

Bottom Ash Data

2020 Week 25

The following analytical report was sent to the Ministry of Environment and Climate Change Strategy on June 29, 2020. The data represents bottom ash composite results for week 25 of 2020 (June 14, 2020 to June 20, 2020).

The bottom ash meets the requirements of Metro Vancouver's Bottom Ash Management Plan and is suitable for disposal.



CERTIFICATE OF ANALYSIS

Work Order : **VA20A8917**
Client : **Covanta Burnaby Renewable Energy, ULC**
Contact : Steve McKinney
Address : 5150 Riverbend Drive
Burnaby BC Canada V3N 4V3
Telephone : 604 521 1025
Project : ----
PO : VANCO 0000049378
C-O-C number : ----
Sampler : ----
Site : ----
Quote number : Standing Offer (BC work)
No. of samples received : 12
No. of samples analysed : 12

Page : 1 of 11
Laboratory : Vancouver - Environmental
Account Manager : Brent Mack
Address : 8081 Lougheed Highway
Burnaby BC Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 23-Jun-2020 11:30
Date Analysis Commenced : 24-Jun-2020
Issue Date : 29-Jun-2020 11:59

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kinny Wu	Laboratory Analyst	Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Organics, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
%	percent
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in reports identified as "Preliminary Report" are considered authorized for use.



Analytical Results

Sub-Matrix: Soil

Client sample ID

(Matrix: Soil/Solid)

					BA2025-A-1	BA2025-A-2	BA2025-A-3	BA2025-A-4	BA2025-A-5
Client sampling date / time					17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-001	VA20A8917-002	VA20A8917-003	VA20A8917-004	VA20A8917-005
					Result	Result	Result	Result	Result
Physical Tests									
moisture	----	E144	0.25	%	18.9	19.3	19.6	19.0	19.0
pH (1:2 soil:water)	----	E108	0.10	pH units	10.6	10.7	10.6	10.6	10.7
Metals									
aluminum	7429-90-5	E440	50	mg/kg	30200	52000	37900	40000	43900
antimony	7440-36-0	E440	0.10	mg/kg	124	109	124	98.0	100
arsenic	7440-38-2	E440	0.10	mg/kg	27.6	29.5	24.7	29.4	40.2
barium	7440-39-3	E440	0.50	mg/kg	580	696	726	547	700
beryllium	7440-41-7	E440	0.10	mg/kg	0.38	0.38	0.42	0.34	0.37
bismuth	7440-69-9	E440	0.20	mg/kg	284	8.22	8.46	7.08	51.8
boron	7440-42-8	E440	5.0	mg/kg	193	271	178	134	160
cadmium	7440-43-9	E440	0.020	mg/kg	10.5	11.4	11.4	15.3	15.0
calcium	7440-70-2	E440	50	mg/kg	114000	130000	116000	112000	108000
chromium	7440-47-3	E440	0.50	mg/kg	236	162	126	264	119
cobalt	7440-48-4	E440	0.10	mg/kg	69.0	41.5	33.3	28.4	35.4
copper	7440-50-8	E440	0.50	mg/kg	1840	2080	2660	1010	2030
iron	7439-89-6	E440	50	mg/kg	71400	83100	65500	84000	59100
lead	7439-92-1	E440	0.50	mg/kg	1870	1430	649	315	916
lithium	7439-93-2	E440	2.0	mg/kg	16.5	17.3	18.5	26.3	15.2
magnesium	7439-95-4	E440	20	mg/kg	10500	11600	10600	9950	10600
manganese	7439-96-5	E440	1.0	mg/kg	891	1090	782	1010	1010
mercury	7439-97-6	E510	0.0500	mg/kg	0.0615	0.0902	0.136	0.0569	0.0888
molybdenum	7439-98-7	E440	0.10	mg/kg	79.8	108	66.5	51.4	105
nickel	7440-02-0	E440	0.50	mg/kg	150	159	109	94.6	106
phosphorus	7723-14-0	E440	50	mg/kg	10500	12400	10100	11000	10200
potassium	7440-09-7	E440	100	mg/kg	5130	6040	5510	4570	4960
selenium	7782-49-2	E440	0.20	mg/kg	0.24	0.32	0.27	0.22	0.25
silver	7440-22-4	E440	0.10	mg/kg	2.33	5.74	6.56	2.82	3.21
sodium	7440-23-5	E440	50	mg/kg	15100	15500	14800	13500	13000
strontium	7440-24-6	E440	0.50	mg/kg	294	352	338	280	498
sulfur	7704-34-9	E440	1000	mg/kg	11100	12300	11400	11500	10000



Analytical Results

Sub-Matrix: Soil					Client sample ID	BA2025-A-1	BA2025-A-2	BA2025-A-3	BA2025-A-4	BA2025-A-5
(Matrix: Soil/Solid)										
Client sampling date / time					17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-001	VA20A8917-002	VA20A8917-003	VA20A8917-004	VA20A8917-005	
					Result	Result	Result	Result	Result	
Metals										
thallium	7440-28-0	E440	0.050	mg/kg	0.060	0.479	0.055	<0.050	<0.050	
tin	7440-31-5	E440	2.0	mg/kg	87.0	100	189	118	87.9	
titanium	7440-32-6	E440	1.0	mg/kg	950	1030	799	1290	1450	
tungsten	7440-33-7	E440	0.50	mg/kg	9.21	9.92	3.14	3.99	4.20	
uranium	7440-61-1	E440	0.050	mg/kg	4.88	4.93	4.76	4.12	4.40	
vanadium	7440-62-2	E440	0.20	mg/kg	45.4	46.5	47.8	46.8	49.2	
zinc	7440-66-6	E440	2.0	mg/kg	3560	12500	5350	5880	3340	
zirconium	7440-67-7	E440	1.0	mg/kg	1.7	2.8	1.4	2.4	2.8	
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444	0.010	pH units	11.2	11.3	11.3	11.3	11.3	
pH, TCLP 2nd preliminary	----	EPP444	0.010	pH units	9.42	8.69	9.24	9.39	8.96	
pH, TCLP extraction fluid initial	----	EPP444	0.010	pH units	2.87	2.87	2.87	2.87	2.87	
pH, TCLP final	----	EPP444	0.010	pH units	5.90	6.02	5.94	6.56	5.96	
antimony, TCLP	7440-36-0	E444	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
arsenic, TCLP	7440-38-2	E444	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	<2.5	<2.5	<2.5	<2.5	
beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025	
boron, TCLP	7440-42-8	E444	0.50	mg/L	1.92	1.99	1.88	2.03	1.96	
cadmium, TCLP	7440-43-9	E444	0.050	mg/L	0.261	0.230	0.226	0.167	0.244	
calcium, TCLP	7440-70-2	E444	10	mg/L	2000	1970	1950	1790	1970	
chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	
cobalt, TCLP	7440-48-4	E444	0.050	mg/L	0.817	0.984	0.843	0.407	0.848	
copper, TCLP	7440-50-8	E444	0.050	mg/L	1.67	1.21	1.13	0.647	1.76	
iron, TCLP	7439-89-6	E444	5.0	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	
lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	
magnesium, TCLP	7439-95-4	E444	2.5	mg/L	133	134	131	118	130	
mercury, TCLP	7439-97-6	E512	0.0100	mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	
nickel, TCLP	7440-02-0	E444	0.25	mg/L	0.62	0.48	0.49	0.34	0.43	
selenium, TCLP	7782-49-2	E444	1.00	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	
silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	



Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	BA2025-A-1	BA2025-A-2	BA2025-A-3	BA2025-A-4	BA2025-A-5
Client sampling date / time					17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-001	VA20A8917-002	VA20A8917-003	VA20A8917-004	VA20A8917-005	
					Result	Result	Result	Result	Result	
TCLP Metals										
vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
zinc, TCLP	7440-66-6	E444	0.50	mg/L	61.6	50.4	45.0	23.7	69.2	

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil					Client sample ID	BA2025-A-6	BA2025-A-7	BA2025-A-8	BA2025-A-9	BA2025-A-10
(Matrix: Soil/Solid)										
Client sampling date / time					17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-006	VA20A8917-007	VA20A8917-008	VA20A8917-009	VA20A8917-010	
					Result	Result	Result	Result	Result	
Physical Tests										
moisture	----	E144	0.25	%	19.3	18.9	18.6	19.8	19.0	
pH (1:2 soil:water)	----	E108	0.10	pH units	10.8	10.7	10.8	10.7	10.7	
Metals										
aluminum	7429-90-5	E440	50	mg/kg	28600	56600	31700	28600	32900	
antimony	7440-36-0	E440	0.10	mg/kg	97.7	130	103	108	91.6	
arsenic	7440-38-2	E440	0.10	mg/kg	31.1	27.8	25.9	26.9	22.1	
barium	7440-39-3	E440	0.50	mg/kg	568	661	528	507	545	
beryllium	7440-41-7	E440	0.10	mg/kg	0.36	0.35	0.35	0.36	0.40	
bismuth	7440-69-9	E440	0.20	mg/kg	8.56	9.29	8.38	8.06	7.24	
boron	7440-42-8	E440	5.0	mg/kg	231	271	185	152	185	
cadmium	7440-43-9	E440	0.020	mg/kg	14.9	11.5	12.6	11.9	11.7	
calcium	7440-70-2	E440	50	mg/kg	112000	131000	110000	118000	114000	
chromium	7440-47-3	E440	0.50	mg/kg	2110	148	107	246	172	
cobalt	7440-48-4	E440	0.10	mg/kg	57.4	38.1	42.3	27.4	31.1	
copper	7440-50-8	E440	0.50	mg/kg	6140	9170	4860	1470	7340	
iron	7439-89-6	E440	50	mg/kg	90300	65400	49700	55700	79900	
lead	7439-92-1	E440	0.50	mg/kg	298	1090	1220	376	318	
lithium	7439-93-2	E440	2.0	mg/kg	21.8	17.6	16.9	13.5	17.3	
magnesium	7439-95-4	E440	20	mg/kg	10800	10600	10500	11300	10400	
manganese	7439-96-5	E440	1.0	mg/kg	962	713	594	1150	1380	
mercury	7439-97-6	E510	0.0500	mg/kg	0.0599	0.153	0.0582	0.0877	0.0666	
molybdenum	7439-98-7	E440	0.10	mg/kg	103	53.2	53.4	66.7	96.4	
nickel	7440-02-0	E440	0.50	mg/kg	899	200	115	219	560	
phosphorus	7723-14-0	E440	50	mg/kg	10200	11400	9840	11100	8950	
potassium	7440-09-7	E440	100	mg/kg	5200	5610	4790	5120	4790	
selenium	7782-49-2	E440	0.20	mg/kg	0.28	0.33	0.27	0.22	0.26	
silver	7440-22-4	E440	0.10	mg/kg	3.16	2.68	3.68	3.66	6.40	
sodium	7440-23-5	E440	50	mg/kg	13000	14200	12300	13800	13600	
strontium	7440-24-6	E440	0.50	mg/kg	554	335	264	272	630	
sulfur	7704-34-9	E440	1000	mg/kg	11400	12700	10900	11500	11000	
thallium	7440-28-0	E440	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	0.066	



Analytical Results

Sub-Matrix: Soil					Client sample ID				
(Matrix: Soil/Solid)					BA2025-A-6	BA2025-A-7	BA2025-A-8	BA2025-A-9	BA2025-A-10
Client sampling date / time					17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-006	VA20A8917-007	VA20A8917-008	VA20A8917-009	VA20A8917-010
					Result	Result	Result	Result	Result
Metals									
tin	7440-31-5	E440	2.0	mg/kg	116	509	94.6	82.9	331
titanium	7440-32-6	E440	1.0	mg/kg	1100	1620	780	447	415
tungsten	7440-33-7	E440	0.50	mg/kg	5.25	7.53	3.53	3.82	4.10
uranium	7440-61-1	E440	0.050	mg/kg	5.00	4.95	4.79	5.27	4.41
vanadium	7440-62-2	E440	0.20	mg/kg	51.3	52.0	43.1	47.1	44.2
zinc	7440-66-6	E440	2.0	mg/kg	3900	3650	3680	3730	5780
zirconium	7440-67-7	E440	1.0	mg/kg	1.6	6.0	2.4	1.6	1.6
TCLP Metals									
pH, TCLP 1st preliminary	----	EPP444	0.010	pH units	11.3	11.3	11.3	11.3	11.3
pH, TCLP 2nd preliminary	----	EPP444	0.010	pH units	9.74	8.98	9.66	9.12	9.56
pH, TCLP extraction fluid initial	----	EPP444	0.010	pH units	2.87	2.87	2.87	2.87	2.87
pH, TCLP final	----	EPP444	0.010	pH units	6.06	6.04	6.05	6.03	6.10
antimony, TCLP	7440-36-0	E444	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
arsenic, TCLP	7440-38-2	E444	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	<2.5	<2.5	<2.5	<2.5
beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025
boron, TCLP	7440-42-8	E444	0.50	mg/L	1.93	1.95	1.94	1.83	2.34
cadmium, TCLP	7440-43-9	E444	0.050	mg/L	0.360	0.209	0.212	0.184	0.179
calcium, TCLP	7440-70-2	E444	10	mg/L	1910	2020	1910	1870	1900
chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25
cobalt, TCLP	7440-48-4	E444	0.050	mg/L	1.13	1.04	0.936	0.457	0.665
copper, TCLP	7440-50-8	E444	0.050	mg/L	0.943	0.967	1.09	1.19	0.782
iron, TCLP	7439-89-6	E444	5.0	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0
lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	<0.25	0.29	<0.25	<0.25
magnesium, TCLP	7439-95-4	E444	2.5	mg/L	132	134	135	132	136
mercury, TCLP	7439-97-6	E512	0.0100	mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
nickel, TCLP	7440-02-0	E444	0.25	mg/L	0.50	0.58	0.50	0.46	0.49
selenium, TCLP	7782-49-2	E444	1.00	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00
silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15



Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	BA2025-A-6	BA2025-A-7	BA2025-A-8	BA2025-A-9	BA2025-A-10
Client sampling date / time					17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00	17-Jun-2020 09:00
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-006	VA20A8917-007	VA20A8917-008	VA20A8917-009	VA20A8917-010	
					Result	Result	Result	Result	Result	
TCLP Metals										
zinc, TCLP	7440-66-6	E444	0.50	mg/L	37.5	52.4	44.0	39.6	44.0	

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil					Client sample ID	BA2025-A-11	BA2025-A-12	----	----	----
(Matrix: Soil/Solid)					Client sampling date / time	17-Jun-2020 09:00	17-Jun-2020 09:00	---	---	---
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-011	VA20A8917-012	-----	-----	-----	
					Result	Result	---	---	---	
Physical Tests										
moisture	----	E144	0.25	%	18.6	18.2	----	----	----	
pH (1:2 soil:water)	----	E108	0.10	pH units	10.8	10.8	----	----	----	
Metals										
aluminum	7429-90-5	E440	50	mg/kg	32900	38800	----	----	----	
antimony	7440-36-0	E440	0.10	mg/kg	103	113	----	----	----	
arsenic	7440-38-2	E440	0.10	mg/kg	25.0	26.2	----	----	----	
barium	7440-39-3	E440	0.50	mg/kg	616	559	----	----	----	
beryllium	7440-41-7	E440	0.10	mg/kg	0.35	0.39	----	----	----	
bismuth	7440-69-9	E440	0.20	mg/kg	10.4	38.4	----	----	----	
boron	7440-42-8	E440	5.0	mg/kg	157	230	----	----	----	
cadmium	7440-43-9	E440	0.020	mg/kg	11.5	14.8	----	----	----	
calcium	7440-70-2	E440	50	mg/kg	112000	121000	----	----	----	
chromium	7440-47-3	E440	0.50	mg/kg	161	235	----	----	----	
cobalt	7440-48-4	E440	0.10	mg/kg	24.6	218	----	----	----	
copper	7440-50-8	E440	0.50	mg/kg	1250	4640	----	----	----	
iron	7439-89-6	E440	50	mg/kg	63100	61600	----	----	----	
lead	7439-92-1	E440	0.50	mg/kg	571	346	----	----	----	
lithium	7439-93-2	E440	2.0	mg/kg	12.9	15.9	----	----	----	
magnesium	7439-95-4	E440	20	mg/kg	11900	10100	----	----	----	
manganese	7439-96-5	E440	1.0	mg/kg	818	886	----	----	----	
mercury	7439-97-6	E510	0.0500	mg/kg	0.0885	0.0623	----	----	----	
molybdenum	7439-98-7	E440	0.10	mg/kg	58.9	300	----	----	----	
nickel	7440-02-0	E440	0.50	mg/kg	141	129	----	----	----	
phosphorus	7723-14-0	E440	50	mg/kg	10700	11200	----	----	----	
potassium	7440-09-7	E440	100	mg/kg	5200	5130	----	----	----	
selenium	7782-49-2	E440	0.20	mg/kg	0.26	0.33	----	----	----	
silver	7440-22-4	E440	0.10	mg/kg	4.02	3.09	----	----	----	
sodium	7440-23-5	E440	50	mg/kg	13600	14200	----	----	----	
strontium	7440-24-6	E440	0.50	mg/kg	389	272	----	----	----	
sulfur	7704-34-9	E440	1000	mg/kg	11600	12200	----	----	----	
thallium	7440-28-0	E440	0.050	mg/kg	0.055	0.050	----	----	----	



Analytical Results

Sub-Matrix: Soil					Client sample ID	BA2025-A-11	BA2025-A-12	----	----	----
(Matrix: Soil/Solid)										
Client sampling date / time					17-Jun-2020 09:00	17-Jun-2020 09:00	---	---	---	---
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-011	VA20A8917-012	-----	-----	-----	-----
					Result	Result	---	---	---	---
Metals										
tin	7440-31-5	E440	2.0	mg/kg	112	106	----	----	----	----
titanium	7440-32-6	E440	1.0	mg/kg	558	712	----	----	----	----
tungsten	7440-33-7	E440	0.50	mg/kg	5.92	75.2	----	----	----	----
uranium	7440-61-1	E440	0.050	mg/kg	4.92	4.84	----	----	----	----
vanadium	7440-62-2	E440	0.20	mg/kg	50.4	75.3	----	----	----	----
zinc	7440-66-6	E440	2.0	mg/kg	5050	3580	----	----	----	----
zirconium	7440-67-7	E440	1.0	mg/kg	1.5	1.4	----	----	----	----
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444	0.010	pH units	11.2	11.3	----	----	----	----
pH, TCLP 2nd preliminary	----	EPP444	0.010	pH units	9.72	9.57	----	----	----	----
pH, TCLP extraction fluid initial	----	EPP444	0.010	pH units	2.87	2.87	----	----	----	----
pH, TCLP final	----	EPP444	0.010	pH units	5.88	6.42	----	----	----	----
antimony, TCLP	7440-36-0	E444	1.0	mg/L	<1.0	<1.0	----	----	----	----
arsenic, TCLP	7440-38-2	E444	1.0	mg/L	<1.0	<1.0	----	----	----	----
barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	<2.5	----	----	----	----
beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	<0.025	----	----	----	----
boron, TCLP	7440-42-8	E444	0.50	mg/L	1.79	1.60	----	----	----	----
cadmium, TCLP	7440-43-9	E444	0.050	mg/L	0.250	0.172	----	----	----	----
calcium, TCLP	7440-70-2	E444	10	mg/L	1960	1670	----	----	----	----
chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	<0.25	----	----	----	----
cobalt, TCLP	7440-48-4	E444	0.050	mg/L	1.15	0.520	----	----	----	----
copper, TCLP	7440-50-8	E444	0.050	mg/L	1.51	0.843	----	----	----	----
iron, TCLP	7439-89-6	E444	5.0	mg/L	<5.0	<5.0	----	----	----	----
lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	<0.25	----	----	----	----
magnesium, TCLP	7439-95-4	E444	2.5	mg/L	129	109	----	----	----	----
mercury, TCLP	7439-97-6	E512	0.0100	mg/L	<0.0100	<0.0100	----	----	----	----
nickel, TCLP	7440-02-0	E444	0.25	mg/L	0.49	0.32	----	----	----	----
selenium, TCLP	7782-49-2	E444	1.00	mg/L	<1.00	<1.00	----	----	----	----
silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	----	----	----	----
thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	----	----	----	----
vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	----	----	----	----



Analytical Results

Sub-Matrix: Soil					Client sample ID	BA2025-A-11	BA2025-A-12	----	----	----
(Matrix: Soil/Solid)					Client sampling date / time	17-Jun-2020 09:00	17-Jun-2020 09:00	---	---	---
Analyte	CAS Number	Method	LOR	Unit	VA20A8917-011	VA20A8917-012	-----	-----	-----	
TCLP Metals					Result	Result	---	---	---	
zinc, TCLP	7440-66-6	E444	0.50	mg/L	82.4	25.2	----	----	----	

Please refer to the General Comments section for an explanation of any qualifiers detected.