Bottom Ash Data

2025 Week 25

The following analytical report represents bottom ash composite results for week 25 of 2025 (June 15, 2025 to June 21, 2025).

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	:	**VA25B5282**			
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	:	----	Date Samples Received	:	24-Jun-2025 11:00
C-O-C number	:	----	Date Analysis Commenced	:	25-Jun-2025
Sampler	:	----	Issue Date	:	02-Jul-2025 15:15
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.

Signatories	*Position*	*Laboratory Department*
Kevin Duarte		Metals, Burnaby, British Columbia
Ophelia Chiu		Organics, Burnaby, British Columbia

General Comments

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

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

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

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

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

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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-1	BA 2525-A-2	BA 2525-A-3	BA 2525-A-4	BA 2525-A-5
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00
						VA25B5282-001	VA25B5282-002	VA25B5282-003	VA25B5282-004	VA25B5282-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		22.5	21.9	21.6	21.8	21.9
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		11.10	10.85	10.96	11.20	11.11
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		30300	35000	39200	30100	29000
Antimony	7440-36-0	E440/VA	0.10	mg/kg		114	130	117	126	114
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		16.8	14.4	17.3	18.5	16.8
Barium	7440-39-3	E440/VA	0.50	mg/kg		507	489	584	533	514
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.42	0.40	0.46	0.43	0.40
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		10.9	10.3	8.56	10.1	9.47
Boron	7440-42-8	E440/VA	5.0	mg/kg		163	193	183	195	184
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		6.68	6.85	6.14	7.77	11.0
Calcium	7440-70-2	E440/VA	50	mg/kg		119000	131000	133000	132000	123000
Chromium	7440-47-3	E440/VA	0.50	mg/kg		157	131	130	175	145
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		168	305	38.1	122	227
Copper	7440-50-8	E440/VA	0.50	mg/kg		2080	5890	1610	7010	1660
Iron	7439-89-6	E440/VA	50	mg/kg		57400	43300	53600	58800	50500
Lead	7439-92-1	E440/VA	0.50	mg/kg		686	342	866	657	420
Lithium	7439-93-2	E440/VA	2.0	mg/kg		31.9	42.6	30.6	35.8	30.8
Magnesium	7439-95-4	E440/VA	20	mg/kg		12400	11600	12500	11800	12800
Manganese	7439-96-5	E440/VA	1.0	mg/kg		736	769	683	725	728
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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-1	BA 2525-A-2	BA 2525-A-3	BA 2525-A-4	BA 2525-A-5
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00
						VA25B5282-001	VA25B5282-002	VA25B5282-003	VA25B5282-004	VA25B5282-005
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		16.5	16.3	18.3	19.5	19.4
Nickel	7440-02-0	E440/VA	0.50	mg/kg		187	138	124	172	126
Phosphorus	7723-14-0	E440/VA	50	mg/kg		9870	10600	9800	10700	12000
Potassium	7440-09-7	E440/VA	100	mg/kg		6080	6550	5910	6160	6410
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.52	0.46	0.36	0.44	0.50
Silver	7440-22-4	E440/VA	0.10	mg/kg		4.56	4.84	5.69	6.65	7.47
Sodium	7440-23-5	E440/VA	50	mg/kg		16100	16200	15600	15600	16000
Strontium	7440-24-6	E440/VA	0.50	mg/kg		253	269	304	295	255
Sulfur	7704-34-9	E440/VA	1000	mg/kg		11800	12700	11100	13000	13800
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		117	184	100	104	108
Titanium	7440-32-6	E440/VA	1.0	mg/kg		280	249	420	327	243
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		8.34	9.22	10.0	10.0	10.0
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.74	2.08	2.18	1.90	1.92
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		50.9	48.9	49.5	42.8	41.4
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3240	5200	3440	5170	3610
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		1.9	2.3	2.0	1.3	1.2
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.60	11.53	11.55	11.67	11.61
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		3.65	3.57	2.65	2.94	3.46
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.91	4.91	4.91	4.91	4.91

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-1	BA 2525-A-2	BA 2525-A-3	BA 2525-A-4	BA 2525-A-5
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00
						VA25B5282-001	VA25B5282-002	VA25B5282-003	VA25B5282-004	VA25B5282-005
						Result	Result	Result	Result	Result
TCLP Metals										
pH, TCLP final	----	EPP444/VA	0.010	pH units		10.13	9.92	9.65	9.99	10.15
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		0.72	0.75	0.84	0.87	0.92
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		707	746	825	841	812
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		0.708	0.763	0.784	0.771	0.715
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		<2.5	<2.5	5.2	3.7	<2.5
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

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-1	BA 2525-A-2	BA 2525-A-3	BA 2525-A-4	BA 2525-A-5
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00
						VA25B5282-001	VA25B5282-002	VA25B5282-003	VA25B5282-004	VA25B5282-005
						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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-6	BA 2525-A-7	BA 2525-A-8	BA 2525-A-9	BA 2525-A-10
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00
						VA25B5282-006	VA25B5282-007	VA25B5282-008	VA25B5282-009	VA25B5282-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		21.9	22.3	21.9	21.6	21.4
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.98	10.86	10.74	10.88	11.03
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		30600	40200	39600	45200	32200
Antimony	7440-36-0	E440/VA	0.10	mg/kg		153	104	117	95.6	115
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		16.2	14.3	16.3	14.8	14.3
Barium	7440-39-3	E440/VA	0.50	mg/kg		490	527	501	498	476
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.41	0.41	0.41	0.36	0.36
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		14.2	9.45	13.5	9.07	8.52
Boron	7440-42-8	E440/VA	5.0	mg/kg		198	178	199	166	147
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		9.03	8.78	7.27	20.1	5.92
Calcium	7440-70-2	E440/VA	50	mg/kg		140000	123000	137000	118000	119000

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-6	BA 2525-A-7	BA 2525-A-8	BA 2525-A-9	BA 2525-A-10
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00
						VA25B5282-006	VA25B5282-007	VA25B5282-008	VA25B5282-009	VA25B5282-010
						Result	Result	Result	Result	Result
Metals										
Chromium	7440-47-3	E440/VA	0.50	mg/kg		163	132	178	162	139
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		253	68.1	117	101	279
Copper	7440-50-8	E440/VA	0.50	mg/kg		8300	1720	2140	1740	2460
Iron	7439-89-6	E440/VA	50	mg/kg		64600	41700	53900	59100	64500
Lead	7439-92-1	E440/VA	0.50	mg/kg		603	370	443	344	405
Lithium	7439-93-2	E440/VA	2.0	mg/kg		38.4	28.6	37.7	29.2	38.4
Magnesium	7439-95-4	E440/VA	20	mg/kg		11700	11500	11700	10600	9940
Manganese	7439-96-5	E440/VA	1.0	mg/kg		792	702	779	758	741
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		19.1	16.4	16.8	16.9	16.5
Nickel	7440-02-0	E440/VA	0.50	mg/kg		546	482	169	329	130
Phosphorus	7723-14-0	E440/VA	50	mg/kg		10500	10100	11300	10600	9680
Potassium	7440-09-7	E440/VA	100	mg/kg		5940	6360	6310	5490	5180
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.48	0.45	0.46	0.34	0.47
Silver	7440-22-4	E440/VA	0.10	mg/kg		6.48	5.83	11.4	4.88	5.37
Sodium	7440-23-5	E440/VA	50	mg/kg		15200	16400	16900	15000	14700
Strontium	7440-24-6	E440/VA	0.50	mg/kg		333	243	288	263	235
Sulfur	7704-34-9	E440/VA	1000	mg/kg		13600	11200	12200	10700	10600
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		133	107	95.8	84.3	672
Titanium	7440-32-6	E440/VA	1.0	mg/kg		273	355	380	599	254

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-6	BA 2525-A-7	BA 2525-A-8	BA 2525-A-9	BA 2525-A-10
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00
						VA25B5282-006	VA25B5282-007	VA25B5282-008	VA25B5282-009	VA25B5282-010
						Result	Result	Result	Result	Result
Metals										
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		9.20	11.2	11.2	11.0	9.37
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.96	1.82	1.93	1.72	1.63
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		43.5	44.5	50.9	41.6	40.4
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3690	3870	3710	3180	2920
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		1.5	2.1	2.5	2.7	2.8
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.53	11.50	11.45	11.46	11.62
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		3.50	3.93	2.19	2.37	2.57
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.91	4.91	4.91	4.91	4.91
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.80	9.52	9.46	8.36	9.63
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		0.85	0.86	0.91	1.22	0.87
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		836	840	831	812	819
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		0.775	0.850	0.870	0.782	0.761
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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-6	BA 2525-A-7	BA 2525-A-8	BA 2525-A-9	BA 2525-A-10
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00	22-Jun-2025 09:00
						VA25B5282-006	VA25B5282-007	VA25B5282-008	VA25B5282-009	VA25B5282-010
						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		3.1	4.4	6.6	8.5	5.3
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
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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-11	BA 2525-A-12	----	----	----
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	----	----	----
						VA25B5282-011	VA25B5282-012	----	----	----
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		22.5	21.6	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.74	10.64	----	----	----

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-11	BA 2525-A-12	----	----	----
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	----	----	----
						VA25B5282-011	VA25B5282-012	----	----	----
						Result	Result	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		35200	35600	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg		89.2	95.9	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		15.2	13.7	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg		627	542	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.39	0.34	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		8.74	6.77	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg		189	145	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		7.53	11.6	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg		108000	115000	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg		235	228	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		80.2	37.4	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg		1010	1890	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg		63200	62000	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg		334	249	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg		23.0	21.1	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg		12600	11200	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg		674	744	----	----	----
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		<0.0500	<0.0500	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		15.1	16.3	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg		361	122	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg		10300	8460	----	----	----

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-11	BA 2525-A-12	----	----	----
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	----	----	----
						VA25B5282-011	VA25B5282-012	----	----	----
						Result	Result	----	----	----
Metals										
Potassium	7440-09-7	E440/VA	100	mg/kg		5750	5790	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.40	0.37	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg		5.67	3.53	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg		17100	15700	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg		235	313	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg		9800	14400	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg		78.1	86.4	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg		265	313	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		8.05	8.37	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.46	1.60	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		53.3	42.6	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3960	4800	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		1.9	2.4	----	----	----
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.49	11.53	----	----	----
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		2.10	2.63	----	----	----
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.91	4.91	----	----	----
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.47	9.62	----	----	----
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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-11	BA 2525-A-12	----	----	----
					Client sampling date / time	22-Jun-2025 09:00	22-Jun-2025 09:00	----	----	----
						VA25B5282-011	VA25B5282-012	----	----	----
						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		0.86	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		792	805	----	----	----
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		0.873	0.808	----	----	----
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		5.8	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.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25B5282**	Page	: 1 of 16
Client	: **Veolia Environmental Services Canada**	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Veolia Weekly Bottom Ash-Suite	Date Samples Received	: 24-Jun-2025 11:00
PO	: ----	Issue Date	: 02-Jul-2025 15:14
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		

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

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	VA25B5282-011	BA 2525-A-11	Boron	7440-42-8	E440	43.9 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B5282-011	BA 2525-A-11	Chromium	7440-47-3	E440	30.0 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B5282-011	BA 2525-A-11	Copper	7440-50-8	E440	92.8 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B5282-011	BA 2525-A-11	Molybdenum	7439-98-7	E440	41.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B5282-011	BA 2525-A-11	Nickel	7440-02-0	E440	93.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B5282-011	BA 2525-A-11	Titanium	7440-32-6	E440	47.0 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B5282-011	BA 2525-A-11	Tungsten	7440-33-7	E440	42.4 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B5282-011	BA 2525-A-11	Zinc	7440-66-6	E440	30.7 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

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

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 / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-11	E510	22-Jun-2025	29-Jun-2025	28 days	7 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-12	E510	22-Jun-2025	29-Jun-2025	28 days	7 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-1	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-10	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-2	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-3	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-4	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-5	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-6	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-7	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-8	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-9	E510	22-Jun-2025	30-Jun-2025	28 days	8 days	✓	30-Jun-2025	28 days	0 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-11	E440	22-Jun-2025	29-Jun-2025	180 days	7 days	✓	01-Jul-2025	180 days	7 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-12	E440	22-Jun-2025	29-Jun-2025	180 days	7 days	✓	01-Jul-2025	180 days	7 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-1	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-10	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-2	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-3	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-4	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-5	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-6	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-7	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-8	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-9	E440	22-Jun-2025	30-Jun-2025	180 days	8 days	✓	01-Jul-2025	180 days	8 days	✓
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-1	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-10	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-11	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-12	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-2	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-3	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-4	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-5	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-6	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-7	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-8	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-9	E144	22-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-1	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-10	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-2	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-3	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-4	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-5	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-6	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-7	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-8	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-9	E108	22-Jun-2025	30-Jun-2025	30 days	8 days	✓	30-Jun-2025	30 days	8 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-11	E108	22-Jun-2025	01-Jul-2025	30 days	9 days	✓	01-Jul-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-12	E108	22-Jun-2025	01-Jul-2025	30 days	9 days	✓	01-Jul-2025	30 days	9 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-1	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-10	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-11	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-12	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-2	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-3	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-4	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-5	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-6	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-7	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-8	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-9	E512	25-Jun-2025	28-Jun-2025	31 days	6 days	✓	28-Jun-2025	31 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-1	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-10	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-11	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-12	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-2	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-3	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-4	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-5	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-6	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-7	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved)										
BA 2525-A-8	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved)										
BA 2525-A-9	E444	25-Jun-2025	28-Jun-2025	183 days	6 days	✓	30-Jun-2025	183 days	6 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-1	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-10	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-11	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-12	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-2	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-3	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-4	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-5	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-6	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-7	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-8	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-9	EPP444	22-Jun-2025	25-Jun-2025	----	----		----	28 days	3 days	✓

Legend & Qualifier Definitions

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*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2081208	2	34	5.8	5.0	✓
Moisture Content by Gravimetry	E144	2081209	2	34	5.8	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2081206	2	34	5.8	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2080918	1	12	8.3	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2081207	2	34	5.8	5.0	✓
Mercury by CVAAS (TCLP)	E512	2080917	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2081208	2	34	5.8	5.0	✓
Moisture Content by Gravimetry	E144	2081209	2	34	5.8	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2081206	4	34	11.7	10.0	✓
Mercury in Soil/Solid by CVAAS	E510	2081207	4	34	11.7	10.0	✓
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2081209	2	34	5.8	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2081206	2	34	5.8	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2080918	1	12	8.3	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2081207	2	34	5.8	5.0	✓
Mercury by CVAAS (TCLP)	E512	2080917	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444	2080918	1	12	8.3	5.0	✓
Mercury by CVAAS (TCLP)	E512	2080917	1	12	8.3	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
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 ºC) 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.
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.
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 HNO3 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.
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.
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 HNO3 and HCl, followed by CVAAS analysis.
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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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 HNO3 and HCl. This method is intended to liberate metals that may be environmentally available.
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.

QUALITY CONTROL REPORT

Work Order	: **VA25B5282**	Page	: 1 of 17
Client	: Veolia Environmental Services Canada	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Veolia Weekly Bottom Ash-Suite	Date Samples Received	: 24-Jun-2025 11:00
PO	: ----	Date Analysis Commenced	: 25-Jun-2025
C-O-C number	: ----	Issue Date	: 02-Jul-2025 15:14
Sampler	: ----		
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 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*
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Vancouver Organics, 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/Solid**

					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: 2081204)											
VA25B5246-001	Anonymous	pH (1:2 soil:water)	----	E108	0.10	pH units	8.31	8.49	2.1%	5%	----
Physical Tests (QC Lot: 2081205)											
VA25B5246-001	Anonymous	Moisture	----	E144	0.25	%	26.6	27.1	1.70%	20%	----
Physical Tests (QC Lot: 2081208)											
VA25B5282-011	BA 2525-A-11	pH (1:2 soil:water)	----	E108	0.10	pH units	10.74	10.68	0.6%	5%	----
Physical Tests (QC Lot: 2081209)											
VA25B5282-011	BA 2525-A-11	Moisture	----	E144	0.25	%	22.5	22.0	2.02%	20%	----
Metals (QC Lot: 2081202)											
VA25B5246-001	Anonymous	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	Diff <2x LOR	----
Metals (QC Lot: 2081203)											
VA25B5246-001	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	4710	4560	3.28%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	1.17	1.18	0.584%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	11.9	11.8	0.677%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	<0.10	<0.10	0	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	0.030	0.033	0.002	Diff <2x LOR	----
		Calcium	7440-70-2	E440	50	mg/kg	2810	3000	6.66%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	8.55	8.00	6.58%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	1.63	1.58	2.93%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	2.25	2.29	0.05	Diff <2x LOR	----
		Iron	7439-89-6	E440	50	mg/kg	5560	5420	2.40%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	1.07	1.10	0.04	Diff <2x LOR	----
		Lithium	7439-93-2	E440	2.0	mg/kg	4.1	4.1	0.03	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	20	mg/kg	2370	2380	0.662%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	93.1	91.9	1.31%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	0.23	0.25	0.01	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.50	mg/kg	5.04	4.89	3.04%	30%	----
		Phosphorus	7723-14-0	E440	50	mg/kg	228	222	6	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

					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: 2081203) - continued											
VA25B5246-001	Anonymous	Potassium	7440-09-7	E440	100	mg/kg	530	520	3.24%	40%	----
		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	Diff <2x LOR	----
		Sodium	7440-23-5	E440	50	mg/kg	1630	1690	3.31%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	16.0	17.3	7.96%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.142	0.150	0.008	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	398	381	4.34%	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	0.322	0.322	0.0007	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	14.7	14.2	3.70%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	12.8	12.5	0.3	Diff <2x LOR	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	1.5	1.7	0.1	Diff <2x LOR	----
Metals (QC Lot: 2081206)											
VA25B5282-011	BA 2525-A-11	Aluminum	7429-90-5	E440	50	mg/kg	35200	52200	38.9%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	89.2	100	11.8%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	15.2	13.5	11.7%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	627	638	1.70%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.39	0.34	0.05	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	8.74	7.79	11.5%	30%	----
		Boron	7440-42-8	E440	5.0	mg/kg	189	121	43.9%	30%	DUP-H
		Cadmium	7440-43-9	E440	0.020	mg/kg	7.53	7.07	6.27%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	108000	107000	0.445%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	235	174	30.0%	30%	DUP-H
		Cobalt	7440-48-4	E440	0.10	mg/kg	80.2	66.4	18.9%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	1010	2770	92.8%	30%	DUP-H
		Iron	7439-89-6	E440	50	mg/kg	63200	69500	9.52%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	334	248	29.4%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	23.0	21.5	6.64%	30%	----
		Magnesium	7439-95-4	E440	20	mg/kg	12600	11600	8.27%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	674	842	22.2%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	15.1	22.9	41.4%	40%	DUP-H
		Nickel	7440-02-0	E440	0.50	mg/kg	361	131	93.5%	30%	DUP-H

Sub-Matrix: **Soil/Solid**

					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: 2081206) - continued											
VA25B5282-011	BA 2525-A-11	Phosphorus	7723-14-0	E440	50	mg/kg	10300	8710	16.5%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	5750	5740	0.166%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.40	0.40	0.0003	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	5.67	4.99	12.8%	40%	----
		Sodium	7440-23-5	E440	50	mg/kg	17100	16200	5.33%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	235	223	5.38%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	9800	12000	19.8%	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	78.1	85.5	9.02%	40%	----
		Titanium	7440-32-6	E440	1.0	mg/kg	265	427	47.0%	40%	DUP-H
		Tungsten	7440-33-7	E440	0.50	mg/kg	8.05	5.23	42.4%	30%	DUP-H
		Uranium	7440-61-1	E440	0.050	mg/kg	1.46	1.54	5.61%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	53.3	40.7	26.6%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	3960	5390	30.7%	30%	DUP-H
		Zirconium	7440-67-7	E440	1.0	mg/kg	1.9	3.7	1.7	Diff <2x LOR	----
Metals (QC Lot: 2081207)											
VA25B5282-011	BA 2525-A-11	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2080917)											
VA25B5282-001	BA 2525-A-1	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2080918)											
VA25B5282-001	BA 2525-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	0.72	0.73	0.01	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	707	742	4.89%	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	0.708	0.710	0.240%	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	<2.5	<2.5	0	Diff <2x LOR	----
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

					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: 2080918) - continued											
VA25B5282-001	BA 2525-A-1	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	<0.50	<0.50	0	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 (QCLot: 2081205)						
Moisture	----	E144	0.25	%	<0.25	----
Physical Tests (QCLot: 2081209)						
Moisture	----	E144	0.25	%	<0.25	----
Metals (QCLot: 2081202)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 2081203)						
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 (QCLot: 2081203) - continued						
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 (QCLot: 2081206)						
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 (QCLot: 2081206) - continued						
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 (QCLot: 2081207)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
TCLP Metals (QCLot: 2080917)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals (QCLot: 2080918)						
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/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2081204)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	99.7	95.0	105	----
Physical Tests (QCLot: 2081205)									
Moisture	----	E144	0.25	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 2081208)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	99.2	95.0	105	----
Physical Tests (QCLot: 2081209)									
Moisture	----	E144	0.25	%	50 %	100	90.0	110	----
Metals (QCLot: 2081202)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	103	80.0	120	----
Metals (QCLot: 2081203)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	98.9	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	99.6	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	101	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	99.6	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	100	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	102	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	95.4	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	99.3	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	100	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	98.2	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	99.2	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	104	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	107	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	102	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	101	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	99.7	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	98.4	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	99.3	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	96.7	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	99.1	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2081203) - continued									
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	98.2	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	93.5	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	97.5	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	93.5	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	101	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	96.1	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	91.6	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	103	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	108	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	102	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	97.1	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	105	80.0	120	----
Metals (QCLot: 2081206)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	98.8	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	102	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	103	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	98.8	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	101	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	96.5	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	92.3	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	96.3	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	101	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	98.0	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	96.8	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	96.4	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	104	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	105	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	100	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	97.9	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	101	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	97.1	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	98.9	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	96.8	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	102	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2081206) - continued									
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	93.2	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	96.5	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	98.4	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	94.1	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	95.0	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	97.1	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	100	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	102	80.0	120	----
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	95.8	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	110	80.0	120	----
Metals (QCLot: 2081207)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	98.3	80.0	120	----

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 the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
TCLP Metals (QCLot: 2080917)										
VA25B5282-001	BA 2525-A-1	Mercury, TCLP	7439-97-6	E512	0.0029 mg/L	0.003 mg/L	98.2	50.0	140	----
TCLP Metals (QCLot: 2080918)										
VA25B5282-001	BA 2525-A-1	Antimony, TCLP	7440-36-0	E444	4.71 mg/L	5 mg/L	94.2	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	4.8 mg/L	5 mg/L	96.6	50.0	140	----
		Barium, TCLP	7440-39-3	E444	12.4 mg/L	12.5 mg/L	98.9	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.228 mg/L	0.25 mg/L	91.2	50.0	140	----
		Boron, TCLP	7440-42-8	E444	8.82 mg/L	10 mg/L	88.2	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.220 mg/L	0.25 mg/L	88.0	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.13 mg/L	1.25 mg/L	90.3	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	0.227 mg/L	0.25 mg/L	90.8	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.26 mg/L	2.5 mg/L	90.2	50.0	140	----
		Iron, TCLP	7439-89-6	E444	228 mg/L	250 mg/L	91.0	50.0	140	----
		Lead, TCLP	7439-92-1	E444	8.93 mg/L	10 mg/L	89.3	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	231 mg/L	250 mg/L	92.4	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.27 mg/L	2.5 mg/L	91.0	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	4.70 mg/L	5 mg/L	93.9	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.081 mg/L	0.1 mg/L	81.4	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.4 mg/L	5 mg/L	89.1	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.40 mg/L	5 mg/L	88.0	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.70 mg/L	0.75 mg/L	92.8	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	8.92 mg/L	10 mg/L	89.2	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.8 mg/L	1 mg/L	75.5	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:

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Metals (QCLot: 2081202)									
QC-2081202-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	102	70.0	130	----
Metals (QCLot: 2081203)									
QC-2081203-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	99.6	70.0	130	----
QC-2081203-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	102	70.0	130	----
QC-2081203-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	98.2	70.0	130	----
QC-2081203-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	95.6	70.0	130	----
QC-2081203-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	102	70.0	130	----
QC-2081203-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	97.9	70.0	130	----
QC-2081203-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	94.0	70.0	130	----
QC-2081203-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	99.2	70.0	130	----
QC-2081203-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	97.5	70.0	130	----
QC-2081203-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	96.2	70.0	130	----
QC-2081203-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	97.2	70.0	130	----
QC-2081203-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	101	70.0	130	----
QC-2081203-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	96.8	70.0	130	----
QC-2081203-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	104	70.0	130	----
QC-2081203-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	96.9	70.0	130	----
QC-2081203-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	94.6	70.0	130	----
QC-2081203-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	96.5	70.0	130	----
QC-2081203-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	98.4	70.0	130	----
QC-2081203-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	95.2	70.0	130	----
QC-2081203-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	96.1	70.0	130	----
QC-2081203-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	102	60.0	140	----
QC-2081203-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	93.5	70.0	130	----
QC-2081203-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	102	70.0	130	----
QC-2081203-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	96.0	70.0	130	----
QC-2081203-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	79.1	50.0	150	----
QC-2081203-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	98.4	70.0	130	----
QC-2081203-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	94.4	40.0	160	----
QC-2081203-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	98.0	70.0	130	----
QC-2081203-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	111	70.0	130	----
QC-2081203-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	87.3	70.0	130	----
QC-2081203-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	96.2	70.0	130	----

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Recovery (%): RM	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Metals (QCLot: 2081203) - continued									
QC-2081203-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	95.2	70.0	130	----
QC-2081203-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	94.2	70.0	130	----
Metals (QCLot: 2081206)									
QC-2081206-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	91.2	70.0	130	----
QC-2081206-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	96.3	70.0	130	----
QC-2081206-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	89.6	70.0	130	----
QC-2081206-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	89.1	70.0	130	----
QC-2081206-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	98.9	70.0	130	----
QC-2081206-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	82.6	70.0	130	----
QC-2081206-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	92.6	70.0	130	----
QC-2081206-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	96.4	70.0	130	----
QC-2081206-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	91.1	70.0	130	----
QC-2081206-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	90.1	70.0	130	----
QC-2081206-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	90.4	70.0	130	----
QC-2081206-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	96.6	70.0	130	----
QC-2081206-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	90.8	70.0	130	----
QC-2081206-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	100	70.0	130	----
QC-2081206-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	93.8	70.0	130	----
QC-2081206-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	88.8	70.0	130	----
QC-2081206-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	91.6	70.0	130	----
QC-2081206-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	92.1	70.0	130	----
QC-2081206-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	92.0	70.0	130	----
QC-2081206-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	87.2	70.0	130	----
QC-2081206-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	100	60.0	140	----
QC-2081206-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	89.5	70.0	130	----
QC-2081206-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	94.5	70.0	130	----
QC-2081206-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	93.0	70.0	130	----
QC-2081206-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	82.4	50.0	150	----
QC-2081206-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	91.5	70.0	130	----
QC-2081206-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	88.6	40.0	160	----
QC-2081206-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	93.2	70.0	130	----
QC-2081206-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	105	70.0	130	----
QC-2081206-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	89.8	70.0	130	----
QC-2081206-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	91.1	70.0	130	----
QC-2081206-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	89.9	70.0	130	----
QC-2081206-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	85.4	70.0	130	----
Metals (QCLot: 2081207)									

Sub-Matrix:

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Metals (QCLot: 2081207) - continued									
QC-2081207-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	102	70.0	130	----

ALS Environmental

Chain of Custody / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

COC # _____

Page 1 of 1

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:	Brian Graham / Darcie Grace			
Address:	5150 Riverbend Drive	Email 1:	Darcie.grace@veolia.com	
	Burnaby BC	Email 2:	lorenzo.ilao@veolia.com	
Phone:	604-521-1025 Fax:	Email 3:	karen.thornquist@veolia.com	**Analysis Request**
			brent.kirkpatrick@metrovancouver.org	
			Sarah.Wellman@metrovancouver.org	
Invoice To	Same as Report ? Veolia Water Canada	**Client / Project Information**		Please indicate below Filtered, Preserved or both (F, P, F/P)
Hardcopy of Invoice with Report?		Job #:	Veolia Weekly Bottom Ash - Suite	
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 Fax:	Quote #:		

Lab Work Order # (lab use only): 5282

ALS Contact:

Sampler:

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	MET-TCLP-VA (all metals, Hg)	MOISTURE		Chrome 6		MET-CSR+FULL-VA (all metals)							Number of Containers
	BA 2525-A-1	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-2	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-3	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-4	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-5	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-6	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-7	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-8	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-9	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-10	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-11	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-12	18 - 22 Jun 2025	9:00	Soil	X	X				X							1
water Aquatic																	

Environmental Division Vancouver

Work Order Reference

VA25B5282

Telephone : +1 604 253 4188

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numbers and

NT RELEASE (C

SHIPMENT RECEPTION (lab use only)							SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
	23/06/25		CW	Jun 24	11am	21 °C				

GENF 20.00 Front

Bottom Ash Worksheet

Date sample composited (DD/MM/YYYY)	23/06/2025
Person doing the sampling	E. LEE
Total Sample Weight before processing, ~~kg~~ lbs	80.65
Weight of Material >3/8", ~~kg~~	19.55
Weight of Material that cannot be processed to <3/8" (metal, wood, etc), ~~kg~~	11.11
Final Total weight of Processed Bottom Ash, ~~kg~~	61.1

Return this form with the filled Weekly Bottom Ash Composite Sample containers

Completely fill twelve (12) 500ml sample containers and label each with "Bottom Ash" and the week the ash composite is from, i.e. "June 9-15, 2019"

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25B5283**			
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	:	----	Date Samples Received	:	24-Jun-2025 11:00
C-O-C number	:	----	Date Analysis Commenced	:	26-Jun-2025
Sampler	:	----	Issue Date	:	02-Jul-2025 15:14
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.

Signatories	*Position*	*Laboratory Department*
Kevin Duarte		Metals, Burnaby, British Columbia
Ophelia Chiu		Organics, Burnaby, British Columbia

General Comments

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

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

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

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

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

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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-1 UNPROCESSED	BA 2525-A-2 UNPROCESSED	BA 2525-A-3 UNPROCESSED	BA 2525-A-4 UNPROCESSED	BA 2525-A-5 UNPROCESSED
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00
						VA25B5283-001	VA25B5283-002	VA25B5283-003	VA25B5283-004	VA25B5283-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		22.1	20.6	22.3	22.3	23.4
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		11.19	12.47	11.88	11.84	12.43
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		35600	34300	56200	32300	28600
Antimony	7440-36-0	E440/VA	0.10	mg/kg		73.9	137	95.5	85.1	77.9
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		28.1	33.8	34.1	33.2	25.4
Barium	7440-39-3	E440/VA	0.50	mg/kg		476	478	577	519	541
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.32	0.34	0.32	0.32	0.33
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		4.12	6.59	4.64	4.87	3.59
Boron	7440-42-8	E440/VA	5.0	mg/kg		190	234	184	201	184
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		4.96	4.87	4.22	4.42	3.52
Calcium	7440-70-2	E440/VA	50	mg/kg		126000	137000	125000	123000	118000
Chromium	7440-47-3	E440/VA	0.50	mg/kg		116	184	208	131	117
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		21.1	154	40.3	58.4	37.4
Copper	7440-50-8	E440/VA	0.50	mg/kg		965	1810	5730	1010	18300
Iron	7439-89-6	E440/VA	50	mg/kg		38700	47800	45100	40500	43800
Lead	7439-92-1	E440/VA	0.50	mg/kg		338	323	340	386	324
Lithium	7439-93-2	E440/VA	2.0	mg/kg		20.4	259	22.6	31.1	23.3
Magnesium	7439-95-4	E440/VA	20	mg/kg		11200	12000	12200	11700	12100
Manganese	7439-96-5	E440/VA	1.0	mg/kg		600	1790	776	1090	555
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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BA 2525-A-1 UNPROCESSED	BA 2525-A-2 UNPROCESSED	BA 2525-A-3 UNPROCESSED	BA 2525-A-4 UNPROCESSED	BA 2525-A-5 UNPROCESSED
					Client sampling date / time: 17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00
					VA25B5283-001	VA25B5283-002	VA25B5283-003	VA25B5283-004	VA25B5283-005
					Result	Result	Result	Result	Result
Metals									
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	16.7	20.1	19.9	16.3	18.5
Nickel	7440-02-0	E440/VA	0.50	mg/kg	78.1	409	362	190	81.2
Phosphorus	7723-14-0	E440/VA	50	mg/kg	8330	10000	9410	8590	8030
Potassium	7440-09-7	E440/VA	100	mg/kg	5360	4740	4980	4850	4540
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.35	0.38	0.34	0.32	0.24
Silver	7440-22-4	E440/VA	0.10	mg/kg	2.49	16.4	2.96	2.58	2.37
Sodium	7440-23-5	E440/VA	50	mg/kg	14700	14400	16000	14400	13200
Strontium	7440-24-6	E440/VA	0.50	mg/kg	262	263	275	257	236
Sulfur	7704-34-9	E440/VA	1000	mg/kg	12800	13800	13800	10800	9600
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	82.1	2120	237	78.6	106
Titanium	7440-32-6	E440/VA	1.0	mg/kg	240	328	972	236	176
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	3.94	3.58	3.88	2.28	2.18
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.45	1.41	1.44	1.60	1.38
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	33.2	35.9	40.5	33.9	31.5
Zinc	7440-66-6	E440/VA	2.0	mg/kg	2770	2940	2860	4440	2430
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	1.8	1.7	1.8	1.9	1.6
TCLP Metals									
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.79	12.03	11.99	12.10	12.11
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	4.77	8.34	6.65	8.10	8.29
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	4.91	2.88	2.88	2.88	2.88

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-1 UNPROCESSED	BA 2525-A-2 UNPROCESSED	BA 2525-A-3 UNPROCESSED	BA 2525-A-4 UNPROCESSED	BA 2525-A-5 UNPROCESSED
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00
						VA25B5283-001	VA25B5283-002	VA25B5283-003	VA25B5283-004	VA25B5283-005
						Result	Result	Result	Result	Result
TCLP Metals										
pH, TCLP final	----	EPP444/VA	0.010	pH units		10.22	5.61	6.33	6.27	6.50
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		0.73	2.13	2.15	2.17	2.20
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		<0.050	0.066	0.058	<0.050	<0.050
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		721	1510	1720	1730	1780
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	1.03	0.705	0.901	0.575
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.753	1.14	1.05	0.547	0.691
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L		<5.0	6.2	<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		<2.5	110	112	118	115
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	0.28	0.28	0.35	<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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-1 UNPROCESSED	BA 2525-A-2 UNPROCESSED	BA 2525-A-3 UNPROCESSED	BA 2525-A-4 UNPROCESSED	BA 2525-A-5 UNPROCESSED
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00
						VA25B5283-001	VA25B5283-002	VA25B5283-003	VA25B5283-004	VA25B5283-005
						Result	Result	Result	Result	Result
TCLP Metals										
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L		<0.50	40.0	22.0	37.1	17.9
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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-6 UNPROCESSED	BA 2525-A-7 UNPROCESSED	BA 2525-A-8 UNPROCESSED	BA 2525-A-9 UNPROCESSED	BA 2525-A-10 UNPROCESSED
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00
						VA25B5283-006	VA25B5283-007	VA25B5283-008	VA25B5283-009	VA25B5283-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		19.8	19.3	21.2	19.8	17.0
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		11.63	10.96	10.61	11.14	11.67
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		32300	46800	55100	49300	49800
Antimony	7440-36-0	E440/VA	0.10	mg/kg		80.6	112	113	136	116
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		34.9	18.2	17.9	22.9	22.1
Barium	7440-39-3	E440/VA	0.50	mg/kg		573	447	465	489	421
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.35	0.32	0.39	0.30	0.31
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		5.26	23.7	19.1	23.6	31.7
Boron	7440-42-8	E440/VA	5.0	mg/kg		183	137	140	206	158
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		5.77	12.2	11.2	12.3	10.6
Calcium	7440-70-2	E440/VA	50	mg/kg		130000	102000	117000	122000	103000

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-6 UNPROCESSED	BA 2525-A-7 UNPROCESSED	BA 2525-A-8 UNPROCESSED	BA 2525-A-9 UNPROCESSED	BA 2525-A-10 UNPROCESSED
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00
						VA25B5283-006	VA25B5283-007	VA25B5283-008	VA25B5283-009	VA25B5283-010
						Result	Result	Result	Result	Result
Metals										
Chromium	7440-47-3	E440/VA	0.50	mg/kg		126	179	113	169	153
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		99.7	87.1	124	79.6	39.1
Copper	7440-50-8	E440/VA	0.50	mg/kg		1520	2430	2670	4110	4650
Iron	7439-89-6	E440/VA	50	mg/kg		44800	42100	50700	68800	65900
Lead	7439-92-1	E440/VA	0.50	mg/kg		380	1340	1880	468	1050
Lithium	7439-93-2	E440/VA	2.0	mg/kg		31.3	20.0	27.7	24.4	21.4
Magnesium	7439-95-4	E440/VA	20	mg/kg		14100	11900	11500	11500	10200
Manganese	7439-96-5	E440/VA	1.0	mg/kg		785	652	708	1060	758
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		18.7	12.0	14.3	16.4	16.6
Nickel	7440-02-0	E440/VA	0.50	mg/kg		199	129	113	219	87.9
Phosphorus	7723-14-0	E440/VA	50	mg/kg		8560	7940	9440	10800	6410
Potassium	7440-09-7	E440/VA	100	mg/kg		5760	8320	6380	7330	6620
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.37	0.37	0.34	0.43	0.39
Silver	7440-22-4	E440/VA	0.10	mg/kg		6.12	4.58	11.4	9.52	4.23
Sodium	7440-23-5	E440/VA	50	mg/kg		17000	20000	16600	16800	16800
Strontium	7440-24-6	E440/VA	0.50	mg/kg		296	191	236	642	254
Sulfur	7704-34-9	E440/VA	1000	mg/kg		13500	15900	12900	15100	12600
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	0.062	<0.050	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg		69.9	107	298	143	90.6
Titanium	7440-32-6	E440/VA	1.0	mg/kg		237	353	367	380	1340

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-6 UNPROCESSED	BA 2525-A-7 UNPROCESSED	BA 2525-A-8 UNPROCESSED	BA 2525-A-9 UNPROCESSED	BA 2525-A-10 UNPROCESSED
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00
						VA25B5283-006	VA25B5283-007	VA25B5283-008	VA25B5283-009	VA25B5283-010
						Result	Result	Result	Result	Result
Metals										
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		2.04	3.14	3.91	4.19	4.02
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.61	1.23	1.47	1.19	1.11
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		37.1	29.5	31.7	29.2	24.0
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3210	4760	5420	4320	3340
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		3.0	2.2	3.2	3.2	2.4
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.95	11.49	11.47	11.51	11.73
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		5.89	4.48	3.49	4.74	5.61
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		2.88	4.91	4.91	4.91	2.88
pH, TCLP final	----	EPP444/VA	0.010	pH units		6.45	9.28	9.27	9.45	6.71
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		2.26	0.73	0.77	0.74	1.90
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		0.054	<0.050	<0.050	<0.050	0.239
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		1680	842	841	876	1890
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		0.684	<0.050	<0.050	<0.050	0.877
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.643	0.181	0.363	0.264	0.499
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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-6 UNPROCESSED	BA 2525-A-7 UNPROCESSED	BA 2525-A-8 UNPROCESSED	BA 2525-A-9 UNPROCESSED	BA 2525-A-10 UNPROCESSED
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00	17-Jun-2025 09:00
						VA25B5283-006	VA25B5283-007	VA25B5283-008	VA25B5283-009	VA25B5283-010
						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		116	8.1	11.5	2.9	130
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		0.95	<0.25	<0.25	<0.25	0.47
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		13.5	<0.50	<0.50	<0.50	25.7
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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-11 UNPROCESSED	BA 2525-A-12 UNPROCESSED	----	----	----
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	----	----	----
						VA25B5283-011	VA25B5283-012	----	----	----
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		17.0	20.7	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		11.17	10.71	----	----	----

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-11 UNPROCESSED	BA 2525-A-12 UNPROCESSED	----	----	----
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	----	----	----
						VA25B5283-011	VA25B5283-012	----	----	----
						Result	Result	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		63000	36200	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg		107	111	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		20.8	18.8	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg		478	476	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.32	0.37	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		15.1	19.0	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg		148	142	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		9.26	9.84	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg		104000	122000	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg		329	136	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		45.4	32.9	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg		3580	1480	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg		68200	48400	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg		252	436	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg		20.4	24.7	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg		10400	11200	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg		981	704	----	----	----
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		<0.0500	<0.0500	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		74.8	16.0	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg		480	88.8	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg		8000	10400	----	----	----

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-11 UNPROCESSED	BA 2525-A-12 UNPROCESSED	----	----	----
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	----	----	----
						VA25B5283-011	VA25B5283-012	----	----	----
						Result	Result	----	----	----
Metals										
Potassium	7440-09-7	E440/VA	100	mg/kg		5780	6200	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.49	0.42	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg		3.58	3.72	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg		14800	16400	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg		216	291	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg		10700	15000	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg		88.8	98.4	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg		2210	218	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		6.93	3.46	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.39	1.51	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		32.9	43.7	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg		2600	3280	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		5.6	2.9	----	----	----
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.58	11.54	----	----	----
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		4.58	4.09	----	----	----
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.91	4.91	----	----	----
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.45	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)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2525-A-11 UNPROCESSED	BA 2525-A-12 UNPROCESSED	----	----	----
					Client sampling date / time	17-Jun-2025 09:00	17-Jun-2025 09:00	----	----	----
						VA25B5283-011	VA25B5283-012	----	----	----
						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		0.68	0.74	----	----	----
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		858	843	----	----	----
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		0.150	0.191	----	----	----
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		<2.5	4.3	----	----	----
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.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25B5283**	Page	: 1 of 16
Client	: **Veolia Environmental Services Canada**	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Veolia Weekly Bottom Ash-Suite	Date Samples Received	: 24-Jun-2025 11:00
PO	: ----	Issue Date	: 02-Jul-2025 15:13
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		

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

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	Anonymous	Anonymous	Boron	7440-42-8	E440	43.9 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	Chromium	7440-47-3	E440	30.0 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	Copper	7440-50-8	E440	92.8 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	Molybdenum	7439-98-7	E440	41.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	Nickel	7440-02-0	E440	93.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	Titanium	7440-32-6	E440	47.0 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	Tungsten	7440-33-7	E440	42.4 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	Zinc	7440-66-6	E440	30.7 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

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

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 / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-1 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-10 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-11 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-12 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-2 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-3 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-4 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-5 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-6 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-7 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-8 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2525-A-9 UNPROCESSED	E510	17-Jun-2025	29-Jun-2025	28 days	12 days	✓	02-Jul-2025	28 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-1 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-10 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-11 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-12 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-2 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-3 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-4 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-5 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-6 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-7 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-8 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2525-A-9 UNPROCESSED	E440	17-Jun-2025	29-Jun-2025	180 days	12 days	✓	01-Jul-2025	180 days	12 days	✓
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-1 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-10 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-11 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-12 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-2 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-3 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-4 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-5 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-6 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-7 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-8 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2525-A-9 UNPROCESSED	E144	17-Jun-2025	----	----	----		28-Jun-2025	----	----	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-1 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-10 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-11 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-12 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-2 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-3 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-4 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-5 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-6 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-7 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-8 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2525-A-9 UNPROCESSED	E108	17-Jun-2025	01-Jul-2025	30 days	14 days	✓	01-Jul-2025	30 days	14 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-1 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-10 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-11 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-12 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-2 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-3 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-4 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-5 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-6 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-7 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-8 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2525-A-9 UNPROCESSED	E512	26-Jun-2025	28-Jun-2025	37 days	11 days	✓	28-Jun-2025	37 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-1 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-10 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-11 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-12 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-2 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-3 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-4 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-5 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-6 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-7 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-8 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2525-A-9 UNPROCESSED	E444	26-Jun-2025	28-Jun-2025	189 days	11 days	✓	30-Jun-2025	189 days	11 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2525-A-1 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2525-A-10 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2525-A-11 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2525-A-12 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2525-A-2 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2525-A-3 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2525-A-4 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-5 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-6 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-7 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-8 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2525-A-9 UNPROCESSED	EPP444	17-Jun-2025	26-Jun-2025	----	----		----	28 days	9 days	✓

Legend & Qualifier Definitions

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*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2081208	1	14	7.1	5.0	✓
Moisture Content by Gravimetry	E144	2081209	1	14	7.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2081206	1	14	7.1	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2080969	2	12	16.6	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2081207	1	14	7.1	5.0	✓
Mercury by CVAAS (TCLP)	E512	2080970	2	12	16.6	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2081208	1	14	7.1	5.0	✓
Moisture Content by Gravimetry	E144	2081209	1	14	7.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2081206	2	14	14.2	10.0	✓
Mercury in Soil/Solid by CVAAS	E510	2081207	2	14	14.2	10.0	✓
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2081209	1	14	7.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2081206	1	14	7.1	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2080967	2	12	16.6	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2081207	1	14	7.1	5.0	✓
Mercury by CVAAS (TCLP)	E512	2080970	2	12	16.6	5.0	✓
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444	2080967	2	12	16.6	5.0	✓
Mercury by CVAAS (TCLP)	E512	2080970	2	12	16.6	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
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 ºC) 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.
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.
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 HNO3 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.
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.
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 HNO3 and HCl, followed by CVAAS analysis.
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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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 HNO3 and HCl. This method is intended to liberate metals that may be environmentally available.
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.

QUALITY CONTROL REPORT

Work Order	: **VA25B5283**	Page	: 1 of 14
Client	: Veolia Environmental Services Canada	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Veolia Weekly Bottom Ash-Suite	Date Samples Received	: 24-Jun-2025 11:00
PO	: ----	Date Analysis Commenced	: 26-Jun-2025
C-O-C number	: ----	Issue Date	: 02-Jul-2025 15:13
Sampler	: ----		
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 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*
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Vancouver Organics, 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/Solid**

					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: 2081208)											
VA25B5282-011	Anonymous	pH (1:2 soil:water)	----	E108	0.10	pH units	10.74	10.68	0.6%	5%	----
Physical Tests (QC Lot: 2081209)											
VA25B5282-011	Anonymous	Moisture	----	E144	0.25	%	22.5	22.0	2.02%	20%	----
Metals (QC Lot: 2081206)											
VA25B5282-011	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	35200	52200	38.9%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	89.2	100	11.8%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	15.2	13.5	11.7%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	627	638	1.70%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.39	0.34	0.05	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	8.74	7.79	11.5%	30%	----
		Boron	7440-42-8	E440	5.0	mg/kg	189	121	43.9%	30%	DUP-H
		Cadmium	7440-43-9	E440	0.020	mg/kg	7.53	7.07	6.27%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	108000	107000	0.445%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	235	174	30.0%	30%	DUP-H
		Cobalt	7440-48-4	E440	0.10	mg/kg	80.2	66.4	18.9%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	1010	2770	92.8%	30%	DUP-H
		Iron	7439-89-6	E440	50	mg/kg	63200	69500	9.52%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	334	248	29.4%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	23.0	21.5	6.64%	30%	----
		Magnesium	7439-95-4	E440	20	mg/kg	12600	11600	8.27%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	674	842	22.2%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	15.1	22.9	41.4%	40%	DUP-H
		Nickel	7440-02-0	E440	0.50	mg/kg	361	131	93.5%	30%	DUP-H
		Phosphorus	7723-14-0	E440	50	mg/kg	10300	8710	16.5%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	5750	5740	0.166%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.40	0.40	0.0003	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	5.67	4.99	12.8%	40%	----
		Sodium	7440-23-5	E440	50	mg/kg	17100	16200	5.33%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	235	223	5.38%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	9800	12000	19.8%	30%	----

Sub-Matrix: **Soil/Solid**

					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: 2081206) - continued											
VA25B5282-011	Anonymous	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	78.1	85.5	9.02%	40%	----
		Titanium	7440-32-6	E440	1.0	mg/kg	265	427	47.0%	40%	DUP-H
		Tungsten	7440-33-7	E440	0.50	mg/kg	8.05	5.23	42.4%	30%	DUP-H
		Uranium	7440-61-1	E440	0.050	mg/kg	1.46	1.54	5.61%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	53.3	40.7	26.6%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	3960	5390	30.7%	30%	DUP-H
		Zirconium	7440-67-7	E440	1.0	mg/kg	1.9	3.7	1.7	Diff <2x LOR	----
Metals (QC Lot: 2081207)											
VA25B5282-011	Anonymous	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2080967)											
VA25B5283-001	BA 2525-A-1 UNPROCESSED	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	0.73	0.72	0.01	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	721	728	0.925%	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	0.753	0.763	1.28%	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	<2.5	<2.5	0	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	----
		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: 2080968)											

Sub-Matrix: **Soil/Solid**

					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: 2080968) - continued											
VA25B5283-001	BA 2525-A-1 UNPROCESSED	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2080969)											
VA25B5283-002	BA 2525-A-2 UNPROCESSED	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	2.13	2.11	0.02	Diff <2x LOR	----
		Cadmium, TCLP	7440-43-9	E444	0.050	mg/L	0.066	0.067	0.0002	Diff <2x LOR	----
		Calcium, TCLP	7440-70-2	E444	10	mg/L	1510	1470	2.78%	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	1.03	1.02	0.393%	30%	----
		Copper, TCLP	7440-50-8	E444	0.050	mg/L	1.14	1.14	0.294%	30%	----
		Iron, TCLP	7439-89-6	E444	5.0	mg/L	6.2	6.1	0.05	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	110	109	1.19%	30%	----
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	0.28	0.28	0.001	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	40.0	40.6	1.60%	30%	----
		Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2080970)											
VA25B5283-002	BA 2525-A-2 UNPROCESSED	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	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 (QCLot: 2081209)						
Moisture	----	E144	0.25	%	<0.25	----
Metals (QCLot: 2081206)						
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	----
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2081206) - continued						
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 (QCLot: 2081207)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
TCLP Metals (QCLot: 2080967)						
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	----
TCLP Metals (QCLot: 2080968)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals (QCLot: 2080969)						
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
TCLP Metals (QCLot: 2080969) - continued						
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	----
TCLP Metals (QCLot: 2080970)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----

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/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2081208)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	99.2	95.0	105	----
Physical Tests (QCLot: 2081209)									
Moisture	----	E144	0.25	%	50 %	100	90.0	110	----
Metals (QCLot: 2081206)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	98.8	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	102	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	103	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	98.8	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	101	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	96.5	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	92.3	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	96.3	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	101	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	98.0	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	96.8	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	96.4	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	104	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	105	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	100	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	97.9	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	101	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	97.1	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	98.9	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	96.8	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	102	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	93.2	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	96.5	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	98.4	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	94.1	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	95.0	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2081206) - continued									
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	97.1	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	100	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	102	80.0	120	----
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	95.8	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	110	80.0	120	----
Metals (QCLot: 2081207)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	98.3	80.0	120	----

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 the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
TCLP Metals (QCLot: 2080967)										
VA25B5283-001	BA 2525-A-1 UNPROCESSED	Antimony, TCLP	7440-36-0	E444	4.68 mg/L	5 mg/L	93.6	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	4.8 mg/L	5 mg/L	95.6	50.0	140	----
		Barium, TCLP	7440-39-3	E444	12.2 mg/L	12.5 mg/L	97.6	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.232 mg/L	0.25 mg/L	92.8	50.0	140	----
		Boron, TCLP	7440-42-8	E444	9.20 mg/L	10 mg/L	92.0	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.232 mg/L	0.25 mg/L	92.6	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.16 mg/L	1.25 mg/L	92.9	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	0.232 mg/L	0.25 mg/L	92.6	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.26 mg/L	2.5 mg/L	90.5	50.0	140	----
		Iron, TCLP	7439-89-6	E444	228 mg/L	250 mg/L	91.4	50.0	140	----
		Lead, TCLP	7439-92-1	E444	9.20 mg/L	10 mg/L	92.0	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	238 mg/L	250 mg/L	95.0	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.34 mg/L	2.5 mg/L	93.4	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	4.64 mg/L	5 mg/L	92.8	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.085 mg/L	0.1 mg/L	85.1	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.7 mg/L	5 mg/L	93.6	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.56 mg/L	5 mg/L	91.3	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.70 mg/L	0.75 mg/L	92.8	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	76.3	50.0	150	----
TCLP Metals (QCLot: 2080968)										
VA25B5283-001	BA 2525-A-1 UNPROCESSED	Mercury, TCLP	7439-97-6	E512	0.0028 mg/L	0.003 mg/L	95.1	50.0	140	----
TCLP Metals (QCLot: 2080969)										
VA25B5283-002	BA 2525-A-2 UNPROCESSED	Antimony, TCLP	7440-36-0	E444	4.89 mg/L	5 mg/L	97.8	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	5.1 mg/L	5 mg/L	101	50.0	140	----
		Barium, TCLP	7440-39-3	E444	12.9 mg/L	12.5 mg/L	103	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.237 mg/L	0.25 mg/L	94.8	50.0	140	----
		Boron, TCLP	7440-42-8	E444	9.26 mg/L	10 mg/L	92.6	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.236 mg/L	0.25 mg/L	94.2	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.21 mg/L	1.25 mg/L	96.9	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	ND mg/L	----	ND	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.41 mg/L	2.5 mg/L	96.5	50.0	140	----
		Iron, TCLP	7439-89-6	E444	245 mg/L	250 mg/L	98.2	50.0	140	----
		Lead, TCLP	7439-92-1	E444	9.56 mg/L	10 mg/L	95.6	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	254 mg/L	250 mg/L	102	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.43 mg/L	2.5 mg/L	97.2	50.0	140	----

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
TCLP Metals (QCLot: 2080969) - continued										
VA25B5283-002	BA 2525-A-2 UNPROCESSED	Selenium, TCLP	7782-49-2	E444	5.04 mg/L	5 mg/L	101	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.087 mg/L	0.1 mg/L	86.9	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.8 mg/L	5 mg/L	97.1	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.79 mg/L	5 mg/L	95.8	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.74 mg/L	0.75 mg/L	98.8	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	ND mg/L	----	ND	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.8 mg/L	1 mg/L	79.7	50.0	150	----
TCLP Metals (QCLot: 2080970)										
VA25B5283-002	BA 2525-A-2 UNPROCESSED	Mercury, TCLP	7439-97-6	E512	0.0029 mg/L	0.003 mg/L	97.2	50.0	140	----

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:

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Metals (QCLot: 2081206)									
QC-2081206-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	91.2	70.0	130	----
QC-2081206-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	96.3	70.0	130	----
QC-2081206-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	89.6	70.0	130	----
QC-2081206-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	89.1	70.0	130	----
QC-2081206-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	98.9	70.0	130	----
QC-2081206-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	82.6	70.0	130	----
QC-2081206-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	92.6	70.0	130	----
QC-2081206-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	96.4	70.0	130	----
QC-2081206-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	91.1	70.0	130	----
QC-2081206-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	90.1	70.0	130	----
QC-2081206-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	90.4	70.0	130	----
QC-2081206-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	96.6	70.0	130	----
QC-2081206-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	90.8	70.0	130	----
QC-2081206-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	100	70.0	130	----
QC-2081206-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	93.8	70.0	130	----
QC-2081206-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	88.8	70.0	130	----
QC-2081206-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	91.6	70.0	130	----
QC-2081206-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	92.1	70.0	130	----
QC-2081206-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	92.0	70.0	130	----
QC-2081206-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	87.2	70.0	130	----
QC-2081206-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	100	60.0	140	----
QC-2081206-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	89.5	70.0	130	----
QC-2081206-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	94.5	70.0	130	----
QC-2081206-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	93.0	70.0	130	----
QC-2081206-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	82.4	50.0	150	----
QC-2081206-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	91.5	70.0	130	----
QC-2081206-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	88.6	40.0	160	----
QC-2081206-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	93.2	70.0	130	----
QC-2081206-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	105	70.0	130	----
QC-2081206-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	89.8	70.0	130	----
QC-2081206-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	91.1	70.0	130	----
QC-2081206-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	89.9	70.0	130	----
QC-2081206-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	85.4	70.0	130	----

Sub-Matrix:

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Metals (QCLot: 2081207)									
QC-2081207-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	102	70.0	130	----

ALS Environmental

Chain of Custody / Analytical Request Form
Canada Toll Free: 1 800 668 9878
www.alsglobal.com

COC # _____

Page 1 of 1

Report To		**Report Format / Distribution**	
Company:	Veolia Canada / Burnaby Waste To Energy Facility	"Veolia Email Distribution List" please	
Contact:	Brian Graham / Darcie Grace		
Address:	5150 Riverbend Drive	Email 1:	Darcie.grace@veolia.com
	Burnaby BC	Email 2:	lorenzo.ilao@veolia.com
Phone:	604-521-1025 Fax:	Email 3:	karen.thornquist@veolia.com
			brent.kirkpatrick@metrovancouver.org
			Sarah.Wellman@metrovancouver.org
Invoice To	Same as Report ? Veolia Water Canada	**Client / Project Information**	
Hardcopy of Invoice with Report?		Job #:	Veolia Weekly Bottom Ash - Suite
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 Fax:	Quote #:	
Lab Work Order # (lab use only)	5283	**ALS Contact:**	**Sampler:**

Service Requested (Rush for routine analysis subject to availability)

Please indicate below F

Environmental Division
Vancouver
Work Order Reference
VA25B5283

Telephone : +1 604 253 4188

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	MET-TCLP-VA (all metals, Hg)	MOISTURE		Chrome 6		MET-CSR+FULL-VA (all							Number of Containers
	BA 2525-A-1 UNPROCESSED	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-2 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-3 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-4 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-5 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-6 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-7 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-8 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-9 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-10 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-11 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
	BA 2525-A-12 ~	15 - 17 Jun 2025	9:00	Soil	X	X				X							1
water Aquatic																	

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numbers and

NT RELEASE (c

SHIPMENT RECEPTION (lab use only)							SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
	23/06/25		CW	Jun 24	11am	21 °C				

GENF 20.00 Front