.9	9.3	190
T3-F2	Trench 3	2-3'	Discrete	Soil	6/28/2018	<2.0	3.2	61	<1.0	<1.0	5.3	6.4	63
T3-N	Trench 3	3-4.5'	Discrete	Soil	6/28/2018	<4.0	<2.0	400	<1.0	<1.0	<2.0	5.2	11
T4-F1	Trench 4	0-2'	Discrete	Soil	6/28/2018	<2.0	4.1	73	<1.0	<1.0	7.6	11	78
T4-F2	Trench 4	2-3.5'	Discrete	Soil	6/28/2018	<4.0	<2.0	300	<1.0	<1.0	2.2	8.0	24
T4-N	Trench 4	4-5'	Discrete	Soil	6/28/2018	<2.0	<1.0	170	<1.0	<1.0	7.2	8.9	13
T5-F1	Trench 5	0.5-1.5'	Discrete	Soil	6/28/2018	<2.0	1.3	120	<1.0	<1.0	15	6.6	2.5
T5-F2	Trench 5	1.5-2.5'	Discrete	Soil	6/28/2018	<2.0	<1.0	68	<1.0	<1.0	31	7.4	32
T5-N	Trench 5	3.5-4.5'	Discrete	Soil	6/28/2018	<4.0	<2.0	330	<2.0	<2.0	<2.0	5.6	7.6
T6-F1	Trench 6	0.5-2'	Discrete	Soil	6/28/2018	<2.0	2.2	150	<1.0	<1.0	17	8.3	29
T6-F2	Trench 6	2-3.5'	Discrete	Soil	6/28/2018	<2.0	4.5	98	<1.0	<1.0	18	8.4	88
T6-N	Trench 6	3.5-4.5'	Discrete	Soil	6/28/2018	<4.0	<2.0	320	<2.0	<2.0	2.1	7.5	16
T7-F1	Trench 7	0.5-2'	Discrete	Soil	6/28/2018	<2.0	6.2	51	<1.0	<1.0	14	9.0	270
T7-F2	Trench 7	2-4'	Discrete	Soil	6/28/2018	<2.0	1.6	85	<1.0	<1.0	25	7.4	45
T7-N	Trench 7	4-5'	Discrete	Soil	6/28/2018	<4.0	<2.0	57	<2.0	<2.0	4.9	8.5	15
T8-F1	Trench 8	0-1.5'	Discrete	Soil	6/28/2018	<2.0	2.9	68	<1.0	<1.0	18	7.3	55
T8-F2	Trench 8	1.5-3'	Discrete	Soil	6/28/2018	<2.0	1.7	71	<1.0	<1.0	21	6.7	33
T8-N	Trench 8	3-4.5'	Discrete	Soil	6/28/2018	<2.0	1.2	69	<1.0	<1.0	19	7.2	36
HHRA SL						--	0.36	--	210	7.3	--	--	--
RSL						470	--	220,000	--	--	1,800,000	350	47,000
Site specific background							9.8						

Table 1-Cont.
Onsite Fill Investigation 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
T2-F1	Trench 2	0- 2'	Discreet	Soil	6/28/2018	8.2	0.16	<1.0	8.8	<1.0	<1.0	<1.0	32	47
T2-F2	Trench 2	2-3.5'	Discreet	Soil	6/28/2018	5.4	0.11	<1.0	9.0	<1.0	<1.0	<1.0	39	39
T2-N	Trench 2	3-4.5'	Discreet	Soil	6/28/2018	2.7	0.11	<1.0	2.9	<1.0	<1.0	<1.0	23	23
T3-F1	Trench 3	0-1.5'	Discreet	Soil	6/28/2018	4.2	0.57	1.2	8.0	<1.0	<1.0	<1.0	47	47
T3-F2	Trench 3	2-3'	Discreet	Soil	6/28/2018	3.6	<0.10	<1.0	3.6	<1.0	<1.0	<1.0	34	32
T3-N	Trench 3	3-4.5'	Discreet	Soil	6/28/2018	<2.0	<0.10	<1.0	<2.0	<1.0	<2.0	<1.0	8.6	12
T4-F1	Trench 4	0-2'	Discreet	Soil	6/28/2018	9.6	0.15	<1.0	12	<1.0	<1.0	<1.0	30	45
T4-F2	Trench 4	2-3.5'	Discreet	Soil	6/28/2018	<2.0	<0.10	<2.0	<2.0	<2.0	<2.0	<2.0	13	18
T4-N	Trench 4	4-5'	Discreet	Soil	6/28/2018	<1.0	0.10	<1.0	4.3	<1.0	<1.0	<1.0	38	23
T5-F1	Trench 5	0.5-1.5'	Discreet	Soil	6/28/2018	2.5	<0.10	<1.0	7.6	<1.0	<1.0	<1.0	34	24
T5-F2	Trench 5	1.5-2.5'	Discreet	Soil	6/28/2018	3.0	0.15	<1.0	16	<1.0	<1.0	<1.0	48	27
T5-N	Trench 5	3.5-4.5'	Discreet	Soil	6/28/2018	<2.0	<0.10	<2.0	<2.0	<2.0	<2.0	<2.0	11	15
T6-F1	Trench 6	0.5-2'	Discreet	Soil	6/28/2018	2.4	0.11	<1.0	9.1	<1.0	<1.0	<1.0	34	25
T6-F2	Trench 6	2-3.5'	Discreet	Soil	6/28/2018	11	0.28	<1.0	11	<1.0	<1.0	<1.0	43	50
T6-N	Trench 6	3.5-4.5'	Discreet	Soil	6/28/2018	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	21	18
T7-F1	Trench 7	0.5-2'	Discreet	Soil	6/28/2018	9.6	0.22	<1.0	15	<1.0	<1.0	<1.0	32	47
T7-F2	Trench 7	2-4'	Discreet	Soil	6/28/2018	2.9	<0.10	<1.0	14	<1.0	<1.0	<1.0	41	25
T7-N	Trench 7	4-5'	Discreet	Soil	6/28/2018	2.1	<0.10	<2.0	2.3	<2.0	<2.0	<2.0	38	33
T8-F1	Trench 8	0-1.5'	Discreet	Soil	6/28/2018	3.5	<1.0	<1.0	10	<1.0	<1.0	<1.0	40	31
T8-F2	Trench 8	1.5-3'	Discreet	Soil	6/28/2018	2.3	<0.10	<1.0	11	<1.0	<1.0	<1.0	37	23
T8-N	Trench 8	3-4.5'	Discreet	Soil	6/28/2018	2.5	<1.0	<1.0	10	<1.0	<1.0	<1.0	36	24
HHRA SL						320	4.5	--	--	--	1,500	--	1,000	--
RSL						--	--	5,800	3,100	5,800	--	1.2	--	350,000

Table 2
Onsite Fill Investigation 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)
						THP as Diesel
T2-F1	Trench 2	0- 2'	Discrete	Soil	6/28/2018	<1.00
T2-F2	Trench 2	2-3.5'	Discrete	Soil	6/28/2018	<1.00
T2-N	Trench 2	3-4.5'	Discrete	Soil	6/28/2018	<1.00
T3-F1	Trench 3	0-1.5'	Discrete	Soil	6/28/2018	<1.00
T3-F2	Trench 3	2-3'	Discrete	Soil	6/28/2018	7.81
T3-N	Trench 3	3-4.5'	Discrete	Soil	6/28/2018	<1.00
T4-F1	Trench 4	0-2'	Discrete	Soil	6/28/2018	<1.00
T4-F2	Trench 4	2-3.5'	Discrete	Soil	6/28/2018	<1.00
T4-N	Trench 4	4-5'	Discrete	Soil	6/28/2018	<1.00
T5-F1	Trench 5	0.5-1.5'	Discrete	Soil	6/28/2018	<1.00
T5-F2	Trench 5	1.5-2.5'	Discrete	Soil	6/28/2018	<1.00
T5-N	Trench 5	3.5-4.5'	Discrete	Soil	6/28/2018	<1.00
T6-F1	Trench 6	0.5-2'	Discrete	Soil	6/28/2018	<1.00
T6-F2	Trench 6	2-3.5'	Discrete	Soil	6/28/2018	<1.00
T6-N	Trench 6	3.5-4.5'	Discrete	Soil	6/28/2018	5.81
T7-F1	Trench 7	0.5-2'	Discrete	Soil	6/28/2018	<1.00
T7-F2	Trench 7	2-4'	Discrete	Soil	6/28/2018	<1.00
T7-N	Trench 7	4-5'	Discrete	Soil	6/28/2018	<1.00
T8-F1	Trench 8	0-1.5'	Discrete	Soil	6/28/2018	<1.00
T8-F2	Trench 8	1.5-3'	Discrete	Soil	6/28/2018	<1.00
T8-N	Trench 8	3-4.5'	Discrete	Soil	6/28/2018	7.85
ESL						880

Table 3
Onsite Fill Investigation Soil Sample Analytical Results- PAHs, TCP & PCP in Soil

Sample ID	Sample Type	Composite Sample Aliquots	Matrix	Date Sampled	PAHs U.S. EPA Method 8270 SIM (µg/kg)						PCP U.S. EPA Method 8270 (µg/kg)
					Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Dibenz(a,h)anthracene	Fluorene	Indeno(1,2,3-cd)pyrene	
Comp 1	3pt composite	T2-F1, T3-F1, T4-F1	Soil	6/28/2018	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.017	<0.35
Comp 2	4pt composite	T5-F1, T6-F1, T7-F1, T8-F1	Soil	6/28/2018	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.017	<0.35
Comp 3	3pt composite	T2-F2, T3-F2, T4-F2	Soil	6/28/2018	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.017	<0.35
Comp 4	4pt composite	T5-F2, T6-F2, T7-F2, T8-F2	Soil	6/28/2018	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.017	<0.35
Comp 5	3pt composite	T2-N, T3-N, T4-N	Soil	6/28/2018	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.017	<0.35
Comp 6	4pt composite	T5-N, T6-N, T7-N, T8-N	Soil	6/28/2018	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.017	<0.35
RSL					290						4,000
ESL					1.6						

Table 4

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

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

HxCDD = heptachlorodibenzo-p-dioxin

HxCDF = heptachlorodibenzofuran

TEQ = toxic equivalency quotient

HpCDF = heptachlorodibenzofuran

Crescent Mills Industrial Site

On-Site Fill Investigation

June 28-29, 2018

Trench Logs

Trench T-1

0-2'- Upper Fill: Strong brown well graded GRAVEL with silt and sand

2.0-3.5'- Lower Fill: Strong Brown poorly graded SAND GRAVEL mix with silt

3.5-4.5' Native Soil: Olive yellow to Olive Silty SAND with Gravel

4.5->5' Native Soil: Strong Brown poorly graded GRAVEL with sand and silt

No groundwater encountered. Stained soil with anoxic odor at 4 to 4.5'

Total Depth Trench= 5 feet

Trench T-2

0-1.75'- Upper Fill: Strong brown well graded GRAVEL with silt and sand

1.75-3.5'- Lower Fill: Strong Brown poorly graded GRAVEL with sand and silt

3.5->6'- Native Soil: Olive Yellow Silty SAND with Gravel

Groundwater encountered at 6 feet- static WL stabilized at 5.5' bgs

Total Depth Trench=6'

Trench T-3

0-1.75'- Upper Fill: Strong brown well graded GRAVEL with silt and sand

1.75-3.0'- Lower Fill: Brown poorly graded GRAVEL and SAND with silt

3.0'-4.5'- Native Soil: Olive Yellow silty SAND with Gravel

3.0'->5.5'- Native Soil: Olive gravely, silty SAND, anoxic odor

No Groundwater encountered in trench

Total Depth Trench=5.5'

Trench T-4

0-2'- Upper Fill: Strong brown well graded GRAVEL with silt and sand

2-3.75'- Lower Fill: Strong Brown poorly graded GRAVEL and SAND with silt

3.75->5.5'- Native Soil: Olive Yellow silty SAND with Gravel

No Groundwater encountered in trench

Total Depth Trench=5.5'

Trench T-5

0-1.25': Organic Fill; decomposed wood waste and organic soil

1.25-2.75- Upper Fill: Grey brown well graded GRAVEL with silt and sand

2.75-3.5'- Lower Fill: Grey Brown poorly graded GRAVEL and SAND with silt

3.5->6'- Native Soil: Olive Yellow silty SAND with Gravel

No Groundwater encountered in trench

Total Depth Trench=6'

Trench T-6

0-1'- Organic Fill; decomposed wood waste and organic soil with gravel

1-3.5'- Upper Fill: Grey brown well graded GRAVEL with silt and sand

3.5->6'- Native Soil: Strong Brown silty SAND with Gravel

No Groundwater encountered in trench

Total Depth Trench=6'

Trench T-7

0-0.5'- Organic Fill; decomposed wood waste and organic soil

0.5-4.0'- Upper Fill: Strong brown well graded GRAVEL with silt and sand

4.0->5.5'- Native Soil: Olive Yellow silty SAND with Gravel

No Groundwater encountered in trench

Total Depth Trench=5.5'

Trench T-8

0-0.5 to 1'- Organic Fill; decomposed wood waste and organic soil

1-3.0'- Upper Fill: Strong brown well graded GRAVEL with silt and sand

3.0-4.0'- Lower Fill: Strong Brown poorly graded GRAVEL and SAND with silt

4.0->5.5'- Native Soil: Olive Yellow silty SAND with Gravel

No Groundwater encountered in trench

Total Depth Trench=5.5'



Summary Report

Project No.:	4980.00	Project Name:	Plumas Brownsfield	Date:	7/2/18
Sample No.:	Fill 1	Boring/Trench:	-	Depth, ft.:	-
Description:	Strong Brown (7.5YR 4/6) Well Graded Gravel with Silt and Sand			Tested By:	NGH
Sample Location:				Checked By:	MLH

TEST	METHOD	RESULTS	SPECIFICATIONS
Sieve Analyses Sieve Size Designation: U.S. Standard Millimeters		Percent Passing	
3.0 inch	75	100	
2.0 inch	50	100	
1.5 inch	37.5	97	
1.0 Inch	25.0	86	
3/4 Inch	19.0	72	
1/2 Inch	12.5	55	
3/8 Inch	9.5	47	
#4	4.8	36	
#10	2.00	28	
#20	0.85	21	
#40	0.425	15	
#60	0.25	11	
#100	0.15	8	
#200	0.075	6.3	
	CTM 202		
Resistance Value	CTM 301	-	
Sand Equivalent	CTM 217	-	
Durability, fine	CTM 229	-	
Durability, course	CDOT-229	-	

ADDITIONAL INFORMATION / RESULTS

TEST	METHOD	RESULTS	SPECIFICATIONS
			Operating Range Contract Compliance
Unit Weight of Aggregate (pcf):	ASTM C-29	-	
Maximum Dry Density (pcf):	ASTM D-1557	-	
Optimum Moisture (%):	ASTM D-1557	-	
Clay Lumps & Friable Particles:	ASTM C-142	-	
Clay Lumps & Friable Particles:	ASTM C-142	-	
Cleanness of Course Aggregate	CTM 227	-	
Percent Crushed Particles (%):	CDOT-205	-	
Bulk Specific Gravity of Fine Aggregate:	ASTM C-128	-	
Absorption (%):	ASTM C-128	-	
Coefficient of Uniformity (Cu):	ASTM D-2487	80.00	
Coefficient of Curvature (Cc):	ASTM D-2487	1.95	
Fineness Modulus (FM):	ASTM C-136	-	
Atterberg Indices - Classification	ASTM D-4318	ML	
Atterberg Indices - PI	ASTM D-4318	1	



Summary Report

Project No.:	4980.00	Project Name:	Plumas Brownsfield	Date:	7/2/18
Sample No.:	Fill 2	Boring/Trench:	-	Depth, ft.:	-
Description:	Very Dark Brown (7.5YR 3/2) Poorly Graded Gravel with Silt and Sand			Tested By:	NGH
Sample Location:				Checked By:	MLH

TEST	METHOD	RESULTS	SPECIFICATIONS
Sieve Analyses Sieve Size Designation: U.S. Standard Millimeters		Percent Passing	
3.0 inch	75	100	
2.0 inch	50	94	
1.5 inch	37.5	86	
1.0 Inch	25.0	80	
3/4 Inch	19.0	74	
1/2 Inch	12.5	57	
3/8 Inch	9.5	48	
#4	4.8	35	
#10	2.00	26	
#20	0.85	19	
#40	0.425	13	
#60	0.25	10	
#100	0.15	8	
#200	0.075	5.7	
	CTM 202		
Resistance Value	CTM 301	-	
Sand Equivalent	CTM 217	-	
Durability, fine	CTM 229	-	
Durability, course	CDOT-229	-	

ADDITIONAL INFORMATION / RESULTS

TEST	METHOD	RESULTS	SPECIFICATIONS
			Operating Range Contract Compliance
Unit Weight of Aggregate (pcf):	ASTM C-29	-	
Maximum Dry Density (pcf):	ASTM D-1557	-	
Optimum Moisture (%):	ASTM D-1557	-	
Clay Lumps & Friable Particles:	ASTM C-142	-	
Clay Lumps & Friable Particles:	ASTM C-142	-	
Cleanness of Course Aggregate	CTM 227	-	
Percent Crushed Particles (%):	CDOT-205	-	
Bulk Specific Gravity of Fine Aggregate:	ASTM C-128	-	
Absorption (%):	ASTM C-128	-	
Coefficient of Uniformity (Cu):	ASTM D-2487	64.38	
Coefficient of Curvature (Cc):	ASTM D-2487	3.02	
Fineness Modulus (FM):	ASTM C-136	-	
Atterberg Indices - Classification	ASTM D-4318	ML	
Atterberg Indices - PI	ASTM D-4318	NP	



Summary Report

Project No.:	4980.00	Project Name:	Plumas Brownsfield	Date:	7/2/18
Sample No.:	Native	Boring/Trench:	-	Depth, ft.:	-
Description:	Olive Yellow (2.5Y 6/6) Silty Sand with Gravel			Tested By:	NGH
Sample Location:				Checked By:	MLH

TEST	METHOD	RESULTS	SPECIFICATIONS
Sieve Analyses Sieve Size Designation: U.S. Standard Millimeters		Percent Passing	
3.0 inch	75	100	
2.0 inch	50	100	
1.5 inch	37.5	99	
1.0 Inch	25.0	96	
3/4 Inch	19.0	92	
1/2 Inch	12.5	85	
3/8 Inch	9.5	80	
#4	4.8	71	
#10	2.00	63	
#20	0.85	52	
#40	0.425	39	
#60	0.25	31	
#100	0.15	26	
#200	0.075	21.7	
	CTM 202		
Resistance Value	CTM 301	-	
Sand Equivalent	CTM 217	-	
Durability, fine	CTM 229	-	
Durability, course	CDOT-229	-	

ADDITIONAL INFORMATION / RESULTS

TEST	METHOD	RESULTS	SPECIFICATIONS
			Operating Range Contract Compliance
Unit Weight of Aggregate (pcf):	ASTM C-29	-	
Maximum Dry Density (pcf):	ASTM D-1557	-	
Optimum Moisture (%):	ASTM D-1557	-	
Clay Lumps & Friable Particles:	ASTM C-142	-	
Clay Lumps & Friable Particles:	ASTM C-142	-	
Cleanness of Course Aggregate	CTM 227	-	
Percent Crushed Particles (%):	CDOT-205	-	
Bulk Specific Gravity of Fine Aggregate:	ASTM C-128	-	
Absorption (%):	ASTM C-128	-	
Coefficient of Uniformity (Cu):	ASTM D-2487	-	
Coefficient of Curvature (Cc):	ASTM D-2487	-	
Fineness Modulus (FM):	ASTM C-136	-	
Atterberg Indices - Classification	ASTM D-4318	ML	
Atterberg Indices - PI	ASTM D-4318	3	



July 12, 2018

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 : 1802426

Client Reference : Cresent Mills Industrial Site

Enclosed are the results for sample(s) received on July 05, 2018 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".

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.



Certificate of Analysis

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

Project Number : Cresent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T2-F1	1802426-01	Soil	6/28/18 0:00	7/05/18 10:03
T2-F2	1802426-02	Soil	6/28/18 0:00	7/05/18 10:03
T2-N	1802426-03	Soil	6/28/18 0:00	7/05/18 10:03
T3-F1	1802426-04	Soil	6/28/18 0:00	7/05/18 10:03
T3-F2	1802426-05	Soil	6/28/18 0:00	7/05/18 10:03
T3-N	1802426-06	Soil	6/28/18 0:00	7/05/18 10:03
T4-F1	1802426-07	Soil	6/28/18 0:00	7/05/18 10:03
T4-F2	1802426-08	Soil	6/28/18 0:00	7/05/18 10:03
T4-N	1802426-09	Soil	6/28/18 0:00	7/05/18 10:03
T5-F1	1802426-10	Soil	6/28/18 0:00	7/05/18 10:03
T5-F2	1802426-11	Soil	6/28/18 0:00	7/05/18 10:03
T5-N	1802426-12	Soil	6/28/18 0:00	7/05/18 10:03
T6-F1	1802426-13	Soil	6/28/18 0:00	7/05/18 10:03
T6-F2	1802426-14	Soil	6/28/18 0:00	7/05/18 10:03
T6-N	1802426-15	Soil	6/28/18 0:00	7/05/18 10:03
T7-F1	1802426-16	Soil	6/28/18 0:00	7/05/18 10:03
T7-F2	1802426-17	Soil	6/28/18 0:00	7/05/18 10:03
T7-N	1802426-18	Soil	6/28/18 0:00	7/05/18 10:03
T8-F1	1802426-19	Soil	6/28/18 0:00	7/05/18 10:03
T8-F2	1802426-20	Soil	6/28/18 0:00	7/05/18 10:03
T8-N	1802426-21	Soil	6/28/18 0:00	7/05/18 10:03



Certificate of Analysis

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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T2-F1

Lab ID: 1802426-01

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	B8G0174	07/10/2018	07/10/18 16:08	
Arsenic	4.3	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Barium	64	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Beryllium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Cadmium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Chromium	11	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Cobalt	6.6	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Copper	93	2.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Lead	8.2	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Molybdenum	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Nickel	8.8	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Selenium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Silver	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Thallium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Vanadium	32	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	
Zinc	47	1.0	1	B8G0174	07/10/2018	07/10/18 16:08	

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	B8G0178	07/10/2018	07/10/18 15:46	



Certificate of Analysis

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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T2-F2

Lab ID: 1802426-02

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	B8G0174	07/10/2018	07/10/18 16:09	
Arsenic	6.4	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Barium	55	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Beryllium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Cadmium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Chromium	12	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Cobalt	8.3	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Copper	60	2.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Lead	5.4	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Molybdenum	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Nickel	9.0	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Selenium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Silver	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Thallium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Vanadium	39	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	
Zinc	39	1.0	1	B8G0174	07/10/2018	07/10/18 16:09	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.11	0.10	1	B8G0178	07/10/2018	07/10/18 15:48	



Certificate of Analysis

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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T2-N

Lab ID: 1802426-03

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	B8G0174	07/10/2018	07/10/18 16:11	
Arsenic	3.3	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Barium	110	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Beryllium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Cadmium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Chromium	4.7	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Cobalt	5.6	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Copper	30	2.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Lead	2.7	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Molybdenum	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Nickel	2.9	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Selenium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Silver	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Thallium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Vanadium	23	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	
Zinc	23	1.0	1	B8G0174	07/10/2018	07/10/18 16:11	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.11	0.10	1	B8G0178	07/10/2018	07/10/18 15:49	



Certificate of Analysis

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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T3-F1

Lab ID: 1802426-04

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	B8G0174	07/10/2018	07/10/18 16:12	
Arsenic	4.5	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Barium	64	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Beryllium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Cadmium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Chromium	8.9	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Cobalt	9.3	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Copper	190	2.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Lead	4.2	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Molybdenum	1.2	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Nickel	8.0	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Selenium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Silver	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Thallium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Vanadium	47	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	
Zinc	47	1.0	1	B8G0174	07/10/2018	07/10/18 16:12	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.57	0.10	1	B8G0178	07/10/2018	07/10/18 15:51	



Certificate of Analysis

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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T3-F2

Lab ID: 1802426-05

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	B8G0174	07/10/2018	07/10/18 16:13	
Arsenic	3.2	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Barium	61	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Beryllium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Cadmium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Chromium	5.3	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Cobalt	6.4	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Copper	63	2.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Lead	3.6	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Molybdenum	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Nickel	3.6	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Selenium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Silver	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Thallium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Vanadium	34	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	
Zinc	32	1.0	1	B8G0174	07/10/2018	07/10/18 16:13	

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	B8G0178	07/10/2018	07/10/18 15:53	



Certificate of Analysis

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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T3-N

Lab ID: 1802426-06

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	4.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Arsenic	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Barium	400	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Beryllium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Cadmium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Chromium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Cobalt	5.2	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Copper	11	4.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Lead	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Molybdenum	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Nickel	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Selenium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Silver	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Thallium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Vanadium	8.6	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5
Zinc	12	2.0	2	B8G0174	07/10/2018	07/11/18 09:56	D5

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	B8G0178	07/10/2018	07/10/18 15:55	



Certificate of Analysis

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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T4-F1

Lab ID: 1802426-07

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	B8G0174	07/10/2018	07/10/18 16:15	
Arsenic	4.1	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Barium	73	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Beryllium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Cadmium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Chromium	7.6	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Cobalt	11	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Copper	78	2.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Lead	9.6	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Molybdenum	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Nickel	12	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Selenium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Silver	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Thallium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Vanadium	30	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	
Zinc	45	1.0	1	B8G0174	07/10/2018	07/10/18 16:15	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.15	0.10	1	B8G0178	07/10/2018	07/10/18 16:01	



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431 Uren St., Suite C
Nevada City , CA 95959

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T4-F2

Lab ID: 1802426-08

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	4.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Arsenic	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Barium	300	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Beryllium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Cadmium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Chromium	2.2	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Cobalt	8.0	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Copper	24	4.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Lead	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Molybdenum	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Nickel	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Selenium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Silver	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Thallium	ND	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Vanadium	13	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5
Zinc	18	2.0	2	B8G0174	07/10/2018	07/11/18 09:57	D5

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	B8G0178	07/10/2018	07/10/18 16:02	



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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T4-N

Lab ID: 1802426-09

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	B8G0174	07/10/2018	07/10/18 16:18	
Arsenic	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Barium	170	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Beryllium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Cadmium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Chromium	7.2	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Cobalt	8.9	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Copper	13	2.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Lead	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Molybdenum	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Nickel	4.3	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Selenium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Silver	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Thallium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Vanadium	38	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	
Zinc	23	1.0	1	B8G0174	07/10/2018	07/10/18 16:18	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.10	0.10	1	B8G0178	07/10/2018	07/10/18 16:04	



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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T5-F1

Lab ID: 1802426-10

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	B8G0174	07/10/2018	07/10/18 16:19	
Arsenic	1.3	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Barium	120	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Beryllium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Cadmium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Chromium	15	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Cobalt	6.6	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Copper	36	2.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Lead	2.5	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Molybdenum	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Nickel	7.6	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Selenium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Silver	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Thallium	ND	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Vanadium	34	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	
Zinc	24	1.0	1	B8G0174	07/10/2018	07/10/18 16:19	

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	B8G0178	07/10/2018	07/10/18 16:06	



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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T5-F2

Lab ID: 1802426-11

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	B8G0176	07/10/2018	07/10/18 15:11	
Arsenic	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Barium	68	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Beryllium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Cadmium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Chromium	31	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Cobalt	7.4	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Copper	32	2.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Lead	3.0	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Molybdenum	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Nickel	16	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Selenium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Silver	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Thallium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Vanadium	48	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	
Zinc	27	1.0	1	B8G0176	07/10/2018	07/10/18 15:11	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.15	0.10	1	B8G0179	07/10/2018	07/11/18 10:37	



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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T5-N

Lab ID: 1802426-12

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	4.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Arsenic	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Barium	330	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Beryllium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Cadmium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Chromium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Cobalt	5.6	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Copper	7.6	4.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Lead	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Molybdenum	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Nickel	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Selenium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Silver	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Thallium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Vanadium	11	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5
Zinc	15	2.0	2	B8G0176	07/10/2018	07/10/18 15:44	D5

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	B8G0179	07/10/2018	07/11/18 10:44	



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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T6-F1

Lab ID: 1802426-13

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	B8G0176	07/10/2018	07/10/18 15:23	
Arsenic	2.2	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Barium	150	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Beryllium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Cadmium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Chromium	17	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Cobalt	8.3	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Copper	29	2.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Lead	2.4	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Molybdenum	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Nickel	9.1	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Selenium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Silver	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Thallium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Vanadium	34	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	
Zinc	25	1.0	1	B8G0176	07/10/2018	07/10/18 15:23	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.11	0.10	1	B8G0179	07/10/2018	07/11/18 10:46	



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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T6-F2

Lab ID: 1802426-14

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	B8G0176	07/10/2018	07/10/18 15:24	
Arsenic	4.5	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Barium	98	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Beryllium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Cadmium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Chromium	18	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Cobalt	8.4	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Copper	88	2.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Lead	11	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Molybdenum	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Nickel	11	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Selenium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Silver	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Thallium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Vanadium	43	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	
Zinc	50	1.0	1	B8G0176	07/10/2018	07/10/18 15:24	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.28	0.10	1	B8G0179	07/10/2018	07/11/18 10:48	



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Sierra Streams Institute
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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T6-N

Lab ID: 1802426-15

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	4.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Arsenic	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Barium	320	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Beryllium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Cadmium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Chromium	2.1	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Cobalt	7.5	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Copper	16	4.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Lead	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Molybdenum	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Nickel	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Selenium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Silver	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Thallium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Vanadium	21	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5
Zinc	18	2.0	2	B8G0176	07/10/2018	07/10/18 15:45	D5

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	B8G0179	07/10/2018	07/11/18 10:50	



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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T7-F1

Lab ID: 1802426-16

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	B8G0176	07/10/2018	07/10/18 15:26	
Arsenic	6.2	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Barium	51	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Beryllium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Cadmium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Chromium	14	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Cobalt	9.0	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Copper	270	2.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Lead	9.6	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Molybdenum	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Nickel	15	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Selenium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Silver	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Thallium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Vanadium	32	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	
Zinc	47	1.0	1	B8G0176	07/10/2018	07/10/18 15:26	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.22	0.10	1	B8G0179	07/10/2018	07/11/18 10:56	



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Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T7-F2

Lab ID: 1802426-17

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	B8G0176	07/10/2018	07/10/18 15:27	
Arsenic	1.6	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Barium	85	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Beryllium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Cadmium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Chromium	25	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Cobalt	7.4	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Copper	45	2.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Lead	2.9	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Molybdenum	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Nickel	14	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Selenium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Silver	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Thallium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Vanadium	41	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	
Zinc	25	1.0	1	B8G0176	07/10/2018	07/10/18 15:27	

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	B8G0179	07/10/2018	07/11/18 10:57	



Certificate of Analysis

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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T7-N

Lab ID: 1802426-18

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	4.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Arsenic	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Barium	57	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Beryllium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Cadmium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Chromium	4.9	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Cobalt	8.5	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Copper	15	4.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Lead	2.1	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Molybdenum	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Nickel	2.3	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Selenium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Silver	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Thallium	ND	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Vanadium	38	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5
Zinc	33	2.0	2	B8G0176	07/10/2018	07/10/18 15:46	D5

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	B8G0179	07/10/2018	07/11/18 10:59	



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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T8-F1

Lab ID: 1802426-19

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	B8G0176	07/10/2018	07/10/18 15:30	
Arsenic	2.9	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Barium	68	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Beryllium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Cadmium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Chromium	18	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Cobalt	7.3	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Copper	55	2.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Lead	3.5	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Molybdenum	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Nickel	10	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Selenium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Silver	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Thallium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Vanadium	40	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	
Zinc	31	1.0	1	B8G0176	07/10/2018	07/10/18 15:30	

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	B8G0179	07/10/2018	07/11/18 11:01	



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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T8-F2

Lab ID: 1802426-20

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	B8G0176	07/10/2018	07/10/18 15:31	
Arsenic	1.7	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Barium	71	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Beryllium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Cadmium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Chromium	21	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Cobalt	6.7	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Copper	33	2.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Lead	2.3	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Molybdenum	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Nickel	11	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Selenium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Silver	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Thallium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Vanadium	37	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	
Zinc	23	1.0	1	B8G0176	07/10/2018	07/10/18 15:31	

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	B8G0179	07/10/2018	07/11/18 11:03	



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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Client Sample ID T8-N

Lab ID: 1802426-21

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	B8G0176	07/10/2018	07/10/18 15:32	
Arsenic	1.2	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Barium	69	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Beryllium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Cadmium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Chromium	19	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Cobalt	7.2	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Copper	36	2.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Lead	2.5	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Molybdenum	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Nickel	10	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Selenium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Silver	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Thallium	ND	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Vanadium	36	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	
Zinc	24	1.0	1	B8G0176	07/10/2018	07/10/18 15:32	

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	B8G0179	07/10/2018	07/11/18 11:05	



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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

QUALITY CONTROL SECTION

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 B8G0174 - EPA 3050B_S

Blank (B8G0174-BLK1)

Prepared: 7/10/2018 Analyzed: 7/10/2018

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 (B8G0174-BS1)

Prepared: 7/10/2018 Analyzed: 7/10/2018

Antimony	41.5714	2.0	0.51	50.0000	83.1	80 - 120
Arsenic	40.0788	1.0	0.12	50.0000	80.2	80 - 120
Barium	44.0857	1.0	0.12	50.0000	88.2	80 - 120
Beryllium	40.7951	1.0	0.03	50.0000	81.6	80 - 120
Cadmium	40.2105	1.0	0.14	50.0000	80.4	80 - 120
Chromium	43.8620	1.0	0.26	50.0000	87.7	80 - 120
Cobalt	43.7533	1.0	0.07	50.0000	87.5	80 - 120
Copper	45.0149	2.0	0.19	50.0000	90.0	80 - 120
Lead	41.0118	1.0	0.18	50.0000	82.0	80 - 120
Molybdenum	44.4648	1.0	0.12	50.0000	88.9	80 - 120
Nickel	42.8892	1.0	0.18	50.0000	85.8	80 - 120
Selenium	40.1273	1.0	0.40	50.0000	80.3	80 - 120
Silver	40.2306	1.0	0.12	50.0000	80.5	80 - 120
Thallium	40.9695	1.0	0.38	50.0000	81.9	80 - 120
Vanadium	44.2540	1.0	0.06	50.0000	88.5	80 - 120
Zinc	40.2732	1.0	0.15	50.0000	80.5	80 - 120

Matrix Spike (B8G0174-MS1)

Source: 1802424-01

Prepared: 7/10/2018 Analyzed: 7/10/2018

Antimony	39.6872	2.0	0.51	124.378	ND	31.9	28 - 99
Arsenic	83.4798	1.0	0.12	124.378	3.14073	64.6	49 - 99
Barium	169.648	1.0	0.12	124.378	96.7001	58.7	19 - 135
Beryllium	79.1263	1.0	0.03	124.378	ND	63.6	53 - 99



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

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

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 B8G0174 - EPA 3050B_S (continued)

Matrix Spike (B8G0174-MS1) - Continued **Source: 1802424-01** Prepared: 7/10/2018 Analyzed: 7/10/2018

Cadmium	70.4015	1.0	0.14	124.378	0.598379	56.1	49 - 95			
Chromium	90.9074	1.0	0.26	124.378	11.4446	63.9	41 - 114			
Cobalt	82.0693	1.0	0.07	124.378	7.20540	60.2	44 - 106			
Copper	110.738	2.0	0.19	124.378	20.4990	72.6	42 - 120			
Lead	76.4052	1.0	0.18	124.378	4.50531	57.8	36 - 121			
Molybdenum	80.6892	1.0	0.12	124.378	0.672588	64.3	49 - 102			
Nickel	91.3744	1.0	0.18	124.378	18.6095	58.5	45 - 101			
Selenium	82.1482	1.0	0.40	124.378	0.518696	65.6	50 - 94			
Silver	80.8832	1.0	0.12	124.378	ND	65.0	33 - 120			
Thallium	67.4683	1.0	0.38	124.378	ND	54.2	41 - 95			
Vanadium	101.600	1.0	0.06	124.378	21.4546	64.4	45 - 113			
Zinc	111.754	1.0	0.15	124.378	47.6488	51.5	26 - 117			

Matrix Spike Dup (B8G0174-MSD1) **Source: 1802424-01** Prepared: 7/10/2018 Analyzed: 7/10/2018

Antimony	42.2461	2.0	0.51	125.000	ND	33.8	28 - 99	6.25	20	
Arsenic	84.5411	1.0	0.12	125.000	3.14073	65.1	49 - 99	1.26	20	
Barium	163.158	1.0	0.12	125.000	96.7001	53.2	19 - 135	3.90	20	
Beryllium	79.7762	1.0	0.03	125.000	ND	63.8	53 - 99	0.818	20	
Cadmium	70.5420	1.0	0.14	125.000	0.598379	56.0	49 - 95	0.199	20	
Chromium	91.9374	1.0	0.26	125.000	11.4446	64.4	41 - 114	1.13	20	
Cobalt	82.7324	1.0	0.07	125.000	7.20540	60.4	44 - 106	0.805	20	
Copper	110.562	2.0	0.19	125.000	20.4990	72.1	42 - 120	0.159	20	
Lead	77.6344	1.0	0.18	125.000	4.50531	58.5	36 - 121	1.60	20	
Molybdenum	82.2805	1.0	0.12	125.000	0.672588	65.3	49 - 102	1.95	20	
Nickel	91.7482	1.0	0.18	125.000	18.6095	58.5	45 - 101	0.408	20	
Selenium	83.1493	1.0	0.40	125.000	0.518696	66.1	50 - 94	1.21	20	
Silver	80.2496	1.0	0.12	125.000	ND	64.2	33 - 120	0.786	20	
Thallium	68.4628	1.0	0.38	125.000	ND	54.8	41 - 95	1.46	20	
Vanadium	100.151	1.0	0.06	125.000	21.4546	63.0	45 - 113	1.44	20	
Zinc	113.602	1.0	0.15	125.000	47.6488	52.8	26 - 117	1.64	20	



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

Project Number : Cresent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

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 B8G0176 - EPA 3050B_S

Blank (B8G0176-BLK1)

Prepared: 7/10/2018 Analyzed: 7/10/2018

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 (B8G0176-BS1)

Prepared: 7/10/2018 Analyzed: 7/10/2018

Antimony	43.4755	2.0	0.51	50.0000	87.0	80 - 120
Arsenic	43.1127	1.0	0.12	50.0000	86.2	80 - 120
Barium	46.3678	1.0	0.12	50.0000	92.7	80 - 120
Beryllium	42.6966	1.0	0.03	50.0000	85.4	80 - 120
Cadmium	42.7551	1.0	0.14	50.0000	85.5	80 - 120
Chromium	46.1766	1.0	0.26	50.0000	92.4	80 - 120
Cobalt	45.8391	1.0	0.07	50.0000	91.7	80 - 120
Copper	45.5103	2.0	0.19	50.0000	91.0	80 - 120
Lead	44.2621	1.0	0.18	50.0000	88.5	80 - 120
Molybdenum	44.3972	1.0	0.12	50.0000	88.8	80 - 120
Nickel	44.8965	1.0	0.18	50.0000	89.8	80 - 120
Selenium	43.1589	1.0	0.40	50.0000	86.3	80 - 120
Silver	41.1996	1.0	0.12	50.0000	82.4	80 - 120
Thallium	44.0555	1.0	0.38	50.0000	88.1	80 - 120
Vanadium	45.8281	1.0	0.06	50.0000	91.7	80 - 120
Zinc	43.4238	1.0	0.15	50.0000	86.8	80 - 120

Matrix Spike (B8G0176-MS1)

Source: 1802426-11

Prepared: 7/10/2018 Analyzed: 7/10/2018

Antimony	77.3570	2.0	0.51	125.000	ND	61.9	28 - 99
Arsenic	95.4148	1.0	0.12	125.000	0.583314	75.9	49 - 99
Barium	161.339	1.0	0.12	125.000	68.4777	74.3	19 - 135
Beryllium	92.8644	1.0	0.03	125.000	ND	74.3	53 - 99
Cadmium	90.6280	1.0	0.14	125.000	0.146498	72.4	49 - 95
Chromium	133.758	1.0	0.26	125.000	30.7651	82.4	41 - 114



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Nevada City , CA 95959

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

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 B8G0176 - EPA 3050B_S (continued)

Matrix Spike (B8G0176-MS1) - Continued **Source: 1802426-11** Prepared: 7/10/2018 Analyzed: 7/10/2018

Cobalt	101.168	1.0	0.07	125.000	7.38355	75.0	44 - 106			
Copper	133.547	2.0	0.19	125.000	32.0861	81.2	42 - 120			
Lead	94.7798	1.0	0.18	125.000	3.02528	73.4	36 - 121			
Molybdenum	100.885	1.0	0.12	125.000	ND	80.7	49 - 102			
Nickel	107.484	1.0	0.18	125.000	15.7883	73.4	45 - 101			
Selenium	95.6894	1.0	0.40	125.000	ND	76.6	50 - 94			
Silver	92.5914	1.0	0.12	125.000	ND	74.1	33 - 120			
Thallium	83.3474	1.0	0.38	125.000	ND	66.7	41 - 95			
Vanadium	151.023	1.0	0.06	125.000	47.7144	82.6	45 - 113			
Zinc	117.107	1.0	0.15	125.000	27.0223	72.1	26 - 117			

Matrix Spike Dup (B8G0176-MSD1) **Source: 1802426-11** Prepared: 7/10/2018 Analyzed: 7/10/2018

Antimony	86.2616	2.0	0.51	125.000	ND	69.0	28 - 99	10.9	20	
Arsenic	105.260	1.0	0.12	125.000	0.583314	83.7	49 - 99	9.81	20	
Barium	176.578	1.0	0.12	125.000	68.4777	86.5	19 - 135	9.02	20	
Beryllium	102.742	1.0	0.03	125.000	ND	82.2	53 - 99	10.1	20	
Cadmium	99.9174	1.0	0.14	125.000	0.146498	79.8	49 - 95	9.75	20	
Chromium	144.931	1.0	0.26	125.000	30.7651	91.3	41 - 114	8.02	20	
Cobalt	111.635	1.0	0.07	125.000	7.38355	83.4	44 - 106	9.84	20	
Copper	145.828	2.0	0.19	125.000	32.0861	91.0	42 - 120	8.79	20	
Lead	104.208	1.0	0.18	125.000	3.02528	80.9	36 - 121	9.48	20	
Molybdenum	111.364	1.0	0.12	125.000	ND	89.1	49 - 102	9.87	20	
Nickel	119.352	1.0	0.18	125.000	15.7883	82.9	45 - 101	10.5	20	
Selenium	105.934	1.0	0.40	125.000	ND	84.7	50 - 94	10.2	20	
Silver	102.625	1.0	0.12	125.000	ND	82.1	33 - 120	10.3	20	
Thallium	92.3634	1.0	0.38	125.000	ND	73.9	41 - 95	10.3	20	
Vanadium	162.892	1.0	0.06	125.000	47.7144	92.1	45 - 113	7.56	20	
Zinc	130.056	1.0	0.15	125.000	27.0223	82.4	26 - 117	10.5	20	



Certificate of Analysis

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

Project Number : Cresent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

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 B8G0178 - EPA 7471_S

Blank (B8G0178-BLK1)

Prepared: 7/10/2018 Analyzed: 7/10/2018

Mercury ND 0.10 0.006

LCS (B8G0178-BS1)

Prepared: 7/10/2018 Analyzed: 7/10/2018

Mercury 0.811357 0.10 0.006 0.833333 97.4 80 - 120

Matrix Spike (B8G0178-MS1)

Source: 1802424-01 Prepared: 7/10/2018 Analyzed: 7/10/2018

Mercury 0.946087 0.10 0.006 0.833333 0.178619 92.1 70 - 130

Matrix Spike Dup (B8G0178-MSD1)

Source: 1802424-01 Prepared: 7/10/2018 Analyzed: 7/10/2018

Mercury 0.931720 0.10 0.006 0.819672 0.178619 91.9 70 - 130 1.53 20

Post Spike (B8G0178-PS1)

Source: 1802424-01 Prepared: 7/10/2018 Analyzed: 7/10/2018

Mercury 0.007486 5.00000E-3 0.002143 107 85 - 115



Certificate of Analysis

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

Project Number : Cresent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

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 B8G0179 - EPA 7471_S

Blank (B8G0179-BLK1)

Prepared: 7/10/2018 Analyzed: 7/11/2018

Mercury ND 0.10 0.006

LCS (B8G0179-BS1)

Prepared: 7/10/2018 Analyzed: 7/11/2018

Mercury 0.831474 0.10 0.006 0.833333 99.8 80 - 120

Matrix Spike (B8G0179-MS1)

Source: 1802426-11 Prepared: 7/10/2018 Analyzed: 7/11/2018

Mercury 0.950714 0.10 0.006 0.819672 0.154533 97.1 70 - 130

Matrix Spike Dup (B8G0179-MSD1)

Source: 1802426-11 Prepared: 7/10/2018 Analyzed: 7/11/2018

Mercury 0.977443 0.10 0.006 0.833333 0.154533 98.7 70 - 130 2.77 20

Post Spike (B8G0179-PS1)

Source: 1802426-11 Prepared: 7/10/2018 Analyzed: 7/11/2018

Mercury 0.007492 5.00000E-3 1.8544E-3 113 85 - 115



Certificate of Analysis

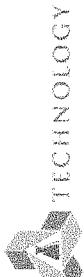
Sierra Streams Institute
431 Uren St., Suite C
Nevada City , CA 95959

Project Number : Crescent Mills Industrial Site
Report To : Kyle Leach
Reported : 07/12/2018

Notes and Definitions

D5	Sample diluted due to failing internal standard in the original run.
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.



ADVANCED TECHNOLOGY

L A B O R A T O R I E S
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4045

CHAIN OF CUSTODY RECORD

Page 2 of 2

ny:
Steam Inst. etc.

Address:

1. 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.

2. The following turnaround time conditions apply:

TAT = 0 : 100% Surcharge	Business Day (COB 5:00 PM)
TAT = 1 : 100% Surcharge	Business Day (COB 5:00 PM)
TAT = 2 : 50% Surcharge AND	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)

3. The following turnaround time conditions apply:

4. Weekend, holiday, after hours work ... ask for quote.

5. Subcontract TAT is 10 : 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab -- ask for quote.

6. 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.

7. Electronic records maintained for five (5) years from report date.

8. Hard copy reports will be disposed of after 45 calendar days from report date.

9. 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/EDBs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformatted report; \$55 per reprocessed EDDs.

10. Rush/TLC/STL samples: add 2 days to analysis TAT for extraction procedure.

11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

12. The laboratory will randomly select from all OCS samples received the sample to spike for Matrix Spike/Matrix Spike Duplicate (MS/MSD) at no cost. However, if you want the laboratory to additionally perform MS/MSD on your sample, a charge will be assessed for the specific sample used.

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


Printed Name _____
Signature _____

Reinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
<i>John C. Headleach</i>	7/21/18	7:00	<i>Jeffrey H. Burch</i>	7/5/18	1007
Reinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Reinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:



ADVANCED TECHNOLOGY LABORATORIES
3225 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 3

Instruction: Complete all shaded areas

Company: <i>Sierra Spears Institute</i>		Address: City:		State: Zip:		Tel: <i>530 477 7132</i>	
SEND REPORT TO: Attn: <i>Kyle Leach</i>		Email: <i>See page 1</i>		SEND INVOICE TO: Attn: <i>See page 1</i>		Fax: same as SEND REPORT TO	
Company: <i>Seepage 1</i>		Address:		Company: Address:		Email: <i>See page 1</i>	
City: <i> </i>		State: <i> </i>		City: <i> </i>		State: <i> </i>	
Project Name: <i> </i>		Quote #: <i> </i>		Special Instructions/Comments: <i>see pg 1</i>		Requested Analysis <i>See pg 2 Method</i>	
Project No.: <i> </i>		PO #: <i> </i>		Sample Description			
Sampler: <i>Kyle Leach</i>		ITEM Laboratory ID (For Lab Use Only) <i>160246-21</i>		Sample ID / Location <i>T8-N</i>		Date <i>6/28/18</i>	Time
PROJECT SAMPLES							
1	2	3	4	5	6	7	8
9	10						

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM. to the subcontract lab -- ask for quote.
 2. Samples submitted After 7:30 PM are considered received the following business day at 8:00 AM.
 3. The following turn-around time conditions apply:
 - TAT = 1 - 30% Surgeon SAME BUSINESS DAY if received by 9:00 AM
 - TAT = 1 - 100% Surgeon SAME BUSINESS DAY (CDB 5:00 PM)
 - TAT = 2 - 50% Surgeon 2ND BUSINESS DAY (CDB 5:00 PM)
 4. 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.
 5. Unanalyzed samples will incur a disposal fee of \$7 per sample.
 6. Rush TGL/TST samples will add a day to analysis TAT for extraction procedure.
 7. Electronic records maintained for five (5) years from report date.
 8. Hard copy reports will be disposed of after 45 calendar days from report date.
 9. Storage and Report Fees:
 10. Regenerated/reformatted report; \$25 per reprocessed EDD.
 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.
 12. The laboratory will randomly select from all QC samples received to spike for Matrix Spike Duplicate (M_1/M_2) at no cost. However, if you want the laboratory to additionally perform M_1/M_2 on your sample, a charge will be assessed for the specific sample used.

4. Weekend, holiday, after-hours work --- ask for quote.
TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
TAT = 4 : 20% SURCHARGE 4th BUSINESS DAY (COB 5:00 PM)

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

John Lee

John Lee

Signature

Printed Name

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ested; \$50.00 per

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requested.
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5/15
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James J. Lachey

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EXCELCHEM

Environmental Labs

1135 W Sunset Boulevard

Suite A

Rocklin, CA 95765

Phone# 916-543-4445

Fax# 916-543-4449



ELAP Certificate No. : 2119

17 July 2018

Kyle Leach

Sierra Streams Institute

431 Uren St., Suite C

Nevada City, CA 95959

RE: Crescent Mills Industrial Site

Work order number: 1807022

Enclosed are the results of analyses for samples received by the laboratory on 07/02/18 15:28. 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".

John Somers, Lab Director

Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T2-F1	1807022-01	Soil	06/28/18 00:00	07/02/18 15:28
T2-F2	1807022-02	Soil	06/28/18 00:00	07/02/18 15:28
T2-N	1807022-03	Soil	06/28/18 00:00	07/02/18 15:28
T3-F1	1807022-04	Soil	06/28/18 00:00	07/02/18 15:28
T3-F2	1807022-05	Soil	06/28/18 00:00	07/02/18 15:28
T3-N	1807022-06	Soil	06/28/18 00:00	07/02/18 15:28
T4-F1	1807022-07	Soil	06/28/18 00:00	07/02/18 15:28
T4-F2	1807022-08	Soil	06/28/18 00:00	07/02/18 15:28
T4-N	1807022-09	Soil	06/28/18 00:00	07/02/18 15:28
T5-F1	1807022-10	Soil	06/28/18 00:00	07/02/18 15:28
T5-F2	1807022-11	Soil	06/28/18 00:00	07/02/18 15:28
T5-N	1807022-12	Soil	06/28/18 00:00	07/02/18 15:28
T6-F1	1807022-13	Soil	06/28/18 00:00	07/02/18 15:28
T6-F2	1807022-14	Soil	06/28/18 00:00	07/02/18 15:28
T6-N	1807022-15	Soil	06/28/18 00:00	07/02/18 15:28
T7-F1	1807022-16	Soil	06/28/18 00:00	07/02/18 15:28
T7-F2	1807022-17	Soil	06/28/18 00:00	07/02/18 15:28
T7-N	1807022-18	Soil	06/28/18 00:00	07/02/18 15:28
T8-F1	1807022-19	Soil	06/28/18 00:00	07/02/18 15:28
T8-F2	1807022-20	Soil	06/28/18 00:00	07/02/18 15:28
T8-N	1807022-21	Soil	06/28/18 00:00	07/02/18 15:28
COMP 1 (T2-F1, T3-F1, T4-F1)	1807022-22	Soil	06/28/18 00:00	07/02/18 15:28
COMP 2 (T5-F1, T6-F1, T7-F1, T8-F1)	1807022-23	Soil	06/28/18 00:00	07/02/18 15:28
COMP 3 (T2-F2, T3-F2, T4-F2)	1807022-24	Soil	06/28/18 00:00	07/02/18 15:28
COMP 4 (T5-F2, T6-F2, T7-F2, T8-F2)	1807022-25	Soil	06/28/18 00:00	07/02/18 15:28
COMP 5 (T2-N, T3-N, T4-N)	1807022-26	Soil	06/28/18 00:00	07/02/18 15:28
COMP 6 (T5-N, T6-N, T7-N, T8-N)	1807022-27	Soil	06/28/18 00:00	07/02/18 15:28
EQB-1	1807022-28	WASTE WATER	06/28/18 00:00	07/02/18 15:28

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

Page 1 of 44

Excelchem Environmental Labs

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

Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

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

Page 2 of 44

Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

T2-F1 1807022-01 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A\G0053	07/09/18	07/09/18	EPA 8015Mod
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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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T2-F2 1807022-02 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-------	-------	---------------	---------------	--------	-------

Total Petroleum Hydrocarbons by FID

TPH as Diesel	ND	1.00	mg/kg	A\G0053	07/09/18	07/10/18	EPA 8015Mod
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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

T2-N
1807022-03 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

T3-F1 1807022-04 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

T3-F2
1807022-05 (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	7.81	1.00	mg/kg	A\G0053	07/09/18	07/10/18	EPA 8015Mod	D-18
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Excelchem Environmental Lab.

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Laboratory Representative

Page 7 of 44

Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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T3-N
1807022-06 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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T4-F1 1807022-07 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

T4-F2 1807022-08 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

T4-N
1807022-09 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
---------------	----	------	-------	---------	----------	----------	-------------



Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

T5-F1 1807022-10 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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Excelchem Environmental Labs

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

Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

T5-F2 1807022-11 (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\G0053 07/09/18 07/10/18 EPA 8015Mod

Excelchem Environmental Lab.

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Laboratory Representative

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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
--	--	----------------------------------

T5-N
1807022-12 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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T6-F1
1807022-13 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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T6-F2 1807022-14 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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T6-N
1807022-15 (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	5.81	1.00	mg/kg	A\G0053	07/09/18	07/10/18	EPA 8015Mod	D-18
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T7-F1
1807022-16 (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\G0053	07/09/18	07/10/18	EPA 8015Mod
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Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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T7-F2
1807022-17 (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\G0053	07/09/18	07/11/18	EPA 8015Mod
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T7-N
1807022-18 (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\G0077	07/10/18	07/11/18	EPA 8015Mod
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T8-F1 1807022-19 (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\G0053	07/09/18	07/11/18	EPA 8015Mod
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T8-F2
1807022-20 (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\G0053	07/09/18	07/11/18	EPA 8015Mod
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T8-N
1807022-21 (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	7.85	1.00	mg/kg	A\G0053	07/09/18	07/11/18	EPA 8015Mod	D-18
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Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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COMP 1 (T2-F1, T3-F1, T4-F1)
1807022-22 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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SemiVolatile Organic Compounds by GC/MS

Pentachlorophenol	ND	0.350	mg/kg	A\G0062	07/09/18	07/10/18	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	99.6 %	% Recovery Limits		10-125			"	
Surrogate: Terphenyl-dl4	85.7 %	% Recovery Limits		10-125			"	
Naphthalene	ND	0.00670	"	"	"	07/12/18	EPA 8270 SIM	
Acenaphthylene	ND	0.00670	"	"	"	"	"	
Acenaphthene	ND	0.00670	"	"	"	"	"	
Fluorene	ND	0.00670	"	"	"	"	"	
Phenanthrene	ND	0.00670	"	"	"	"	"	
Anthracene	ND	0.00670	"	"	"	"	"	
Fluoranthene	ND	0.00670	"	"	"	"	"	
Pyrene	ND	0.00670	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00670	"	"	"	"	"	
Chrysene	ND	0.00670	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00670	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0170	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00670	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0170	"	"	"	"	"	
Surrogate: Terphenyl-dl4	83.2 %	% Recovery Limits		10-120			"	

EPA8290

2,3,7,8-TCDD	0.768	0.500	pg/g	1822	07/11/18	07/12/18	EPA8290	
2,3,4,7,8-PeCDF	ND	2.50	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	ND	2.50	"	"	"	"	"	
1,2,3,7,8-PeCDF	ND	2.50	"	"	"	"	"	
1,2,3,7,8-PeCDD	ND	2.50	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	ND	2.50	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	3.18	2.50	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	ND	2.50	"	"	"	"	"	
2,3,7,8-TCDF	1.98	0.500	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	ND	2.50	"	"	"	"	"	
OCDD	623	5.00	"	"	"	"	"	
OCDF	33.4	5.00	"	"	"	"	"	
TEQ	9.11	"	"	"	"	"	"	
Total HpCDD	330	"	"	"	"	"	"	
Total HpCDF	103	"	"	"	"	"	"	
Total HxCDD	92.2	"	"	"	"	"	"	

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Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

COMP 1 (T2-F1, T3-F1, T4-F1) **1807022-22 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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EPA8290

Total HxCDF	118		pg/g	1822	07/11/18	07/12/18	EPA8290
Total PeCDD	ND		"	"	"	"	"
1,2,3,4,7,8,9-HxCDF	ND	2.50	"	"	"	"	"
Total TCDD	0.768		"	"	"	"	"
Total PeCDF	37.4		"	"	"	"	"
1,2,3,7,8,9-HxCDD	5.09	2.50	"	"	"	"	"
1,2,3,4,6,7,8-HpCDF	37.2	2.50	"	"	"	"	"
Total TCDF	13.5		"	"	"	"	"
1,2,3,4,6,7,8-HpCDD	206	2.50	"	"	"	"	"
1,2,3,6,7,8-HxCDD	34.9	2.50	"	"	"	"	"



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Sierra Streams Institute
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Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
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COMP 2 (T-5-F1, T6-F1, T7-F1, T8-F1) **1807022-23 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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SemiVolatile Organic Compounds by GC/MS

Pentachlorophenol	ND	0.350	mg/kg	A\G0062	07/09/18	07/10/18	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	100 %	% Recovery Limits		10-125			"	
Surrogate: Terphenyl-dl4	79.5 %	% Recovery Limits		10-125			"	
Naphthalene	ND	0.00670	"	"	"	07/12/18	EPA 8270 SIM	
Acenaphthylene	ND	0.00670	"	"	"	"	"	
Acenaphthene	ND	0.00670	"	"	"	"	"	
Fluorene	ND	0.00670	"	"	"	"	"	
Phenanthrene	ND	0.00670	"	"	"	"	"	
Anthracene	ND	0.00670	"	"	"	"	"	
Fluoranthene	ND	0.00670	"	"	"	"	"	
Pyrene	ND	0.00670	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00670	"	"	"	"	"	
Chrysene	ND	0.00670	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00670	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0170	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00670	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0170	"	"	"	"	"	
Surrogate: Terphenyl-dl4	73.3 %	% Recovery Limits		10-120			"	

EPA8290

1,2,3,4,7,8-HxCDF	ND	2.50	pg/g	1822	07/11/18	07/12/18	EPA8290	
1,2,3,4,6,7,8-HpCDD	5.89	2.50	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDF	ND	2.50	"	"	"	"	"	
2,3,7,8-TCDD	ND	0.500	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	ND	2.50	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	ND	2.50	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	ND	2.50	"	"	"	"	"	
1,2,3,7,8-PeCDD	ND	2.50	"	"	"	"	"	
1,2,3,7,8-PeCDF	ND	2.50	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	ND	2.50	"	"	"	"	"	
2,3,4,7,8-PeCDF	ND	2.50	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	ND	2.50	"	"	"	"	"	
Total TCDF	ND	"	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	ND	2.50	"	"	"	"	"	
Total HpCDF	ND	"	"	"	"	"	"	

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COMP 2 (T-5-F1, T6-F1, T7-F1, T8-F1)
1807022-23 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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EPA8290

Total PeCDF	ND		pg/g	1822	07/11/18	07/12/18	EPA8290
Total PeCDD	ND		"	"	"	"	"
Total HpCDD	10.3		"	"	"	"	"
Total HxCDD	ND		"	"	"	"	"
Total TCDD	ND		"	"	"	"	"
OCDF	ND	5.00	"	"	"	"	"
Total HxCDF	2.03		"	"	"	"	"
TEQ	0.0654		"	"	"	"	"
OCDD	21.5	5.00	"	"	"	"	"
2,3,7,8-TCDF	ND	0.500	"	"	"	"	"
1,2,3,6,7,8-HxCDF	ND	2.50	"	"	"	"	"



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COMP 3 (T2-F2, T3-F2, T4-F2)
1807022-24 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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SemiVolatile Organic Compounds by GC/MS

Pentachlorophenol	ND	0.350	mg/kg	A\G0062	07/09/18	07/10/18	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	89.4 %	% Recovery Limits		10-125			"	
Surrogate: Terphenyl-dl4	71.6 %	% Recovery Limits		10-125			"	
Naphthalene	ND	0.00670	"	"	"	07/12/18	EPA 8270 SIM	
Acenaphthylene	ND	0.00670	"	"	"	"	"	
Acenaphthene	ND	0.00670	"	"	"	"	"	
Fluorene	ND	0.00670	"	"	"	"	"	
Phenanthrene	ND	0.00670	"	"	"	"	"	
Anthracene	ND	0.00670	"	"	"	"	"	
Fluoranthene	ND	0.00670	"	"	"	"	"	
Pyrene	ND	0.00670	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00670	"	"	"	"	"	
Chrysene	ND	0.00670	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00670	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0170	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00670	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0170	"	"	"	"	"	
Surrogate: Terphenyl-dl4	67.3 %	% Recovery Limits		10-120			"	

EPA8290

1,2,3,4,6,7,8-HpCDD	9.45	2.50	pg/g	1822	07/11/18	07/12/18	EPA8290	
2,3,7,8-TCDD	ND	0.500	"	"	"	"	"	
Total TCDF	ND		"	"	"	"	"	
Total TCDD	ND		"	"	"	"	"	
Total PeCDF	ND		"	"	"	"	"	
Total PeCDD	ND		"	"	"	"	"	
Total HxCDF	1.27		"	"	"	"	"	
Total HxCDD	ND		"	"	"	"	"	
Total HpCDF	6.4		"	"	"	"	"	
Total HpCDD	16.1		"	"	"	"	"	
TEQ	0.145		"	"	"	"	"	
OCDF	ND	5.00	"	"	"	"	"	
2,3,7,8-TCDF	ND	0.500	"	"	"	"	"	
2,3,4,7,8-PeCDF	ND	2.50	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	ND	2.50	"	"	"	"	"	

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Sierra Streams Institute
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Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

COMP 3 (T2-F2, T3-F2, T4-F2) **1807022-24 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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EPA8290

1,2,3,7,8-PeCDF	ND	2.50	pg/g	1822	07/11/18	07/12/18	EPA8290
1,2,3,7,8-PeCDD	ND	2.50	"	"	"	"	"
1,2,3,7,8,9-HxCDF	ND	2.50	"	"	"	"	"
1,2,3,7,8,9-HxCDD	ND	2.50	"	"	"	"	"
1,2,3,6,7,8-HxCDF	ND	2.50	"	"	"	"	"
1,2,3,6,7,8-HxCDD	ND	2.50	"	"	"	"	"
1,2,3,4,7,8-HxCDF	ND	2.50	"	"	"	"	"
1,2,3,4,7,8-HxCDD	ND	2.50	"	"	"	"	"
1,2,3,4,7,8,9-HpCDF	ND	2.50	"	"	"	"	"
1,2,3,4,6,7,8-HpCDF	3.29	2.50	"	"	"	"	"
OCDD	57.8	5.00	"	"	"	"	"



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Sierra Streams Institute
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Nevada City, CA 95959

Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
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COMP 4 (T5-F2, T6-F2, T7-F2, T8-F2) **1807022-25 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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SemiVolatile Organic Compounds by GC/MS

Pentachlorophenol	ND	0.350	mg/kg	A\G0062	07/09/18	07/10/18	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	110 %	% Recovery Limits		10-125			"	
Surrogate: Terphenyl-dl4	83.1 %	% Recovery Limits		10-125			"	
Naphthalene	ND	0.00670	"	"	"	07/12/18	EPA 8270 SIM	
Acenaphthylene	ND	0.00670	"	"	"	"	"	
Acenaphthene	ND	0.00670	"	"	"	"	"	
Fluorene	ND	0.00670	"	"	"	"	"	
Phenanthrene	ND	0.00670	"	"	"	"	"	
Anthracene	ND	0.00670	"	"	"	"	"	
Fluoranthene	ND	0.00670	"	"	"	"	"	
Pyrene	ND	0.00670	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00670	"	"	"	"	"	
Chrysene	ND	0.00670	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00670	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0170	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00670	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0170	"	"	"	"	"	
Surrogate: Terphenyl-dl4	82.2 %	% Recovery Limits		10-120			"	

EPA8290

Total PeCDF	4.10		pg/g	1822	07/11/18	07/12/18	EPA8290	
2,3,4,7,8-PeCDF	ND	2.50	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDF	7.77	2.50	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDD	34.4	2.50	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	ND	2.50	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	ND	2.50	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	5.87	2.50	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	ND	2.50	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	1.58	2.50	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	ND	2.50	"	"	"	"	"	
1,2,3,7,8-PeCDD	ND	2.50	"	"	"	"	"	
Total TCDF	ND	"	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	ND	2.50	"	"	"	"	"	
Total TCDD	ND	"	"	"	"	"	"	
2,3,7,8-TCDD	ND	0.500	"	"	"	"	"	

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

Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

COMP 4 (T5-F2, T6-F2, T7-F2, T8-F2) **1807022-25 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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EPA8290

2,3,7,8-TCDF	ND	0.500	pg/g	1822	07/11/18	07/12/18	EPA8290
OCDD	102	5.00	"	"	"	"	"
OCDF	7.12	5.00	"	"	"	"	"
TEQ	1.20		"	"	"	"	"
Total HpCDD	55.7		"	"	"	"	"
Total HpCDF	20.4		"	"	"	"	"
Total HxCDD	17.8		"	"	"	"	"
Total HxCDF	17.5		"	"	"	"	"
Total PeCDD	ND		"	"	"	"	"
1,2,3,4,7,8,9-HpCDF	ND	2.50	"	"	"	"	"
1,2,3,7,8-PeCDF	ND	2.50	"	"	"	"	"



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Nevada City, CA 95959

Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

COMP 5 (T2-N, T3-N, T4-N) 1807022-26 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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SemiVolatile Organic Compounds by GC/MS

Pentachlorophenol	ND	0.350	mg/kg	A\G0062	07/09/18	07/11/18	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	108 %	% Recovery Limits		10-125			"	
Surrogate: Terphenyl-dl4	87.9 %	% Recovery Limits		10-125			"	
Naphthalene	ND	0.00670	"	"	"	07/12/18	EPA 8270 SIM	
Acenaphthylene	ND	0.00670	"	"	"	"	"	
Acenaphthene	ND	0.00670	"	"	"	"	"	
Fluorene	ND	0.00670	"	"	"	"	"	
Phenanthrene	ND	0.00670	"	"	"	"	"	
Anthracene	ND	0.00670	"	"	"	"	"	
Fluoranthene	ND	0.00670	"	"	"	"	"	
Pyrene	ND	0.00670	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00670	"	"	"	"	"	
Chrysene	ND	0.00670	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00670	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0170	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00670	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0170	"	"	"	"	"	
Surrogate: Terphenyl-dl4	85.4 %	% Recovery Limits		10-120			"	

EPA8290

Total HpCDD	8.15		pg/g	1822	07/11/18	07/12/18	EPA8290	
1,2,3,6,7,8-HxCDD	ND	2.50	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	ND	2.50	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	ND	2.50	"	"	"	"	"	
1,2,3,4,6,7,8-HpCDF	ND	2.50	"	"	"	"	"	
2,3,4,7,8-PeCDF	ND	2.50	"	"	"	"	"	
2,3,7,8-TCDD	ND	0.500	"	"	"	"	"	
2,3,7,8-TCDF	ND	0.500	"	"	"	"	"	
OCDD	28.2	5.00	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	ND	2.50	"	"	"	"	"	
TEQ	0.0543		"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	ND	2.50	"	"	"	"	"	
Total HpCDF	ND		"	"	"	"	"	
Total HxCDD	ND		"	"	"	"	"	
Total HxCDF	ND		"	"	"	"	"	

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Sierra Streams Institute
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Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

COMP 5 (T2-N, T3-N, T4-N) **1807022-26 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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EPA8290

Total PeCDD	ND		pg/g	1822	07/11/18	07/12/18	EPA8290
Total PeCDF	ND		"	"	"	"	"
Total TCDD	ND		"	"	"	"	"
Total TCDF	ND		"	"	"	"	"
OCDF	ND	5.00	"	"	"	"	"
1,2,3,4,6,7,8-HxCDD	4.58	2.50	"	"	"	"	"
1,2,3,7,8,9-HxCDD	ND	2.50	"	"	"	"	"
1,2,3,7,8,9-HxCDF	ND	2.50	"	"	"	"	"
1,2,3,7,8-PeCDF	ND	2.50	"	"	"	"	"
1,2,3,7,8-PeCDD	ND	2.50	"	"	"	"	"
2,3,4,6,7,8-HxCDF	ND	2.50	"	"	"	"	"



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COMP 6 (T5-N, T6-N, T7-N, T8-N) **1807022-27 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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SemiVolatile Organic Compounds by GC/MS

Pentachlorophenol	ND	0.350	mg/kg	A\G0062	07/09/18	07/10/18	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	102 %	% Recovery Limits		10-125			"	
Surrogate: Terphenyl-dl4	89.8 %	% Recovery Limits		10-125			"	
Naphthalene	ND	0.00670	"	"	"	07/12/18	EPA 8270 SIM	
Acenaphthylene	ND	0.00670	"	"	"	"	"	
Acenaphthene	ND	0.00670	"	"	"	"	"	
Fluorene	ND	0.00670	"	"	"	"	"	
Phenanthrene	ND	0.00670	"	"	"	"	"	
Anthracene	ND	0.00670	"	"	"	"	"	
Fluoranthene	ND	0.00670	"	"	"	"	"	
Pyrene	ND	0.00670	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00670	"	"	"	"	"	
Chrysene	ND	0.00670	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00670	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00670	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0170	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00670	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.0170	"	"	"	"	"	
Surrogate: Terphenyl-dl4	79.5 %	% Recovery Limits		10-120			"	

EPA8290

TEQ	0.0418	pg/g	1822	07/11/18	07/12/18	EPA8290
Total HxCDF	ND	"	"	"	"	"
Total HpCDF	ND	"	"	"	"	"
Total HxCDD	ND	"	"	"	"	"
Total HpCDD	6.31	"	"	"	"	"
Total PeCDD	ND	"	"	"	"	"
Total PeCDF	ND	"	"	"	"	"
Total TCDF	ND	"	"	"	"	"
1,2,3,6,7,8-HxCDF	ND	2.50	"	"	"	"
OCDF	ND	5.00	"	"	"	"
Total TCDD	ND	"	"	"	"	"
1,2,3,4,7,8-HxCDF	ND	2.50	"	"	"	"
1,2,3,7,8,9-HxCDD	ND	2.50	"	"	"	"
2,3,7,8-TCDF	ND	0.500	"	"	"	"
2,3,7,8-TCDD	ND	0.500	"	"	"	"

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Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
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COMP 6 (T5-N, T6-N, T7-N, T8-N) **1807022-27 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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EPA8290

2,3,4,7,8-PeCDF	ND	2.50	pg/g	1822	07/11/18	07/12/18	EPA8290
2,3,4,6,7,8-HxCDF	ND	2.50	"	"	"	"	"
1,2,3,4,6,7,8-HpCDD	3.08	2.50	"	"	"	"	"
1,2,3,4,6,7,8-HpCDF	ND	2.50	"	"	"	"	"
1,2,3,4,7,8,9-HpCDF	ND	2.50	"	"	"	"	"
1,2,3,6,7,8-HxCDD	ND	2.50	"	"	"	"	"
1,2,3,7,8,9-HxCDF	ND	2.50	"	"	"	"	"
1,2,3,7,8-PeCDD	ND	2.50	"	"	"	"	"
1,2,3,7,8-PeCDF	ND	2.50	"	"	"	"	"
OCDD	36.8	5.00	"	"	"	"	"
1,2,3,4,7,8-HxCDD	ND	2.50	"	"	"	"	"



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Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
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EQB-1 **1807022-28 (WASTE 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	ND	50.0	ug/l	A\G0047	06/29/18	07/09/18	EPA 8015Mod
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Total Recoverable Metals

Arsenic	ND	10.0	ug/l	A\G0050	07/09/18	07/09/18	EPA 6010B
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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\G0047 - EPA 8015Mod

Blank (A\G0047-BLK1)	Prepared: 06/29/18 Analyzed: 07/09/18							
TPH as Diesel	ND	50.0	ug/l					
LCS (A\G0047-BS1)	Prepared: 06/29/18 Analyzed: 07/09/18							
TPH as Diesel	5390	50.0	ug/l	5000	108	70-130		
LCS Dup (A\G0047-BSD1)	Prepared: 06/29/18 Analyzed: 07/09/18							
TPH as Diesel	5360	50.0	ug/l	5000	107	70-130	0.563	30

Batch A\G0053 - EPA 8015Mod

Blank (A\G0053-BLK1)	Prepared & Analyzed: 07/09/18								
TPH as Diesel	ND	1.00	mg/kg						
LCS (A\G0053-BS1)	Prepared & Analyzed: 07/09/18								
TPH as Diesel	79.1	1.00	mg/kg	100	79.1	70-130			
LCS Dup (A\G0053-BSD1)	Prepared & Analyzed: 07/09/18								
TPH as Diesel	72.2	1.00	mg/kg	100	72.2	70-130	9.02	30	
Matrix Spike (A\G0053-MS1)	Source: 1807022-05	Prepared: 07/09/18 Analyzed: 07/10/18							
TPH as Diesel	79.9	1.00	mg/kg	100	7.81	72.1	70-130		
Matrix Spike Dup (A\G0053-MSD1)	Source: 1807022-05	Prepared: 07/09/18 Analyzed: 07/10/18							
TPH as Diesel	73.1	1.00	mg/kg	100	7.81	65.2	70-130	8.92	30
									QR-07

Batch A\G0077 - EPA 8015Mod

Blank (A\G0077-BLK1)	Prepared: 07/10/18 Analyzed: 07/11/18							
TPH as Diesel	ND	1.00	mg/kg					

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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\G0077 - EPA 8015Mod

LCS (A\G0077-BS1)							Prepared: 07/10/18 Analyzed: 07/11/18			
TPH as Diesel	75.1	1.00	mg/kg	100	75.1	70-130				
LCS Dup (A\G0077-BSD1)							Prepared: 07/10/18 Analyzed: 07/11/18			
TPH as Diesel	74.9	1.00	mg/kg	100	74.9	70-130	0.249	30		
Matrix Spike (A\G0077-MS1)							Source: 1807022-18 Prepared: 07/10/18 Analyzed: 07/11/18			
TPH as Diesel	30.8	1.00	mg/kg	100	ND	30.8	70-130			QR-07
Matrix Spike Dup (A\G0077-MSD1)							Source: 1807022-18 Prepared: 07/10/18 Analyzed: 07/11/18			
TPH as Diesel	35.6	1.00	mg/kg	100	ND	35.6	70-130	14.7	30	QR-07

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SemiVolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A\G0062 - EPA 8270C

Blank (A\G0062-BLK1)						Prepared: 07/09/18 Analyzed: 07/10/18
Surrogate: 2,4,6-Tribromophenol	1.26		mg/kg	1.67	75.5	10-125
Surrogate: Terphenyl-dl4	1.29		"	1.67	77.7	10-125
Surrogate: Terphenyl-dl4	1.30		"	1.67	78.0	10-120
Naphthalene	ND	0.00670	"			
Acenaphthylene	ND	0.00670	"			
Acenaphthene	ND	0.00670	"			
Fluorene	ND	0.00670	"			
Phenanthrene	ND	0.00670	"			
Anthracene	ND	0.00670	"			
Fluoranthene	ND	0.00670	"			
Pyrene	ND	0.00670	"			
Benzo (a) anthracene	ND	0.00670	"			
Chrysene	ND	0.00670	"			
Benzo (b) fluoranthene	ND	0.00670	"			
Benzo (k) fluoranthene	ND	0.00670	"			
Benzo (a) pyrene	ND	0.00670	"			
Indeno (1,2,3-cd) pyrene	ND	0.0170	"			
Dibenz (a,h) anthracene	ND	0.00670	"			
Benzo (g,h,i) perylene	ND	0.0170	"			
Pentachlorophenol	ND	0.350	"			

LCS (A\G0062-BS1)						Prepared: 07/09/18 Analyzed: 07/10/18
Surrogate: 2,4,6-Tribromophenol	1.41		mg/kg	1.67	84.7	0-150
Surrogate: Terphenyl-dl4	1.39		"	1.67	83.6	0-150
Surrogate: Terphenyl-dl4	1.74		"	1.67	104	10-120
Acenaphthene	0.817	0.00670	"	1.67	49.0	20-125
Pyrene	1.05	0.00670	"	1.67	63.2	20-125
Pentachlorophenol	1.23	0.350	"	2.50	49.1	0-150

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SemiVolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A\G0062 - EPA 8270C

LCS Dup (A\G0062-BSD1)						Prepared: 07/09/18 Analyzed: 07/10/18				
Surrogate: 2,4,6-Tribromophenol	1.48		mg/kg	1.67		89.0	0-150			
Surrogate: Terphenyl-dl4	1.55		"	1.67		93.2	0-150			
Surrogate: Terphenyl-dl4	1.72		"	1.67		103	10-120			
Acenaphthene	0.895	0.00670	"	1.67		53.7	20-125	9.19	20	
Pyrene	1.14	0.00670	"	1.67		68.2	20-125	7.61	20	
Pentachlorophenol	1.40	0.350	"	2.50		56.1	0-150	13.3	20	

Matrix Spike (A\G0062-MS1)						Source: 1807022-22 Prepared: 07/09/18 Analyzed: 07/10/18				
Surrogate: 2,4,6-Tribromophenol	1.75		mg/kg	1.67		105	0-150			
Surrogate: Terphenyl-dl4	1.64		"	1.67		98.3	0-150			
Surrogate: Terphenyl-dl4	1.63		"	1.67		97.9	10-120			
Acenaphthene	0.977	0.00670	"	1.67	ND	58.6	20-125			
Pyrene	0.907	0.00670	"	1.67	ND	54.4	20-125			
Pentachlorophenol	1.52	0.350	"	2.50	ND	60.9	0-150			

Matrix Spike Dup (A\G0062-MSD1)						Source: 1807022-22 Prepared: 07/09/18 Analyzed: 07/10/18				
Surrogate: 2,4,6-Tribromophenol	1.81		mg/kg	1.67		109	0-150			
Surrogate: Terphenyl-dl4	1.66		"	1.67		99.6	0-150			
Surrogate: Terphenyl-dl4	1.75		"	1.67		105	10-120			
Acenaphthene	1.04	0.00670	"	1.67	ND	62.2	20-125	5.86	20	
Pyrene	0.986	0.00670	"	1.67	ND	59.1	20-125	8.35	20	
Pentachlorophenol	1.55	0.350	"	2.50	ND	62.0	0-150	1.87	20	



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Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A\G0050 - EPA 6010B

Blank (A\G0050-BLK1)	Prepared & Analyzed: 07/09/18							
Arsenic	ND	10.0	ug/l					
LCS (A\G0050-BS1)	Prepared & Analyzed: 07/09/18							
Arsenic	1050	10.0	ug/l	1000	105	80-120		
LCS Dup (A\G0050-BSD1)	Prepared & Analyzed: 07/09/18							
Arsenic	1040	10.0	ug/l	1000	104	80-120	0.479	25
Matrix Spike (A\G0050-MS1)	Source: 1807022-28 Prepared & Analyzed: 07/09/18							
Arsenic	1050	10.0	ug/l	1000	ND	105	75-125	
Matrix Spike Dup (A\G0050-MSD1)	Source: 1807022-28 Prepared & Analyzed: 07/09/18							
Arsenic	1060	10.0	ug/l	1000	ND	106	75-125	0.758
								25

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EPA8290 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1822 - EPA8290

LCS (LCS-1822)		Prepared: 07/11/18 Analyzed: 07/12/18				
1,2,3,7,8-PeCDD	113				113	130-70
1,2,3,4,7,8-HxCDF	110	"			110	130-70
OCDF	105	"			105	130-70
OCDD	114	"			114	130-70
2,3,7,8-TCDF	111	"			111	130-70
2,3,7,8-TCDD	110	"			110	130-70
2,3,4,7,8-PeCDF	110	"			110	130-70
1,2,3,7,8-PeCDF	113	"			113	130-70
1,2,3,4,7,8-HxCDD	111	"			111	130-70
1,2,3,7,8,9-HxCDF	115	"			115	130-70
1,2,3,7,8,9-HxCDD	124	"			124	130-70
1,2,3,6,7,8-HxCDF	107	"			107	130-70
1,2,3,6,7,8-HxCDD	118	"			118	130-70
1,2,3,4,6,7,8-HpCDD	115	"			115	130-70
1,2,3,4,7,8,9-HpCDF	112	"			112	130-70
2,3,4,6,7,8-HxCDF	105	"			105	130-70
1,2,3,4,6,7,8-HpCDF	106	"			106	130-70

LCSD (LCSD-1822)		Prepared: 07/11/18 Analyzed: 07/12/18				
OCDF	107				107	130-70
2,3,4,6,7,8-HxCDF	106	"			106	130-70
2,3,7,8-TCDD	106	"			106	130-70
OCDD	115	"			115	130-70
1,2,3,7,8-PeCDF	114	"			114	130-70
1,2,3,7,8-PeCDD	110	"			110	130-70
2,3,7,8-TCDF	112	"			112	130-70
1,2,3,7,8,9-HxCDD	120	"			120	130-70
1,2,3,6,7,8-HxCDF	103	"			103	130-70
1,2,3,6,7,8-HxCDD	115	"			115	130-70
1,2,3,4,7,8-HxCDF	108	"			108	130-70
1,2,3,4,7,8-HxCDD	113	"			113	130-70
1,2,3,4,7,8,9-HpCDF	111	"			111	130-70
1,2,3,4,6,7,8-HpCDF	103	"			103	130-70
1,2,3,4,6,7,8-HpCDD	113	"			113	130-70
2,3,4,7,8-PeCDF	111	"			111	130-70
1,2,3,7,8,9-HxCDF	111	"			111	130-70

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Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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EPA8290 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1822 - EPA8290

MB (MB-1822)	Prepared: 07/11/18 Analyzed: 07/12/18					
2,3,4,7,8-PeCDF	ND	2.50	pg/g			-
Total PeCDD	ND	"				-
Total PeCDF	ND	"				-
Total TCDD	ND	"				-
Total TCDF	ND	"				-
1,2,3,7,8,9-HxCDD	ND	2.50	"			-
1,2,3,7,8,9-HxCDF	ND	2.50	"			-
1,2,3,7,8-PeCDD	ND	2.50	"			-
OCDD	ND	5.00	"			-
2,3,4,6,7,8-HxCDF	ND	2.50	"			-
Total HpCDF	ND	"				-
2,3,7,8-TCDD	ND	0.500	"			-
1,2,3,7,8-PeCDF	ND	2.50	"			-
OCDF	ND	5.00	"			-
TEQ	ND	"				-
2,3,7,8-TCDF	ND	0.500	"			-
Total HxCDD	ND	"				-
Total HpCDD	ND	"				-
1,2,3,6,7,8-HxCDF	ND	2.50	"			-
1,2,3,6,7,8-HxCDD	ND	2.50	"			-
1,2,3,4,7,8-HxCDF	ND	2.50	"			-
1,2,3,4,7,8-HxCDD	ND	2.50	"			-
1,2,3,4,7,8,9-HpCDF	ND	2.50	"			-
1,2,3,4,6,7,8-HpCDF	ND	2.50	"			-
1,2,3,4,6,7,8-HpCDD	ND	2.50	"			-
Total HxCDF	ND	"				-

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Excelchem Environmental Labs

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

Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

Notes and Definitions

- QR-07 Recoveries are outside acceptable QA/QC parameters due to matrix interferences.
- 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.
- ND Analyte not detected at reporting limit.
- NR Not reported

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Composite Sample Protocol

Site: Crescent Mills Industrial Site

Client: Sierra Streams Institute

Please composite the following samples and retain extra aliquots for possible additional analysis

Composite sample name:	Discrete Samples
Comp 1:	T2-F1, T3-F1, T4-F1
Comp 2:	T5-F1, T6-F1, T7-F1, T8-F1
Comp 3:	T2-F2, T3-F2, T4-F2
Comp 4:	T5-F2, T6-F2, T7-F2, T8-F2
Comp 5:	T2-N, T3-N, T4-N
Comp 6:	T5-N, T6-N, T7-N, T8-N

Analysis and Maximum Reporting Limits:

Dioxins and furans by EPA 1607/8290	2,3,7,8 TCDD TEQ <35 pg/g
PAHs and PCP by EPA 8270	Benzo(a)pyrene <0.35 mg/kg

Any questions call

Kyle Leach

Sierra Streams Institute

530 575-5605



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Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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Sample Integrity

WORK ORDER: 1807022

Date Received: 07/2/2018

Section 1 – Sample Arrival Info.

Sample Transport: <u>Walk-In</u>	Transported In: <u>Ice Chest</u>
Describe type of packing materials: <u>None</u>	
Has chilling process begun? <u>Yes</u>	Samples Received: <u>Chilled to Touch</u>
Temperature of Samples (°C): <u>22</u>	Ice Chest Temperature(s) (°C): <u>N/A</u>

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	X			-
Did all bottle labels agree with COC?	X			-
Were correct containers used for the tests requested?	X			-
Were correct preservations used for the tests requested?	X			-
Was a sufficient amount of sample sent for tests indicated?	X		X	-
Were bubbles present in VOA Vials?: (Volatile Methods Only)				

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			Completed		
	Yes	No	Comment	Yes	No	Comments
Was COC Received	X		-	Analysis Requested	X	-
Date Sampled	X		-	Samples arrived within holding time	X	-
Time Sampled		X	-	Any hold times less than 72 hrs		X
Sample ID	X			Client Name	X	-
Rush TAT		X	-	Address/Telephone #	X	-

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: N/A Notified by: N/A

Explanations / Comments:
-
w
-

Samples Labeled by:	AS
BIN	S16
COC Scanned/Attached by:	AS
Sample labels reviewed by:	AS

Filled out by: <i>Asia Sanchez</i>	Date: 7/6/2018
	Time : 11:58



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Sierra Streams Institute
431 Uren St., Suite C
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Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
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Laboratory Representative

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

Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

CHAIN OF CUSTODY									
Excelchem Environmental Labs					REPORTING REQUIREMENTS BELOW:				
Project Manager: <i>Kyle Leach</i>		Phone #: 916-543-4445		Fax #: 916-543-4449		PDF / Standard Format			
Email Address for Reporting: <i>7305753603</i>		Cell #: 7305753603		Geotracker / EDF / Provide Global ID					
Fax #:									
Company Name & Address: <i>Crescent Mills 15</i>		P.O.# / Project Name: <i>Crescent Mills 15</i>		EDD / Equis / Data Table					
Billing Address: <i>see page 1</i>		Project Location: <i>Project Location</i>		MDL Format					
Sampler Name: <i>Kyle Leach</i>		Sampler Signature: <i>gk</i>		Data to be reported to State's Database ? Yes _____ No _____					
Source Codes:		LAB USE: Bln #: BIN: <i>1807022</i>		EDT / CDPH - Provide Source Codes / PINS ID: <i>page 2 of 14</i>					
ANALYSIS REQUEST									
Preserved ? (Mark yes and no if both available)									
Metals									
Sic / Total									
Summa									
Tedlar / Summa									
Coliform Tube									
250ml plastic									
500ml plastic									
1000ml plastic									
1 Gallon plastic									
1 Liter Amber									
40ml Voa - Clear									
40ml Voa - Amber									
250ml Amber									
500ml Amber									
Soil Jar									
DW = Drinking Water									
MW = Monitoring Wells									
GW = Groundwater									
TW = Treated Water									
WW = Waste Water									
SAMPLE ID:	DATE	SAMPLING TIME	Matrix (See Matrix Table)						
T5-N	6-28-18	5	Matrix Table: S = Soil O = Sludge / Solid (circle one) A = Air						
T6-F1			Preserved ? (Mark yes and no if both available)						
T6-F2			Yes _____ No _____						
T6-N			Metals						
T7-F1			Sic / Total						
T7-F2			Summa						
T7-N			Tedlar / Summa						
T8-F1			Coliform Tube						
T8-F2			250ml plastic						
T8-N			500ml plastic						
			1000ml plastic						
			1 Gallon plastic						
			1 Liter Amber						
			40ml Voa - Clear						
			40ml Voa - Amber						
			250ml Amber						
			500ml Amber						
			Soil Jar						
			DW = Drinking Water						
			MW = Monitoring Wells						
			GW = Groundwater						
			TW = Treated Water						
			WW = Waste Water						
Relinquished by:	DATE	TIME	Received by:						
	<i>7/24/18</i>	<i>1528</i>							
Relinquished by:	DATE	TIME	Received by Laboratory:						
	<i>7/14/18</i>	<i>1528</i>	<i>John Danner</i>						
Remarks: <i>1807022</i>									

Excelchem Environmental Lab.

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

Project: Crescent Mills Industrial Site
Project Number: [none]
Project Manager: Kyle Leach

Date Reported:
07/17/18 13:13

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Excelchem Environmental Labs

Sierra Streams Institute 431 Uren St., Suite C Nevada City, CA 95959	Project: Crescent Mills Industrial Site Project Number: [none] Project Manager: Kyle Leach	Date Reported: 07/17/18 13:13
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CHAIN OF CUSTODY											
REPORTING REQUIREMENTS BELOW:											
<p>Excelchem Environmental Labs 1135 W. Sunset Blvd. Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fax: 916-543-4449</p> <p>Project Manager: <i>Kyle Leach</i></p> <p>Email Address for Reporting:</p> <p>Company Name & Address: <i>SS1 see pg 1</i></p> <p>Billing Address:</p> <p><i>See pg 1</i></p> <p>Sampler Signature:</p>											
<p>Preserved? (Mark yes and no if both available)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Yes</td> <td>No</td> </tr> </table> <p>Matrix Table: S = Soil / Sludge / Solid (circle one) A = Air</p> <p>DW = Drinking Water MW = Monitoring Wells GW = Groundwater TW = Treated Water WW = Waste Water</p>										Yes	No
Yes	No										
SAMPLE ID: <i>SS1</i>	SOURCE <i>6265</i>	SAMPLING CODES <i>W/W</i>	DATE <i>7/17/18</i>	TIME <i>1528</i>	Matrix (See Matrix Table) <i>Summa</i>	Preserved? <i>X</i>	Metals <i>X X</i>	ANALYSIS REQUEST			
								Lab Use: Bin #: <i>TPH-d by 8D15</i> <i>Total As</i>	Microbiology Work Order: <i>1807022</i> <i>SS1</i>		
Remarks: <i>Received by Laboratory: John Donner</i>											
Remarks: <i>Reinforced by: John Donner</i>											
Remarks: <i>Relinquished by: John Donner</i>											