

Bottom Ash Data

2025 Week 37

The following analytical report represents bottom ash composite results for week 37 of 2025 (September 7, 2025 to September 13, 2025).

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



CERTIFICATE OF ANALYSIS

Work Order	: VA25C4452		
Client	: Veolia Environmental Services Canada	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby British Columbia Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	E-mail	: Gulraj.Dhanaua@alsglobal.com
Project	: Veolia Weekly Bottom Ash-Suite	Telephone	: +1 604 253 4188
PO	: 1000497676	Date Samples Received	: 17-Sep-2025 11:40
C-O-C number	: ----	Date Analysis Commenced	: 21-Sep-2025
Sampler	: ----	Issue Date	: 25-Sep-2025 09:16
Site	: ----		
Quote number	: VA25-VISI100-001		
No. of samples received	: 12		
No. of samples analysed	: 12		

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	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 2537-A-1 Sept11& Sept12 ----	BA 2537-A-2 Sept11& Sept12 ----	BA 2537-A-3 Sept11& Sept12 ----	BA 2537-A-4 Sept11& Sept12 ----	BA 2537-A-5 Sept11& Sept12 ----
					Client sampling date / time	12-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-001	VA25C4452-002	VA25C4452-003	VA25C4452-004	VA25C4452-005	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.25	%	24.7	25.4	25.2	23.5	24.9	
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	10.73	10.76	10.86	10.94	10.81	
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg	49600	68800	53900	32000	46400	
Antimony	7440-36-0	E440/VA	0.10	mg/kg	87.1	76.6	116	141	95.1	
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	11.1	10.3	12.6	11.9	10.4	
Barium	7440-39-3	E440/VA	0.50	mg/kg	665	649	700	654	586	
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.36	0.37	0.34	0.37	0.36	
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	7.93	22.5	18.3	7.99	7.83	
Boron	7440-42-8	E440/VA	5.0	mg/kg	192	258	183	187	169	
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	9.01	4.86	4.19	5.07	5.54	
Calcium	7440-70-2	E440/VA	50	mg/kg	132000	125000	116000	136000	128000	
Chromium	7440-47-3	E440/VA	0.50	mg/kg	154	113	239	254	156	
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	120	140	655	182	76.3	
Copper	7440-50-8	E440/VA	0.50	mg/kg	1960	4630	2150	2480	1720	
Iron	7439-89-6	E440/VA	50	mg/kg	65400	57100	80400	69200	68100	
Lead	7439-92-1	E440/VA	0.50	mg/kg	262	296	2360	356	574	
Lithium	7439-93-2	E440/VA	2.0	mg/kg	29.4	29.9	50.5	28.0	27.1	
Magnesium	7439-95-4	E440/VA	20	mg/kg	13500	12300	12600	13200	13700	
Manganese	7439-96-5	E440/VA	1.0	mg/kg	867	764	1360	953	834	
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	<0.0500	<0.0500	<0.0500	<0.0500	0.0681	



Analytical Results

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

					Client sample ID	BA 2537-A-1 Sept11& Sept12 ----	BA 2537-A-2 Sept11& Sept12 ----	BA 2537-A-3 Sept11& Sept12 ----	BA 2537-A-4 Sept11& Sept12 ----	BA 2537-A-5 Sept11& Sept12 ----
Client sampling date / time					12-Sep-2025 00:00	12-Sep-2025 00:00	12-Sep-2025 00:00	12-Sep-2025 00:00	12-Sep-2025 00:00	12-Sep-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-001	VA25C4452-002	VA25C4452-003	VA25C4452-004	VA25C4452-005	
					Result	Result	Result	Result	Result	
Metals										
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	23.6	20.3	26.6	23.0	20.3	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	94.8	101	160	126	185	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	12500	13600	8400	11000	10200	
Potassium	7440-09-7	E440/VA	100	mg/kg	5550	5530	4890	5110	5270	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.34	0.26	0.30	0.38	0.31	
Silver	7440-22-4	E440/VA	0.10	mg/kg	6.49	8.03	5.97	7.67	9.76	
Sodium	7440-23-5	E440/VA	50	mg/kg	16400	15500	14900	16200	16400	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	347	278	282	415	276	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	11100	9200	8200	9800	9300	
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	109	83.7	245	91.6	105	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	247	391	376	194	260	
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	20.3	17.1	20.9	76.1	22.5	
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.64	1.83	1.52	1.57	1.71	
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	36.1	30.2	34.0	31.4	29.1	
Zinc	7440-66-6	E440/VA	2.0	mg/kg	2570	10100	2340	3920	4820	
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	3.6	6.0	3.5	2.2	3.8	
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.69	11.67	11.69	11.69	11.67	
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	4.92	3.03	3.62	3.02	3.32	
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	4.95	4.95	4.95	4.95	4.95	



Analytical Results

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

					Client sample ID	BA 2537-A-1 Sept11& Sept12 ----	BA 2537-A-2 Sept11& Sept12 ----	BA 2537-A-3 Sept11& Sept12 ----	BA 2537-A-4 Sept11& Sept12 ----	BA 2537-A-5 Sept11& Sept12 ----
Client sampling date / time						12-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-001	VA25C4452-002	VA25C4452-003	VA25C4452-004	VA25C4452-005	
					Result	Result	Result	Result	Result	
TCLP Metals										
pH, TCLP final	----	EPP444/VA	0.010	pH units	9.97	9.18	9.13	9.20	9.31	
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L	<2.5	<2.5	<2.5	<2.5	<2.5	
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025	
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L	0.67	0.95	0.97	0.98	0.94	
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	698	766	746	767	743	
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	0.971	0.979	0.998	1.07	1.06	
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	8.0	6.9	8.0	5.7	7.2	
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L	<0.20	<0.20	<0.20	<0.20	<0.20	
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	



Analytical Results

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

					Client sample ID	BA 2537-A-1 Sept11& Sept12 ----	BA 2537-A-2 Sept11& Sept12 ----	BA 2537-A-3 Sept11& Sept12 ----	BA 2537-A-4 Sept11& Sept12 ----	BA 2537-A-5 Sept11& Sept12 ----
					Client sampling date / time	12-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-001	VA25C4452-002	VA25C4452-003	VA25C4452-004	VA25C4452-005	
					Result	Result	Result	Result	Result	
TCLP Metals										
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L	<10	<10	<10	<10	<10	

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

Analytical Results

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

					Client sample ID	BA 2537-A-6 Sept11& Sept12 ----	BA 2537-A-7 Sept11& Sept12 ----	BA 2537-A-8 Sept11& Sept12 ----	BA 2537-A-9 Sept11& Sept12 ----	BA 2537-A-10 Sept11& Sept12 ----
					Client sampling date / time	12-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-006	VA25C4452-007	VA25C4452-008	VA25C4452-009	VA25C4452-010	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.25	%	24.5	24.7	24.6	25.0	25.2	
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	10.88	10.84	10.83	10.86	10.78	
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg	37000	45100	35700	44400	47500	
Antimony	7440-36-0	E440/VA	0.10	mg/kg	129	104	113	88.1	96.7	
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	15.4	12.3	12.7	10.4	11.1	
Barium	7440-39-3	E440/VA	0.50	mg/kg	529	612	611	693	672	
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.38	0.36	0.37	0.39	0.40	
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	11.1	8.93	8.58	7.81	12.8	
Boron	7440-42-8	E440/VA	5.0	mg/kg	177	268	203	188	187	
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	8.35	23.0	6.76	5.95	6.37	
Calcium	7440-70-2	E440/VA	50	mg/kg	143000	141000	141000	121000	138000	



Analytical Results

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

					Client sample ID	BA 2537-A-6 Sept11& Sept12 ----	BA 2537-A-7 Sept11& Sept12 ----	BA 2537-A-8 Sept11& Sept12 ----	BA 2537-A-9 Sept11& Sept12 ----	BA 2537-A-10 Sept11& Sept12 ----
					Client sampling date / time	12-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-006	VA25C4452-007	VA25C4452-008	VA25C4452-009	VA25C4452-010	
					Result	Result	Result	Result	Result	
Metals										
Chromium	7440-47-3	E440/VA	0.50	mg/kg	166	168	192	165	336	
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	365	61.5	96.9	40.8	127	
Copper	7440-50-8	E440/VA	0.50	mg/kg	1750	1620	1700	1770	8260	
Iron	7439-89-6	E440/VA	50	mg/kg	48000	45500	68000	58300	52200	
Lead	7439-92-1	E440/VA	0.50	mg/kg	490	269	306	1490	1760	
Lithium	7439-93-2	E440/VA	2.0	mg/kg	45.7	33.9	43.4	38.9	102	
Magnesium	7439-95-4	E440/VA	20	mg/kg	14700	14100	14900	12800	14400	
Manganese	7439-96-5	E440/VA	1.0	mg/kg	833	809	935	906	915	
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	<0.0500	<0.0500	0.597	<0.0500	<0.0500	
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	34.0	25.8	22.0	21.6	31.5	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	284	121	174	97.6	244	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	14200	14500	12100	10200	11900	
Potassium	7440-09-7	E440/VA	100	mg/kg	6270	6430	5560	5570	6000	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.33	0.34	0.41	0.33	0.33	
Silver	7440-22-4	E440/VA	0.10	mg/kg	7.21	5.74	7.07	9.02	6.77	
Sodium	7440-23-5	E440/VA	50	mg/kg	17400	18100	16000	16000	16800	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	318	316	332	292	297	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	11800	12000	10100	9100	10600	
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	
Tin	7440-31-5	E440/VA	2.0	mg/kg	99.4	96.9	103	176	185	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	182	252	185	261	247	



Analytical Results

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

					Client sample ID	BA 2537-A-6 Sept11& Sept12 ----	BA 2537-A-7 Sept11& Sept12 ----	BA 2537-A-8 Sept11& Sept12 ----	BA 2537-A-9 Sept11& Sept12 ----	BA 2537-A-10 Sept11& Sept12 ----
Client sampling date / time						12-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-006	VA25C4452-007	VA25C4452-008	VA25C4452-009	VA25C4452-010	
					Result	Result	Result	Result	Result	
Metals										
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	28.5	25.3	23.7	22.4	17.1	
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.83	1.85	1.81	1.62	1.75	
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	30.2	30.6	34.6	37.2	30.2	
Zinc	7440-66-6	E440/VA	2.0	mg/kg	3200	5130	3460	2340	3580	
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	2.6	3.4	2.8	3.4	3.2	
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.70	11.68	11.74	11.74	11.69	
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	3.17	3.49	3.43	3.41	3.58	
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	4.95	4.95	4.95	4.95	4.95	
pH, TCLP final	----	EPP444/VA	0.010	pH units	10.08	9.97	9.98	10.05	10.15	
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L	<2.5	<2.5	<2.5	<2.5	<2.5	
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025	
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L	0.72	0.73	0.71	0.80	0.71	
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	762	765	743	750	774	
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	1.02	1.03	1.03	0.980	1.06	
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 2537-A-6 Sept11& Sept12 ----	BA 2537-A-7 Sept11& Sept12 ----	BA 2537-A-8 Sept11& Sept12 ----	BA 2537-A-9 Sept11& Sept12 ----	BA 2537-A-10 Sept11& Sept12 ----
					Client sampling date / time	12-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-006	VA25C4452-007	VA25C4452-008	VA25C4452-009	VA25C4452-010	
					Result	Result	Result	Result	Result	
TCLP Metals										
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L	5.6	6.9	7.7	6.1	5.9	
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25	
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L	<0.20	<0.20	<0.20	<0.20	<0.20	
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L	<10	<10	<10	<10	<10	

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

Analytical Results

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

					Client sample ID	BA 2537-A-11 Sept11& Sept12 ----	BA 2537-A-12 Sept11& Sept12 ----	----	----	----
					Client sampling date / time	12-Sep-2025 00:00	12-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-011	VA25C4452-012	----	----	----	
					Result	Result	----	----	----	
Physical Tests										
Moisture	----	E144/VA	0.25	%	25.4	24.1	----	----	----	
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	10.93	10.85	----	----	----	



Analytical Results

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

					Client sample ID	BA 2537-A-11 Sept11& Sept12 ----	BA 2537-A-12 Sept11& Sept12 ----	----	----	----
					Client sampling date / time	12-Sep-2025 00:00	12-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-011	VA25C4452-012	----	----	----	
					Result	Result	----	----	----	
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg	36200	44400	----	----	----	
Antimony	7440-36-0	E440/VA	0.10	mg/kg	98.1	113	----	----	----	
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	14.8	11.6	----	----	----	
Barium	7440-39-3	E440/VA	0.50	mg/kg	643	656	----	----	----	
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.35	0.37	----	----	----	
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	7.60	126	----	----	----	
Boron	7440-42-8	E440/VA	5.0	mg/kg	243	195	----	----	----	
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	7.46	6.76	----	----	----	
Calcium	7440-70-2	E440/VA	50	mg/kg	129000	126000	----	----	----	
Chromium	7440-47-3	E440/VA	0.50	mg/kg	194	321	----	----	----	
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	138	47.6	----	----	----	
Copper	7440-50-8	E440/VA	0.50	mg/kg	5820	18200	----	----	----	
Iron	7439-89-6	E440/VA	50	mg/kg	84300	70200	----	----	----	
Lead	7439-92-1	E440/VA	0.50	mg/kg	254	937	----	----	----	
Lithium	7439-93-2	E440/VA	2.0	mg/kg	30.2	28.6	----	----	----	
Magnesium	7439-95-4	E440/VA	20	mg/kg	13300	11600	----	----	----	
Manganese	7439-96-5	E440/VA	1.0	mg/kg	829	843	----	----	----	
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	<0.0500	<0.0500	----	----	----	
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	22.8	18.5	----	----	----	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	157	146	----	----	----	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	12500	12800	----	----	----	



Analytical Results

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

					Client sample ID	BA 2537-A-11 Sept11& Sept12 ----	BA 2537-A-12 Sept11& Sept12 ----	----	----	----
					Client sampling date / time	12-Sep-2025 00:00	12-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-011	VA25C4452-012	----	----	----	
					Result	Result	----	----	----	
Metals										
Potassium	7440-09-7	E440/VA	100	mg/kg	4830	5690	----	----	----	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.30	0.26	----	----	----	
Silver	7440-22-4	E440/VA	0.10	mg/kg	5.68	>26.2	----	----	----	
Sodium	7440-23-5	E440/VA	50	mg/kg	14700	15900	----	----	----	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	274	400	----	----	----	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	9300	9000	----	----	----	
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	0.075	----	----	----	
Tin	7440-31-5	E440/VA	2.0	mg/kg	>5620	318	----	----	----	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	222	217	----	----	----	
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	18.1	16.6	----	----	----	
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.51	1.57	----	----	----	
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	26.5	32.4	----	----	----	
Zinc	7440-66-6	E440/VA	2.0	mg/kg	3840	10900	----	----	----	
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	2.1	4.3	----	----	----	
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.69	11.65	----	----	----	
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	3.90	2.85	----	----	----	
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	4.95	4.95	----	----	----	
pH, TCLP final	----	EPP444/VA	0.010	pH units	10.06	9.94	----	----	----	
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 2537-A-11 Sept11& Sept12 ----	BA 2537-A-12 Sept11& Sept12 ----	----	----	----
					Client sampling date / time	12-Sep-2025 00:00	12-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4452-011	VA25C4452-012	----	----	----	
					Result	Result	----	----	----	
TCLP Metals										
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L	<2.5	<2.5	----	----	----	
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L	<0.025	<0.025	----	----	----	
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L	0.70	0.70	----	----	----	
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	760	777	----	----	----	
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L	<0.25	<0.25	----	----	----	
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	1.04	0.995	----	----	----	
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	6.8	6.2	----	----	----	
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L	<0.25	<0.25	----	----	----	
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L	<0.10	<0.10	----	----	----	
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L	<1.0	<1.0	----	----	----	
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L	<0.20	<0.20	----	----	----	
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L	<0.15	<0.15	----	----	----	
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L	<0.50	<0.50	----	----	----	
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L	<10	<10	----	----	----	

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

Work Order : VA25C4452
Client : Veolia Environmental Services Canada
Project : Veolia Weekly Bottom Ash-Suite





QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA25C4452</p> <p>Client : Veolia Environmental Services Canada</p> <p>Contact : Brian Graham</p> <p>Address : 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3</p> <p>Telephone : ----</p> <p>Project : Veolia Weekly Bottom Ash-Suite</p> <p>PO : 1000497676</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site :</p> <p>Quote number : VA25-VISI100-001</p> <p>No. of samples received : 12</p> <p>No. of samples analysed : 12</p>	<p>Page : 1 of 16</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Gulraj Dhanaua</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 17-Sep-2025 11:40</p> <p>Issue Date : 25-Sep-2025 09:15</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.

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	Anonymous	Anonymous	Antimony	7440-36-0	E440	30.6 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	Anonymous	Anonymous	Zirconium	7440-67-7	E440	2.3 % DUP-H, J	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).

Result Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.
J	Duplicate results and limits are expressed in terms of absolute difference.



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		
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-1 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-10 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-11 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-12 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-2 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-3 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-4 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-5 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-6 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-7 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-8 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-9 Sept11& Sept12	E510	12-Sep-2025	24-Sep-2025	28 days	12 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-1 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-10 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-11 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-12 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-2 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-3 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-4 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-5 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-6 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-7 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-8 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-9 Sept11& Sept12	E440	12-Sep-2025	24-Sep-2025	180 days	12 days	✔	25-Sep-2025	180 days	12 days	✔	
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-1 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-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		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-10 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-11 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-12 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-2 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-3 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-4 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-5 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-6 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-7 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-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		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-8 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-9 Sept11& Sept12	E144	12-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-1 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-10 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-11 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-12 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-2 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-3 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-4 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-5 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-6 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-7 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-8 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-9 Sept11& Sept12	E108	12-Sep-2025	24-Sep-2025	30 days	12 days	✔	24-Sep-2025	30 days	12 days	✔	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-1 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-10 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-11 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-12 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔	



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2537-A-2 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2537-A-3 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2537-A-4 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2537-A-5 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2537-A-6 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2537-A-7 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2537-A-8 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2537-A-9 Sept11& Sept12	E512	21-Sep-2025	23-Sep-2025	38 days	12 days	✔	23-Sep-2025	38 days	12 days	✔
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2537-A-1 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-10 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-11 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-12 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-2 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-3 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-4 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-5 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-6 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-7 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✔	23-Sep-2025	190 days	12 days	✔	



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-8 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✓	23-Sep-2025	190 days	12 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-9 Sept11& Sept12	E444	21-Sep-2025	23-Sep-2025	190 days	12 days	✓	23-Sep-2025	190 days	12 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-1 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-10 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-11 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-12 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-2 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-3 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-4 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 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	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-5 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✔
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-6 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✔
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-7 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✔
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-8 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 days	✔
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-9 Sept11& Sept12	EPP444	12-Sep-2025	21-Sep-2025	----	----		----	28 days	10 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
Analytical Methods							
Laboratory Duplicates (DUP)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2236142	1	19	5.2	5.0	✔
Moisture Content by Gravimetry	E144	2236143	1	12	8.3	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2236141	1	19	5.2	5.0	✔
Metals by CRC ICPMS (TCLP)	E444	2234791	1	12	8.3	5.0	✔
Mercury in Soil/Solid by CVAAS	E510	2236140	1	19	5.2	5.0	✔
Mercury by CVAAS (TCLP)	E512	2234790	1	12	8.3	5.0	✔
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2236142	1	19	5.2	5.0	✔
Moisture Content by Gravimetry	E144	2236143	1	12	8.3	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2236141	2	19	10.5	10.0	✔
Mercury in Soil/Solid by CVAAS	E510	2236140	2	19	10.5	10.0	✔
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2236143	1	12	8.3	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2236141	1	19	5.2	5.0	✔
Metals by CRC ICPMS (TCLP)	E444	2234791	1	12	8.3	5.0	✔
Mercury in Soil/Solid by CVAAS	E510	2236140	1	19	5.2	5.0	✔
Mercury by CVAAS (TCLP)	E512	2234790	1	12	8.3	5.0	✔
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444	2234791	1	12	8.3	5.0	✔
Mercury by CVAAS (TCLP)	E512	2234790	1	12	8.3	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (1:2 Soil:Water Extraction)	E108 ALS Environmental - Vancouver	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally $20 \pm 5^{\circ}\text{C}$), 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°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 HNO_3 and HCl . Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Silicate minerals are not solubilized. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. This method does not adequately recover elemental sulfur, and is unsuitable for assessment of elemental sulfur standards or guidelines. Analysis is by Collision/Reaction Cell ICPMS.
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 HNO_3 and HCl , followed by CVAAS analysis.
Mercury by CVAAS (TCLP)	E512 ALS Environmental - Vancouver	Soil/Solid	EPA 1311/245.1 (mod)	An extract produced by the Toxicity Characteristic Leachate Procedure (TCLP) as per EPA 1311 is analyzed by CVAAS.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Leach 1:2 Soil:Water for pH/EC	EP108 ALS Environmental - Vancouver	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at $<60^{\circ}\text{C}$) 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 ₃ and HCl. This method is intended to liberate metals that may be environmentally available.
TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)	EPP444 ALS Environmental - Vancouver	Soil/Solid	EPA 1311	Preparation of a Toxicity Characteristic Leaching Procedure (TCLP) solid sample involves particle size reduction, homogenization, then determination of appropriate extraction fluid. A measured portion of fresh subsample is placed in an extraction bottle with the appropriate extraction fluid then tumbled in a rotary extractor for 18+/- 2 hours at 23 +/- 2 C. The liquid leachate is filtered to separate from solids then bottled and prepared for analytical tests.



QUALITY CONTROL REPORT

Work Order	: VA25C4452	Page	: 1 of 12
Client	: Veolia Environmental Services Canada	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Veolia Weekly Bottom Ash-Suite	Date Samples Received	: 17-Sep-2025 11:40
PO	: 1000497676	Date Analysis Commenced	: 21-Sep-2025
C-O-C number	: ----	Issue Date	: 25-Sep-2025 09:14
Sampler	: ----		
Site	:		
Quote number	: VA25-VISI100-001		
No. of samples received	: 12		
No. of samples analysed	: 12		

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

This Quality Control Report contains the following information:

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Vancouver Organics, Burnaby, British Columbia



General Comments

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

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

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



Laboratory Duplicate (DUP) Report

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

Sub-Matrix: Soil/Solid

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2236142)											
VA25C4305-001	Anonymous	pH (1:2 soil:water)	----	E108	0.10	pH units	8.22	8.24	0.2%	5%	----
Physical Tests (QC Lot: 2236143)											
VA25C4452-001	BA 2537-A-1 Sept11& Sept12	Moisture	----	E144	0.25	%	24.7	25.3	2.25%	20%	----
Metals (QC Lot: 2236140)											
VA25C4305-001	Anonymous	Mercury	7439-97-6	E510	0.0500	mg/kg	0.209	0.231	0.0226	Diff <2x LOR	----
Metals (QC Lot: 2236141)											
VA25C4305-001	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	16200	16600	2.59%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	1.05	1.43	30.6%	30%	DUP-H
		Arsenic	7440-38-2	E440	0.10	mg/kg	12.7	13.9	8.73%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	127	135	6.13%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.31	0.36	0.05	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	0.50	0.65	0.15	Diff <2x LOR	----
		Boron	7440-42-8	E440	5.0	mg/kg	13.9	17.2	3.3	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	1.33	1.39	4.51%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	138000	142000	2.52%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	33.3	37.2	11.1%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	9.08	9.59	5.50%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	136	154	12.4%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	24800	25800	4.35%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	53.1	60.4	12.9%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	13.4	15.0	11.3%	30%	----
		Magnesium	7439-95-4	E440	20	mg/kg	8030	8640	7.32%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	415	440	5.82%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	3.72	4.31	14.8%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	21.1	24.0	12.6%	30%	----
Phosphorus	7723-14-0	E440	50	mg/kg	500	620	21.4%	30%	----		
Potassium	7440-09-7	E440	100	mg/kg	1740	1900	8.26%	40%	----		
Selenium	7782-49-2	E440	0.20	mg/kg	0.37	0.41	0.04	Diff <2x LOR	----		
Silver	7440-22-4	E440	0.10	mg/kg	2.32	2.45	5.57%	40%	----		
Sodium	7440-23-5	E440	50	mg/kg	5770	6220	7.53%	40%	----		



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 2236141) - continued											
VA25C4305-001	Anonymous	Strontium	7440-24-6	E440	0.50	mg/kg	379	383	1.07%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	10300	11000	5.82%	30%	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.176	0.189	0.013	Diff <2x LOR	----
		Tin	7440-31-5	E440	2.0	mg/kg	4.2	5.4	1.1	Diff <2x LOR	----
		Titanium	7440-32-6	E440	1.0	mg/kg	509	671	27.5%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	0.60	1.09	0.50	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.050	mg/kg	1.76	1.86	5.30%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	46.0	50.7	9.78%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	183	192	4.89%	30%	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	3.4	# 5.7	2.3	Diff <2x LOR	DUP-H,J
TCLP Metals (QC Lot: 2234790)											
VA25C4452-001	BA 2537-A-1 Sept11& Sept12	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2234791)											
VA25C4452-001	BA 2537-A-1 Sept11& Sept12	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	0.66	0.01	Diff <2x LOR	----
		Cadmium, TCLP	7440-43-9	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Calcium, TCLP	7440-70-2	E444	10	mg/L	698	724	3.61%	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	0.971	0.949	2.37%	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	8.0	8.1	0.03	Diff <2x LOR	----
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	----
		Selenium, TCLP	7782-49-2	E444	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
		Silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Uranium, TCLP	7440-61-1	E444	0.20	mg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	0	Diff <2x LOR	----
		Zinc, TCLP	7440-66-6	E444	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
TCLP Metals (QC Lot: 2234791) - continued											
VA25C4452-001	BA 2537-A-1 Sept11& Sept12	Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	0	Diff <2x LOR	----

Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.
J	Duplicate results and limits are expressed in terms of absolute difference.



Method Blank (MB) Report

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

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2236143)						
Moisture	---	E144	0.25	%	<0.25	---
Metals (QCLot: 2236140)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 2236141)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	---
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	---
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	---
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	---
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	---
Bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	---
Boron	7440-42-8	E440	5	mg/kg	<5.0	---
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	---
Calcium	7440-70-2	E440	50	mg/kg	<50	---
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	---
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	---
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	---
Iron	7439-89-6	E440	50	mg/kg	<50	---
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	---
Lithium	7439-93-2	E440	2	mg/kg	<2.0	---
Magnesium	7439-95-4	E440	20	mg/kg	<20	---
Manganese	7439-96-5	E440	1	mg/kg	<1.0	---
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	---
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	---
Phosphorus	7723-14-0	E440	50	mg/kg	<50	---
Potassium	7440-09-7	E440	100	mg/kg	<100	---
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	---
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E440	50	mg/kg	<50	---
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	---
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	---
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	---
Tin	7440-31-5	E440	2	mg/kg	<2.0	---



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2236141) - continued						
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	----
TCLP Metals (QCLot: 2234790)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals (QCLot: 2234791)						
Antimony, TCLP	7440-36-0	E444	0.1	mg/L	<0.10	----
Arsenic, TCLP	7440-38-2	E444	1	mg/L	<1.0	----
Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	----
Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	----
Boron, TCLP	7440-42-8	E444	0.5	mg/L	<0.50	----
Cadmium, TCLP	7440-43-9	E444	0.05	mg/L	<0.050	----
Calcium, TCLP	7440-70-2	E444	10	mg/L	<10	----
Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	----
Cobalt, TCLP	7440-48-4	E444	0.05	mg/L	<0.050	----
Copper, TCLP	7440-50-8	E444	0.05	mg/L	<0.050	----
Iron, TCLP	7439-89-6	E444	5	mg/L	<5.0	----
Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	----
Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	<2.5	----
Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	----
Selenium, TCLP	7782-49-2	E444	0.1	mg/L	<0.10	----
Silver, TCLP	7440-22-4	E444	0.05	mg/L	<0.050	----
Thallium, TCLP	7440-28-0	E444	1	mg/L	<1.0	----
Uranium, TCLP	7440-61-1	E444	0.2	mg/L	<0.20	----
Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	----
Zinc, TCLP	7440-66-6	E444	0.5	mg/L	<0.50	----
Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	----



Laboratory Control Sample (LCS) Report

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

Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2236142)									
pH (1:2 soil:water)	---	E108	---	pH units	6 pH units	99.8	95.0	105	---
Physical Tests (QCLot: 2236143)									
Moisture	---	E144	0.25	%	50 %	100	90.0	110	---
Metals (QCLot: 2236140)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	95.8	80.0	120	---
Metals (QCLot: 2236141)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	108	80.0	120	---
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	118	80.0	120	---
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	112	80.0	120	---
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	---
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	110	80.0	120	---
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	107	80.0	120	---
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	107	80.0	120	---
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	106	80.0	120	---
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	109	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	103	80.0	120	---
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	101	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	109	80.0	120	---
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	114	80.0	120	---
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	110	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	108	80.0	120	---
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	102	80.0	120	---
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	107	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	102	80.0	120	---
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	103	80.0	120	---
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	104	80.0	120	---
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	111	80.0	120	---
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	104	80.0	120	---



Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2236141) - continued									
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	105	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	104	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	99.2	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	107	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	115	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	105	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	98.4	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	110	80.0	120	----



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: Soil/Solid

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
TCLP Metals (QCLot: 2234790)										
VA25C4452-001	BA 2537-A-1 Sept11& Sept12	Mercury, TCLP	7439-97-6	E512	0.0028 mg/L	0.003 mg/L	91.8	50.0	140	----
TCLP Metals (QCLot: 2234791)										
VA25C4452-001	BA 2537-A-1 Sept11& Sept12	Antimony, TCLP	7440-36-0	E444	5.47 mg/L	5 mg/L	109	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	5.0 mg/L	5 mg/L	101	50.0	140	----
		Barium, TCLP	7440-39-3	E444	12.1 mg/L	12.5 mg/L	97.0	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.246 mg/L	0.25 mg/L	98.5	50.0	140	----
		Boron, TCLP	7440-42-8	E444	9.04 mg/L	10 mg/L	90.4	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.232 mg/L	0.25 mg/L	92.9	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.23 mg/L	1.25 mg/L	98.1	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	0.241 mg/L	0.25 mg/L	96.4	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.35 mg/L	2.5 mg/L	94.0	50.0	140	----
		Iron, TCLP	7439-89-6	E444	239 mg/L	250 mg/L	95.6	50.0	140	----
		Lead, TCLP	7439-92-1	E444	9.74 mg/L	10 mg/L	97.4	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	246 mg/L	250 mg/L	98.3	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.43 mg/L	2.5 mg/L	97.3	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	4.89 mg/L	5 mg/L	97.8	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.089 mg/L	0.1 mg/L	88.8	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	5.0 mg/L	5 mg/L	99.6	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.96 mg/L	5 mg/L	99.2	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.75 mg/L	0.75 mg/L	99.9	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	9.76 mg/L	10 mg/L	97.6	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.8 mg/L	1 mg/L	78.2	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	
Metals (QCLot: 2236140)									
QC-2236140-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	95.9	70.0	130	----
Metals (QCLot: 2236141)									
QC-2236141-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	112	70.0	130	----
QC-2236141-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	102	70.0	130	----
QC-2236141-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	104	70.0	130	----
QC-2236141-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	97.3	70.0	130	----
QC-2236141-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	112	70.0	130	----
QC-2236141-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	120	70.0	130	----
QC-2236141-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	104	70.0	130	----
QC-2236141-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	112	70.0	130	----
QC-2236141-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	102	70.0	130	----
QC-2236141-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	99.8	70.0	130	----
QC-2236141-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	98.4	70.0	130	----
QC-2236141-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	103	70.0	130	----
QC-2236141-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	96.4	70.0	130	----
QC-2236141-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	117	70.0	130	----
QC-2236141-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	108	70.0	130	----
QC-2236141-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	100	70.0	130	----
QC-2236141-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	99.7	70.0	130	----
QC-2236141-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	101	70.0	130	----
QC-2236141-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	105	70.0	130	----
QC-2236141-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	100	70.0	130	----
QC-2236141-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	99.6	60.0	140	----
QC-2236141-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	99.7	70.0	130	----
QC-2236141-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	117	70.0	130	----
QC-2236141-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	105	70.0	130	----
QC-2236141-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	97.1	50.0	150	----
QC-2236141-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	100	70.0	130	----
QC-2236141-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	101	40.0	160	----
QC-2236141-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	101	70.0	130	----
QC-2236141-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	110	70.0	130	----
QC-2236141-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	97.3	70.0	130	----
QC-2236141-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	100	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	
Metals (QCLot: 2236141) - continued									
QC-2236141-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	96.6	70.0	130	----
QC-2236141-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	102	70.0	130	----



Report To	Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company: Veolia Canada / Burnaby Waste To Energy Facility	"Veolia Email Distribution List" please	
Contact: Brian Graham / Darcie Grace		
Address: 5150 Riverbend Drive 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	
	brent.kirkpatrick@metrovancover.org	
	Sarah.Wellman@metrovancover.org	

Invoice To Same as Report? Veolia Water Canada	Client / Project Information	Please indicate below Filtered, Preserved or both (F, P, F/P)													
Hardcopy of invoice with Report?	Job #: Veolia Weekly Bottom Ash - Suite														
Company: Veolia Water Canada / Burnaby Waste To Energy	PO / AFE: PO#														
Contact: Danny George, Purchaser/Darcie Grace, SHE Manager	LSD: (includes 2:1 pH)														
Address: 5150 Riverbend Drive, Burnaby BC V3N 4V3															
Phone: 604 521 1025 Fax:	Quote #:														

Lab Work Order # (lab use only) C4452	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 2537-A-1 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-2 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-3 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-4 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-5 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-6 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-7 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-8 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-9 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-10 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-11 Sept 11 & Sept 12			Soil	X	X		X								1
	BA 2537-A-12 Sept 11 & Sept 12			Soil	X	X		X								1

Environmental Division
 Vancouver
 Work Order Reference
VA25C4452

Telephone: +1 604 253 4166

water Aquatic	
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Time may delay analysis with the Terms and Conditions numbers and	
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SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)						
Released by:	Date (dd-mmm-yy): 16/09/25	Time (hh:mm): 02:50	Received by:	Date:	Time:	Temperature: 21°C	Verified by:	Date: 17/9	Time: 11:40	Observations: Yes / No? If Yes add SIF



CERTIFICATE OF ANALYSIS

Work Order	: VA25C4453	Laboratory	: ALS Environmental - Vancouver
Client	: Veolia Environmental Services Canada	Account Manager	: Gulraj Dhanaua
Contact	: Brian Graham	Address	: 8081 Lougheed Highway
Address	: 5150 Riverbend Dr. Burnaby British Columbia Canada V3N 4V3		: Burnaby BC Canada V5A 1W9
Telephone	: ----	E-mail	: Gulraj.Dhanaua@alsglobal.com
Project	: Veolia Weekly Bottom Ash-Suite	Telephone	: +1 604 253 4188
PO	: 1000497676	Date Samples Received	: 17-Sep-2025 11:40
C-O-C number	: ----	Date Analysis Commenced	: 22-Sep-2025
Sampler	: ----	Issue Date	: 25-Sep-2025 09:15
Site	: Metro Van Ash Sampling Program		
Quote number	: VA25-VISI100-001		
No. of samples received	: 12		
No. of samples analysed	: 12		

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Robin Weeks	Supervisor - Organics Extractions	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)

					BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
Client sample ID									
Client sampling date / time					14-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-001	VA25C4453-002	VA25C4453-003	VA25C4453-004	VA25C4453-005
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.25	%	25.7	24.4	26.5	25.2	26.3
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	10.71	10.44	10.51	10.68	10.51
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	47900	56600	47800	65800	62200
Antimony	7440-36-0	E440/VA	0.10	mg/kg	102	102	117	93.4	103
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	13.8	12.0	13.9	11.7	10.8
Barium	7440-39-3	E440/VA	0.50	mg/kg	691	636	567	666	691
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.36	0.38	0.59	0.35	0.40
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	5.88	6.40	9.76	5.42	5.89
Boron	7440-42-8	E440/VA	5.0	mg/kg	176	157	239	152	149
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	5.72	5.96	7.03	5.10	4.77
Calcium	7440-70-2	E440/VA	50	mg/kg	127000	138000	146000	121000	132000
Chromium	7440-47-3	E440/VA	0.50	mg/kg	186	196	163	160	205
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	103	122	84.0	68.9	41.6
Copper	7440-50-8	E440/VA	0.50	mg/kg	1940	2670	3900	2660	1750
Iron	7439-89-6	E440/VA	50	mg/kg	70500	53700	50500	56500	62800
Lead	7439-92-1	E440/VA	0.50	mg/kg	156	327	199	198	173
Lithium	7439-93-2	E440/VA	2.0	mg/kg	30.6	35.9	39.9	34.4	35.2
Magnesium	7439-95-4	E440/VA	20	mg/kg	14400	14200	14900	12600	12900



Analytical Results

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

					BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
					Client sample ID				
					Client sampling date / time				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-001	VA25C4453-002	VA25C4453-003	VA25C4453-004	VA25C4453-005
					Result	Result	Result	Result	Result
Metals									
Manganese	7439-96-5	E440/VA	1.0	mg/kg	930	1000	899	1590	831
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	28.0	57.7	31.7	30.6	37.7
Nickel	7440-02-0	E440/VA	0.50	mg/kg	173	194	192	106	91.0
Phosphorus	7723-14-0	E440/VA	50	mg/kg	10600	13100	14600	11300	11200
Potassium	7440-09-7	E440/VA	100	mg/kg	5710	5600	5740	5070	5540
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.55	0.45	0.53	0.40	0.40
Silver	7440-22-4	E440/VA	0.10	mg/kg	4.23	3.99	4.40	7.63	3.92
Sodium	7440-23-5	E440/VA	50	mg/kg	16100	16300	17000	15500	16600
Strontium	7440-24-6	E440/VA	0.50	mg/kg	337	312	367	329	372
Sulfur	7704-34-9	E440/VA	1000	mg/kg	9500	9200	10800	8300	8700
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	203	101	167	244	90.1
Titanium	7440-32-6	E440/VA	1.0	mg/kg	298	276	259	413	429
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	6.99	8.09	7.42	9.34	32.1
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.54	1.63	1.77	1.44	1.58
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	31.3	34.8	41.9	33.3	38.4
Zinc	7440-66-6	E440/VA	2.0	mg/kg	3710	3390	3550	3340	2680
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	2.2	2.0	1.5	4.0	3.5



Analytical Results

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

					Client sample ID				
					BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
Client sampling date / time					14-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-001	VA25C4453-002	VA25C4453-003	VA25C4453-004	VA25C4453-005
					Result	Result	Result	Result	Result
TCLP Metals									
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.24	11.22	11.21	11.26	11.27
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	4.09	4.48	3.28	4.62	4.17
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	4.93	4.93	4.93	4.93	4.93
pH, TCLP final	----	EPP444/VA	0.010	pH units	9.45	9.79	9.82	9.88	9.82
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L	<2.5	<2.5	<2.5	<2.5	<2.5
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L	0.58	0.60	0.58	0.57	0.64
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	733	725	725	726	731
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	0.523	0.532	0.546	0.585	0.619
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	4.0	2.8	<2.5	<2.5	3.5
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25



Analytical Results

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

					Client sample ID	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
Client sampling date / time						14-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-001	VA25C4453-002	VA25C4453-003	VA25C4453-004	VA25C4453-005	
					Result	Result	Result	Result	Result	
TCLP Metals										
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L	<0.20	<0.20	<0.20	<0.20	<0.20	
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L	<10	<10	<10	<10	<10	

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

Analytical Results

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

					Client sample ID	BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
Client sampling date / time						14-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-006	VA25C4453-007	VA25C4453-008	VA25C4453-009	VA25C4453-010	
					Result	Result	Result	Result	Result	
Physical Tests										
Moisture	----	E144/VA	0.25	%	27.6	26.9	26.1	28.1	27.4	
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	10.44	10.59	10.50	10.59	10.66	
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg	61000	65000	43500	45000	54300	



Analytical Results

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

					Client sample ID				
					BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
Client sampling date / time					14-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-006	VA25C4453-007	VA25C4453-008	VA25C4453-009	VA25C4453-010
					Result	Result	Result	Result	Result
Metals									
Antimony	7440-36-0	E440/VA	0.10	mg/kg	97.9	110	98.2	152	91.0
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	14.7	11.4	13.1	15.4	12.5
Barium	7440-39-3	E440/VA	0.50	mg/kg	662	644	607	735	683
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.36	0.35	0.35	0.36	0.34
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	7.14	7.07	6.13	5.61	5.95
Boron	7440-42-8	E440/VA	5.0	mg/kg	193	156	165	175	181
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	4.82	5.41	19.6	6.37	5.25
Calcium	7440-70-2	E440/VA	50	mg/kg	126000	133000	135000	137000	122000
Chromium	7440-47-3	E440/VA	0.50	mg/kg	153	216	143	164	458
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	60.9	117	69.8	229	212
Copper	7440-50-8	E440/VA	0.50	mg/kg	3320	4940	2880	2530	6520
Iron	7439-89-6	E440/VA	50	mg/kg	53600	56000	43400	61000	77900
Lead	7439-92-1	E440/VA	0.50	mg/kg	388	239	255	863	193
Lithium	7439-93-2	E440/VA	2.0	mg/kg	31.4	38.2	32.2	35.1	33.8
Magnesium	7439-95-4	E440/VA	20	mg/kg	12700	14700	15400	15000	13200
Manganese	7439-96-5	E440/VA	1.0	mg/kg	825	1060	845	956	905
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	29.2	31.1	29.4	26.0	76.8
Nickel	7440-02-0	E440/VA	0.50	mg/kg	99.2	198	122	284	429



Analytical Results

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

					BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
					Client sample ID				
					Client sampling date / time				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-006	VA25C4453-007	VA25C4453-008	VA25C4453-009	VA25C4453-010
					Result	Result	Result	Result	Result
Metals									
Phosphorus	7723-14-0	E440/VA	50	mg/kg	10500	11400	11600	12500	9640
Potassium	7440-09-7	E440/VA	100	mg/kg	5250	5180	5440	5600	5010
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.44	0.44	0.43	0.39	0.37
Silver	7440-22-4	E440/VA	0.10	mg/kg	6.12	3.78	3.82	3.63	3.13
Sodium	7440-23-5	E440/VA	50	mg/kg	15800	15500	16400	16300	15200
Strontium	7440-24-6	E440/VA	0.50	mg/kg	282	329	283	310	322
Sulfur	7704-34-9	E440/VA	1000	mg/kg	8600	9800	9400	8600	8200
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	0.143	<0.050	<0.050	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg	156	109	109	243	114
Titanium	7440-32-6	E440/VA	1.0	mg/kg	313	347	220	257	346
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	10.4	10.3	8.20	7.41	6.39
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.48	1.51	1.52	1.51	1.45
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	31.1	35.8	30.2	34.0	33.2
Zinc	7440-66-6	E440/VA	2.0	mg/kg	3140	16100	2900	2460	4170
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	3.4	2.3	1.6	1.7	2.8
TCLP Metals									
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.27	11.28	11.29	11.25	11.25
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	4.52	3.03	3.02	2.65	3.61
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	4.93	4.93	4.93	4.93	4.93



Analytical Results

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

					Client sample ID				
					BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
Client sampling date / time					14-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-006	VA25C4453-007	VA25C4453-008	VA25C4453-009	VA25C4453-010
					Result	Result	Result	Result	Result
TCLP Metals									
pH, TCLP final	----	EPP444/VA	0.010	pH units	9.84	9.89	9.87	9.90	9.87
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L	<2.5	<2.5	<2.5	<2.5	<2.5
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L	0.59	0.59	0.61	0.58	0.60
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	730	753	734	727	738
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	0.587	0.588	0.540	0.650	0.600
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L	2.6	2.7	2.6	2.9	2.7
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L	<0.25	<0.25	<0.25	<0.25	<0.25
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0



Analytical Results

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

					Client sample ID	BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----
					Client sampling date / time	14-Sep-2025 00:00				
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-006	VA25C4453-007	VA25C4453-008	VA25C4453-009	VA25C4453-010	
					Result	Result	Result	Result	Result	
TCLP Metals										
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L	<0.20	<0.20	<0.20	<0.20	<0.20	
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L	<10	<10	<10	<10	<10	

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

Analytical Results

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

					Client sample ID	BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	----	----	----
					Client sampling date / time	14-Sep-2025 00:00	14-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-011	VA25C4453-012	----	----	----	
					Result	Result	----	----	----	
Physical Tests										
Moisture	----	E144/VA	0.25	%	27.2	28.2	----	----	----	
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	10.54	10.60	----	----	----	
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg	42000	47200	----	----	----	
Antimony	7440-36-0	E440/VA	0.10	mg/kg	115	112	----	----	----	
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	19.7	13.9	----	----	----	
Barium	7440-39-3	E440/VA	0.50	mg/kg	704	365	----	----	----	



Analytical Results

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

					Client sample ID	BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	----	----	----
					Client sampling date / time	14-Sep-2025 00:00	14-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-011	VA25C4453-012	----	----	----	
					Result	Result	----	----	----	
Metals										
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.41	0.36	----	----	----	
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	9.21	7.53	----	----	----	
Boron	7440-42-8	E440/VA	5.0	mg/kg	181	181	----	----	----	
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	8.17	6.73	----	----	----	
Calcium	7440-70-2	E440/VA	50	mg/kg	136000	140000	----	----	----	
Chromium	7440-47-3	E440/VA	0.50	mg/kg	177	217	----	----	----	
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	56.5	78.4	----	----	----	
Copper	7440-50-8	E440/VA	0.50	mg/kg	2120	2190	----	----	----	
Iron	7439-89-6	E440/VA	50	mg/kg	63300	47500	----	----	----	
Lead	7439-92-1	E440/VA	0.50	mg/kg	212	213	----	----	----	
Lithium	7439-93-2	E440/VA	2.0	mg/kg	34.5	35.1	----	----	----	
Magnesium	7439-95-4	E440/VA	20	mg/kg	13200	14500	----	----	----	
Manganese	7439-96-5	E440/VA	1.0	mg/kg	884	848	----	----	----	
Mercury	7439-97-6	E510/VA	0.0500	mg/kg	<0.0500	<0.0500	----	----	----	
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg	59.5	33.8	----	----	----	
Nickel	7440-02-0	E440/VA	0.50	mg/kg	125	256	----	----	----	
Phosphorus	7723-14-0	E440/VA	50	mg/kg	11500	13800	----	----	----	
Potassium	7440-09-7	E440/VA	100	mg/kg	5700	5660	----	----	----	
Selenium	7782-49-2	E440/VA	0.20	mg/kg	0.44	0.49	----	----	----	



Analytical Results

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

					Client sample ID	BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	----	----	----
					Client sampling date / time	14-Sep-2025 00:00	14-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-011	VA25C4453-012	----	----	----	
					Result	Result	----	----	----	
Metals										
Silver	7440-22-4	E440/VA	0.10	mg/kg	3.76	6.78	----	----	----	
Sodium	7440-23-5	E440/VA	50	mg/kg	16500	16200	----	----	----	
Strontium	7440-24-6	E440/VA	0.50	mg/kg	307	308	----	----	----	
Sulfur	7704-34-9	E440/VA	1000	mg/kg	10000	10600	----	----	----	
Thallium	7440-28-0	E440/VA	0.050	mg/kg	<0.050	<0.050	----	----	----	
Tin	7440-31-5	E440/VA	2.0	mg/kg	112	114	----	----	----	
Titanium	7440-32-6	E440/VA	1.0	mg/kg	350	262	----	----	----	
Tungsten	7440-33-7	E440/VA	0.50	mg/kg	10.2	12.6	----	----	----	
Uranium	7440-61-1	E440/VA	0.050	mg/kg	1.53	1.66	----	----	----	
Vanadium	7440-62-2	E440/VA	0.20	mg/kg	44.1	31.9	----	----	----	
Zinc	7440-66-6	E440/VA	2.0	mg/kg	3760	3420	----	----	----	
Zirconium	7440-67-7	E440/VA	1.0	mg/kg	1.3	2.2	----	----	----	
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units	11.29	11.28	----	----	----	
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units	3.72	3.02	----	----	----	
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units	4.93	4.93	----	----	----	
pH, TCLP final	----	EPP444/VA	0.010	pH units	9.93	9.99	----	----	----	
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 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	----	----	----
					Client sampling date / time	14-Sep-2025 00:00	14-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-011	VA25C4453-012	----	----	----	
					Result	Result	----	----	----	
TCLP Metals										
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L	<2.5	<2.5	----	----	----	
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L	<0.025	<0.025	----	----	----	
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L	0.60	0.53	----	----	----	
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L	762	722	----	----	----	
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L	<0.25	<0.25	----	----	----	
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L	0.588	0.587	----	----	----	
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L	<5.0	<5.0	----	----	----	
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L	<0.25	<0.25	----	----	----	
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L	<2.5	<2.5	----	----	----	
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L	<0.25	<0.25	----	----	----	
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L	<0.10	<0.10	----	----	----	
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L	<0.050	<0.050	----	----	----	
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L	<1.0	<1.0	----	----	----	
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L	<0.20	<0.20	----	----	----	
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L	<0.15	<0.15	----	----	----	
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L	<0.50	<0.50	----	----	----	



Analytical Results

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

					Client sample ID	BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14 ----	----	----	----
					Client sampling date / time	14-Sep-2025 00:00	14-Sep-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA25C4453-011	VA25C4453-012	----	----	----	----
					Result	Result	----	----	----	----
TCLP Metals										
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L	<10	<10	----	----	----	----

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



QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : VA25C4453</p> <p>Client : Veolia Environmental Services Canada</p> <p>Contact : Brian Graham</p> <p>Address : 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3</p> <p>Telephone : ----</p> <p>Project : Veolia Weekly Bottom Ash-Suite</p> <p>PO : 1000497676</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Metro Van Ash Sampling Program</p> <p>Quote number : VA25-VIS1100-001</p> <p>No. of samples received : 12</p> <p>No. of samples analysed : 12</p>	<p>Page : 1 of 16</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : Gulraj Dhanaua</p> <p>Address : 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9</p> <p>Telephone : +1 604 253 4188</p> <p>Date Samples Received : 17-Sep-2025 11:40</p> <p>Issue Date : 25-Sep-2025 09:16</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.

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Bismuth	7440-69-9	E440	40.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Cobalt	7440-48-4	E440	92.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Lithium	7439-93-2	E440	61.4 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Nickel	7440-02-0	E440	36.6 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Tin	7440-31-5	E440	69.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

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



Analysis Holding Time Compliance

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

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

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

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

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔	
Metals : Mercury in Soil/Solid by CVAAS											
LDPE bag BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔	



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E510	14-Sep-2025	24-Sep-2025	28 days	10 days	✔	24-Sep-2025	28 days	0 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 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		
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
LDPE bag BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E440	14-Sep-2025	24-Sep-2025	180 days	10 days	✔	25-Sep-2025	180 days	10 days	✔	
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-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		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-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		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : Moisture Content by Gravimetry											
LDPE bag BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E144	14-Sep-2025	----	----	----		23-Sep-2025	----	----		
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	



Matrix: Soil/Solid

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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		
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)											
LDPE bag BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E108	14-Sep-2025	24-Sep-2025	30 days	10 days	✔	24-Sep-2025	30 days	10 days	✔	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	22-Sep-2025	24-Sep-2025	37 days	10 days	✔	24-Sep-2025	37 days	10 days	✔	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	23-Sep-2025	24-Sep-2025	37 days	10 days	✔	24-Sep-2025	37 days	10 days	✔	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	23-Sep-2025	24-Sep-2025	37 days	10 days	✔	24-Sep-2025	37 days	10 days	✔	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	23-Sep-2025	24-Sep-2025	37 days	10 days	✔	24-Sep-2025	37 days	10 days	✔	



Matrix: Soil/Solid

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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		
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	22-Sep-2025	24-Sep-2025	37 days	10 days	✓	24-Sep-2025	37 days	10 days	✓	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	22-Sep-2025	24-Sep-2025	37 days	10 days	✓	24-Sep-2025	37 days	10 days	✓	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	22-Sep-2025	24-Sep-2025	37 days	10 days	✓	24-Sep-2025	37 days	10 days	✓	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	22-Sep-2025	24-Sep-2025	37 days	10 days	✓	24-Sep-2025	37 days	10 days	✓	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	22-Sep-2025	24-Sep-2025	37 days	10 days	✓	24-Sep-2025	37 days	10 days	✓	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	23-Sep-2025	24-Sep-2025	37 days	10 days	✓	24-Sep-2025	37 days	10 days	✓	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	23-Sep-2025	24-Sep-2025	37 days	10 days	✓	24-Sep-2025	37 days	10 days	✓	
TCLP Metals : Mercury by CVAAS (TCLP)											
Glass vial - total (lab preserved) BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E512	23-Sep-2025	24-Sep-2025	37 days	10 days	✓	24-Sep-2025	37 days	10 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	22-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	23-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	23-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	23-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	22-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	22-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	22-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	22-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	22-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	23-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	



Matrix: Soil/Solid

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	23-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE - total (lab preserved) BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	E444	23-Sep-2025	24-Sep-2025	189 days	11 days	✓	25-Sep-2025	189 days	11 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	22-Sep-2025	----	----		----	28 days	9 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-10 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	23-Sep-2025	----	----		----	28 days	9 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-11 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	23-Sep-2025	----	----		----	28 days	9 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-12 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	23-Sep-2025	----	----		----	28 days	9 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-2 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	22-Sep-2025	----	----		----	28 days	9 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-3 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	22-Sep-2025	----	----		----	28 days	9 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-4 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	22-Sep-2025	----	----		----	28 days	9 days	✓	



Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-5 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	22-Sep-2025	----	----		----	28 days	9 days	✔
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-6 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	22-Sep-2025	----	----		----	28 days	9 days	✔
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-7 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	23-Sep-2025	----	----		----	28 days	9 days	✔
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-8 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	23-Sep-2025	----	----		----	28 days	9 days	✔
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2537-A-9 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	EPP444	14-Sep-2025	23-Sep-2025	----	----		----	28 days	9 days	✔

Legend & Qualifier Definitions

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



Quality Control Parameter Frequency Compliance

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

Matrix: **Soil/Solid**

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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2236303	1	20	5.0	5.0	✔
Moisture Content by Gravimetry	E144	2236304	1	20	5.0	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2236302	1	20	5.0	5.0	✔
Metals by CRC ICPMS (TCLP)	E444	2237641	1	12	8.3	5.0	✔
Mercury in Soil/Solid by CVAAS	E510	2236301	1	12	8.3	5.0	✔
Mercury by CVAAS (TCLP)	E512	2237640	1	12	8.3	5.0	✔
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2236303	1	20	5.0	5.0	✔
Moisture Content by Gravimetry	E144	2236304	1	20	5.0	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2236302	2	20	10.0	10.0	✔
Mercury in Soil/Solid by CVAAS	E510	2236301	2	12	16.6	10.0	✔
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2236304	1	20	5.0	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	2236302	1	20	5.0	5.0	✔
Metals by CRC ICPMS (TCLP)	E444	2237641	1	12	8.3	5.0	✔
Mercury in Soil/Solid by CVAAS	E510	2236301	1	12	8.3	5.0	✔
Mercury by CVAAS (TCLP)	E512	2237640	1	12	8.3	5.0	✔
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444	2237641	1	12	8.3	5.0	✔
Mercury by CVAAS (TCLP)	E512	2237640	1	12	8.3	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (1:2 Soil:Water Extraction)	E108 ALS Environmental - Vancouver	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally $20 \pm 5^{\circ}\text{C}$), 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°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 HNO_3 and HCl . Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, 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 HNO_3 and HCl , followed by CVAAS analysis.
Mercury by CVAAS (TCLP)	E512 ALS Environmental - Vancouver	Soil/Solid	EPA 1311/245.1 (mod)	An extract produced by the Toxicity Characteristic Leachate Procedure (TCLP) as per EPA 1311 is analyzed by CVAAS.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Leach 1:2 Soil:Water for pH/EC	EP108 ALS Environmental - Vancouver	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at $<60^{\circ}\text{C}$) 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 ₃ and HCl. This method is intended to liberate metals that may be environmentally available.
TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)	EPP444 ALS Environmental - Vancouver	Soil/Solid	EPA 1311	Preparation of a Toxicity Characteristic Leaching Procedure (TCLP) solid sample involves particle size reduction, homogenization, then determination of appropriate extraction fluid. A measured portion of fresh subsample is placed in an extraction bottle with the appropriate extraction fluid then tumbled in a rotary extractor for 18+/- 2 hours at 23 +/- 2 C. The liquid leachate is filtered to separate from solids then bottled and prepared for analytical tests.

QUALITY CONTROL REPORT

Work Order	: VA25C4453	Page	: 1 of 12
Client	: Veolia Environmental Services Canada	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Veolia Weekly Bottom Ash-Suite	Date Samples Received	: 17-Sep-2025 11:40
PO	: 1000497676	Date Analysis Commenced	: 22-Sep-2025
C-O-C number	: ----	Issue Date	: 25-Sep-2025 09:15
Sampler	: ----		
Site	: Metro Van Ash Sampling Program		
Quote number	: VA25-VISI100-001		
No. of samples received	: 12		
No. of samples analysed	: 12		

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

This Quality Control Report contains the following information:

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
Robin Weeks	Supervisor - Organics Extractions	Vancouver Organics, Burnaby, British Columbia



General Comments

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

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

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



Laboratory Duplicate (DUP) Report

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

Sub-Matrix: Soil/Solid

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2236303)											
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	pH (1:2 soil:water)	----	E108	0.10	pH units	10.71	10.56	1.4%	5%	----
Physical Tests (QC Lot: 2236304)											
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Moisture	----	E144	0.25	%	25.7	26.3	2.36%	20%	----
Metals (QC Lot: 2236301)											
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	Diff <2x LOR	----
Metals (QC Lot: 2236302)											
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Aluminum	7429-90-5	E440	50	mg/kg	47900	52300	8.65%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	102	117	13.5%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	13.8	13.6	1.54%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	691	663	4.11%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.36	0.39	0.03	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	5.88	8.87	40.5%	30%	DUP-H
		Boron	7440-42-8	E440	5.0	mg/kg	176	181	2.84%	30%	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	5.72	6.93	19.0%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	127000	144000	12.5%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	186	153	19.7%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	103	281	92.5%	30%	DUP-H
		Copper	7440-50-8	E440	0.50	mg/kg	1940	1750	10.5%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	70500	65200	7.81%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	156	187	18.5%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	30.6	57.6	61.4%	30%	DUP-H
		Magnesium	7439-95-4	E440	20	mg/kg	14400	14200	0.961%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	930	890	4.33%	30%	----



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 2236302) - continued											
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Molybdenum	7439-98-7	E440	0.10	mg/kg	28.0	29.4	4.93%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	173	119	36.6%	30%	DUP-H
		Phosphorus	7723-14-0	E440	50	mg/kg	10600	12500	16.7%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	5710	5760	0.721%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.55	0.45	0.10	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	4.23	4.48	5.84%	40%	----
		Sodium	7440-23-5	E440	50	mg/kg	16100	17000	5.08%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	337	306	9.72%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	9500	10400	9.62%	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	203	98.1	69.8%	40%	DUP-H
		Titanium	7440-32-6	E440	1.0	mg/kg	298	290	2.50%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	6.99	6.14	13.0%	30%	----
		Uranium	7440-61-1	E440	0.050	mg/kg	1.54	1.57	1.58%	30%	----
Vanadium	7440-62-2	E440	0.20	mg/kg	31.3	33.9	8.06%	30%	----		
Zinc	7440-66-6	E440	2.0	mg/kg	3710	2980	21.9%	30%	----		
Zirconium	7440-67-7	E440	1.0	mg/kg	2.2	2.1	0.03	Diff <2x LOR	----		
TCLP Metals (QC Lot: 2237640)											
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2237641)											
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	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	0.58	0.54	0.03	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	719	1.95%	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	----



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
TCLP Metals (QC Lot: 2237641) - continued											
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Copper, TCLP	7440-50-8	E444	0.050	mg/L	0.523	0.505	3.45%	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	4.0	3.8	0.2	Diff <2x LOR	----
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	----
		Selenium, TCLP	7782-49-2	E444	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
		Silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Uranium, TCLP	7440-61-1	E444	0.20	mg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	0	Diff <2x LOR	----
		Zinc, TCLP	7440-66-6	E444	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	0	Diff <2x LOR	----		

Qualifiers

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



Method Blank (MB) Report

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

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2236304)						
Moisture	---	E144	0.25	%	<0.25	---
Metals (QCLot: 2236301)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
Metals (QCLot: 2236302)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	---
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	---
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	---
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	---
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	---
Bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	---
Boron	7440-42-8	E440	5	mg/kg	<5.0	---
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	---
Calcium	7440-70-2	E440	50	mg/kg	<50	---
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	---
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	---
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	---
Iron	7439-89-6	E440	50	mg/kg	<50	---
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	---
Lithium	7439-93-2	E440	2	mg/kg	<2.0	---
Magnesium	7439-95-4	E440	20	mg/kg	<20	---
Manganese	7439-96-5	E440	1	mg/kg	<1.0	---
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	---
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	---
Phosphorus	7723-14-0	E440	50	mg/kg	<50	---
Potassium	7440-09-7	E440	100	mg/kg	<100	---
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	---
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	---
Sodium	7440-23-5	E440	50	mg/kg	<50	---
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	---
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	---
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	---
Tin	7440-31-5	E440	2	mg/kg	<2.0	---



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2236302) - continued						
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	----
TCLP Metals (QCLot: 2237640)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals (QCLot: 2237641)						
Antimony, TCLP	7440-36-0	E444	0.1	mg/L	<0.10	----
Arsenic, TCLP	7440-38-2	E444	1	mg/L	<1.0	----
Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	----
Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	----
Boron, TCLP	7440-42-8	E444	0.5	mg/L	<0.50	----
Cadmium, TCLP	7440-43-9	E444	0.05	mg/L	<0.050	----
Calcium, TCLP	7440-70-2	E444	10	mg/L	<10	----
Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	----
Cobalt, TCLP	7440-48-4	E444	0.05	mg/L	<0.050	----
Copper, TCLP	7440-50-8	E444	0.05	mg/L	<0.050	----
Iron, TCLP	7439-89-6	E444	5	mg/L	<5.0	----
Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	----
Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	<2.5	----
Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	----
Selenium, TCLP	7782-49-2	E444	0.1	mg/L	<0.10	----
Silver, TCLP	7440-22-4	E444	0.05	mg/L	<0.050	----
Thallium, TCLP	7440-28-0	E444	1	mg/L	<1.0	----
Uranium, TCLP	7440-61-1	E444	0.2	mg/L	<0.20	----
Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	----
Zinc, TCLP	7440-66-6	E444	0.5	mg/L	<0.50	----
Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	----



Laboratory Control Sample (LCS) Report

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

Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2236303)									
pH (1:2 soil:water)	---	E108	---	pH units	6 pH units	100	95.0	105	---
Physical Tests (QCLot: 2236304)									
Moisture	---	E144	0.25	%	50 %	101	90.0	110	---
Metals (QCLot: 2236301)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	100	80.0	120	---
Metals (QCLot: 2236302)									
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	111	80.0	120	---
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	106	80.0	120	---
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	98.1	80.0	120	---
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	108	80.0	120	---
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	102	80.0	120	---
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	103	80.0	120	---
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	102	80.0	120	---
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	106	80.0	120	---
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	100	80.0	120	---
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	98.6	80.0	120	---
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	96.8	80.0	120	---
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	102	80.0	120	---
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	105	80.0	120	---
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	111	80.0	120	---
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	104	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	108	80.0	120	---
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	97.7	80.0	120	---
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	104	80.0	120	---
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	98.7	80.0	120	---
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	99.3	80.0	120	---
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	102	80.0	120	---
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	98.1	80.0	120	---
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	108	80.0	120	---
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	101	80.0	120	---



Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2236302) - continued									
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	98.5	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	98.6	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	98.0	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	103	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	110	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	101	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	94.4	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	106	80.0	120	----



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
TCLP Metals (QCLot: 2237640)										
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Mercury, TCLP	7439-97-6	E512	0.0025 mg/L	0.003 mg/L	83.6	50.0	140	----
TCLP Metals (QCLot: 2237641)										
VA25C4453-001	BA 2537-A-1 UNPROCESSED Sept 8 & Sept11, and Sept 13 & Sept14	Antimony, TCLP	7440-36-0	E444	5.78 mg/L	5 mg/L	116	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	5.9 mg/L	5 mg/L	118	50.0	140	----
		Barium, TCLP	7440-39-3	E444	13.6 mg/L	12.5 mg/L	109	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.265 mg/L	0.25 mg/L	106	50.0	140	----
		Boron, TCLP	7440-42-8	E444	10.7 mg/L	10 mg/L	107	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.270 mg/L	0.25 mg/L	108	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.40 mg/L	1.25 mg/L	112	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	0.277 mg/L	0.25 mg/L	111	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.60 mg/L	2.5 mg/L	104	50.0	140	----
		Iron, TCLP	7439-89-6	E444	263 mg/L	250 mg/L	105	50.0	140	----
		Lead, TCLP	7439-92-1	E444	10.2 mg/L	10 mg/L	102	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	295 mg/L	250 mg/L	118	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.69 mg/L	2.5 mg/L	108	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	5.20 mg/L	5 mg/L	104	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.094 mg/L	0.1 mg/L	94.1	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.9 mg/L	5 mg/L	97.5	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	5.28 mg/L	5 mg/L	106	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.85 mg/L	0.75 mg/L	113	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	11.0 mg/L	10 mg/L	110	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.9 mg/L	1 mg/L	93.7	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	
Metals (QCLot: 2236301)									
QC-2236301-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	100	70.0	130	----
Metals (QCLot: 2236302)									
QC-2236302-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	108	70.0	130	----
QC-2236302-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	98.8	70.0	130	----
QC-2236302-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	98.9	70.0	130	----
QC-2236302-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	99.0	70.0	130	----
QC-2236302-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	109	70.0	130	----
QC-2236302-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	102	70.0	130	----
QC-2236302-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	102	70.0	130	----
QC-2236302-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	106	70.0	130	----
QC-2236302-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	98.5	70.0	130	----
QC-2236302-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	99.2	70.0	130	----
QC-2236302-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	97.7	70.0	130	----
QC-2236302-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	102	70.0	130	----
QC-2236302-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	93.8	70.0	130	----
QC-2236302-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	111	70.0	130	----
QC-2236302-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	105	70.0	130	----
QC-2236302-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	97.6	70.0	130	----
QC-2236302-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	96.6	70.0	130	----
QC-2236302-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	97.7	70.0	130	----
QC-2236302-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	106	70.0	130	----
QC-2236302-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	95.8	70.0	130	----
QC-2236302-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	93.6	60.0	140	----
QC-2236302-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	95.8	70.0	130	----
QC-2236302-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	106	70.0	130	----
QC-2236302-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	99.0	70.0	130	----
QC-2236302-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	113	50.0	150	----
QC-2236302-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	96.7	70.0	130	----
QC-2236302-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	97.0	40.0	160	----
QC-2236302-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	101	70.0	130	----
QC-2236302-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	105	70.0	130	----
QC-2236302-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	92.0	70.0	130	----
QC-2236302-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	98.8	70.0	130	----

Page : 12 of 12
 Work Order : VA25C4453
 Client : Veolia Environmental Services Canada
 Project : Veolia Weekly Bottom Ash-Suite



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	
Metals (QCLot: 2236302) - continued									
QC-2236302-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	94.9	70.0	130	----
QC-2236302-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	91.3	70.0	130	----

Report To	Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company: Veolia Canada / Burnaby Waste To Energy Facility	"Veolia Email Distribution List" please	
Contact: Brian Graham / Darcie Grace		
Address: 5150 Riverbend Drive 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	Analysis Request
	brent.kirkpatrick@metrovancover.org	
	Sarah.Wellman@metrovancover.org	

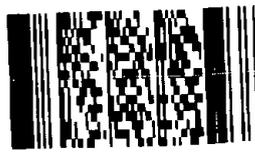
Invoice To Same as Report? Veolia Water Canada	Client / Project Information	Please indicate below Filtered, Preserved or both (F, P, F/P)																	
Hardcopy of Invoice with Report?	Job #: Veolia Weekly Bottom Ash - Suite																		
Company: Veolia Water Canada / Burnaby Waste To Energy	PO / AFE: PO#	MET-TCLP-VA (all metals, Pb)	MOISTURE	Chrome 6	MET-CSR+FULL-VA (all metals)														
Contact: Danny George, Purchaser/Darcie Grace, SHE Manager	LSD: (includes 2:1 pH)																		
Address: 5150 Riverbend Drive, Burnaby BC V3N 4V3	Quote #:																		
Phone: 604 521 1025 Fax:																			

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	MET-TCLP-VA (all metals, Pb)	MOISTURE	Chrome 6	MET-CSR+FULL-VA (all metals)								Number of Containers
	BA 2537-A-1 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-2 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-3 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-4 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-5 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-6 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-7 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-8 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-9 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-10 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-11 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1
	BA 2537-A-12 UNPROCESSED Sept 8 to Sept 11, and Sept 13 & 14			Soil	X	X		X								1

water Aquatic

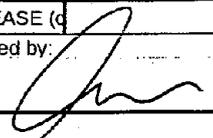
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Environmental Division
 Vancouver
 Work Order Reference
VA25C4453

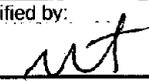


Telephone : +1 604 253 4188

SHIPMENT RECEPTION (lab use only)

Released by:  Date (dd-mmm-yy): 16-09-12 Time (hh-mm): 02:45 Received by:

SHIPMENT VERIFICATION (lab use only)

Temperature: 21 °C Verified by:  Date: 9/17 Time: 11:40 Observations: Yes / No ? If Yes add SIF