

## Bottom Ash Data

2025 Week 20

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The following analytical report represents bottom ash composite results for week 20 of 2025 (May 11, 2025 to May 17, 2025).

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



**CERTIFICATE OF ANALYSIS**

<b>Work Order</b>	: <b>VA25B1644</b>	<b>Laboratory</b>	: ALS Environmental - Vancouver
<b>Client</b>	: <b>Veolia Environmental Services Canada</b>	<b>Account Manager</b>	: Gulraj Dhanaua
<b>Contact</b>	: Brian Graham	<b>Address</b>	: 8081 Lougheed Highway
<b>Address</b>	: 5150 Riverbend Dr. Burnaby British Columbia Canada V3N 4V3		: Burnaby BC Canada V5A 1W9
<b>Telephone</b>	: ----	<b>E-mail</b>	: Gulraj.Dhanaua@alsglobal.com
<b>Project</b>	: Veolia Weekly Bottom Ash-Suite	<b>Telephone</b>	: +1 604 253 4188
<b>PO</b>	: ----	<b>Date Samples Received</b>	: 20-May-2025 16:13
<b>C-O-C number</b>	: ----	<b>Date Analysis Commenced</b>	: 21-May-2025
<b>Sampler</b>	: ----	<b>Issue Date</b>	: 28-May-2025 15:34
<b>Site</b>	: Metro Van Ash Sampling Program		
<b>Quote number</b>	: VA25-VIS1100-001		
<b>No. of samples received</b>	: 12		
<b>No. of samples analysed</b>	: 12		

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

**Signatories**

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

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Dan Gebert	Supervisor - Metals Mercury & Speciation	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Organics, Burnaby, British Columbia



## General Comments

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

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

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

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

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

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

<: less than.

>: greater than.

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

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

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



**Analytical Results**

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID				
					BA-2520-A-1	BA-2520-A-2	BA-2520-A-3	BA-2520-A-4	BA-2520-A-5
Client sampling date / time					14-May-2025 09:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-001	VA25B1644-002	VA25B1644-003	VA25B1644-004	VA25B1644-005
					Result	Result	Result	Result	Result
<b>Physical Tests</b>									
Moisture	----	E144/VA	0.25	%	28.9	27.6	26.8	28.3	28.0
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	9.96	10.03	9.94	9.98	9.98
<b>Metals</b>									
Aluminum	7429-90-5	E440/VA	50	mg/kg	23400	20800	18600	33500	37900
Antimony	7440-36-0	E440/VA	0.10	mg/kg	76.4	88.3	71.0	98.3	128
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	9.80	11.7	11.2	15.5	15.6
Barium	7440-39-3	E440/VA	0.50	mg/kg	304	308	261	427	544
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.24	0.23	0.21	0.29	0.42
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	6.84	9.98	21.8	8.57	9.42
Boron	7440-42-8	E440/VA	5.0	mg/kg	126	127	109	131	243
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	5.32	5.45	4.98	13.2	7.42
Calcium	7440-70-2	E440/VA	50	mg/kg	82500	87000	79400	105000	134000
Chromium	7440-47-3	E440/VA	0.50	mg/kg	90.2	94.8	85.5	141	154
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	186	78.1	81.1	37.1	39.9
Copper	7440-50-8	E440/VA	0.50	mg/kg	3130	1690	1200	2310	1130
Iron	7439-89-6	E440/VA	50	mg/kg	40400	33800	37700	51000	37800
Lead	7439-92-1	E440/VA	0.50	mg/kg	500	398	227	185	396
Lithium	7439-93-2	E440/VA	2.0	mg/kg	36.1	22.9	21.8	23.5	38.7
Magnesium	7439-95-4	E440/VA	20	mg/kg	7470	8110	7700	9600	11600
Manganese	7439-96-5	E440/VA	1.0	mg/kg	678	515	485	616	604
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	0.0789	0.0844	0.218	0.111	0.113



## Analytical Results

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

					Client sample ID	BA-2520-A-1	BA-2520-A-2	BA-2520-A-3	BA-2520-A-4	BA-2520-A-5
					Client sampling date / time	14-May-2025 09:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-001	VA25B1644-002	VA25B1644-003	VA25B1644-004	VA25B1644-005	
					Result	Result	Result	Result	Result	
<b>Metals</b>										
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	11.0	11.9	8.37	12.2	16.6	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	107	127	105	120	221	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	7060	8040	6390	8590	11600	
Potassium	7440-09-7	E440/VA	100	mg/kg	3720	4060	3500	4180	6710	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.26	0.25	0.25	0.36	0.45	
Silver	7440-22-4	E440/VA	0.10	mg/kg	2.97	2.93	3.83	13.1	5.67	
Sodium	7440-23-5	E440/VA	50	mg/kg	11000	11800	10300	13100	19000	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	421	212	175	219	293	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	7300	8900	8000	11100	14500	
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	71.0	71.0	60.2	79.4	85.4	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	110	105	98.9	186	295	
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	3.87	5.46	3.68	5.86	16.8	
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.83	1.94	1.89	2.20	2.94	
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	29.0	26.0	26.6	38.2	38.7	
Zinc	7440-66-6	E440/VA	2.0	mg/kg	2500	2340	2680	2690	3180	
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	1.8	1.4	1.2	2.4	3.5	
<b>TCLP Metals</b>										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.30	11.36	11.35	11.34	11.32	
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	5.66	4.94	5.68	5.41	5.79	
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	2.93	4.97	2.93	2.93	2.93	



## Analytical Results

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

					Client sample ID	BA-2520-A-1	BA-2520-A-2	BA-2520-A-3	BA-2520-A-4	BA-2520-A-5
					Client sampling date / time	14-May-2025 09:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-001	VA25B1644-002	VA25B1644-003	VA25B1644-004	VA25B1644-005	
					Result	Result	Result	Result	Result	
<b>TCLP Metals</b>										
pH, TCLP final	----	EPP444/VA	0.010	pH units	6.20	8.39	6.35	6.45	6.38	
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	1.60	0.67	1.71	1.69	1.56	
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	0.076	<0.050	0.086	0.081	0.082	
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	1680	733	1760	1820	1710	
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	0.809	<0.050	1.24	0.905	1.30	
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	0.203	0.743	0.661	0.824	0.540	
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	122	14.0	130	134	140	
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	0.68	<0.25	0.45	0.45	0.43	
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

					Client sample ID				
					BA-2520-A-1	BA-2520-A-2	BA-2520-A-3	BA-2520-A-4	BA-2520-A-5
					Client sampling date / time				
					14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-001	VA25B1644-002	VA25B1644-003	VA25B1644-004	VA25B1644-005
					Result	Result	Result	Result	Result
<b>TCLP Metals</b>									
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L	25.6	<0.50	23.6	18.2	22.9
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

					Client sample ID				
					BA-2520-A-6	BA-2520-A-7	BA-2520-A-8	BA-2520-A-9	BA-2520-A-10
					Client sampling date / time				
					14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-006	VA25B1644-007	VA25B1644-008	VA25B1644-009	VA25B1644-010
					Result	Result	Result	Result	Result
<b>Physical Tests</b>									
Moisture	----	E144/VA	0.25	%	30.1	28.8	27.8	29.0	27.6
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	10.02	10.05	9.99	9.98	9.99
<b>Metals</b>									
Aluminum	7429-90-5	E440/VA	50	mg/kg	38500	65600	32000	37100	57700
Antimony	7440-36-0	E440/VA	0.10	mg/kg	134	112	137	170	156
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	16.1	14.5	15.1	53.2	16.8
Barium	7440-39-3	E440/VA	0.50	mg/kg	353	539	415	368	533
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.36	0.35	0.42	0.43	0.42
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	15.0	15.2	9.29	12.6	9.81
Boron	7440-42-8	E440/VA	5.0	mg/kg	229	153	203	163	152
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	6.70	6.40	6.70	7.59	8.02
Calcium	7440-70-2	E440/VA	50	mg/kg	122000	120000	132000	139000	129000



## Analytical Results

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

					Client sample ID	BA-2520-A-6	BA-2520-A-7	BA-2520-A-8	BA-2520-A-9	BA-2520-A-10
					Client sampling date / time	14-May-2025 09:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-006	VA25B1644-007	VA25B1644-008	VA25B1644-009	VA25B1644-010	
					Result	Result	Result	Result	Result	
<b>Metals</b>										
Chromium	7440-47-3	E440/VA	0.50	mg/kg	165	203	289	169	137	
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	47.7	33.1	285	47.2	514	
Copper	7440-50-8	E440/VA	0.50	mg/kg	3560	2680	6230	1300	2130	
Iron	7439-89-6	E440/VA	50	mg/kg	41500	57800	35200	39700	39000	
Lead	7439-92-1	E440/VA	0.50	mg/kg	263	502	1150	726	320	
Lithium	7439-93-2	E440/VA	2.0	mg/kg	29.9	30.5	45.7	27.5	36.4	
Magnesium	7439-95-4	E440/VA	20	mg/kg	11600	10900	13300	11900	13000	
Manganese	7439-96-5	E440/VA	1.0	mg/kg	832	793	632	899	861	
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	0.0924	0.103	0.102	0.121	0.160	
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	41.8	17.0	17.3	16.7	19.5	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	164	128	220	151	117	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	10200	10900	10500	11800	11600	
Potassium	7440-09-7	E440/VA	100	mg/kg	5830	5640	5960	6500	6200	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.38	0.36	0.38	0.43	0.43	
Silver	7440-22-4	E440/VA	0.10	mg/kg	6.84	5.26	4.86	6.31	4.96	
Sodium	7440-23-5	E440/VA	50	mg/kg	16700	16500	16900	18400	19100	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	275	314	284	314	273	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	13600	12000	15000	14400	15500	
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	85.2	87.7	96.1	105	92.7	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	304	822	200	217	422	



## Analytical Results

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

					Client sample ID				
					BA-2520-A-6	BA-2520-A-7	BA-2520-A-8	BA-2520-A-9	BA-2520-A-10
					Client sampling date / time				
					14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00	14-May-2025 09:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-006	VA25B1644-007	VA25B1644-008	VA25B1644-009	VA25B1644-010
					Result	Result	Result	Result	Result
<b>Metals</b>									
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	55.3	9.68	8.14	11.5	10.5
Uranium	7440-61-1	E440/VA	0.050	mg/kg	2.77	2.87	3.11	3.13	2.98
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	46.5	49.8	42.4	46.9	46.6
Zinc	7440-66-6	E440/VA	2.0	mg/kg	3890	3240	5090	3380	4460
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	4.5	4.3	3.0	3.2	4.4
<b>TCLP Metals</b>									
pH, TCLP 1st preliminary	---	EPP444/VA	0.010	pH units	11.39	11.33	11.39	11.42	11.38
pH, TCLP 2nd preliminary	---	EPP444/VA	0.010	pH units	5.90	5.36	5.77	5.67	5.30
pH, TCLP extraction fluid initial	---	EPP444/VA	0.010	pH units	2.93	2.93	2.93	2.93	2.93
pH, TCLP final	---	EPP444/VA	0.010	pH units	6.43	6.54	6.11	6.45	5.95
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	1.64	1.68	1.62	1.70	1.57
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	0.108	0.076	0.131	0.344	0.096
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	1760	1820	1840	1810	1730
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	0.624	1.06	0.881	0.992	0.711
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	0.682	0.698	0.618	0.612	1.01
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0



### Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID				
					BA-2520-A-6	BA-2520-A-7	BA-2520-A-8	BA-2520-A-9	BA-2520-A-10
Client sampling date / time					14-May-2025 09:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-006	VA25B1644-007	VA25B1644-008	VA25B1644-009	VA25B1644-010
					Result	Result	Result	Result	Result
<b>TCLP Metals</b>									
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	128	132	132	138	121
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	0.56	0.47	0.60	0.67	0.72
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	23.4	13.8	66.5	30.6	45.3
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L	<10	<10	<10	<10	<10

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

### Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID				
					BA-2520-A-11	BA-2520-A-12	----	----	----
Client sampling date / time					14-May-2025 09:00	14-May-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-011	VA25B1644-012	----	----	----
					Result	Result	----	----	----
<b>Physical Tests</b>									
Moisture	----	E144/VA	0.25	%	29.3	29.4	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	10.00	10.04	----	----	----



## Analytical Results

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

					Client sample ID		BA-2520-A-11	BA-2520-A-12	----	----	----
					Client sampling date / time		14-May-2025 09:00	14-May-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-011	VA25B1644-012	----	----	----	----	----
					Result	Result	----	----	----	----	----
<b>Metals</b>											
Aluminum	7429-90-5	E440/VA	50	mg/kg	38500	36300	----	----	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg	135	128	----	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	14.2	14.4	----	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg	630	512	----	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.39	0.37	----	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	7.68	9.68	----	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg	166	204	----	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	6.50	7.29	----	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg	130000	132000	----	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg	338	150	----	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	104	60.0	----	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg	1170	1550	----	----	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg	57700	36000	----	----	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg	910	327	----	----	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg	29.2	29.3	----	----	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg	12700	12900	----	----	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg	714	679	----	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	0.164	0.140	----	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	16.9	15.0	----	----	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg	207	112	----	----	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg	11900	11300	----	----	----	----	----



## Analytical Results

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

					Client sample ID	BA-2520-A-11	BA-2520-A-12	----	----	----
					Client sampling date / time	14-May-2025 09:00	14-May-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-011	VA25B1644-012	----	----	----	
					Result	Result	----	----	----	
<b>Metals</b>										
Potassium	7440-09-7	E440/VA	100	mg/kg	5230	6860	----	----	----	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.47	0.58	----	----	----	
Silver	7440-22-4	E440/VA	0.10	mg/kg	3.71	4.58	----	----	----	
Sodium	7440-23-5	E440/VA	50	mg/kg	16400	19200	----	----	----	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	323	289	----	----	----	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	12500	14100	----	----	----	
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	<0.050	----	----	----	
Tin	7440-31-5	E440/VA	2.0	mg/kg	90.4	100	----	----	----	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	276	228	----	----	----	
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	13.2	7.57	----	----	----	
Uranium	7440-61-1	E440/VA	0.050	mg/kg	2.66	2.88	----	----	----	
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	42.5	42.8	----	----	----	
Zinc	7440-66-6	E440/VA	2.0	mg/kg	3280	3920	----	----	----	
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	2.6	3.0	----	----	----	
<b>TCLP Metals</b>										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.37	11.36	----	----	----	
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	5.96	5.90	----	----	----	
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	2.93	2.93	----	----	----	
pH, TCLP final	----	EPP444/VA	0.010	pH units	6.52	6.30	----	----	----	
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L	<1.00	<1.00	----	----	----	
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L	<1.0	<1.0	----	----	----	



**Analytical Results**

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

					Client sample ID	BA-2520-A-11	BA-2520-A-12	----	----	----
					Client sampling date / time	14-May-2025 09:00	14-May-2025 09:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25B1644-011	VA25B1644-012	----	----	----	
					Result	Result	----	----	----	
<b>TCLP Metals</b>										
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	1.71	1.80	----	----	----	
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	0.097	0.106	----	----	----	
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	1850	1910	----	----	----	
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	1.87	1.30	----	----	----	
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	0.619	0.790	----	----	----	
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	129	140	----	----	----	
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	0.41	0.67	----	----	----	
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	17.5	23.7	----	----	----	
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.



## CERTIFICATE OF ANALYSIS

<b>Work Order</b>	: <b>VA25B1644</b>	Page	: 1 of 22
Client	: <b>Veolia Environmental Services Canada</b>	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 BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Veolia Weekly Bottom Ash-Suite	Date Samples Received	: 20-May-2025 16:13
PO	: ----	Date Analysis	: 21-May-2025
C-O-C number	: ----	Commenced	
Sampler	: ----	Issue Date	: 28-May-2025 15:33
Site	: Metro Van Ash Sampling Program		
Quote number	: VA25-VIS100-001		
No. of samples received	: 12		
No. of samples analysed	: 12		

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

### Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Dan Gebert	Supervisor - Metals Mercury & Speciation	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Organics, Burnaby, British Columbia



## General Comments

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

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

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

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

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Measurement Uncertainty: The reported uncertainties in this report are expanded uncertainties calculated using a coverage factor of 2, which gives a level of confidence of approximately 95%.

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.

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

>: greater than.

<: less than.

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

VA25B1644-001

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-1

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/Lot
<b>Physical Tests</b>								
Moisture	----	28.9	0.25	%	E144/VA	-	26-May-2025	2014404
pH (1:2 soil:water)	----	9.96	0.10	pH units	E108/VA	26-May-2025	27-May-2025	2014398
<b>Metals</b>								
Aluminum	7429-90-5	23400	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Antimony	7440-36-0	76.4	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Arsenic	7440-38-2	9.80	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Barium	7440-39-3	304	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Beryllium	7440-41-7	0.24	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Bismuth	7440-69-9	6.84	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Boron	7440-42-8	126	5.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Cadmium	7440-43-9	5.32	0.020	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Calcium	7440-70-2	82500	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Chromium	7440-47-3	90.2	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Cobalt	7440-48-4	186	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Copper	7440-50-8	3130	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Iron	7439-89-6	40400	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Lead	7439-92-1	500	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Lithium	7439-93-2	36.1	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Magnesium	7439-95-4	7470	20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Manganese	7439-96-5	678	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Mercury	7439-97-6	0.0789	0.0500	mg/kg	E510/VA	26-May-2025	27-May-2025	2014396
Molybdenum	7439-98-7	11.0	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Nickel	7440-02-0	107	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Phosphorus	7723-14-0	7060	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Potassium	7440-09-7	3720	100	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Selenium	7782-49-2	0.26	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Silver	7440-22-4	2.97	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Sodium	7440-23-5	11000	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Strontium	7440-24-6	421	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Sulfur	7704-34-9	7300	1000	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Tin	7440-31-5	71.0	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Titanium	7440-32-6	110	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Tungsten	7440-33-7	3.87	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Uranium	7440-61-1	1.83	0.050	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Vanadium	7440-62-2	29.0	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Zinc	7440-66-6	2500	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Zirconium	7440-67-7	1.8	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.30	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.66	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.20	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261



## Analytical Results

VA25B1644-001

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-1

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>TCLP Metals</b>								
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.60	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.076	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1680	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	0.809	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.203	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	122	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.68	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	25.6	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-002

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-2

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								
Moisture	----	27.6	0.25	%	E144/VA	-	26-May-2025	2014404
pH (1:2 soil:water)	----	10.03	0.10	pH units	E108/VA	26-May-2025	27-May-2025	2014398
<b>Metals</b>								
Aluminum	7429-90-5	20800	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Antimony	7440-36-0	88.3	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Arsenic	7440-38-2	11.7	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Barium	7440-39-3	308	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Beryllium	7440-41-7	0.23	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Bismuth	7440-69-9	9.98	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Boron	7440-42-8	127	5.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Cadmium	7440-43-9	5.45	0.020	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Calcium	7440-70-2	87000	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Chromium	7440-47-3	94.8	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Cobalt	7440-48-4	78.1	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Copper	7440-50-8	1690	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397



## Analytical Results

VA25B1644-002

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-2

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/Lot
<b>Metals</b>								
Iron	7439-89-6	33800	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Lead	7439-92-1	398	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Lithium	7439-93-2	22.9	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Magnesium	7439-95-4	8110	20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Manganese	7439-96-5	515	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Mercury	7439-97-6	0.0844	0.0500	mg/kg	E510/VA	26-May-2025	27-May-2025	2014396
Molybdenum	7439-98-7	11.9	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Nickel	7440-02-0	127	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Phosphorus	7723-14-0	8040	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Potassium	7440-09-7	4060	100	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Selenium	7782-49-2	0.25	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Silver	7440-22-4	2.93	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Sodium	7440-23-5	11800	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Strontium	7440-24-6	212	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Sulfur	7704-34-9	8900	1000	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Tin	7440-31-5	71.0	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Titanium	7440-32-6	105	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Tungsten	7440-33-7	5.46	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Uranium	7440-61-1	1.94	0.050	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Vanadium	7440-62-2	26.0	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Zinc	7440-66-6	2340	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Zirconium	7440-67-7	1.4	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.36	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	4.94	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	4.97	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	8.39	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Boron, TCLP	7440-42-8	0.67	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Cadmium, TCLP	7440-43-9	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Calcium, TCLP	7440-70-2	733	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Cobalt, TCLP	7440-48-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Copper, TCLP	7440-50-8	0.743	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Magnesium, TCLP	7439-95-4	14.0	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013258
Nickel, TCLP	7440-02-0	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013259



## Analytical Results

VA25B1644-002

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-2

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>TCLP Metals</b>								
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Zinc, TCLP	7440-66-6	<0.50	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013259
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013259

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

## Analytical Results

VA25B1644-003

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-3

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								
Moisture	----	26.8	0.25	%	E144/VA	-	26-May-2025	2014404
pH (1:2 soil:water)	----	9.94	0.10	pH units	E108/VA	26-May-2025	27-May-2025	2014398
<b>Metals</b>								
Aluminum	7429-90-5	18600	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Antimony	7440-36-0	71.0	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Arsenic	7440-38-2	11.2	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Barium	7440-39-3	261	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Beryllium	7440-41-7	0.21	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Bismuth	7440-69-9	21.8	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Boron	7440-42-8	109	5.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Cadmium	7440-43-9	4.98	0.020	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Calcium	7440-70-2	79400	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Chromium	7440-47-3	85.5	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Cobalt	7440-48-4	81.1	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Copper	7440-50-8	1200	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Iron	7439-89-6	37700	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Lead	7439-92-1	227	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Lithium	7439-93-2	21.8	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Magnesium	7439-95-4	7700	20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Manganese	7439-96-5	485	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Mercury	7439-97-6	0.218	0.0500	mg/kg	E510/VA	26-May-2025	27-May-2025	2014396
Molybdenum	7439-98-7	8.37	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Nickel	7440-02-0	105	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Phosphorus	7723-14-0	6390	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Potassium	7440-09-7	3500	100	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Selenium	7782-49-2	0.25	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Silver	7440-22-4	3.83	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Sodium	7440-23-5	10300	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Strontium	7440-24-6	175	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Sulfur	7704-34-9	8000	1000	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397



## Analytical Results

VA25B1644-003

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-3

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Metals</b>								
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Tin	7440-31-5	60.2	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Titanium	7440-32-6	98.9	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Tungsten	7440-33-7	3.68	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Uranium	7440-61-1	1.89	0.050	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Vanadium	7440-62-2	26.6	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Zinc	7440-66-6	2680	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Zirconium	7440-67-7	1.2	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.35	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.68	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.35	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.71	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.086	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1760	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	1.24	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.661	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	130	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.45	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	23.6	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-004

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-4

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								



## Analytical Results

VA25B1644-004

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-4

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/LOT
<b>Physical Tests</b>								
Moisture	----	28.3	0.25	%	E144/VA	-	26-May-2025	2014404
pH (1:2 soil:water)	----	9.98	0.10	pH units	E108/VA	26-May-2025	27-May-2025	2014398
<b>Metals</b>								
Aluminum	7429-90-5	33500	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Antimony	7440-36-0	98.3	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Arsenic	7440-38-2	15.5	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Barium	7440-39-3	427	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Beryllium	7440-41-7	0.29	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Bismuth	7440-69-9	8.57	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Boron	7440-42-8	131	5.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Cadmium	7440-43-9	13.2	0.020	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Calcium	7440-70-2	105000	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Chromium	7440-47-3	141	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Cobalt	7440-48-4	37.1	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Copper	7440-50-8	2310	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Iron	7439-89-6	51000	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Lead	7439-92-1	185	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Lithium	7439-93-2	23.5	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Magnesium	7439-95-4	9600	20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Manganese	7439-96-5	616	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Mercury	7439-97-6	0.111	0.0500	mg/kg	E510/VA	26-May-2025	27-May-2025	2014396
Molybdenum	7439-98-7	12.2	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Nickel	7440-02-0	120	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Phosphorus	7723-14-0	8590	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Potassium	7440-09-7	4180	100	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Selenium	7782-49-2	0.36	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Silver	7440-22-4	13.1	0.10	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Sodium	7440-23-5	13100	50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Strontium	7440-24-6	219	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Sulfur	7704-34-9	11100	1000	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Tin	7440-31-5	79.4	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Titanium	7440-32-6	186	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Tungsten	7440-33-7	5.86	0.50	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Uranium	7440-61-1	2.20	0.050	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Vanadium	7440-62-2	38.2	0.20	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Zinc	7440-66-6	2690	2.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
Zirconium	7440-67-7	2.4	1.0	mg/kg	E440/VA	26-May-2025	27-May-2025	2014397
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.34	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.41	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.45	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261



## Analytical Results

VA25B1644-004

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-4

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>TCLP Metals</b>								
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.69	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.081	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1820	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	0.905	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.824	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	134	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.45	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	18.2	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-005

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-5

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								
Moisture	----	28.0	0.25	%	E144/VA	-	25-May-2025	2014013
pH (1:2 soil:water)	----	9.98	0.10	pH units	E108/VA	25-May-2025	27-May-2025	2014009
<b>Metals</b>								
Aluminum	7429-90-5	37900	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Antimony	7440-36-0	128	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Arsenic	7440-38-2	15.6	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Barium	7440-39-3	544	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Beryllium	7440-41-7	0.42	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Bismuth	7440-69-9	9.42	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Boron	7440-42-8	243	5.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cadmium	7440-43-9	7.42	0.020	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Calcium	7440-70-2	134000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Chromium	7440-47-3	154	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cobalt	7440-48-4	39.9	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Copper	7440-50-8	1130	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007



## Analytical Results

VA25B1644-005

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-5

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/LOT
<b>Metals</b>								
Iron	7439-89-6	37800	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lead	7439-92-1	396	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lithium	7439-93-2	38.7	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Magnesium	7439-95-4	11600	20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Manganese	7439-96-5	604	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Mercury	7439-97-6	0.113	0.0500	mg/kg	E510/VA	25-May-2025	27-May-2025	2014008
Molybdenum	7439-98-7	16.6	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Nickel	7440-02-0	221	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Phosphorus	7723-14-0	11600	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Potassium	7440-09-7	6710	100	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Selenium	7782-49-2	0.45	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Silver	7440-22-4	5.67	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sodium	7440-23-5	19000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Strontium	7440-24-6	293	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sulfur	7704-34-9	14500	1000	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tin	7440-31-5	85.4	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Titanium	7440-32-6	295	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tungsten	7440-33-7	16.8	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Uranium	7440-61-1	2.94	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Vanadium	7440-62-2	38.7	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zinc	7440-66-6	3180	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zirconium	7440-67-7	3.5	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.32	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.79	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.38	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.56	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.082	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1710	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	1.30	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.540	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	140	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.43	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261



## Analytical Results

VA25B1644-005

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-5

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>TCLP Metals</b>								
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	22.9	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-006

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-6

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								
Moisture	----	30.1	0.25	%	E144/VA	-	25-May-2025	2014013
pH (1:2 soil:water)	----	10.02	0.10	pH units	E108/VA	25-May-2025	27-May-2025	2014009
<b>Metals</b>								
Aluminum	7429-90-5	38500	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Antimony	7440-36-0	134	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Arsenic	7440-38-2	16.1	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Barium	7440-39-3	353	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Beryllium	7440-41-7	0.36	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Bismuth	7440-69-9	15.0	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Boron	7440-42-8	229	5.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cadmium	7440-43-9	6.70	0.020	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Calcium	7440-70-2	122000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Chromium	7440-47-3	165	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cobalt	7440-48-4	47.7	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Copper	7440-50-8	3560	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Iron	7439-89-6	41500	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lead	7439-92-1	263	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lithium	7439-93-2	29.9	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Magnesium	7439-95-4	11600	20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Manganese	7439-96-5	832	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Mercury	7439-97-6	0.0924	0.0500	mg/kg	E510/VA	25-May-2025	27-May-2025	2014008
Molybdenum	7439-98-7	41.8	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Nickel	7440-02-0	164	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Phosphorus	7723-14-0	10200	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Potassium	7440-09-7	5830	100	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Selenium	7782-49-2	0.38	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Silver	7440-22-4	6.84	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sodium	7440-23-5	16700	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Strontium	7440-24-6	275	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sulfur	7704-34-9	13600	1000	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007



## Analytical Results

VA25B1644-006

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-6

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Metals</b>								
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tin	7440-31-5	85.2	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Titanium	7440-32-6	304	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tungsten	7440-33-7	55.3	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Uranium	7440-61-1	2.77	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Vanadium	7440-62-2	46.5	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zinc	7440-66-6	3890	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zirconium	7440-67-7	4.5	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.39	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.90	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.43	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.64	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.108	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1760	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	0.624	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.682	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	128	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.56	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	23.4	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-007

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-7

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								



## Analytical Results

VA25B1644-007

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-7

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/Lot
<b>Physical Tests</b>								
Moisture	----	28.8	0.25	%	E144/VA	-	25-May-2025	2014013
pH (1:2 soil:water)	----	10.05	0.10	pH units	E108/VA	25-May-2025	27-May-2025	2014009
<b>Metals</b>								
Aluminum	7429-90-5	65600	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Antimony	7440-36-0	112	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Arsenic	7440-38-2	14.5	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Barium	7440-39-3	539	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Beryllium	7440-41-7	0.35	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Bismuth	7440-69-9	15.2	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Boron	7440-42-8	153	5.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cadmium	7440-43-9	6.40	0.020	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Calcium	7440-70-2	120000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Chromium	7440-47-3	203	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cobalt	7440-48-4	33.1	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Copper	7440-50-8	2680	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Iron	7439-89-6	57800	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lead	7439-92-1	502	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lithium	7439-93-2	30.5	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Magnesium	7439-95-4	10900	20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Manganese	7439-96-5	793	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Mercury	7439-97-6	0.103	0.0500	mg/kg	E510/VA	25-May-2025	27-May-2025	2014008
Molybdenum	7439-98-7	17.0	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Nickel	7440-02-0	128	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Phosphorus	7723-14-0	10900	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Potassium	7440-09-7	5640	100	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Selenium	7782-49-2	0.36	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Silver	7440-22-4	5.26	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sodium	7440-23-5	16500	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Strontium	7440-24-6	314	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sulfur	7704-34-9	12000	1000	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tin	7440-31-5	87.7	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Titanium	7440-32-6	822	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tungsten	7440-33-7	9.68	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Uranium	7440-61-1	2.87	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Vanadium	7440-62-2	49.8	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zinc	7440-66-6	3240	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zirconium	7440-67-7	4.3	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.33	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.36	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.54	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261



## Analytical Results

VA25B1644-007

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-7

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>TCLP Metals</b>								
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.68	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.076	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1820	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	1.06	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.698	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	132	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.47	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	13.8	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-008

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-8

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								
Moisture	----	27.8	0.25	%	E144/VA	-	25-May-2025	2014013
pH (1:2 soil:water)	----	9.99	0.10	pH units	E108/VA	25-May-2025	27-May-2025	2014009
<b>Metals</b>								
Aluminum	7429-90-5	32000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Antimony	7440-36-0	137	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Arsenic	7440-38-2	15.1	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Barium	7440-39-3	415	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Beryllium	7440-41-7	0.42	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Bismuth	7440-69-9	9.29	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Boron	7440-42-8	203	5.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cadmium	7440-43-9	6.70	0.020	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Calcium	7440-70-2	132000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Chromium	7440-47-3	289	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cobalt	7440-48-4	285	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Copper	7440-50-8	6230	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007



## Analytical Results

VA25B1644-008

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-8

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/Lot
<b>Metals</b>								
Iron	7439-89-6	35200	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lead	7439-92-1	1150	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lithium	7439-93-2	45.7	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Magnesium	7439-95-4	13300	20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Manganese	7439-96-5	632	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Mercury	7439-97-6	0.102	0.0500	mg/kg	E510/VA	25-May-2025	27-May-2025	2014008
Molybdenum	7439-98-7	17.3	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Nickel	7440-02-0	220	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Phosphorus	7723-14-0	10500	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Potassium	7440-09-7	5960	100	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Selenium	7782-49-2	0.38	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Silver	7440-22-4	4.86	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sodium	7440-23-5	16900	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Strontium	7440-24-6	284	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sulfur	7704-34-9	15000	1000	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tin	7440-31-5	96.1	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Titanium	7440-32-6	200	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tungsten	7440-33-7	8.14	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Uranium	7440-61-1	3.11	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Vanadium	7440-62-2	42.4	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zinc	7440-66-6	5090	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zirconium	7440-67-7	3.0	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.39	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.77	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.11	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.62	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.131	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1840	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	0.881	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.618	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	132	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.60	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261



## Analytical Results

VA25B1644-008

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-8

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>TCLP Metals</b>								
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	66.5	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-009

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-9

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								
Moisture	----	29.0	0.25	%	E144/VA	-	25-May-2025	2014013
pH (1:2 soil:water)	----	9.98	0.10	pH units	E108/VA	25-May-2025	27-May-2025	2014009
<b>Metals</b>								
Aluminum	7429-90-5	37100	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Antimony	7440-36-0	170	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Arsenic	7440-38-2	53.2	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Barium	7440-39-3	368	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Beryllium	7440-41-7	0.43	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Bismuth	7440-69-9	12.6	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Boron	7440-42-8	163	5.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cadmium	7440-43-9	7.59	0.020	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Calcium	7440-70-2	139000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Chromium	7440-47-3	169	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cobalt	7440-48-4	47.2	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Copper	7440-50-8	1300	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Iron	7439-89-6	39700	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lead	7439-92-1	726	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lithium	7439-93-2	27.5	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Magnesium	7439-95-4	11900	20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Manganese	7439-96-5	899	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Mercury	7439-97-6	0.121	0.0500	mg/kg	E510/VA	25-May-2025	27-May-2025	2014008
Molybdenum	7439-98-7	16.7	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Nickel	7440-02-0	151	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Phosphorus	7723-14-0	11800	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Potassium	7440-09-7	6500	100	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Selenium	7782-49-2	0.43	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Silver	7440-22-4	6.31	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sodium	7440-23-5	18400	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Strontium	7440-24-6	314	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sulfur	7704-34-9	14400	1000	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007



## Analytical Results

VA25B1644-009

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-9

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Metals</b>								
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tin	7440-31-5	105	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Titanium	7440-32-6	217	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tungsten	7440-33-7	11.5	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Uranium	7440-61-1	3.13	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Vanadium	7440-62-2	46.9	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zinc	7440-66-6	3380	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zirconium	7440-67-7	3.2	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.42	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.67	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.45	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.70	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.344	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1810	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	0.992	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.612	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	138	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.67	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	30.6	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-010

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-10

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								



## Analytical Results

VA25B1644-010

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-10

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/LOT
<b>Physical Tests</b>								
Moisture	----	27.6	0.25	%	E144/VA	-	25-May-2025	2014013
pH (1:2 soil:water)	----	9.99	0.10	pH units	E108/VA	25-May-2025	27-May-2025	2014009
<b>Metals</b>								
Aluminum	7429-90-5	57700	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Antimony	7440-36-0	156	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Arsenic	7440-38-2	16.8	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Barium	7440-39-3	533	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Beryllium	7440-41-7	0.42	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Bismuth	7440-69-9	9.81	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Boron	7440-42-8	152	5.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cadmium	7440-43-9	8.02	0.020	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Calcium	7440-70-2	129000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Chromium	7440-47-3	137	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cobalt	7440-48-4	514	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Copper	7440-50-8	2130	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Iron	7439-89-6	39000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lead	7439-92-1	320	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lithium	7439-93-2	36.4	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Magnesium	7439-95-4	13000	20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Manganese	7439-96-5	861	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Mercury	7439-97-6	0.160	0.0500	mg/kg	E510/VA	25-May-2025	27-May-2025	2014008
Molybdenum	7439-98-7	19.5	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Nickel	7440-02-0	117	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Phosphorus	7723-14-0	11600	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Potassium	7440-09-7	6200	100	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Selenium	7782-49-2	0.43	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Silver	7440-22-4	4.96	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sodium	7440-23-5	19100	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Strontium	7440-24-6	273	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sulfur	7704-34-9	15500	1000	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tin	7440-31-5	92.7	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Titanium	7440-32-6	422	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tungsten	7440-33-7	10.5	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Uranium	7440-61-1	2.98	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Vanadium	7440-62-2	46.6	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zinc	7440-66-6	4460	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zirconium	7440-67-7	4.4	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.38	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.30	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	5.95	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261



## Analytical Results

VA25B1644-010

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-10

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>TCLP Metals</b>								
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.57	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.096	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1730	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	0.711	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	1.01	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	121	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.72	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	45.3	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-011

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-11

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								
Moisture	----	29.3	0.25	%	E144/VA	-	25-May-2025	2014013
pH (1:2 soil:water)	----	10.00	0.10	pH units	E108/VA	25-May-2025	27-May-2025	2014009
<b>Metals</b>								
Aluminum	7429-90-5	38500	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Antimony	7440-36-0	135	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Arsenic	7440-38-2	14.2	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Barium	7440-39-3	630	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Beryllium	7440-41-7	0.39	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Bismuth	7440-69-9	7.68	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Boron	7440-42-8	166	5.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cadmium	7440-43-9	6.50	0.020	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Calcium	7440-70-2	130000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Chromium	7440-47-3	338	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cobalt	7440-48-4	104	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Copper	7440-50-8	1170	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007



## Analytical Results

VA25B1644-011

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-11

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QC/Lot
<b>Metals</b>								
Iron	7439-89-6	57700	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lead	7439-92-1	910	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lithium	7439-93-2	29.2	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Magnesium	7439-95-4	12700	20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Manganese	7439-96-5	714	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Mercury	7439-97-6	0.164	0.0500	mg/kg	E510/VA	25-May-2025	27-May-2025	2014008
Molybdenum	7439-98-7	16.9	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Nickel	7440-02-0	207	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Phosphorus	7723-14-0	11900	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Potassium	7440-09-7	5230	100	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Selenium	7782-49-2	0.47	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Silver	7440-22-4	3.71	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sodium	7440-23-5	16400	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Strontium	7440-24-6	323	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sulfur	7704-34-9	12500	1000	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tin	7440-31-5	90.4	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Titanium	7440-32-6	276	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tungsten	7440-33-7	13.2	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Uranium	7440-61-1	2.66	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Vanadium	7440-62-2	42.5	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zinc	7440-66-6	3280	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zirconium	7440-67-7	2.6	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.37	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.96	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.52	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.71	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.097	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1850	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	1.87	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.619	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	129	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.41	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261



## Analytical Results

VA25B1644-011

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-11

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>TCLP Metals</b>								
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	17.5	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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

## Analytical Results

VA25B1644-012

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-12

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Physical Tests</b>								
Moisture	----	29.4	0.25	%	E144/VA	-	25-May-2025	2014013
pH (1:2 soil:water)	----	10.04	0.10	pH units	E108/VA	25-May-2025	27-May-2025	2014009
<b>Metals</b>								
Aluminum	7429-90-5	36300	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Antimony	7440-36-0	128	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Arsenic	7440-38-2	14.4	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Barium	7440-39-3	512	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Beryllium	7440-41-7	0.37	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Bismuth	7440-69-9	9.68	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Boron	7440-42-8	204	5.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cadmium	7440-43-9	7.29	0.020	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Calcium	7440-70-2	132000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Chromium	7440-47-3	150	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Cobalt	7440-48-4	60.0	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Copper	7440-50-8	1550	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Iron	7439-89-6	36000	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lead	7439-92-1	327	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Lithium	7439-93-2	29.3	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Magnesium	7439-95-4	12900	20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Manganese	7439-96-5	679	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Mercury	7439-97-6	0.140	0.0500	mg/kg	E510/VA	25-May-2025	27-May-2025	2014008
Molybdenum	7439-98-7	15.0	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Nickel	7440-02-0	112	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Phosphorus	7723-14-0	11300	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Potassium	7440-09-7	6860	100	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Selenium	7782-49-2	0.58	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Silver	7440-22-4	4.58	0.10	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sodium	7440-23-5	19200	50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Strontium	7440-24-6	289	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Sulfur	7704-34-9	14100	1000	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007



## Analytical Results

VA25B1644-012

Sub-Matrix: Soil

(Matrix: Soil/Solid)

Client sample ID: BA-2520-A-12

Client sampling date / time: 14-May-2025 09:00

Analyte	CAS Number	Result	LOR	Unit	Method/Lab	Prep Date	Analysis Date	QCLot
<b>Metals</b>								
Thallium	7440-28-0	<0.050	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tin	7440-31-5	100	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Titanium	7440-32-6	228	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Tungsten	7440-33-7	7.57	0.50	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Uranium	7440-61-1	2.88	0.050	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Vanadium	7440-62-2	42.8	0.20	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zinc	7440-66-6	3920	2.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
Zirconium	7440-67-7	3.0	1.0	mg/kg	E440/VA	25-May-2025	27-May-2025	2014007
<b>TCLP Metals</b>								
pH, TCLP 1st preliminary	----	11.36	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP 2nd preliminary	----	5.90	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP extraction fluid initial	----	2.93	0.010	pH units	EPP444/VA	-	21-May-2025	-
pH, TCLP final	----	6.30	0.010	pH units	EPP444/VA	-	21-May-2025	-
Antimony, TCLP	7440-36-0	<1.00	1.00	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Arsenic, TCLP	7440-38-2	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Barium, TCLP	7440-39-3	<2.5	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Beryllium, TCLP	7440-41-7	<0.025	0.025	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Boron, TCLP	7440-42-8	1.80	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cadmium, TCLP	7440-43-9	0.106	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Calcium, TCLP	7440-70-2	1910	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Chromium, TCLP	7440-47-3	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Cobalt, TCLP	7440-48-4	1.30	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Copper, TCLP	7440-50-8	0.790	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Iron, TCLP	7439-89-6	<5.0	5.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Lead, TCLP	7439-92-1	<0.25	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Magnesium, TCLP	7439-95-4	140	2.5	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Mercury, TCLP	7439-97-6	<0.0010	0.0010	mg/L	E512/VA	24-May-2025	24-May-2025	2013260
Nickel, TCLP	7440-02-0	0.67	0.25	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Selenium, TCLP	7782-49-2	<0.10	0.10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Silver, TCLP	7440-22-4	<0.050	0.050	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Thallium, TCLP	7440-28-0	<1.0	1.0	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Uranium, TCLP	7440-61-1	<0.20	0.20	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Vanadium, TCLP	7440-62-2	<0.15	0.15	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zinc, TCLP	7440-66-6	23.7	0.50	mg/L	E444/VA	24-May-2025	25-May-2025	2013261
Zirconium, TCLP	7440-67-7	<10	10	mg/L	E444/VA	24-May-2025	25-May-2025	2013261

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




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## QUALITY CONTROL INTERPRETIVE REPORT

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<p><b>Work Order</b> : <b>VA25B1644</b></p> <p><b>Client</b> : <b>Veolia Environmental Services Canada</b></p> <p><b>Contact</b> : Brian Graham</p> <p><b>Address</b> : 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3</p> <p><b>Telephone</b> : ----</p> <p><b>Project</b> : Veolia Weekly Bottom Ash-Suite</p> <p><b>PO</b> : ----</p> <p><b>C-O-C number</b> : ----</p> <p><b>Sampler</b> : ----</p> <p><b>Site</b> : Metro Van Ash Sampling Program</p> <p><b>Quote number</b> : VA25-VIS1100-001</p> <p><b>No. of samples received</b> : 12</p> <p><b>No. of samples analysed</b> : 12</p>	<p><b>Page</b> : 1 of 17</p> <p><b>Laboratory</b> : ALS Environmental - Vancouver</p> <p><b>Account Manager</b> : Gulraj Dhanaua</p> <p><b>Address</b> : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p><b>Telephone</b> : +1 604 253 4188</p> <p><b>Date Samples Received</b> : 20-May-2025 16:13</p> <p><b>Issue Date</b> : 28-May-2025 15:33</p>
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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.

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### ***Workorder Comments***

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

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### ***Summary of Outliers***

#### ***Outliers : Quality Control Samples***

- No Method Blank value outliers occur.
- No Matrix Spike outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No 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
<b>Duplicate (DUP) RPDs</b>								
Metals	VA25B1644-005	BA-2520-A-5	Bismuth	7440-69-9	E440	60.2 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-005	BA-2520-A-5	Boron	7440-42-8	E440	32.8 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-004	BA-2520-A-4	Boron	7440-42-8	E440	43.7 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-004	BA-2520-A-4	Cobalt	7440-48-4	E440	106 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-004	BA-2520-A-4	Copper	7440-50-8	E440	60.9 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-005	BA-2520-A-5	Iron	7439-89-6	E440	32.4 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-004	BA-2520-A-4	Lead	7439-92-1	E440	86.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-004	BA-2520-A-4	Lithium	7439-93-2	E440	33.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-005	BA-2520-A-5	Nickel	7440-02-0	E440	54.0 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-004	BA-2520-A-4	Nickel	7440-02-0	E440	39.7 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-004	BA-2520-A-4	Silver	7440-22-4	E440	87.5 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-005	BA-2520-A-5	Tungsten	7440-33-7	E440	46.9 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25B1644-004	BA-2520-A-4	Tungsten	7440-33-7	E440	41.2 % 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.

Laboratory Control Sample (LCS) Recoveries								
Metals	QC-MRG2-2014396 002	----	Silver	7440-22-4	E440	70.2 % MES	80.0-120%	Recovery less than lower control limit

**Result Qualifiers**

Qualifier	Description
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Matrix: **Soil/Solid**

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



## Analysis Holding Time Compliance

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

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

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

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

Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-10	E510	14-May-2025	25-May-2025	28 days	11 days	✔	27-May-2025	28 days	2 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-11	E510	14-May-2025	25-May-2025	28 days	11 days	✔	27-May-2025	28 days	2 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-12	E510	14-May-2025	25-May-2025	28 days	11 days	✔	27-May-2025	28 days	2 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-5	E510	14-May-2025	25-May-2025	28 days	11 days	✔	27-May-2025	28 days	2 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-6	E510	14-May-2025	25-May-2025	28 days	11 days	✔	27-May-2025	28 days	2 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-7	E510	14-May-2025	25-May-2025	28 days	11 days	✔	27-May-2025	28 days	2 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-8	E510	14-May-2025	25-May-2025	28 days	11 days	✔	27-May-2025	28 days	2 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		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-9	E510	14-May-2025	25-May-2025	28 days	11 days	✔	27-May-2025	28 days	2 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-1	E510	14-May-2025	26-May-2025	28 days	12 days	✔	27-May-2025	28 days	1 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-2	E510	14-May-2025	26-May-2025	28 days	12 days	✔	27-May-2025	28 days	1 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-3	E510	14-May-2025	26-May-2025	28 days	12 days	✔	27-May-2025	28 days	1 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> BA-2520-A-4	E510	14-May-2025	26-May-2025	28 days	12 days	✔	27-May-2025	28 days	1 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-10	E440	14-May-2025	25-May-2025	180 days	11 days	✔	27-May-2025	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-11	E440	14-May-2025	25-May-2025	180 days	11 days	✔	27-May-2025	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-12	E440	14-May-2025	25-May-2025	180 days	11 days	✔	27-May-2025	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-5	E440	14-May-2025	25-May-2025	180 days	11 days	✔	27-May-2025	180 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		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-6	E440	14-May-2025	25-May-2025	180 days	11 days	✔	27-May-2025	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-7	E440	14-May-2025	25-May-2025	180 days	11 days	✔	27-May-2025	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-8	E440	14-May-2025	25-May-2025	180 days	11 days	✔	27-May-2025	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-9	E440	14-May-2025	25-May-2025	180 days	11 days	✔	27-May-2025	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-1	E440	14-May-2025	26-May-2025	180 days	12 days	✔	27-May-2025	180 days	12 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-2	E440	14-May-2025	26-May-2025	180 days	12 days	✔	27-May-2025	180 days	12 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-3	E440	14-May-2025	26-May-2025	180 days	12 days	✔	27-May-2025	180 days	12 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>LDPE bag</b> BA-2520-A-4	E440	14-May-2025	26-May-2025	180 days	12 days	✔	27-May-2025	180 days	12 days	✔	
<b>Physical Tests : Moisture Content by Gravimetry</b>											
<b>LDPE bag</b> BA-2520-A-1	E144	14-May-2025	----	----	----		26-May-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		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-10	E144	14-May-2025	----	----	----		25-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-11	E144	14-May-2025	----	----	----		25-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-12	E144	14-May-2025	----	----	----		25-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-2	E144	14-May-2025	----	----	----		26-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-3	E144	14-May-2025	----	----	----		26-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-4	E144	14-May-2025	----	----	----		26-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-5	E144	14-May-2025	----	----	----		25-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-6	E144	14-May-2025	----	----	----		25-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-7	E144	14-May-2025	----	----	----		25-May-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		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-8	E144	14-May-2025	----	----	----		25-May-2025	----	----		
<b>Physical Tests : Moisture Content by Gravimetry</b>											
LDPE bag BA-2520-A-9	E144	14-May-2025	----	----	----		25-May-2025	----	----		
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag BA-2520-A-10	E108	14-May-2025	25-May-2025	30 days	11 days	✔	27-May-2025	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag BA-2520-A-11	E108	14-May-2025	25-May-2025	30 days	11 days	✔	27-May-2025	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag BA-2520-A-12	E108	14-May-2025	25-May-2025	30 days	11 days	✔	27-May-2025	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag BA-2520-A-5	E108	14-May-2025	25-May-2025	30 days	11 days	✔	27-May-2025	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag BA-2520-A-6	E108	14-May-2025	25-May-2025	30 days	11 days	✔	27-May-2025	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag BA-2520-A-7	E108	14-May-2025	25-May-2025	30 days	11 days	✔	27-May-2025	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag BA-2520-A-8	E108	14-May-2025	25-May-2025	30 days	11 days	✔	27-May-2025	30 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		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>LDPE bag</b> BA-2520-A-9	E108	14-May-2025	25-May-2025	30 days	11 days	✔	27-May-2025	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>LDPE bag</b> BA-2520-A-1	E108	14-May-2025	26-May-2025	30 days	12 days	✔	27-May-2025	30 days	12 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>LDPE bag</b> BA-2520-A-2	E108	14-May-2025	26-May-2025	30 days	12 days	✔	27-May-2025	30 days	12 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>LDPE bag</b> BA-2520-A-3	E108	14-May-2025	26-May-2025	30 days	12 days	✔	27-May-2025	30 days	12 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>LDPE bag</b> BA-2520-A-4	E108	14-May-2025	26-May-2025	30 days	12 days	✔	27-May-2025	30 days	12 days	✔	
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>											
<b>Glass vial - total (lab preserved)</b> BA-2520-A-1	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔	
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>											
<b>Glass vial - total (lab preserved)</b> BA-2520-A-10	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔	
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>											
<b>Glass vial - total (lab preserved)</b> BA-2520-A-11	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔	
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>											
<b>Glass vial - total (lab preserved)</b> BA-2520-A-12	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 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		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>										
Glass vial - total (lab preserved) BA-2520-A-2	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>										
Glass vial - total (lab preserved) BA-2520-A-3	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>										
Glass vial - total (lab preserved) BA-2520-A-4	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>										
Glass vial - total (lab preserved) BA-2520-A-5	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>										
Glass vial - total (lab preserved) BA-2520-A-6	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>										
Glass vial - total (lab preserved) BA-2520-A-7	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>										
Glass vial - total (lab preserved) BA-2520-A-8	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔
<b>TCLP Metals : Mercury by CVAAS (TCLP)</b>										
Glass vial - total (lab preserved) BA-2520-A-9	E512	21-May-2025	24-May-2025	35 days	10 days	✔	24-May-2025	35 days	10 days	✔
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>										
HDPE - total (lab preserved) BA-2520-A-1	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 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		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-10	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-11	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-12	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-2	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-3	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-4	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-5	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-6	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-7	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 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		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-8	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : Metals by CRC ICPMS (TCLP)</b>											
HDPE - total (lab preserved) BA-2520-A-9	E444	21-May-2025	24-May-2025	187 days	10 days	✔	25-May-2025	187 days	10 days	✔	
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-1	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔	
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-10	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔	
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-11	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔	
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-12	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔	
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-2	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔	
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-3	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔	
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-4	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 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		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-5	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-6	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-7	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-8	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 days	✔
<b>TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)</b>										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA-2520-A-9	EPP444	14-May-2025	21-May-2025	----	----		----	28 days	7 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	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
pH by Meter (1:2 Soil:Water Extraction)	E108	2014398	2	34	5.8	5.0	✔
Moisture Content by Gravimetry	E144	2014404	2	36	5.5	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2014397	2	35	5.7	5.0	✔
Metals by CRC ICPMS (TCLP)	E444	2013261	2	12	16.6	5.0	✔
Mercury in Soil/Solid by CVAAS	E510	2014396	2	34	5.8	5.0	✔
Mercury by CVAAS (TCLP)	E512	2013260	2	12	16.6	5.0	✔
<b>Laboratory Control Samples (LCS)</b>							
pH by Meter (1:2 Soil:Water Extraction)	E108	2014398	2	34	5.8	5.0	✔
Moisture Content by Gravimetry	E144	2014404	2	36	5.5	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2014397	4	35	11.4	10.0	✔
Mercury in Soil/Solid by CVAAS	E510	2014396	4	34	11.7	10.0	✔
<b>Method Blanks (MB)</b>							
Moisture Content by Gravimetry	E144	2014404	2	36	5.5	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2014397	2	35	5.7	5.0	✔
Metals by CRC ICPMS (TCLP)	E444	2013261	2	12	16.6	5.0	✔
Mercury in Soil/Solid by CVAAS	E510	2014396	2	34	5.8	5.0	✔
Mercury by CVAAS (TCLP)	E512	2013258	2	12	16.6	5.0	✔
<b>Matrix Spikes (MS)</b>							
Metals by CRC ICPMS (TCLP)	E444	2013261	2	12	16.6	5.0	✔
Mercury by CVAAS (TCLP)	E512	2013258	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 $20 \pm 5^{\circ}\text{C}$ ), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at $<60^{\circ}\text{C}$ ) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
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 $105^{\circ}\text{C}$ . 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 $\text{HNO}_3$ and $\text{HCl}$ .  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 $\text{HNO}_3$ and $\text{HCl}$ , 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 $<60^{\circ}\text{C}$ ) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Digestion for Metals and Mercury	EP440  ALS Environmental - Vancouver	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO <sub>3</sub> 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

<b>Work Order</b>	<b>: VA25B1644</b>	<b>Page</b>	: 1 of 19
<b>Client</b>	: Veolia Environmental Services Canada	<b>Laboratory</b>	: ALS Environmental - Vancouver
<b>Contact</b>	: Brian Graham	<b>Account Manager</b>	: Gulraj Dhanaua
<b>Address</b>	: 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	<b>Address</b>	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
<b>Telephone</b>	: ----	<b>Telephone</b>	: +1 604 253 4188
<b>Project</b>	: Veolia Weekly Bottom Ash-Suite	<b>Date Samples Received</b>	: 20-May-2025 16:13
<b>PO</b>	: ----	<b>Date Analysis Commenced</b>	: 21-May-2025
<b>C-O-C number</b>	: ----	<b>Issue Date</b>	: 28-May-2025 15:33
<b>Sampler</b>	: ----		
<b>Site</b>	: Metro Van Ash Sampling Program		
<b>Quote number</b>	: VA25-VISI100-001		
<b>No. of samples received</b>	: 12		
<b>No. of samples analysed</b>	: 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.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Dan Gebert	Supervisor - Metals Mercury & Speciation	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Vancouver Organics, Burnaby, British Columbia



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## 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

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

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### 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
<b>Physical Tests (QC Lot: 2014009)</b>											
VA25B1644-005	BA-2520-A-5	pH (1:2 soil:water)	----	E108	0.10	pH units	9.98	10.00	0.2%	5%	----
<b>Physical Tests (QC Lot: 2014013)</b>											
VA25B1644-005	BA-2520-A-5	Moisture	----	E144	0.25	%	28.0	29.3	4.51%	20%	----
<b>Physical Tests (QC Lot: 2014398)</b>											
VA25B1644-004	BA-2520-A-4	pH (1:2 soil:water)	----	E108	0.10	pH units	9.98	9.99	0.1%	5%	----
<b>Physical Tests (QC Lot: 2014404)</b>											
SK2502459-022	Anonymous	Moisture	----	E144	0.25	%	11.6	11.1	4.72%	20%	----
<b>Metals (QC Lot: 2014007)</b>											
VA25B1644-005	BA-2520-A-5	Aluminum	7429-90-5	E440	50	mg/kg	37900	37500	1.21%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	128	135	5.21%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	15.6	17.3	10.2%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	544	502	8.02%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.42	0.45	0.03	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	9.42	17.5	60.2%	30%	DUP-H
		Boron	7440-42-8	E440	5.0	mg/kg	243	174	32.8%	30%	DUP-H
		Cadmium	7440-43-9	E440	0.020	mg/kg	7.42	8.63	15.0%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	134000	141000	4.78%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	154	137	12.0%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	39.9	41.4	3.76%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	1130	1450	24.6%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	37800	52500	32.4%	30%	DUP-H
		Lead	7439-92-1	E440	0.50	mg/kg	396	398	0.519%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	38.7	32.3	18.0%	30%	----
		Magnesium	7439-95-4	E440	20	mg/kg	11600	13000	11.5%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	604	771	24.3%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	16.6	21.9	27.4%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	221	127	54.0%	30%	DUP-H
		Phosphorus	7723-14-0	E440	50	mg/kg	11600	12100	4.46%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	6710	6420	4.44%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.45	0.41	0.04	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
<b>Metals (QC Lot: 2014007) - continued</b>											
VA25B1644-005	BA-2520-A-5	Silver	7440-22-4	E440	0.10	mg/kg	5.67	6.56	14.6%	40%	----
		Sodium	7440-23-5	E440	50	mg/kg	19000	18500	2.72%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	293	298	1.73%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	14500	15200	4.67%	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	85.4	90.1	5.32%	40%	----
		Titanium	7440-32-6	E440	1.0	mg/kg	295	262	11.7%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	16.8	10.4	46.9%	30%	DUP-H
		Uranium	7440-61-1	E440	0.050	mg/kg	2.94	3.04	3.28%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	38.7	42.1	8.28%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	3180	4270	29.4%	30%	----
Zirconium	7440-67-7	E440	1.0	mg/kg	3.5	4.0	0.4	Diff <2x LOR	----		
<b>Metals (QC Lot: 2014008)</b>											
VA25B1644-005	BA-2520-A-5	Mercury	7439-97-6	E510	0.0500	mg/kg	0.113	0.147	0.0341	Diff <2x LOR	----
<b>Metals (QC Lot: 2014396)</b>											
VA25B1644-004	BA-2520-A-4	Mercury	7439-97-6	E510	0.0500	mg/kg	0.111	0.153	0.0415	Diff <2x LOR	----
<b>Metals (QC Lot: 2014397)</b>											
VA25B1644-004	BA-2520-A-4	Aluminum	7429-90-5	E440	50	mg/kg	33500	25900	25.6%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	98.3	126	24.8%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	15.5	14.3	7.99%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	427	388	9.71%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.29	0.32	0.03	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	8.57	10.3	18.3%	30%	----
		Boron	7440-42-8	E440	5.0	mg/kg	131	204	43.7%	30%	DUP-H
		Cadmium	7440-43-9	E440	0.020	mg/kg	13.2	11.0	18.1%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	105000	114000	7.47%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	141	138	2.33%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	37.1	120	106%	30%	DUP-H
		Copper	7440-50-8	E440	0.50	mg/kg	2310	1230	60.9%	30%	DUP-H
		Iron	7439-89-6	E440	50	mg/kg	51000	54800	7.17%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	185	469	86.8%	40%	DUP-H
		Lithium	7439-93-2	E440	2.0	mg/kg	23.5	33.0	33.5%	30%	DUP-H
		Magnesium	7439-95-4	E440	20	mg/kg	9600	10400	8.05%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	616	764	21.6%	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
<b>Metals (QC Lot: 2014397) - continued</b>											
VA25B1644-004	BA-2520-A-4	Molybdenum	7439-98-7	E440	0.10	mg/kg	12.2	16.2	27.9%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	120	180	39.7%	30%	DUP-H
		Phosphorus	7723-14-0	E440	50	mg/kg	8590	9440	9.45%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	4180	5140	20.5%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.36	0.40	0.04	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	13.1	5.12	87.5%	40%	DUP-H
		Sodium	7440-23-5	E440	50	mg/kg	13100	14300	8.48%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	219	260	17.1%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	11100	13000	15.7%	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	79.4	104	26.7%	40%	----
		Titanium	7440-32-6	E440	1.0	mg/kg	186	181	3.03%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	5.86	8.89	41.2%	30%	DUP-H
		Uranium	7440-61-1	E440	0.050	mg/kg	2.20	2.62	17.8%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	38.2	35.0	8.64%	30%	----
Zinc	7440-66-6	E440	2.0	mg/kg	2690	3090	14.0%	30%	----		
Zirconium	7440-67-7	E440	1.0	mg/kg	2.4	1.5	0.9	Diff <2x LOR	----		
<b>TCLP Metals (QC Lot: 2013258)</b>											
VA25B1644-002	BA-2520-A-2	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
<b>TCLP Metals (QC Lot: 2013259)</b>											
VA25B1644-002	BA-2520-A-2	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	0.67	0.67	0.004	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	733	726	0.958%	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	0.743	0.729	1.87%	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	14.0	14.0	0.05	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
<b>TCLP Metals (QC Lot: 2013259) - continued</b>											
VA25B1644-002	BA-2520-A-2	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	----
<b>TCLP Metals (QC Lot: 2013260)</b>											
VA25B1644-001	BA-2520-A-1	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
<b>TCLP Metals (QC Lot: 2013261)</b>											
VA25B1644-001	BA-2520-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	1.60	1.56	0.04	Diff <2x LOR	----
		Cadmium, TCLP	7440-43-9	E444	0.050	mg/L	0.076	0.078	0.002	Diff <2x LOR	----
		Calcium, TCLP	7440-70-2	E444	10	mg/L	1680	1670	0.883%	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	0.809	0.809	0.0799%	30%	----
		Copper, TCLP	7440-50-8	E444	0.050	mg/L	0.203	0.202	0.001	Diff <2x LOR	----
		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	122	122	0.539%	30%	----
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	0.68	0.67	0.010	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	25.6	25.0	2.31%	30%	----		
Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	0	Diff <2x LOR	----		

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Work Order : VA25B1644  
Client : Veolia Environmental Services Canada  
Project : Veolia Weekly Bottom Ash-Suite



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## Qualifiers

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

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## 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
<b>Physical Tests (QCLot: 2014013)</b>						
Moisture	---	E144	0.25	%	<0.25	---
<b>Physical Tests (QCLot: 2014404)</b>						
Moisture	---	E144	0.25	%	<0.25	---
<b>Metals (QCLot: 2014007)</b>						
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	---
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	---



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Metals (QCLot: 2014007) - continued</b>						
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	----
<b>Metals (QCLot: 2014008)</b>						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
<b>Metals (QCLot: 2014396)</b>						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
<b>Metals (QCLot: 2014397)</b>						
Aluminum	7429-90-5	E440	50	mg/kg	<50	----
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
Bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
Boron	7440-42-8	E440	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
Calcium	7440-70-2	E440	50	mg/kg	<50	----
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Lithium	7439-93-2	E440	2	mg/kg	<2.0	----
Magnesium	7439-95-4	E440	20	mg/kg	<20	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Phosphorus	7723-14-0	E440	50	mg/kg	<50	----
Potassium	7440-09-7	E440	100	mg/kg	<100	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
Sodium	7440-23-5	E440	50	mg/kg	<50	----
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Metals (QCLot: 2014397) - continued</b>						
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	---
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	---
Tin	7440-31-5	E440	2	mg/kg	<2.0	---
Titanium	7440-32-6	E440	1	mg/kg	<1.0	---
Tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	---
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	---
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	---
Zinc	7440-66-6	E440	2	mg/kg	<2.0	---
Zirconium	7440-67-7	E440	1	mg/kg	<1.0	---
<b>TCLP Metals (QCLot: 2013258)</b>						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	---
<b>TCLP Metals (QCLot: 2013259)</b>						
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	---
<b>TCLP Metals (QCLot: 2013260)</b>						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	---



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>TCLP Metals (QCLot: 2013261)</b>						
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
<b>Physical Tests (QCLot: 2014009)</b>									
pH (1:2 soil:water)	---	E108	---	pH units	6 pH units	100	95.0	105	---
<b>Physical Tests (QCLot: 2014013)</b>									
Moisture	---	E144	0.25	%	50 %	100	90.0	110	---
<b>Physical Tests (QCLot: 2014398)</b>									
pH (1:2 soil:water)	---	E108	---	pH units	6 pH units	100	95.0	105	---
<b>Physical Tests (QCLot: 2014404)</b>									
Moisture	---	E144	0.25	%	50 %	100	90.0	110	---
<b>Metals (QCLot: 2014007)</b>									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	104	80.0	120	---
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	---
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	105	80.0	120	---
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	---
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	107	80.0	120	---
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	97.8	80.0	120	---
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	99.8	80.0	120	---
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	99.2	80.0	120	---
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	103	80.0	120	---
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	101	80.0	120	---
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	99.6	80.0	120	---
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	98.6	80.0	120	---
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	106	80.0	120	---
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	99.0	80.0	120	---
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	109	80.0	120	---
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	103	80.0	120	---
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	100.0	80.0	120	---
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	104	80.0	120	---
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	98.8	80.0	120	---
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	110	80.0	120	---
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	101	80.0	120	---
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	99.5	80.0	120	---
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	102	80.0	120	---
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	---



Sub-Matrix: Soil/Solid

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Target Concentration	Recovery (%)	Recovery Limits (%)		Qualifier
					LCS	Low	High		
<b>Metals (QCLot: 2014007) - continued</b>									
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	98.6	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	98.6	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	98.3	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	99.8	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	102	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	102	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	99.4	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	104	80.0	120	----
<b>Metals (QCLot: 2014008)</b>									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	99.6	80.0	120	----
<b>Metals (QCLot: 2014396)</b>									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	104	80.0	120	----
<b>Metals (QCLot: 2014397)</b>									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	105	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	109	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	106	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	103	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	94.4	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	99.8	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	101	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	100	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	102	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	103	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	95.5	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	104	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	107	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	104	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	103	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	105	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	102	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	99.9	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
<b>Metals (QCLot: 2014397) - continued</b>									
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	# 70.2	80.0	120	MES
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	105	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	100	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	100	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	95.0	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	100	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	101	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	97.6	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	99.8	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	106	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	104	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	108	80.0	120	----

## Qualifiers

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



### Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for 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
<b>TCLP Metals (QCLot: 2013258)</b>										
VA25B1644-002	BA-2520-A-2	Mercury, TCLP	7439-97-6	E512	0.0024 mg/L	0.003 mg/L	80.0	50.0	140	----
<b>TCLP Metals (QCLot: 2013259)</b>										
VA25B1644-002	BA-2520-A-2	Antimony, TCLP	7440-36-0	E444	5.31 mg/L	5 mg/L	106	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	5.2 mg/L	5 mg/L	105	50.0	140	----
		Barium, TCLP	7440-39-3	E444	13.6 mg/L	12.5 mg/L	108	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.238 mg/L	0.25 mg/L	95.0	50.0	140	----
		Boron, TCLP	7440-42-8	E444	8.94 mg/L	10 mg/L	89.4	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.247 mg/L	0.25 mg/L	98.8	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.26 mg/L	1.25 mg/L	100	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	0.255 mg/L	0.25 mg/L	102	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	209 mg/L	250 mg/L	83.5	50.0	140	----
		Lead, TCLP	7439-92-1	E444	9.45 mg/L	10 mg/L	94.5	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	258 mg/L	250 mg/L	103	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.43 mg/L	2.5 mg/L	97.0	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	4.50 mg/L	5 mg/L	89.9	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.090 mg/L	0.1 mg/L	90.0	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.6 mg/L	5 mg/L	92.5	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.78 mg/L	5 mg/L	95.7	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.76 mg/L	0.75 mg/L	102	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	10.2 mg/L	10 mg/L	102	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.8 mg/L	1 mg/L	80.0	50.0	150	----
<b>TCLP Metals (QCLot: 2013260)</b>										
VA25B1644-001	BA-2520-A-1	Mercury, TCLP	7439-97-6	E512	0.0027 mg/L	0.003 mg/L	89.6	50.0	140	----
<b>TCLP Metals (QCLot: 2013261)</b>										
VA25B1644-001	BA-2520-A-1	Antimony, TCLP	7440-36-0	E444	5.08 mg/L	5 mg/L	102	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	4.9 mg/L	5 mg/L	97.9	50.0	140	----
		Barium, TCLP	7440-39-3	E444	12.5 mg/L	12.5 mg/L	100	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.226 mg/L	0.25 mg/L	90.4	50.0	140	----
		Boron, TCLP	7440-42-8	E444	8.83 mg/L	10 mg/L	88.3	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.242 mg/L	0.25 mg/L	96.7	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.18 mg/L	1.25 mg/L	94.2	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	ND mg/L	----	ND	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.25 mg/L	2.5 mg/L	90.0	50.0	140	----
		Iron, TCLP	7439-89-6	E444	219 mg/L	250 mg/L	87.5	50.0	140	----
		Lead, TCLP	7439-92-1	E444	9.26 mg/L	10 mg/L	92.6	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
<b>TCLP Metals (QCLot: 2013261) - continued</b>										
VA25B1644-001	BA-2520-A-1	Magnesium, TCLP	7439-95-4	E444	235 mg/L	250 mg/L	94.1	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.32 mg/L	2.5 mg/L	92.8	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	4.70 mg/L	5 mg/L	94.1	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.086 mg/L	0.1 mg/L	86.4	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.5 mg/L	5 mg/L	90.3	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.75 mg/L	5 mg/L	95.0	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.70 mg/L	0.75 mg/L	93.2	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	81.2	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:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
<b>Metals (QCLot: 2014007)</b>									
QC-2014007-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	101	70.0	130	----
QC-2014007-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	98.4	70.0	130	----
QC-2014007-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	95.7	70.0	130	----
QC-2014007-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	96.4	70.0	130	----
QC-2014007-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	104	70.0	130	----
QC-2014007-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	97.4	70.0	130	----
QC-2014007-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	94.4	70.0	130	----
QC-2014007-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	102	70.0	130	----
QC-2014007-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	100	70.0	130	----
QC-2014007-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	97.5	70.0	130	----
QC-2014007-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	96.7	70.0	130	----
QC-2014007-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	101	70.0	130	----
QC-2014007-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	89.7	70.0	130	----
QC-2014007-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	110	70.0	130	----
QC-2014007-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	102	70.0	130	----
QC-2014007-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	94.6	70.0	130	----
QC-2014007-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	96.2	70.0	130	----
QC-2014007-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	97.3	70.0	130	----
QC-2014007-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	101	70.0	130	----
QC-2014007-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	100	70.0	130	----
QC-2014007-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	100	60.0	140	----
QC-2014007-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	95.5	70.0	130	----
QC-2014007-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	109	70.0	130	----
QC-2014007-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	95.7	70.0	130	----
QC-2014007-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	86.6	50.0	150	----
QC-2014007-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	94.2	70.0	130	----
QC-2014007-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	94.8	40.0	160	----
QC-2014007-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	99.2	70.0	130	----
QC-2014007-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	111	70.0	130	----
QC-2014007-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	98.6	70.0	130	----
QC-2014007-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	98.4	70.0	130	----
QC-2014007-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	96.7	70.0	130	----
QC-2014007-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	102	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 (%)		Qualifier
							Low	High	
<b>Metals (QCLot: 2014008)</b>									
QC-2014008-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	100	70.0	130	----
<b>Metals (QCLot: 2014396)</b>									
QC-2014396-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	104	70.0	130	----
<b>Metals (QCLot: 2014397)</b>									
QC-2014397-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	111	70.0	130	----
QC-2014397-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	101	70.0	130	----
QC-2014397-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	104	70.0	130	----
QC-2014397-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	103	70.0	130	----
QC-2014397-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	113	70.0	130	----
QC-2014397-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	106	70.0	130	----
QC-2014397-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	106	70.0	130	----
QC-2014397-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	106	70.0	130	----
QC-2014397-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	104	70.0	130	----
QC-2014397-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	102	70.0	130	----
QC-2014397-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	103	70.0	130	----
QC-2014397-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	103	70.0	130	----
QC-2014397-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	91.3	70.0	130	----
QC-2014397-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	115	70.0	130	----
QC-2014397-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	107	70.0	130	----
QC-2014397-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	102	70.0	130	----
QC-2014397-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	99.6	70.0	130	----
QC-2014397-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	105	70.0	130	----
QC-2014397-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	106	70.0	130	----
QC-2014397-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	102	70.0	130	----
QC-2014397-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	98.7	60.0	140	----
QC-2014397-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	98.7	70.0	130	----
QC-2014397-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	118	70.0	130	----
QC-2014397-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	98.4	70.0	130	----
QC-2014397-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	87.4	50.0	150	----
QC-2014397-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	96.2	70.0	130	----
QC-2014397-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	101	40.0	160	----
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QC-2014397-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	93.9	70.0	130	----
QC-2014397-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	104	70.0	130	----
QC-2014397-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	104	70.0	130	----
QC-2014397-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	108	70.0	130	----

Page : 19 of 19  
Work Order : VA25B1644  
Client : Veolia Environmental Services Canada  
Project : Veolia Weekly Bottom Ash-Suite

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

COC # \_\_\_\_\_

Page 1 of 1

<b>Report To</b>		<b>Report Format / Distribution</b>			<b>Service Requested (Rush for routine analysis subject to availability)</b>										
Company: Veolia Canada / Burnaby Waste To Energy Facility		"Veolia Email Distribution List" please													
Contact: Brian Graham / Darcie Grace															
Address: 5150 Riverbend Drive Burnaby BC		Email 1: Darcie.grace@veolia.com													
Phone: 604-521-1025 Fax:		Email 2: lorenzo.ilao@veolia.com													
		Email 3: karen.thornquist@veolia.com			<b>Analysis Request</b>										
		brent.kirkpatrick@metrovancover.org													
		Sarah.Wellman@metrovancover.org													
<b>Invoice To</b> Same as Report? Veolia Water Canada		<b>Client / Project Information</b>			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)		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 2520-A-1	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-2	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-3	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-4	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-5	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-6	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-7	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-8	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-9	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-10	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-11	14-May-25	9:00	Soil	X	X		X							1
	BA 2520-A-12	14-May-25	9:00	Soil	X	X		X							1
water Aquatic															

Environmental Division  
 Vancouver  
 Work Order Reference  
**VA25B1644**  
  
 Telephone: +1 604 263 4168

<b>Form may delay as with the Terms numbers and</b>		<b>SHIPMENT RECEPTION (lab use only)</b>					<b>SHIPMENT VERIFICATION (lab use only)</b>				
Released by: <i>KT</i>		Date (dd-mmm-yy): <i>May 20 2025</i>	Time (hh-mm): <i>9:00</i>	Received by:	Date:	Time:	Temperature: <i>°C</i>	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
							<i>May 20 10:15 @ No Issues</i>				