

Bottom Ash Data

2026 Week 22

The following analytical report represents bottom ash composite results for week 22 of 2026 (May 24, 2026 to May 30, 2026).

The bottom ash meets the conditions of Metro Vancouver's 2020 Bottom Ash Management Plan and is suitable for disposal.

CERTIFICATE OF ANALYSIS

Work Order	: VA26B4147		
Client	: Veolia Environmental Services Canada	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby British Columbia Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	E-mail	: Gulraj.Dhanaua@alsglobal.com
Project	: Veolia Weekly Bottom Ash-Suite	Telephone	: +1 604 253 4188
PO	: 1000620652	Date Samples Received	: 02-Jun-2026 12:40
C-O-C number	: ----	Date Analysis Commenced	: 05-Jun-2026
Sampler	: ----	Issue Date	: 10-Jun-2026 08:58
Site	: Metro Van Ash Sampling Program		
Quote number	: VA25-VISI100-001		
No. of samples received	: 12		
No. of samples analysed	: 12		

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>
Brieanna Allen	Production/Validation Manager	Organics, Burnaby, British Columbia
Dan Gebert	Supervisor - Metals Mercury & Speciation	Metals, Burnaby, British Columbia
Robert Nguyen	Analyst	Metals, Burnaby, British Columbia
Robin Weeks	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Robin Weeks	Supervisor - Organics Extractions	Metals, 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).

Unit	Description
%	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

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-1 ----	BA 2622-A-2 ----	BA 2622-A-3 ----	BA 2622-A-4 ----	BA 2622-A-5 ----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-001	VA26B4147-002	VA26B4147-003	VA26B4147-004	VA26B4147-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		25.1	22.9	23.7	23.9	21.7
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.56	10.52	10.53	10.55	10.53
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		48200	36400	59800	38500	38300
Antimony	7440-36-0	E440/VA	0.10	mg/kg		114	137	113	113	103
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		17.4	21.4	15.2	18.5	17.2
Barium	7440-39-3	E440/VA	0.50	mg/kg		542	613	626	516	730
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.48	0.39	0.39	0.40	0.48
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		9.10	11.0	8.33	29.9	10.2
Boron	7440-42-8	E440/VA	5.0	mg/kg		245	174	210	215	188
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		11.1	10.9	10.5	9.25	8.30
Calcium	7440-70-2	E440/VA	50	mg/kg		139000	149000	131000	137000	127000
Chromium	7440-47-3	E440/VA	0.50	mg/kg		316	264	644	197	166
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		105	51.5	49.6	83.7	91.4
Copper	7440-50-8	E440/VA	0.50	mg/kg		3060	6370	1970	3010	1680
Iron	7439-89-6	E440/VA	50	mg/kg		41300	37400	47800	44100	31400
Lead	7439-92-1	E440/VA	0.50	mg/kg		301	387	259	392	251
Lithium	7439-93-2	E440/VA	2.0	mg/kg		37.1	39.3	39.6	46.2	35.6
Magnesium	7439-95-4	E440/VA	20	mg/kg		12200	13800	11400	12400	11600
Manganese	7439-96-5	E440/VA	1.0	mg/kg		801	723	874	729	784
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		<0.0500	<0.0500	<0.0500	<0.0500	<0.0500



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-1 ----	BA 2622-A-2 ----	BA 2622-A-3 ----	BA 2622-A-4 ----	BA 2622-A-5 ----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-001	VA26B4147-002	VA26B4147-003	VA26B4147-004	VA26B4147-005
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		20.8	44.3	32.6	20.1	26.9
Nickel	7440-02-0	E440/VA	0.50	mg/kg		137	331	214	246	193
Phosphorus	7723-14-0	E440/VA	50	mg/kg		13300	12200	8750	10900	10400
Potassium	7440-09-7	E440/VA	100	mg/kg		7370	8370	7260	7960	6970
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.43	0.54	0.42	0.53	0.36
Silver	7440-22-4	E440/VA	0.10	mg/kg		4.88	23.3	3.81	6.13	4.08
Sodium	7440-23-5	E440/VA	50	mg/kg		20500	22500	19500	21000	19800
Strontium	7440-24-6	E440/VA	0.50	mg/kg		340	359	314	326	351
Sulfur	7704-34-9	E440/VA	1000	mg/kg		12900	14200	11200	12200	10400
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg		110	120	93.4	113	95.3
Titanium	7440-32-6	E440/VA	1.0	mg/kg		317	410	824	379	263
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		23.6	76.0	15.4	16.4	10.6
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.98	1.94	1.93	1.76	1.69
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		31.7	31.7	38.5	28.6	41.4
Zinc	7440-66-6	E440/VA	2.0	mg/kg		4000	5010	5380	4270	2810
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		2.2	1.8	2.9	2.2	1.5
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.36	11.39	11.38	11.25	11.31
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		4.97	3.98	4.56	4.38	4.92
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.90	4.90	4.90	4.90	4.90



Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-1	BA 2622-A-2	BA 2622-A-3	BA 2622-A-4	BA 2622-A-5
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-001	VA26B4147-002	VA26B4147-003	VA26B4147-004	VA26B4147-005
						Result	Result	Result	Result	Result
TCLP Metals										
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.47	9.42	9.36	9.42	9.46
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L		<1.00	<1.00	<1.00	<1.00	<1.00
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L		<2.5	<2.5	<2.5	<2.5	<2.5
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L		<0.025	<0.025	<0.025	<0.025	<0.025
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L		0.77	1.03	0.91	0.83	0.83
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		753	777	784	800	807
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.613	0.604	0.654	0.659	0.656
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L		3.0	6.0	5.5	6.2	4.3
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L		<0.10	<0.10	<0.10	<0.10	<0.10
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L		<0.20	<0.20	<0.20	<0.20	<0.20
Vanadium, TCLP	7440-62-2	E444/VA	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	BA 2622-A-1 ----	BA 2622-A-2 ----	BA 2622-A-3 ----	BA 2622-A-4 ----	BA 2622-A-5 ----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-001	VA26B4147-002	VA26B4147-003	VA26B4147-004	VA26B4147-005
						Result	Result	Result	Result	Result
TCLP Metals										
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L		<10	<10	<10	<10	<10

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

Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-6 ----	BA 2622-A-7 ----	BA 2622-A-8 ----	BA 2622-A-9 ----	BA 2622-A-10 ----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-006	VA26B4147-007	VA26B4147-008	VA26B4147-009	VA26B4147-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		23.0	20.1	24.4	24.2	21.9
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.50	10.56	10.51	10.44	10.57
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		52500	43400	38500	39800	46000
Antimony	7440-36-0	E440/VA	0.10	mg/kg		82.4	95.4	74.9	98.0	106
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		15.7	14.9	13.3	13.4	13.5
Barium	7440-39-3	E440/VA	0.50	mg/kg		734	655	524	538	686
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.38	0.37	0.35	0.35	0.39
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		6.08	8.99	6.23	7.72	8.55
Boron	7440-42-8	E440/VA	5.0	mg/kg		216	246	156	258	285
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		6.74	7.24	7.75	7.91	6.98
Calcium	7440-70-2	E440/VA	50	mg/kg		119000	126000	113000	136000	130000



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-6	BA 2622-A-7	BA 2622-A-8	BA 2622-A-9	BA 2622-A-10
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-006	VA26B4147-007	VA26B4147-008	VA26B4147-009	VA26B4147-010
						Result	Result	Result	Result	Result
Metals										
Chromium	7440-47-3	E440/VA	0.50	mg/kg		189	164	131	143	136
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		30.9	270	39.0	32.0	36.5
Copper	7440-50-8	E440/VA	0.50	mg/kg		1810	991	1330	1010	1220
Iron	7439-89-6	E440/VA	50	mg/kg		49500	38700	43600	32100	33800
Lead	7439-92-1	E440/VA	0.50	mg/kg		242	245	188	268	223
Lithium	7439-93-2	E440/VA	2.0	mg/kg		37.8	40.9	28.2	88.0	43.4
Magnesium	7439-95-4	E440/VA	20	mg/kg		10700	10800	10200	11200	10700
Manganese	7439-96-5	E440/VA	1.0	mg/kg		929	1950	648	2250	740
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		19.4	20.7	17.8	21.7	17.3
Nickel	7440-02-0	E440/VA	0.50	mg/kg		184	302	165	139	217
Phosphorus	7723-14-0	E440/VA	50	mg/kg		9840	9960	7590	9620	11300
Potassium	7440-09-7	E440/VA	100	mg/kg		5960	5730	5770	6320	6120
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.31	1.88	0.28	0.40	0.32
Silver	7440-22-4	E440/VA	0.10	mg/kg		6.09	5.12	5.84	4.14	6.21
Sodium	7440-23-5	E440/VA	50	mg/kg		17600	18000	16800	17500	18100
Strontium	7440-24-6	E440/VA	0.50	mg/kg		302	329	262	402	326
Sulfur	7704-34-9	E440/VA	1000	mg/kg		8600	9700	8500	10400	9400
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg		95.6	85.3	72.5	78.6	136
Titanium	7440-32-6	E440/VA	1.0	mg/kg		565	341	322	252	252



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-6 ----	BA 2622-A-7 ----	BA 2622-A-8 ----	BA 2622-A-9 ----	BA 2622-A-10 ----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-006	VA26B4147-007	VA26B4147-008	VA26B4147-009	VA26B4147-010
						Result	Result	Result	Result	Result
Metals										
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		11.2	10.7	9.47	14.1	11.1
Uranium	7440-61-1	E440/VA	0.050	mg/kg		2.61	1.46	1.37	1.56	1.68
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		35.4	29.6	32.1	31.5	32.3
Zinc	7440-66-6	E440/VA	2.0	mg/kg		2750	3180	2890	2700	2620
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		2.2	1.6	1.9	2.0	2.6
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.27	11.38	11.40	11.35	11.37
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		3.76	5.57	4.98	4.79	4.14
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.90	2.87	4.90	4.90	4.90
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.71	6.82	9.37	9.58	9.61
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L		<1.00	<1.00	<1.00	<1.00	<1.00
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L		<2.5	<2.5	<2.5	<2.5	<2.5
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L		<0.025	<0.025	<0.025	<0.025	<0.025
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L		0.83	2.07	0.79	0.78	0.81
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		785	1740	798	787	774
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L		<0.050	0.434	<0.050	<0.050	<0.050
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.673	0.553	0.694	0.669	0.620
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-6 ----	BA 2622-A-7 ----	BA 2622-A-8 ----	BA 2622-A-9 ----	BA 2622-A-10 ----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00	01-Jun-2026 12:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-006	VA26B4147-007	VA26B4147-008	VA26B4147-009	VA26B4147-010
						Result	Result	Result	Result	Result
TCLP Metals										
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L		<2.5	97.1	4.0	3.2	4.5
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L		<0.10	<0.10	<0.10	<0.10	<0.10
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L		<0.20	<0.20	<0.20	<0.20	<0.20
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L		<0.15	<0.15	<0.15	<0.15	<0.15
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L		<0.50	1.65	<0.50	<0.50	<0.50
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L		<10	<10	<10	<10	<10

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

Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-11 ----	BA 2622-A-12 ----	----	----	----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B4147-011	VA26B4147-012	----	----	----
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		21.6	20.2	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.55	10.76	----	----	----



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-11	BA 2622-A-12	----	----	----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA26B4147-011	VA26B4147-012	----	----	----	----
					Result	Result	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg	36300	41600	----	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg	103	102	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	14.8	15.6	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg	491	504	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.35	0.34	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	8.03	8.64	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg	170	212	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	14.7	8.68	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg	132000	129000	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg	293	403	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	64.4	161	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg	2400	11700	----	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg	46700	42300	----	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg	800	319	----	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg	37.4	40.9	----	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg	12100	11200	----	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg	1130	753	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	<0.0500	<0.0500	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	19.8	22.7	----	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg	291	1030	----	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg	10800	10000	----	----	----	----



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-11	BA 2622-A-12	----	----	----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA26B4147-011	VA26B4147-012	----	----	----	----
					Result	Result	----	----	----	----
Metals										
Potassium	7440-09-7	E440/VA	100	mg/kg	6360	6320	----	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.39	0.41	----	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg	17.0	>37.5	----	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg	18200	17200	----	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg	344	313	----	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg	11600	10900	----	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	<0.050	----	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg	112	141	----	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg	223	197	----	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	17.5	13.6	----	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.64	1.57	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	30.3	28.1	----	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg	3670	5410	----	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	2.5	2.9	----	----	----	----
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.34	11.38	----	----	----	----
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	3.61	3.75	----	----	----	----
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	4.90	4.90	----	----	----	----
pH, TCLP final	----	EPP444/VA	0.010	pH units	9.51	9.37	----	----	----	----
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L	<1.00	<1.00	----	----	----	----
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L	<1.0	<1.0	----	----	----	----



Analytical Results

Sub-Matrix: Soil
 (Matrix: Soil/Solid)

					Client sample ID	BA 2622-A-11	BA 2622-A-12	----	----	----
					Client sampling date / time	01-Jun-2026 12:00	01-Jun-2026 12:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA26B4147-011	VA26B4147-012	----	----	----	----
					Result	Result	----	----	----	----
TCLP Metals										
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L	<2.5	<2.5	----	----	----	----
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L	<0.025	<0.025	----	----	----	----
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L	0.85	0.85	----	----	----	----
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	----
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	789	775	----	----	----	----
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L	<0.25	<0.25	----	----	----	----
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	----
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	0.644	0.642	----	----	----	----
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L	<5.0	<5.0	----	----	----	----
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L	<0.25	<0.25	----	----	----	----
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L	4.4	5.0	----	----	----	----
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L	<0.0010	<0.0010	----	----	----	----
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L	<0.25	<0.25	----	----	----	----
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L	<0.10	<0.10	----	----	----	----
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	----
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L	<1.0	<1.0	----	----	----	----
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L	<0.20	<0.20	----	----	----	----
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L	<0.15	<0.15	----	----	----	----
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L	<0.50	<0.50	----	----	----	----
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L	<10	<10	----	----	----	----

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

Quality Control Interpretive Report

Work Order : VA26B4147

Client : Veolia Environmental Services Canada
Contact : Brian Graham
Address : 5150 Riverbend Dr.
Burnaby BC Canada V3N 4V3
Telephone : ----
Project : Veolia Weekly Bottom Ash-Suite
PO : 1000620652
C-O-C number : ----
Sampler : ----
Site : Metro Van Ash Sampling Program
Quote number : VA25-VIS100-001
No. of samples received : 12
No. of samples analysed : 12

Laboratory : ALS Environmental - Vancouver
Account Manager : Gulraj Dhanaua
Address : 8081 Lougheed Highway
Burnaby British Columbia Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 02-Jun-2026 12:40
Issue Date : 10-Jun-2026 08:58

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Laboratory Control Sample Duplicate (LCSD) outliers occur
- No Matrix Spike outliers occur.
- No Matrix Spike Duplicate (MSD) outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- Reference Material (RM) Sample outliers occur - please see the following pages for full details.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix : **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA26B4147--005	BA 2622-A-5	Arsenic	7440-38-2	E440	35.9 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--001	BA 2622-A-1	Bismuth	7440-69-9	E440	52.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--001	BA 2622-A-1	Chromium	7440-47-3	E440	47.2 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--001	BA 2622-A-1	Cobalt	7440-48-4	E440	60.8 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--005	BA 2622-A-5	Cobalt	7440-48-4	E440	52.7 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--005	BA 2622-A-5	Copper	7440-50-8	E440	31.9 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--005	BA 2622-A-5	Iron	7439-89-6	E440	55.7 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--001	BA 2622-A-1	Nickel	7440-02-0	E440	60.1 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--001	BA 2622-A-1	Titanium	7440-32-6	E440	66.9 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--005	BA 2622-A-5	Titanium	7440-32-6	E440	55.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--005	BA 2622-A-5	Tungsten	7440-33-7	E440	31.3 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA26B4147--005	BA 2622-A-5	Zinc	7440-66-6	E440	144 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier

DUP-H

Description

Duplicate results outside ALS DQO, due to sample heterogeneity.

Laboratory Control Sample (LCS) Recoveries								
Metals	QC-MRG2-2638404-002	----	Aluminum	7429-90-5	E440	127 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier

MES

Description

Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Reference Material (RM) Sample								
Metals	QC-MRG2-2638622-003	----	Sodium	7440-23-5	E440	139 % MES	70.0-130%	Recovery greater than upper control limit



Matrix :Soil/Solid

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Reference Material (RM) Sample								
Result Qualifiers								
Qualifier			Description					
MES			Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).					



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and/or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method	ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation				Analysis			
Container					Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
						Rec	Actual			Rec	Actual	
Client sample ID												
Metals : Mercury in Soil/Solid by CVAAS												
LDPE bag												
BA 2622-A-1	001	2638404	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-2	002	2638404	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-3	003	2638404	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-4	004	2638404	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-5	005	2638412	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-6	006	2638412	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-7	007	2638412	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-8	008	2638412	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-9	009	2638412	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-10	010	2638412	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-11	011	2638623	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔
BA 2622-A-12	012	2638623	E510	01-Jun-2026	09-Jun-2026	28 days	8 days	✔	09-Jun-2026	28 days	0 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method					Extraction / Preparation				Analysis			
Container					Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
Client sample ID						Rec	Actual			Rec	Actual	
Metals : Metals in Soil/Solid by CRC ICPMS												
LDPE bag												
BA 2622-A-1	001	2638405	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-2	002	2638405	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-3	003	2638405	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-4	004	2638405	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-5	005	2638411	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	10-Jun-2026	180 days	9 days	✓
BA 2622-A-6	006	2638411	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	10-Jun-2026	180 days	9 days	✓
BA 2622-A-7	007	2638411	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	10-Jun-2026	180 days	9 days	✓
BA 2622-A-8	008	2638411	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	10-Jun-2026	180 days	9 days	✓
BA 2622-A-9	009	2638411	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	10-Jun-2026	180 days	9 days	✓
BA 2622-A-10	010	2638411	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	10-Jun-2026	180 days	9 days	✓
BA 2622-A-11	011	2638622	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-12	012	2638622	E440	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
Physical Tests : Moisture Content by Gravimetry												
LDPE bag												
BA 2622-A-1	001	2638407	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-2	002	2638407	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-3	003	2638407	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-4	004	2638407	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance; ✓ = Within Holding Time

Analyte Group : Analytical Method	ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation				Analysis			
Container					Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
						Rec	Actual			Rec	Actual	
Client sample ID												
Physical Tests : Moisture Content by Gravimetry												
LDPE bag												
BA 2622-A-5	005	2638414	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-6	006	2638414	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-7	007	2638414	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-8	008	2638414	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-9	009	2638414	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-10	010	2638414	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-11	011	2638625	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
BA 2622-A-12	012	2638625	E144	01-Jun-2026	----	----	----		08-Jun-2026	----	----	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)												
LDPE bag												
BA 2622-A-1	001	2638406	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓
BA 2622-A-2	002	2638406	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓
BA 2622-A-3	003	2638406	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓
BA 2622-A-4	004	2638406	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓
BA 2622-A-5	005	2638413	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓
BA 2622-A-6	006	2638413	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓
BA 2622-A-7	007	2638413	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓
BA 2622-A-8	008	2638413	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓
BA 2622-A-9	009	2638413	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method		ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation			Analysis				
Container						Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
							Rec	Actual			Rec	Actual	
Client sample ID													
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)													
LDPE bag													
BA 2622-A-10	010	2638413	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓	
BA 2622-A-11	011	2638624	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓	
BA 2622-A-12	012	2638624	E108	01-Jun-2026	09-Jun-2026	30 days	8 days	✓	09-Jun-2026	30 days	8 days	✓	
TCLP Metals : Mercury by CVAAS (TCLP)													
Glass vial - total (lab preserved)													
BA 2622-A-1	001	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-2	002	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-3	003	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-4	004	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-5	005	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-6	006	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-7	007	2640071	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-8	008	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-9	009	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-10	010	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-11	011	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	
BA 2622-A-12	012	2640070	E512	01-Jun-2026	09-Jun-2026	28 days	8 days	✓	09-Jun-2026	28 days	8 days	✓	



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance; ✓ = Within Holding Time

Analyte Group : Analytical Method	ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation				Analysis			
Container					Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
						Rec	Actual			Rec	Actual	
Client sample ID												
TCLP Metals : Metals by CRC ICPMS (TCLP)												
HDPE - total (lab preserved)												
BA 2622-A-1	001	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-2	002	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-3	003	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-4	004	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-5	005	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-6	006	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-7	007	2640075	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-8	008	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-9	009	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-10	010	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-11	011	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
BA 2622-A-12	012	2640073	E444	01-Jun-2026	09-Jun-2026	180 days	8 days	✓	09-Jun-2026	180 days	8 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)												
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)												
BA 2622-A-1	001		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-2	002		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-3	003		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-4	004		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance; ✔ = Within Holding Time

Analyte Group : Analytical Method					Extraction / Preparation				Analysis			
Container					Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
Client sample ID						Rec	Actual			Rec	Actual	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)												
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)												
BA 2622-A-5	005		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-6	006		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-7	007		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-8	008		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-9	009		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-10	010		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-11	011		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓
BA 2622-A-12	012		EPP444	01-Jun-2026	----	----	----		05-Jun-2026	28 days	4 days	✓

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: Soil/Solid

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	Method / Lab	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
pH by Meter (1:2 Soil:Water Extraction)	E108 / VA	2638406	3	38	7.9	5.0	✔
Moisture Content by Gravimetry	E144 / VA	2638407	3	36	8.3	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440 / VA	2638405	3	44	6.8	5.0	✔
Metals by CRC ICPMS (TCLP)	E444 / VA	2640073	2	12	16.7	5.0	✔
Mercury in Soil/Solid by CVAAS	E510 / VA	2638404	3	36	8.3	5.0	✔
Mercury by CVAAS (TCLP)	E512 / VA	2640070	2	12	16.7	5.0	✔
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108 / VA	2638406	3	38	7.9	5.0	✔
Moisture Content by Gravimetry	E144 / VA	2638407	3	36	8.3	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440 / VA	2638405	6	44	13.6	10.0	✔
Mercury in Soil/Solid by CVAAS	E510 / VA	2638404	6	36	16.7	10.0	✔
Method Blanks (MB)							
Moisture Content by Gravimetry	E144 / VA	2638407	3	36	8.3	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440 / VA	2638405	3	44	6.8	5.0	✔
Metals by CRC ICPMS (TCLP)	E444 / VA	2640073	2	12	16.7	5.0	✔
Mercury in Soil/Solid by CVAAS	E510 / VA	2638404	3	36	8.3	5.0	✔
Mercury by CVAAS (TCLP)	E512 / VA	2640070	2	12	16.7	5.0	✔
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444 / VA	2640073	2	12	16.7	5.0	✔
Mercury by CVAAS (TCLP)	E512 / VA	2640070	2	12	16.7	5.0	✔



Methodology References and Summaries

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. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury by CVAAS (TCLP)	E512 ALS Environmental - Vancouver	Soil/Solid	EPA 1311/245.1 (mod)	An extract produced by the Toxicity Characteristic Leachate Procedure (TCLP) as per EPA 1311 is analyzed by CVAAS.
Mercury in Soil/Solid by CVAAS	E510 ALS Environmental - Vancouver	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO ₃ and HCl, followed by CVAAS analysis.
Metals by CRC ICPMS (TCLP)	E444 ALS Environmental - Vancouver	Soil/Solid	EPA 1311/6020B (mod)	An extract produced by the Toxicity Characteristic Leachate Procedure (TCLP) as per EPA 1311 is analyzed by Collision/Reaction Cell ICPMS.
Metals in Soil/Solid by CRC ICPMS	E440 ALS Environmental - Vancouver	Soil/Solid	EPA 6020B (mod)	This method is intended to liberate metals that may be environmentally available. Samples are dried, then sieved through a 2 mm sieve, and digested with HNO ₃ and HCl. Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Silicate minerals are not solubilized. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. This method does not adequately recover elemental sulfur, and is unsuitable for assessment of elemental sulfur standards or guidelines. Analysis is by Collision/Reaction Cell ICPMS.
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
pH by Meter (1:2 Soil:Water Extraction)	E108 ALS Environmental - Vancouver	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally 20 ± 5°C), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at <60 °C) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
BrCl Digestion for Total Mercury (TCLP)	EP512 ALS Environmental - Vancouver	Soil/Solid	EPA 1631E (mod)	An extract from a soil/solid waste leachate is digested with BrCl.
Digestion for Metals and Mercury	EP440 ALS Environmental - Vancouver	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO ₃ and HCl. This method is intended to liberate metals that may be environmentally available.
Leach 1:2 Soil:Water for pH/EC	EP108 ALS Environmental - Vancouver	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Metals Digestion (TCLP)	EP444 ALS Environmental - Vancouver	Soil/Solid	EPA 200.2 (mod)	An extract from the TCLP is digested with HNO ₃ and HCl to liberate "total recoverable" metals.



TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)	EPP444 ALS Environmental - Vancouver	Soil/Solid	EPA 1311	Preparation of a Toxicity Characteristic Leaching Procedure (TCLP) solid sample involves particle size reduction, homogenization, then determination of appropriate extraction fluid. A measured portion of fresh subsample is placed in an extraction bottle with the appropriate extraction fluid then tumbled in a rotary extractor for 18+/- 2 hours at 23 +/- 2 C. The liquid leachate is filtered to separate from solids then bottled and prepared for analytical tests.
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QUALITY CONTROL REPORT

Work Order : VA26B4147

Client : Veolia Environmental Services Canada
Contact : Brian Graham
Address : 5150 Riverbend Dr.
Burnaby BC Canada V3N 4V3
Telephone : ----
Project : Veolia Weekly Bottom Ash-Suite
PO : 1000620652
C-O-C number : ----
Sampler : ----
Site : Metro Van Ash Sampling Program
Quote number : VA25-VISI100-001
No. of samples received : 12
No. of samples analysed : 12

Laboratory : ALS Environmental - Vancouver
Account Manager : Gulraj Dhanaa
Address : 8081 Lougheed Highway
Burnaby British Columbia Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 02-Jun-2026 12:40
Date Analysis Commenced : 05-Jun-2026
Issue Date : 10-Jun-2026 08:58

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 Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

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.

Signatories	Position	Laboratory Department
Brieanna Allen	Production/Validation Manager	Vancouver Organics, Burnaby, British Columbia
Dan Gebert	Supervisor - Metals Mercury & Speciation	Vancouver Metals, Burnaby, British Columbia
Robert Nguyen	Analyst	Vancouver Metals, Burnaby, British Columbia
Robin Weeks	Supervisor - Organics Extractions	Vancouver Organics, Burnaby, British Columbia
Robin Weeks	Supervisor - Organics Extractions	Vancouver Metals, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key:

- Anonymous=Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number=Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO=Data Quality Objective.
- LOR=Limit of Reporting (detection limit).
- RPD=Relative Percent Difference
- # =Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test specific).

Sub-Matrix: Soil

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests(QC Lot: 2638406)											
VA26B4147-001	BA 2622-A-1	pH (1:2 soil:water)	----	E108	0.10	pH units	10.56	10.53	0.3 %	5%	---
Physical Tests(QC Lot: 2638407)											
VA26B4147-001	BA 2622-A-1	Moisture	----	E144	0.25	%	25.1	22.8	9.82 %	20%	---
Physical Tests(QC Lot: 2638413)											
VA26B4147-005	BA 2622-A-5	pH (1:2 soil:water)	----	E108	0.10	pH units	10.53	10.61	0.8 %	5%	---
Physical Tests(QC Lot: 2638414)											
VA26B4147-005	BA 2622-A-5	Moisture	----	E144	0.25	%	21.7	19.9	8.98 %	20%	---
Physical Tests(QC Lot: 2638624)											
VA26B4147-011	BA 2622-A-11	pH (1:2 soil:water)	----	E108	0.10	pH units	10.55	10.62	0.7 %	5%	---
Physical Tests(QC Lot: 2638625)											
VA26B4147-011	BA 2622-A-11	Moisture	----	E144	0.25	%	21.6	23.5	8.32 %	20%	---
Metals(QC Lot: 2638404)											
VA26B4147-001	BA 2622-A-1	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	Diff <2x LOR	---
Metals(QC Lot: 2638405)											
VA26B4147-001	BA 2622-A-1	Aluminum	7429-90-5	E440	50	mg/kg	48200	50600	4.94 %	40%	---
		Antimony	7440-36-0	E440	0.10	mg/kg	114	128	11.2 %	30%	---
		Arsenic	7440-38-2	E440	0.10	mg/kg	17.4	19.3	10.5 %	30%	---
		Barium	7440-39-3	E440	0.50	mg/kg	542	672	21.5 %	40%	---
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.48	0.43	0.05	Diff <2x LOR	---
		Bismuth	7440-69-9	E440	0.20	mg/kg	9.10	15.6	52.5 %	30%	DUP-H
		Boron	7440-42-8	E440	5.0	mg/kg	245	208	16.0 %	30%	---
		Cadmium	7440-43-9	E440	0.020	mg/kg	11.1	13.9	22.3 %	30%	---
		Calcium	7440-70-2	E440	50	mg/kg	139000	142000	1.88 %	30%	---
		Chromium	7440-47-3	E440	0.50	mg/kg	316	196	47.2 %	30%	DUP-H
		Cobalt	7440-48-4	E440	0.10	mg/kg	105	196	60.8 %	30%	DUP-H
		Copper	7440-50-8	E440	0.50	mg/kg	3060	2570	17.5 %	30%	---
		Iron	7439-89-6	E440	50	mg/kg	41300	49000	17.1 %	30%	---
		Lead	7439-92-1	E440	0.50	mg/kg	301	345	13.5 %	40%	---
		Lithium	7439-93-2	E440	2.0	mg/kg	37.1	48.5	26.6 %	30%	---
		Magnesium	7439-95-4	E440	20	mg/kg	12200	12800	5.02 %	30%	---
		Manganese	7439-96-5	E440	1.0	mg/kg	801	781	2.53 %	30%	---
		Molybdenum	7439-98-7	E440	0.10	mg/kg	20.8	22.9	9.90 %	40%	---
		Nickel	7440-02-0	E440	0.50	mg/kg	137	255	60.1 %	30%	DUP-H
		Phosphorus	7723-14-0	E440	50	mg/kg	13300	10400	24.4 %	30%	---



Sub-Matrix: Soil

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals(QC Lot: 2638405)											
		Potassium	7440-09-7	E440	100	mg/kg	7370	8110	9.53 %	40%	---
		Selenium	7782-49-2	E440	0.20	mg/kg	0.43	0.45	0.02	Diff <2x LOR	---
		Silver	7440-22-4	E440	0.10	mg/kg	4.88	6.09	22.1 %	40%	---
		Sodium	7440-23-5	E440	50	mg/kg	20500	21700	5.86 %	40%	---
		Strontium	7440-24-6	E440	0.50	mg/kg	340	326	4.17 %	40%	---
		Sulfur	7704-34-9	E440	1000	mg/kg	12900	12600	2.13 %	30%	---
		Thallium	7440-28-0	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	---
		Tin	7440-31-5	E440	2.0	mg/kg	110	117	6.50 %	40%	---
		Titanium	7440-32-6	E440	1.0	mg/kg	317	635	66.9 %	40%	DUP-H
		Tungsten	7440-33-7	E440	0.50	mg/kg	23.6	18.8	22.9 %	30%	---
		Uranium	7440-61-1	E440	0.050	mg/kg	1.98	1.87	5.92 %	30%	---
		Vanadium	7440-62-2	E440	0.20	mg/kg	31.7	33.1	4.42 %	30%	---
		Zinc	7440-66-6	E440	2.0	mg/kg	4000	3230	21.3 %	30%	---
		Zirconium	7440-67-7	E440	1.0	mg/kg	2.2	2.3	0.1	Diff <2x LOR	---
Metals(QC Lot: 2638411)											
VA26B4147-005	BA 2622-A-5	Aluminum	7429-90-5	E440	50	mg/kg	38300	44400	14.9 %	40%	---
		Antimony	7440-36-0	E440	0.10	mg/kg	103	93.6	9.98 %	30%	---
		Arsenic	7440-38-2	E440	0.10	mg/kg	17.2	12.0	35.9 %	30%	DUP-H
		Barium	7440-39-3	E440	0.50	mg/kg	730	710	2.77 %	40%	---
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.48	0.38	0.11	Diff <2x LOR	---
		Bismuth	7440-69-9	E440	0.20	mg/kg	10.2	8.19	22.4 %	30%	---
		Boron	7440-42-8	E440	5.0	mg/kg	188	230	20.1 %	30%	---
		Cadmium	7440-43-9	E440	0.020	mg/kg	8.30	8.56	3.10 %	30%	---
		Calcium	7440-70-2	E440	50	mg/kg	127000	122000	3.48 %	30%	---
		Chromium	7440-47-3	E440	0.50	mg/kg	166	163	1.85 %	30%	---
		Cobalt	7440-48-4	E440	0.10	mg/kg	91.4	53.3	52.7 %	30%	DUP-H
		Copper	7440-50-8	E440	0.50	mg/kg	1680	1220	31.9 %	30%	DUP-H
		Iron	7439-89-6	E440	50	mg/kg	31400	55700	55.7 %	30%	DUP-H
		Lead	7439-92-1	E440	0.50	mg/kg	251	215	15.4 %	40%	---
		Lithium	7439-93-2	E440	2.0	mg/kg	35.6	34.2	3.88 %	30%	---
		Magnesium	7439-95-4	E440	20	mg/kg	11600	11400	1.96 %	30%	---
		Manganese	7439-96-5	E440	1.0	mg/kg	784	1010	25.3 %	30%	---
		Molybdenum	7439-98-7	E440	0.10	mg/kg	26.9	38.6	35.7 %	40%	---
		Nickel	7440-02-0	E440	0.50	mg/kg	193	159	19.2 %	30%	---
		Phosphorus	7723-14-0	E440	50	mg/kg	10400	9720	6.94 %	30%	---
		Potassium	7440-09-7	E440	100	mg/kg	6970	6170	12.3 %	40%	---



Sub-Matrix: Soil

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals(QC Lot: 2638411)											
		Selenium	7782-49-2	E440	0.20	mg/kg	0.36	0.32	0.05	Diff <2x LOR	---
		Silver	7440-22-4	E440	0.10	mg/kg	4.08	4.13	1.12 %	40%	---
		Sodium	7440-23-5	E440	50	mg/kg	19800	16600	17.3 %	40%	---
		Strontium	7440-24-6	E440	0.50	mg/kg	351	318	9.66 %	40%	---
		Sulfur	7704-34-9	E440	1000	mg/kg	10400	9400	9.81 %	30%	---
		Thallium	7440-28-0	E440	0.050	mg/kg	<0.050	0.071	0.021	Diff <2x LOR	---
		Tin	7440-31-5	E440	2.0	mg/kg	95.3	87.9	8.11 %	40%	---
		Titanium	7440-32-6	E440	1.0	mg/kg	263	465	55.4 %	40%	DUP-H
		Tungsten	7440-33-7	E440	0.50	mg/kg	10.6	14.5	31.3 %	30%	DUP-H
		Uranium	7440-61-1	E440	0.050	mg/kg	1.69	1.52	10.8 %	30%	---
		Vanadium	7440-62-2	E440	0.20	mg/kg	41.4	31.1	28.6 %	30%	---
		Zinc	7440-66-6	E440	2.0	mg/kg	2810	17400	144 %	30%	DUP-H
		Zirconium	7440-67-7	E440	1.0	mg/kg	1.5	1.7	0.2	Diff <2x LOR	---
Metals(QC Lot: 2638412)											
VA26B4147-005	BA 2622-A-5	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	Diff <2x LOR	---
Metals(QC Lot: 2638622)											
VA26B0272-018	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	29400	31600	7.43 %	40%	---
		Antimony	7440-36-0	E440	0.10	mg/kg	0.26	0.25	0.009	Diff <2x LOR	---
		Arsenic	7440-38-2	E440	0.10	mg/kg	3.23	2.85	12.5 %	30%	---
		Barium	7440-39-3	E440	0.50	mg/kg	126	144	13.0 %	40%	---
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.46	0.50	0.04	Diff <2x LOR	---
		Bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	---
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.126	0.124	0.002	Diff <2x LOR	---
		Calcium	7440-70-2	E440	50	mg/kg	4590	4600	0.114 %	30%	---
		Chromium	7440-47-3	E440	0.50	mg/kg	25.1	27.5	9.16 %	30%	---
		Cobalt	7440-48-4	E440	0.10	mg/kg	14.6	17.1	16.0 %	30%	---
		Copper	7440-50-8	E440	0.50	mg/kg	46.1	50.3	8.74 %	30%	---
		Iron	7439-89-6	E440	50	mg/kg	36200	42800	16.7 %	30%	---
		Lead	7439-92-1	E440	0.50	mg/kg	9.59	9.82	2.36 %	40%	---
		Lithium	7439-93-2	E440	2.0	mg/kg	11.1	11.5	0.5	Diff <2x LOR	---
		Magnesium	7439-95-4	E440	20	mg/kg	10400	11700	11.9 %	30%	---
		Manganese	7439-96-5	E440	1.0	mg/kg	664	761	13.6 %	30%	---
		Molybdenum	7439-98-7	E440	0.10	mg/kg	1.67	2.03	19.6 %	40%	---
		Nickel	7440-02-0	E440	0.50	mg/kg	16.3	18.8	14.2 %	30%	---
		Phosphorus	7723-14-0	E440	50	mg/kg	403	475	16.6 %	30%	---
		Potassium	7440-09-7	E440	100	mg/kg	1360	1500	9.95 %	40%	---



Sub-Matrix: Soil

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals(QC Lot: 2638622)											
		Selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	---
		Silver	7440-22-4	E440	0.10	mg/kg	<0.10	0.10	0.0010	Diff <2x LOR	---
		Sodium	7440-23-5	E440	50	mg/kg	303	311	2.71 %	40%	---
		Strontium	7440-24-6	E440	0.50	mg/kg	53.3	55.1	3.31 %	40%	---
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	---
		Thallium	7440-28-0	E440	0.050	mg/kg	0.081	0.092	0.010	Diff <2x LOR	---
		Tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	---
		Titanium	7440-32-6	E440	1.0	mg/kg	707	687	2.89 %	40%	---
		Tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	---
		Uranium	7440-61-1	E440	0.050	mg/kg	0.803	0.893	10.7 %	30%	---
		Vanadium	7440-62-2	E440	0.20	mg/kg	77.8	87.4	11.6 %	30%	---
		Zinc	7440-66-6	E440	2.0	mg/kg	89.3	96.9	8.11 %	30%	---
		Zirconium	7440-67-7	E440	1.0	mg/kg	2.6	2.9	0.3	Diff <2x LOR	---
Metals(QC Lot: 2638623)											
VA26B4147-011	BA 2622-A-11	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	Diff <2x LOR	---
TCLP Metals(QC Lot: 2640070)											
VA26B4147-001	BA 2622-A-1	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	---
TCLP Metals(QC Lot: 2640071)											
VA26B4147-007	BA 2622-A-7	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	---
TCLP Metals(QC Lot: 2640073)											
VA26B4147-001	BA 2622-A-1	Antimony, TCLP	7440-36-0	E444	1.00	mg/L	<1.00	<1.00	0	Diff <2x LOR	---
		Arsenic, TCLP	7440-38-2	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	---
		Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	<2.5	0	Diff <2x LOR	---
		Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	<0.025	0	Diff <2x LOR	---
		Boron, TCLP	7440-42-8	E444	0.50	mg/L	0.77	0.76	0.009	Diff <2x LOR	---
		Cadmium, TCLP	7440-43-9	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	---
		Calcium, TCLP	7440-70-2	E444	10	mg/L	753	743	1.37 %	30%	---
		Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	---
		Cobalt, TCLP	7440-48-4	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	---
		Copper, TCLP	7440-50-8	E444	0.050	mg/L	0.613	0.610	0.523 %	30%	---
		Iron, TCLP	7439-89-6	E444	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	---
		Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	---
		Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	3.0	3.1	0.1	Diff <2x LOR	---
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	---
		Selenium, TCLP	7782-49-2	E444	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	---
		Silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	---
		Thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	---



Sub-Matrix: Soil

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
TCLP Metals(QC Lot: 2640073)											
		Uranium, TCLP	7440-61-1	E444	0.20	mg/L	<0.20	<0.20	0	Diff <2x LOR	---
		Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	0	Diff <2x LOR	---
		Zinc, TCLP	7440-66-6	E444	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	---
		Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	0	Diff <2x LOR	---
TCLP Metals(QC Lot: 2640075)											
VA26B4147-007	BA 2622-A-7	Antimony, TCLP	7440-36-0	E444	1.00	mg/L	<1.00	<1.00	0	Diff <2x LOR	---
		Arsenic, TCLP	7440-38-2	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	---
		Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	<2.5	0	Diff <2x LOR	---
		Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	<0.025	0	Diff <2x LOR	---
		Boron, TCLP	7440-42-8	E444	0.50	mg/L	2.07	2.09	0.02	Diff <2x LOR	---
		Cadmium, TCLP	7440-43-9	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	---
		Calcium, TCLP	7440-70-2	E444	10	mg/L	1740	1770	2.04 %	30%	---
		Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	---
		Cobalt, TCLP	7440-48-4	E444	0.050	mg/L	0.434	0.447	2.92 %	30%	---
		Copper, TCLP	7440-50-8	E444	0.050	mg/L	0.553	0.573	3.54 %	30%	---
		Iron, TCLP	7439-89-6	E444	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	---
		Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	---
		Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	97.1	99.9	2.83 %	30%	---
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	---
		Selenium, TCLP	7782-49-2	E444	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	---
		Silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	---
		Thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	---
		Uranium, TCLP	7440-61-1	E444	0.20	mg/L	<0.20	<0.20	0	Diff <2x LOR	---
		Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	0	Diff <2x LOR	---
		Zinc, TCLP	7440-66-6	E444	0.50	mg/L	1.65	1.66	0.01	Diff <2x LOR	---
		Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	0	Diff <2x LOR	---

Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.



Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests(QC Lot: 2638406)						
pH (1:2 soil:water)	----	E108	----	pH units	----	----
Physical Tests(QC Lot: 2638407)						
Moisture	----	E144	0.25	%	<0.25	----
Physical Tests(QC Lot: 2638413)						
pH (1:2 soil:water)	----	E108	----	pH units	----	----
Physical Tests(QC Lot: 2638414)						
Moisture	----	E144	0.25	%	<0.25	----
Physical Tests(QC Lot: 2638624)						
pH (1:2 soil:water)	----	E108	----	pH units	----	----
Physical Tests(QC Lot: 2638625)						
Moisture	----	E144	0.25	%	<0.25	----
Metals(QC Lot: 2638404)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals(QC Lot: 2638405)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	----
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
Bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
Boron	7440-42-8	E440	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
Calcium	7440-70-2	E440	50	mg/kg	<50	----
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Lithium	7439-93-2	E440	2	mg/kg	<2.0	----
Magnesium	7439-95-4	E440	20	mg/kg	<20	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Phosphorus	7723-14-0	E440	50	mg/kg	<50	----
Potassium	7440-09-7	E440	100	mg/kg	<100	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----



Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals(QC Lot: 2638405)						
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E440	50	mg/kg	<50	----
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	----
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Titanium	7440-32-6	E440	1	mg/kg	<1.0	----
Tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
Metals(QC Lot: 2638411)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	----
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
Bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
Boron	7440-42-8	E440	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
Calcium	7440-70-2	E440	50	mg/kg	<50	----
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Lithium	7439-93-2	E440	2	mg/kg	<2.0	----
Magnesium	7439-95-4	E440	20	mg/kg	<20	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Phosphorus	7723-14-0	E440	50	mg/kg	<50	----
Potassium	7440-09-7	E440	100	mg/kg	<100	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E440	50	mg/kg	<50	----
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----



Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals(QC Lot: 2638411)						
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	----
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Titanium	7440-32-6	E440	1	mg/kg	<1.0	----
Tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
Metals(QC Lot: 2638412)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals(QC Lot: 2638622)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	----
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
Bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
Boron	7440-42-8	E440	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
Calcium	7440-70-2	E440	50	mg/kg	<50	----
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Lithium	7439-93-2	E440	2	mg/kg	<2.0	----
Magnesium	7439-95-4	E440	20	mg/kg	<20	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Phosphorus	7723-14-0	E440	50	mg/kg	<50	----
Potassium	7440-09-7	E440	100	mg/kg	<100	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E440	50	mg/kg	<50	----
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	----



Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals(QC Lot: 2638622)						
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Titanium	7440-32-6	E440	1	mg/kg	<1.0	----
Tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
Metals(QC Lot: 2638623)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
TCLP Metals(QC Lot: 2640070)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals(QC Lot: 2640071)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals(QC Lot: 2640073)						
Antimony, TCLP	7440-36-0	E444	0.1	mg/L	<0.10	----
Arsenic, TCLP	7440-38-2	E444	1	mg/L	<1.0	----
Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	----
Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	----
Boron, TCLP	7440-42-8	E444	0.5	mg/L	<0.50	----
Cadmium, TCLP	7440-43-9	E444	0.05	mg/L	<0.050	----
Calcium, TCLP	7440-70-2	E444	10	mg/L	<10	----
Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	----
Cobalt, TCLP	7440-48-4	E444	0.05	mg/L	<0.050	----
Copper, TCLP	7440-50-8	E444	0.05	mg/L	<0.050	----
Iron, TCLP	7439-89-6	E444	5	mg/L	<5.0	----
Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	----
Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	<2.5	----
Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	----
Selenium, TCLP	7782-49-2	E444	0.1	mg/L	<0.10	----
Silver, TCLP	7440-22-4	E444	0.05	mg/L	<0.050	----
Thallium, TCLP	7440-28-0	E444	1	mg/L	<1.0	----
Uranium, TCLP	7440-61-1	E444	0.2	mg/L	<0.20	----
Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	----
Zinc, TCLP	7440-66-6	E444	0.5	mg/L	<0.50	----
Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	----



Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
TCLP Metals(QC Lot: 2640075)						
Antimony, TCLP	7440-36-0	E444	0.1	mg/L	<0.10	----
Arsenic, TCLP	7440-38-2	E444	1	mg/L	<1.0	----
Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	----
Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	----
Boron, TCLP	7440-42-8	E444	0.5	mg/L	<0.50	----
Cadmium, TCLP	7440-43-9	E444	0.05	mg/L	<0.050	----
Calcium, TCLP	7440-70-2	E444	10	mg/L	<10	----
Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	----
Cobalt, TCLP	7440-48-4	E444	0.05	mg/L	<0.050	----
Copper, TCLP	7440-50-8	E444	0.05	mg/L	<0.050	----
Iron, TCLP	7439-89-6	E444	5	mg/L	<5.0	----
Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	----
Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	<2.5	----
Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	----
Selenium, TCLP	7782-49-2	E444	0.1	mg/L	<0.10	----
Silver, TCLP	7440-22-4	E444	0.05	mg/L	<0.050	----
Thallium, TCLP	7440-28-0	E444	1	mg/L	<1.0	----
Uranium, TCLP	7440-61-1	E444	0.2	mg/L	<0.20	----
Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	----
Zinc, TCLP	7440-66-6	E444	0.5	mg/L	<0.50	----
Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests(QC Lot: 2638406)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----
Physical Tests(QC Lot: 2638407)									
Moisture	----	E144	0.25	%	50 %	98.9	90.0	110	----
Physical Tests(QC Lot: 2638413)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	100	95.0	105	----



Sub-Matrix: Soil

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests(QC Lot: 2638414)									
Moisture	----	E144	0.25	%	50 %	99.4	90.0	110	----
Physical Tests(QC Lot: 2638624)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	101	95.0	105	----
Physical Tests(QC Lot: 2638625)									
Moisture	----	E144	0.25	%	50 %	100	90.0	110	----
Metals(QC Lot: 2638404)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	107	80.0	120	----
Metals(QC Lot: 2638405)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	# 127	80.0	120	MES
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	111	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	114	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	113	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	108	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	103	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	96.6	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	111	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	108	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	115	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	111	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	110	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	112	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	108	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	108	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	117	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	115	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	114	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	110	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	109	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	116	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	110	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	113	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	115	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	115	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	102	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	107	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	107	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	108	80.0	120	----



Sub-Matrix: Soil

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals(QC Lot: 2638405)									
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	105	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	111	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	114	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	109	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	108	80.0	120	----
Metals(QC Lot: 2638411)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	111	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	103	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	102	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	99.2	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	97.9	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	98.4	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	100	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	102	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	101	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	98.0	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	98.7	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	101	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	101	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	104	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	102	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	101	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	104	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	98.4	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	108	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	102	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	100	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	102	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	101	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	97.3	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	99.7	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	99.5	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	97.6	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	97.7	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	103	80.0	120	----



Sub-Matrix: Soil

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals(QC Lot: 2638411)									
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	100	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	96.3	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	101	80.0	120	----
Metals(QC Lot: 2638412)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	107	80.0	120	----
Metals(QC Lot: 2638622)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	117	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	105	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	106	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	106	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	99.5	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	101	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	97.3	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	106	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	102	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	108	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	105	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	106	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	105	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	105	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	108	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	107	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	107	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	104	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	110	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	108	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	106	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	107	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	108	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	108	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	99.7	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	103	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	103	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	102	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	102	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	107	80.0	120	----



Sub-Matrix: Soil

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals(QC Lot: 2638622)									
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	107	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	104	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	103	80.0	120	----
Metals(QC Lot: 2638623)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	106	80.0	120	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for

Sub-Matrix: Soil

					Matrix Spike (MS) Report				
					Spike		Recovery (%)	Recovery (%)	
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High
TCLP Metals(QC Lot: 2640070)									
VA26B4147-001	BA 2622-A-1	Mercury, TCLP	7439-97-6	E512	0.0027 mg/L	0.003 mg/L	90.9	50.0	140
TCLP Metals(QC Lot: 2640071)									
VA26B4147-007	BA 2622-A-7	Mercury, TCLP	7439-97-6	E512	0.0029 mg/L	0.003 mg/L	95.6	50.0	140
TCLP Metals(QC Lot: 2640073)									
VA26B4147-001	BA 2622-A-1	Antimony, TCLP	7440-36-0	E444	5.13 mg/L	5 mg/L	103	50.0	140
		Arsenic, TCLP	7440-38-2	E444	4.8 mg/L	5 mg/L	96.9	50.0	140
		Barium, TCLP	7440-39-3	E444	11.9 mg/L	12.5 mg/L	95.4	50.0	140
		Beryllium, TCLP	7440-41-7	E444	0.230 mg/L	0.25 mg/L	92.0	50.0	140
		Boron, TCLP	7440-42-8	E444	8.87 mg/L	10 mg/L	88.7	50.0	140
		Cadmium, TCLP	7440-43-9	E444	0.236 mg/L	0.25 mg/L	94.5	50.0	140
		Calcium, TCLP	7440-70-2	E444	ND	----	ND	50.0	140
		Chromium, TCLP	7440-47-3	E444	1.19 mg/L	1.25 mg/L	95.2	50.0	140
		Cobalt, TCLP	7440-48-4	E444	0.232 mg/L	0.25 mg/L	92.8	50.0	140
		Copper, TCLP	7440-50-8	E444	2.27 mg/L	2.5 mg/L	90.8	50.0	140
		Iron, TCLP	7439-89-6	E444	229 mg/L	250 mg/L	91.5	50.0	140



Sub-Matrix: Soil

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery (%)		Qualifier
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	
TCLP Metals(QC Lot: 2640073)										
		Lead, TCLP	7439-92-1	E444	9.05 mg/L	10 mg/L	90.5	50.0	140	---
		Magnesium, TCLP	7439-95-4	E444	240 mg/L	250 mg/L	95.9	50.0	140	---
		Nickel, TCLP	7440-02-0	E444	2.31 mg/L	2.5 mg/L	92.3	50.0	140	---
		Selenium, TCLP	7782-49-2	E444	4.85 mg/L	5 mg/L	97.0	50.0	140	---
		Silver, TCLP	7440-22-4	E444	0.096 mg/L	0.1 mg/L	96.2	50.0	140	---
		Thallium, TCLP	7440-28-0	E444	4.6 mg/L	5 mg/L	91.3	50.0	140	---
		Uranium, TCLP	7440-61-1	E444	4.59 mg/L	5 mg/L	91.8	50.0	150	---
		Vanadium, TCLP	7440-62-2	E444	0.71 mg/L	0.75 mg/L	95.0	50.0	140	---
		Zinc, TCLP	7440-66-6	E444	9.09 mg/L	10 mg/L	90.9	50.0	140	---
		Zirconium, TCLP	7440-67-7	E444	0.8 mg/L	1 mg/L	82.7	50.0	150	---
TCLP Metals(QC Lot: 2640075)										
VA26B4147-007	BA 2622-A-7	Antimony, TCLP	7440-36-0	E444	4.89 mg/L	5 mg/L	97.9	50.0	140	---
		Arsenic, TCLP	7440-38-2	E444	4.7 mg/L	5 mg/L	93.4	50.0	140	---
		Barium, TCLP	7440-39-3	E444	12.0 mg/L	12.5 mg/L	95.7	50.0	140	---
		Beryllium, TCLP	7440-41-7	E444	0.224 mg/L	0.25 mg/L	89.6	50.0	140	---
		Boron, TCLP	7440-42-8	E444	8.71 mg/L	10 mg/L	87.1	50.0	140	---
		Cadmium, TCLP	7440-43-9	E444	0.228 mg/L	0.25 mg/L	91.3	50.0	140	---
		Calcium, TCLP	7440-70-2	E444	ND	---	ND	50.0	140	---
		Chromium, TCLP	7440-47-3	E444	1.17 mg/L	1.25 mg/L	93.4	50.0	140	---
		Cobalt, TCLP	7440-48-4	E444	ND	---	ND	50.0	140	---
		Copper, TCLP	7440-50-8	E444	2.20 mg/L	2.5 mg/L	88.0	50.0	140	---
		Iron, TCLP	7439-89-6	E444	224 mg/L	250 mg/L	89.6	50.0	140	---
		Lead, TCLP	7439-92-1	E444	8.79 mg/L	10 mg/L	87.9	50.0	140	---
		Magnesium, TCLP	7439-95-4	E444	242 mg/L	250 mg/L	96.9	50.0	140	---
		Nickel, TCLP	7440-02-0	E444	2.23 mg/L	2.5 mg/L	89.2	50.0	140	---
		Selenium, TCLP	7782-49-2	E444	4.69 mg/L	5 mg/L	93.9	50.0	140	---
		Silver, TCLP	7440-22-4	E444	0.094 mg/L	0.1 mg/L	93.8	50.0	140	---
		Thallium, TCLP	7440-28-0	E444	4.5 mg/L	5 mg/L	89.6	50.0	140	---
		Uranium, TCLP	7440-61-1	E444	4.43 mg/L	5 mg/L	88.6	50.0	150	---
		Vanadium, TCLP	7440-62-2	E444	0.70 mg/L	0.75 mg/L	93.1	50.0	140	---
		Zinc, TCLP	7440-66-6	E444	8.95 mg/L	10 mg/L	89.5	50.0	140	---
		Zirconium, TCLP	7440-67-7	E444	0.8 mg/L	1 mg/L	82.0	50.0	150	---

Reference Material (RM) Report



A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix: Soil

					Reference Material (RM) Report				
					RM	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Target Concentration	RM	Low	High	Qualifier
Metals(QC Lot: 2638404)									
QC-MRG2-2638404001		Mercury	7439-97-6	E510	0.0675 mg/kg	# 97.0	70.0	130	----
Metals(QC Lot: 2638405)									
QC-MRG2-2638404001		Aluminum	7429-90-5	E440	22490 mg/kg	# 110	70.0	130	----
		Antimony	7440-36-0	E440	24.8 mg/kg	# 102	70.0	130	----
		Arsenic	7440-38-2	E440	21.2 mg/kg	# 98.3	70.0	130	----
		Barium	7440-39-3	E440	788 mg/kg	# 103	70.0	130	----
		Beryllium	7440-41-7	E440	1.82 mg/kg	# 103	70.0	130	----
		Bismuth	7440-69-9	E440	1.78 mg/kg	# 104	70.0	130	----
		Cadmium	7440-43-9	E440	2.15 mg/kg	# 96.7	70.0	130	----
		Calcium	7440-70-2	E440	4904 mg/kg	# 101	70.0	130	----
		Chromium	7440-47-3	E440	56.9 mg/kg	# 105	70.0	130	----
		Cobalt	7440-48-4	E440	32 mg/kg	# 101	70.0	130	----
		Copper	7440-50-8	E440	969 mg/kg	# 103	70.0	130	----
		Iron	7439-89-6	E440	32740 mg/kg	# 100	70.0	130	----
		Lead	7439-92-1	E440	919 mg/kg	# 93.1	70.0	130	----
		Lithium	7439-93-2	E440	47.3 mg/kg	# 105	70.0	130	----
		Magnesium	7439-95-4	E440	7780 mg/kg	# 105	70.0	130	----
		Manganese	7439-96-5	E440	8639 mg/kg	# 101	70.0	130	----
		Molybdenum	7439-98-7	E440	25.1 mg/kg	# 101	70.0	130	----
		Nickel	7440-02-0	E440	1004 mg/kg	# 98.7	70.0	130	----
		Phosphorus	7723-14-0	E440	660 mg/kg	# 103	70.0	130	----
		Potassium	7440-09-7	E440	10820 mg/kg	# 108	70.0	130	----
		Selenium	7782-49-2	E440	1.04 mg/kg	# 102	60.0	140	----
		Silver	7440-22-4	E440	8.98 mg/kg	# 97.9	70.0	130	----
		Sodium	7440-23-5	E440	1771 mg/kg	# 116	70.0	130	----
		Strontium	7440-24-6	E440	41 mg/kg	# 105	70.0	130	----
		Sulfur	7704-34-9	E440	3935 mg/kg	# 79.8	50.0	150	----
		Thallium	7440-28-0	E440	0.907 mg/kg	# 93.6	70.0	130	----
		Tin	7440-31-5	E440	3.79 mg/kg	# 97.3	40.0	160	----
		Titanium	7440-32-6	E440	2786 mg/kg	# 103	70.0	130	----
		Tungsten	7440-33-7	E440	6.99 mg/kg	# 111	70.0	130	----
		Uranium	7440-61-1	E440	3.97 mg/kg	# 102	70.0	130	----
		Vanadium	7440-62-2	E440	66.2 mg/kg	# 103	70.0	130	----
		Zinc	7440-66-6	E440	828 mg/kg	# 98.3	70.0	130	----
		Zirconium	7440-67-7	E440	6.91 mg/kg	# 121	70.0	130	----



Sub-Matrix: Soil

Sub-Matrix: Soil					Reference Material (RM) Report				
					RM	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Target Concentration	RM	Low	High	Qualifier
Metals(QC Lot: 2638411)									
QC-MRG2-2638411001		Aluminum	7429-90-5	E440	22490 mg/kg	# 103	70.0	130	----
		Antimony	7440-36-0	E440	24.8 mg/kg	# 97.4	70.0	130	----
		Arsenic	7440-38-2	E440	21.2 mg/kg	# 95.3	70.0	130	----
		Barium	7440-39-3	E440	788 mg/kg	# 97.4	70.0	130	----
		Beryllium	7440-41-7	E440	1.82 mg/kg	# 98.2	70.0	130	----
		Bismuth	7440-69-9	E440	1.78 mg/kg	# 108	70.0	130	----
		Cadmium	7440-43-9	E440	2.15 mg/kg	# 100	70.0	130	----
		Calcium	7440-70-2	E440	4904 mg/kg	# 101	70.0	130	----
		Chromium	7440-47-3	E440	56.9 mg/kg	# 99.3	70.0	130	----
		Cobalt	7440-48-4	E440	32 mg/kg	# 95.7	70.0	130	----
		Copper	7440-50-8	E440	969 mg/kg	# 98.4	70.0	130	----
		Iron	7439-89-6	E440	32740 mg/kg	# 97.9	70.0	130	----
		Lead	7439-92-1	E440	919 mg/kg	# 93.6	70.0	130	----
		Lithium	7439-93-2	E440	47.3 mg/kg	# 106	70.0	130	----
		Magnesium	7439-95-4	E440	7780 mg/kg	# 98.1	70.0	130	----
		Manganese	7439-96-5	E440	8639 mg/kg	# 96.3	70.0	130	----
		Molybdenum	7439-98-7	E440	25.1 mg/kg	# 95.7	70.0	130	----
		Nickel	7440-02-0	E440	1004 mg/kg	# 97.4	70.0	130	----
		Phosphorus	7723-14-0	E440	660 mg/kg	# 97.7	70.0	130	----
		Potassium	7440-09-7	E440	10820 mg/kg	# 102	70.0	130	----
		Selenium	7782-49-2	E440	1.04 mg/kg	# 95.0	60.0	140	----
		Silver	7440-22-4	E440	8.98 mg/kg	# 93.1	70.0	130	----
		Sodium	7440-23-5	E440	1771 mg/kg	# 113	70.0	130	----
		Strontium	7440-24-6	E440	41 mg/kg	# 98.8	70.0	130	----
		Sulfur	7704-34-9	E440	3935 mg/kg	# 88.6	50.0	150	----
		Thallium	7440-28-0	E440	0.907 mg/kg	# 95.9	70.0	130	----
		Tin	7440-31-5	E440	3.79 mg/kg	# 97.6	40.0	160	----
		Titanium	7440-32-6	E440	2786 mg/kg	# 100	70.0	130	----
		Tungsten	7440-33-7	E440	6.99 mg/kg	# 104	70.0	130	----
		Uranium	7440-61-1	E440	3.97 mg/kg	# 87.9	70.0	130	----
		Vanadium	7440-62-2	E440	66.2 mg/kg	# 96.1	70.0	130	----
		Zinc	7440-66-6	E440	828 mg/kg	# 93.3	70.0	130	----
		Zirconium	7440-67-7	E440	6.91 mg/kg	# 106	70.0	130	----
Metals(QC Lot: 2638412)									
QC-MRG2-2638411001		Mercury	7439-97-6	E510	0.0675 mg/kg	# 97.5	70.0	130	----



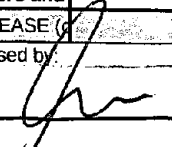
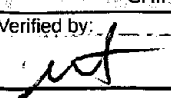
Sub-Matrix: Soil

Sub-Matrix: Soil					Reference Material (RM) Report				
					RM	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Target Concentration	RM	Low	High	Qualifier
Metals(QC Lot: 2638622)									
QC-MRG2-2638622001		Aluminum	7429-90-5	E440	22490 mg/kg	# 106	70.0	130	----
		Antimony	7440-36-0	E440	24.8 mg/kg	# 105	70.0	130	----
		Arsenic	7440-38-2	E440	21.2 mg/kg	# 93.4	70.0	130	----
		Barium	7440-39-3	E440	788 mg/kg	# 98.6	70.0	130	----
		Beryllium	7440-41-7	E440	1.82 mg/kg	# 101	70.0	130	----
		Bismuth	7440-69-9	E440	1.78 mg/kg	# 91.2	70.0	130	----
		Cadmium	7440-43-9	E440	2.15 mg/kg	# 102	70.0	130	----
		Calcium	7440-70-2	E440	4904 mg/kg	# 99.4	70.0	130	----
		Chromium	7440-47-3	E440	56.9 mg/kg	# 102	70.0	130	----
		Cobalt	7440-48-4	E440	32 mg/kg	# 98.1	70.0	130	----
		Copper	7440-50-8	E440	969 mg/kg	# 101	70.0	130	----
		Iron	7439-89-6	E440	32740 mg/kg	# 103	70.0	130	----
		Lead	7439-92-1	E440	919 mg/kg	# 93.7	70.0	130	----
		Lithium	7439-93-2	E440	47.3 mg/kg	# 107	70.0	130	----
		Magnesium	7439-95-4	E440	7780 mg/kg	# 105	70.0	130	----
		Manganese	7439-96-5	E440	8639 mg/kg	# 101	70.0	130	----
		Molybdenum	7439-98-7	E440	25.1 mg/kg	# 99.7	70.0	130	----
		Nickel	7440-02-0	E440	1004 mg/kg	# 101	70.0	130	----
		Phosphorus	7723-14-0	E440	660 mg/kg	# 94.7	70.0	130	----
		Potassium	7440-09-7	E440	10820 mg/kg	# 101	70.0	130	----
		Selenium	7782-49-2	E440	1.04 mg/kg	# 101	60.0	140	----
		Silver	7440-22-4	E440	8.98 mg/kg	# 104	70.0	130	----
		Sodium	7440-23-5	E440	1771 mg/kg	# 139	70.0	130	MES
		Strontium	7440-24-6	E440	41 mg/kg	# 104	70.0	130	----
		Sulfur	7704-34-9	E440	3935 mg/kg	# 97.1	50.0	150	----
		Thallium	7440-28-0	E440	0.907 mg/kg	# 98.7	70.0	130	----
		Tin	7440-31-5	E440	3.79 mg/kg	# 103	40.0	160	----
		Titanium	7440-32-6	E440	2786 mg/kg	# 101	70.0	130	----
		Tungsten	7440-33-7	E440	6.99 mg/kg	# 107	70.0	130	----
		Uranium	7440-61-1	E440	3.97 mg/kg	# 102	70.0	130	----
		Vanadium	7440-62-2	E440	66.2 mg/kg	# 100	70.0	130	----
		Zinc	7440-66-6	E440	828 mg/kg	# 98.9	70.0	130	----
		Zirconium	7440-67-7	E440	6.91 mg/kg	# 113	70.0	130	----
Metals(QC Lot: 2638623)									
QC-MRG2-2638622001		Mercury	7439-97-6	E510	0.0675 mg/kg	# 101	70.0	130	----



Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Report To			Report Format / Distribution			Service Requested (Rush for routine analysis subject to availability)												
Company: Veolia Canada / Burnaby Waste To Energy Facility			"Veolia Email Distribution List" please															
Contact: Darcie Grace / Ramy Ghanem																		
Address: 5150 Riverbend Drive			Email 1: Darcie.grace@veolia.com															
Burnaby BC			Email 2: lorenzo.iao@veolia.com															
Phone: 604-521-1025 Fax: _____			Email 3: ramy.ghanem@veolia.com															
			brent.kirkpatrick@metrovanvancouver.org															
			Sarah.Wellman@metrovanvancouver.org															
Invoice To Same as Report? Veolia Water Canada			Client / Project Information			Analysis Request												
Hardcopy of Invoice with Report?			Job #: Veolia Weekly Bottom Ash - Suite			Please indicate below Filtered, Preserved or both (F, P, F/P)												
Company: Veolia Water Canada / Burnaby Waste To Energy			PO / AFE: PO#															
Contact: Danny George, Purchaser/Darcie Grace, SHE Manager			LSD: (includes 2:1 pH)															
Address: 5150 Riverbend Drive, Burnaby BC V3N 4V3																		
Phone: 604 521 1025 x209 Fax: _____			Quote #:															
Lab Work Order # (lab use only)			ALS Contact:		Sampler:													
Sample #	Sample Identification (This description will appear on the report)		Date (dd-mm-yy)	Time (hh:mm)	Sample Type	MET-TCLP-VA (all metals, Hg)	MOISTURE	Chromium 6	MET-CSR+FULL-VA (all metals)									Number of Containers
BA 2622-A-1	Environmental Division Vancouver Work Order Reference VA26B4147  Telephone : +1 604 263 4188		1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-2			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-3			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-4			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-5			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-6			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-7			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-8			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-9			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-10			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-11			1 Jun 2026	12:00	Soil	X	X		X									1
BA 2622-A-12			1 Jun 2026	12:00	Soil	X	X		X									1
water Aquatic			May 24, 2026 to May 30, 2026															
SHIPMENT RECEPTION (lab use only) Released by:  Date (dd-mm-yy): 02/06/26 Time (hh-mm): _____ Received by: _____ Date: _____ Time: _____ Temperature: 24 °C SHIPMENT VERIFICATION (lab use only) Verified by:  Date: 2 June 2026 Time: 12:40 Observations: Yes / No? Yes add SIF																		