

Hit Summary Sheet SW-846

SDG No.: Q3662 **Order ID:** Q3662
Client: HDR, Inc. **Project ID:** PVWC Linear Construction

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : B3-0.0-1.0-20251117								
Q3662-02	B3-0.0-1.0-20251117	SOIL	Aluminum	6090		0.89	5.32	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Arsenic	4.33		0.20	1.06	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Barium	43.7		0.78	5.32	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Beryllium	0.39		0.027	0.32	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Cadmium	1.38		0.026	0.32	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Calcium	2250		11.8	106	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Chromium	12.7		0.050	0.53	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Cobalt	4.80		0.11	1.60	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Copper	32.2		0.23	1.06	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Iron	14400		4.24	5.32	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Lead	117		0.14	0.64	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Magnesium	1110		12.8	106	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Manganese	255		0.15	1.06	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Mercury	0.18		0.0090	0.017	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Nickel	13.8		0.14	2.13	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Potassium	425		29.5	106	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Sodium	124		18.9	106	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Vanadium	19.4		0.27	2.13	mg/Kg
Q3662-02	B3-0.0-1.0-20251117	SOIL	Zinc	113		0.25	2.13	mg/Kg
Client ID : B1-0.0-1.0-20251117								
Q3662-04	B1-0.0-1.0-20251117	SOIL	Aluminum	4040		0.87	5.16	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Arsenic	3.24		0.20	1.03	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Barium	34.7		0.75	5.16	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Beryllium	0.27	J	0.026	0.31	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Cadmium	0.81		0.025	0.31	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Calcium	1500		11.5	103	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Chromium	8.41		0.048	0.52	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Cobalt	4.64		0.10	1.55	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Copper	26.7		0.23	1.03	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Iron	8140		4.12	5.16	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Lead	158		0.13	0.62	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Magnesium	1010		12.4	103	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Manganese	155		0.14	1.03	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Mercury	0.12		0.0080	0.015	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Nickel	9.30		0.13	2.06	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Potassium	233		28.6	103	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Sodium	67.4	J	18.4	103	mg/Kg

Hit Summary Sheet
SW-846

SDG No.: Q3662

Order ID: Q3662

Client: HDR, Inc.

Project ID: PVWC Linear Construction

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q3662-04	B1-0.0-1.0-20251117	SOIL	Vanadium	15.5		0.26	2.06	mg/Kg
Q3662-04	B1-0.0-1.0-20251117	SOIL	Zinc	95.5		0.24	2.06	mg/Kg



SAMPLE DATA

Report of Analysis

Client: HDR, Inc.
Project: PVWC Linear Construction
Client Sample ID: B3-0.0-1.0-20251117
Lab Sample ID: Q3662-02
Level (low/med): low

Date Collected: 11/17/25
Date Received: 11/18/25
SDG No.: Q3662
Matrix: SOIL
% Solid: 84.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	6090		1	0.89	5.32	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.66	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-38-2	Arsenic	4.33		1	0.20	1.06	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-39-3	Barium	43.7		1	0.78	5.32	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-41-7	Beryllium	0.39	N	1	0.027	0.32	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-43-9	Cadmium	1.38		1	0.026	0.32	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-70-2	Calcium	2250		1	11.8	106	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-47-3	Chromium	12.7		1	0.050	0.53	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-48-4	Cobalt	4.80		1	0.11	1.60	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-50-8	Copper	32.2		1	0.23	1.06	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7439-89-6	Iron	14400		1	4.24	5.32	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7439-92-1	Lead	117	N*	1	0.14	0.64	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7439-95-4	Magnesium	1110		1	12.8	106	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7439-96-5	Manganese	255		1	0.15	1.06	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7439-97-6	Mercury	0.18		1	0.0090	0.017	mg/Kg	11/19/25 08:10	11/19/25 10:12	7471B	M7471B
7440-02-0	Nickel	13.8		1	0.14	2.13	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-09-7	Potassium	425		1	29.5	106	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7782-49-2	Selenium	0.28	U	1	0.28	1.06	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-22-4	Silver	0.13	UN	1	0.13	0.53	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-23-5	Sodium	124	N	1	18.9	106	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-28-0	Thallium	0.25	U	1	0.25	2.13	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-62-2	Vanadium	19.4	N	1	0.27	2.13	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050
7440-66-6	Zinc	113	N	1	0.25	2.13	mg/Kg	11/19/25 10:05	11/19/25 14:34	6010D	SW3050

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

Report of Analysis

Client: HDR, Inc.
Project: PVWC Linear Construction
Client Sample ID: B1-0.0-1.0-20251117
Lab Sample ID: Q3662-04
Level (low/med): low

Date Collected: 11/17/25
Date Received: 11/18/25
SDG No.: Q3662
Matrix: SOIL
% Solid: 88.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4040		1	0.87	5.16	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.58	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-38-2	Arsenic	3.24		1	0.20	1.03	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-39-3	Barium	34.7		1	0.75	5.16	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-41-7	Beryllium	0.27	JN	1	0.026	0.31	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-43-9	Cadmium	0.81		1	0.025	0.31	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-70-2	Calcium	1500		1	11.5	103	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-47-3	Chromium	8.41		1	0.048	0.52	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-48-4	Cobalt	4.64		1	0.10	1.55	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-50-8	Copper	26.7		1	0.23	1.03	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7439-89-6	Iron	8140		1	4.12	5.16	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7439-92-1	Lead	158	N*	1	0.13	0.62	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7439-95-4	Magnesium	1010		1	12.4	103	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7439-96-5	Manganese	155		1	0.14	1.03	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7439-97-6	Mercury	0.12		1	0.0080	0.015	mg/Kg	11/19/25 08:10	11/19/25 10:15	7471B	M7471B
7440-02-0	Nickel	9.30		1	0.13	2.06	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-09-7	Potassium	233		1	28.6	103	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7782-49-2	Selenium	0.27	U	1	0.27	1.03	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-22-4	Silver	0.12	UN	1	0.12	0.52	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-23-5	Sodium	67.4	JN	1	18.4	103	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-28-0	Thallium	0.24	U	1	0.24	2.06	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-62-2	Vanadium	15.5	N	1	0.26	2.06	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050
7440-66-6	Zinc	95.5	N	1	0.24	2.06	mg/Kg	11/19/25 10:05	11/19/25 14:38	6010D	SW3050

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB121	Mercury	0.076	+/-0.2	U	0.20	CV	11/19/2025	09:54	LB137962

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB12	Mercury	0.076	+/-0.2	U	0.20	CV	11/19/2025	09:59	LB137962
CCB13	Mercury	0.076	+/-0.2	U	0.20	CV	11/19/2025	10:26	LB137962
CCB14	Mercury	0.076	+/-0.2	U	0.20	CV	11/19/2025	10:44	LB137962

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: HDR, Inc. **SDG No.:** Q3662
Contract: HDRI08 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	11.3	+/-50	U	100	P	11/19/2025	12:53	LB137974
	Antimony	6.76	+/-25	U	50.0	P	11/19/2025	12:53	LB137974
	Arsenic	5.12	+/-10	U	20.0	P	11/19/2025	12:53	LB137974
	Barium	14.6	+/-50	U	100	P	11/19/2025	12:53	LB137974
	Beryllium	0.56	+/-3	U	6.00	P	11/19/2025	12:53	LB137974
	Cadmium	0.50	+/-3	U	6.00	P	11/19/2025	12:53	LB137974
	Calcium	234	+/-1000	U	2000	P	11/19/2025	12:53	LB137974
	Chromium	2.12	+/-5	U	10.0	P	11/19/2025	12:53	LB137974
	Cobalt	2.26	+/-15	U	30.0	P	11/19/2025	12:53	LB137974
	Copper	4.60	+/-10	U	20.0	P	11/19/2025	12:53	LB137974
	Iron	23.4	+/-50	U	100	P	11/19/2025	12:53	LB137974
	Lead	2.30	+/-6	U	12.0	P	11/19/2025	12:53	LB137974
	Magnesium	244	+/-1000	U	2000	P	11/19/2025	12:53	LB137974
	Manganese	5.94	+/-10	U	20.0	P	11/19/2025	12:53	LB137974
	Nickel	3.06	+/-20	U	40.0	P	11/19/2025	12:53	LB137974
	Potassium	918	+/-1000	U	2000	P	11/19/2025	12:53	LB137974
	Selenium	9.64	+/-10	U	20.0	P	11/19/2025	12:53	LB137974
	Silver	1.62	+/-5	U	10.0	P	11/19/2025	12:53	LB137974
	Sodium	868	+/-1000	U	2000	P	11/19/2025	12:53	LB137974
	Thallium	6.49	+/-20	J	40.0	P	11/19/2025	12:53	LB137974
	Vanadium	6.26	+/-20	U	40.0	P	11/19/2025	12:53	LB137974
	Zinc	16.7	+/-20	U	40.0	P	11/19/2025	12:53	LB137974

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: HDR, Inc. **SDG No.:** Q3662
Contract: HDRI08 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	11.3	+/-50	U	100	P	11/19/2025	13:23	LB137974
	Antimony	6.76	+/-25	U	50.0	P	11/19/2025	13:23	LB137974
	Arsenic	5.12	+/-10	U	20.0	P	11/19/2025	13:23	LB137974
	Barium	14.6	+/-50	U	100	P	11/19/2025	13:23	LB137974
	Beryllium	0.56	+/-3	U	6.00	P	11/19/2025	13:23	LB137974
	Cadmium	0.50	+/-3	U	6.00	P	11/19/2025	13:23	LB137974
	Calcium	234	+/-1000	U	2000	P	11/19/2025	13:23	LB137974
	Chromium	2.12	+/-5	U	10.0	P	11/19/2025	13:23	LB137974
	Cobalt	2.26	+/-15	U	30.0	P	11/19/2025	13:23	LB137974
	Copper	4.60	+/-10	U	20.0	P	11/19/2025	13:23	LB137974
	Iron	23.4	+/-50	U	100	P	11/19/2025	13:23	LB137974
	Lead	2.30	+/-6	U	12.0	P	11/19/2025	13:23	LB137974
	Magnesium	244	+/-1000	U	2000	P	11/19/2025	13:23	LB137974
	Manganese	5.94	+/-10	U	20.0	P	11/19/2025	13:23	LB137974
	Nickel	3.06	+/-20	U	40.0	P	11/19/2025	13:23	LB137974
	Potassium	918	+/-1000	U	2000	P	11/19/2025	13:23	LB137974
	Selenium	9.64	+/-10	U	20.0	P	11/19/2025	13:23	LB137974
	Silver	1.62	+/-5	U	10.0	P	11/19/2025	13:23	LB137974
	Sodium	868	+/-1000	U	2000	P	11/19/2025	13:23	LB137974
	Thallium	4.38	+/-20	U	40.0	P	11/19/2025	13:23	LB137974
	Vanadium	6.26	+/-20	U	40.0	P	11/19/2025	13:23	LB137974
	Zinc	16.7	+/-20	U	40.0	P	11/19/2025	13:23	LB137974
CCB02	Aluminum	11.3	+/-50	U	100	P	11/19/2025	15:00	LB137974
	Antimony	6.76	+/-25	U	50.0	P	11/19/2025	15:00	LB137974
	Arsenic	5.12	+/-10	U	20.0	P	11/19/2025	15:00	LB137974
	Barium	14.6	+/-50	U	100	P	11/19/2025	15:00	LB137974
	Beryllium	0.56	+/-3	U	6.00	P	11/19/2025	15:00	LB137974
	Cadmium	0.50	+/-3	U	6.00	P	11/19/2025	15:00	LB137974
	Calcium	234	+/-1000	U	2000	P	11/19/2025	15:00	LB137974
	Chromium	2.12	+/-5	U	10.0	P	11/19/2025	15:00	LB137974
	Cobalt	2.26	+/-15	U	30.0	P	11/19/2025	15:00	LB137974
	Copper	4.60	+/-10	U	20.0	P	11/19/2025	15:00	LB137974
	Iron	23.4	+/-50	U	100	P	11/19/2025	15:00	LB137974
	Lead	2.30	+/-6	U	12.0	P	11/19/2025	15:00	LB137974
	Magnesium	244	+/-1000	U	2000	P	11/19/2025	15:00	LB137974
	Manganese	5.94	+/-10	U	20.0	P	11/19/2025	15:00	LB137974
	Nickel	3.06	+/-20	U	40.0	P	11/19/2025	15:00	LB137974
	Potassium	918	+/-1000	U	2000	P	11/19/2025	15:00	LB137974
	Selenium	9.64	+/-10	U	20.0	P	11/19/2025	15:00	LB137974

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: HDR, Inc. **SDG No.:** Q3662
Contract: HDRI08 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	1.62	+/-5	U	10.0	P	11/19/2025	15:00	LB137974
	Sodium	868	+/-1000	U	2000	P	11/19/2025	15:00	LB137974
	Thallium	4.38	+/-20	U	40.0	P	11/19/2025	15:00	LB137974
	Vanadium	6.26	+/-20	U	40.0	P	11/19/2025	15:00	LB137974
	Zinc	16.7	+/-20	U	40.0	P	11/19/2025	15:00	LB137974
CCB03	Aluminum	11.3	+/-50	U	100	P	11/19/2025	16:18	LB137974
	Antimony	6.76	+/-25	U	50.0	P	11/19/2025	16:18	LB137974
	Arsenic	5.12	+/-10	U	20.0	P	11/19/2025	16:18	LB137974
	Barium	14.6	+/-50	U	100	P	11/19/2025	16:18	LB137974
	Beryllium	0.56	+/-3	U	6.00	P	11/19/2025	16:18	LB137974
	Cadmium	0.50	+/-3	U	6.00	P	11/19/2025	16:18	LB137974
	Calcium	234	+/-1000	U	2000	P	11/19/2025	16:18	LB137974
	Chromium	2.12	+/-5	U	10.0	P	11/19/2025	16:18	LB137974
	Cobalt	2.26	+/-15	U	30.0	P	11/19/2025	16:18	LB137974
	Copper	4.60	+/-10	U	20.0	P	11/19/2025	16:18	LB137974
	Iron	23.4	+/-50	U	100	P	11/19/2025	16:18	LB137974
	Lead	2.30	+/-6	U	12.0	P	11/19/2025	16:18	LB137974
	Magnesium	244	+/-1000	U	2000	P	11/19/2025	16:18	LB137974
	Manganese	5.94	+/-10	U	20.0	P	11/19/2025	16:18	LB137974
	Nickel	3.06	+/-20	U	40.0	P	11/19/2025	16:18	LB137974
	Potassium	918	+/-1000	U	2000	P	11/19/2025	16:18	LB137974
	Selenium	9.64	+/-10	U	20.0	P	11/19/2025	16:18	LB137974
	Silver	1.62	+/-5	U	10.0	P	11/19/2025	16:18	LB137974
	Sodium	868	+/-1000	U	2000	P	11/19/2025	16:18	LB137974
	Thallium	4.38	+/-20	U	40.0	P	11/19/2025	16:18	LB137974
	Vanadium	6.26	+/-20	U	40.0	P	11/19/2025	16:18	LB137974
	Zinc	16.7	+/-20	U	40.0	P	11/19/2025	16:18	LB137974
CCB04	Aluminum	11.3	+/-50	U	100	P	11/19/2025	17:09	LB137974
	Antimony	6.76	+/-25	U	50.0	P	11/19/2025	17:09	LB137974
	Arsenic	5.12	+/-10	U	20.0	P	11/19/2025	17:09	LB137974
	Barium	14.6	+/-50	U	100	P	11/19/2025	17:09	LB137974
	Beryllium	0.56	+/-3	U	6.00	P	11/19/2025	17:09	LB137974
	Cadmium	0.50	+/-3	U	6.00	P	11/19/2025	17:09	LB137974
	Calcium	234	+/-1000	U	2000	P	11/19/2025	17:09	LB137974
	Chromium	2.12	+/-5	U	10.0	P	11/19/2025	17:09	LB137974
	Cobalt	2.26	+/-15	U	30.0	P	11/19/2025	17:09	LB137974
	Copper	4.60	+/-10	U	20.0	P	11/19/2025	17:09	LB137974
	Iron	23.4	+/-50	U	100	P	11/19/2025	17:09	LB137974
	Lead	2.30	+/-6	U	12.0	P	11/19/2025	17:09	LB137974

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Lab Code: ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	244	+/-1000	U	2000	P	11/19/2025	17:09	LB137974
	Manganese	5.94	+/-10	U	20.0	P	11/19/2025	17:09	LB137974
	Nickel	3.06	+/-20	U	40.0	P	11/19/2025	17:09	LB137974
	Potassium	918	+/-1000	U	2000	P	11/19/2025	17:09	LB137974
	Selenium	9.64	+/-10	U	20.0	P	11/19/2025	17:09	LB137974
	Silver	1.62	+/-5	U	10.0	P	11/19/2025	17:09	LB137974
	Sodium	868	+/-1000	U	2000	P	11/19/2025	17:09	LB137974
	Thallium	4.38	+/-20	U	40.0	P	11/19/2025	17:09	LB137974
	Vanadium	6.26	+/-20	U	40.0	P	11/19/2025	17:09	LB137974
	Zinc	16.7	+/-20	U	40.0	P	11/19/2025	17:09	LB137974
CCB05	Aluminum	11.3	+/-50	U	100	P	11/19/2025	18:11	LB137974
	Antimony	6.76	+/-25	U	50.0	P	11/19/2025	18:11	LB137974
	Arsenic	5.12	+/-10	U	20.0	P	11/19/2025	18:11	LB137974
	Barium	14.6	+/-50	U	100	P	11/19/2025	18:11	LB137974
	Beryllium	0.56	+/-3	U	6.00	P	11/19/2025	18:11	LB137974
	Cadmium	0.50	+/-3	U	6.00	P	11/19/2025	18:11	LB137974
	Calcium	234	+/-1000	U	2000	P	11/19/2025	18:11	LB137974
	Chromium	2.12	+/-5	U	10.0	P	11/19/2025	18:11	LB137974
	Cobalt	2.26	+/-15	U	30.0	P	11/19/2025	18:11	LB137974
	Copper	4.60	+/-10	U	20.0	P	11/19/2025	18:11	LB137974
	Iron	23.4	+/-50	U	100	P	11/19/2025	18:11	LB137974
	Lead	2.30	+/-6	U	12.0	P	11/19/2025	18:11	LB137974
	Magnesium	244	+/-1000	U	2000	P	11/19/2025	18:11	LB137974
	Manganese	5.94	+/-10	U	20.0	P	11/19/2025	18:11	LB137974
	Nickel	3.06	+/-20	U	40.0	P	11/19/2025	18:11	LB137974
	Potassium	918	+/-1000	U	2000	P	11/19/2025	18:11	LB137974
	Selenium	9.64	+/-10	U	20.0	P	11/19/2025	18:11	LB137974
	Silver	1.62	+/-5	U	10.0	P	11/19/2025	18:11	LB137974
	Sodium	868	+/-1000	U	2000	P	11/19/2025	18:11	LB137974
	Thallium	4.38	+/-20	U	40.0	P	11/19/2025	18:11	LB137974
CCB06	Vanadium	6.26	+/-20	U	40.0	P	11/19/2025	18:11	LB137974
	Zinc	16.7	+/-20	U	40.0	P	11/19/2025	18:11	LB137974
	Aluminum	15.2	+/-50	J	100	P	11/19/2025	18:42	LB137974
	Antimony	6.76	+/-25	U	50.0	P	11/19/2025	18:42	LB137974
	Arsenic	5.12	+/-10	U	20.0	P	11/19/2025	18:42	LB137974
	Barium	14.6	+/-50	U	100	P	11/19/2025	18:42	LB137974
	Beryllium	0.56	+/-3	U	6.00	P	11/19/2025	18:42	LB137974
	Cadmium	0.50	+/-3	U	6.00	P	11/19/2025	18:42	LB137974
	Calcium	234	+/-1000	U	2000	P	11/19/2025	18:42	LB137974

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	2.12	+/-5	U	10.0	P	11/19/2025	18:42	LB137974
	Cobalt	2.26	+/-15	U	30.0	P	11/19/2025	18:42	LB137974
	Copper	4.60	+/-10	U	20.0	P	11/19/2025	18:42	LB137974
	Iron	23.4	+/-50	U	100	P	11/19/2025	18:42	LB137974
	Lead	2.30	+/-6	U	12.0	P	11/19/2025	18:42	LB137974
	Magnesium	244	+/-1000	U	2000	P	11/19/2025	18:42	LB137974
	Manganese	5.94	+/-10	U	20.0	P	11/19/2025	18:42	LB137974
	Nickel	3.06	+/-20	U	40.0	P	11/19/2025	18:42	LB137974
	Potassium	918	+/-1000	U	2000	P	11/19/2025	18:42	LB137974
	Selenium	9.64	+/-10	U	20.0	P	11/19/2025	18:42	LB137974
	Silver	1.62	+/-5	U	10.0	P	11/19/2025	18:42	LB137974
	Sodium	868	+/-1000	U	2000	P	11/19/2025	18:42	LB137974
	Thallium	4.38	+/-20	U	40.0	P	11/19/2025	18:42	LB137974
	Vanadium	6.26	+/-20	U	40.0	P	11/19/2025	18:42	LB137974
	Zinc	16.7	+/-20	U	40.0	P	11/19/2025	18:42	LB137974

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: HDR, Inc.

SDG No.: Q3662

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB170614BL		SOLID		Batch Number:	PB170614		Prep Date:	11/19/2025	
	Mercury	0.0080	<0.014	U	0.014	CV	11/19/2025	10:08	LB137962

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: HDR, Inc.

SDG No.: Q3662

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB170617BL	SOLID			Batch Number:	PB170617		Prep Date:	11/19/2025	
	Aluminum	0.84	<2.5	U	5.00	P	11/19/2025	13:27	LB137974
	Antimony	0.22	<1.25	U	2.50	P	11/19/2025	13:27	LB137974
	Arsenic	0.19	<0.5	U	1.00	P	11/19/2025	13:27	LB137974
	Barium	0.73	<2.5	U	5.00	P	11/19/2025	13:27	LB137974
	Beryllium	0.025	<0.15	U	0.30	P	11/19/2025	13:27	LB137974
	Cadmium	0.024	<0.15	U	0.30	P	11/19/2025	13:27	LB137974
	Calcium	11.1	<50	U	100	P	11/19/2025	13:27	LB137974
	Chromium	0.047	<0.25	U	0.50	P	11/19/2025	13:27	LB137974
	Cobalt	0.10	<0.75	U	1.50	P	11/19/2025	13:27	LB137974
	Copper	0.22	<0.5	U	1.00	P	11/19/2025	13:27	LB137974
	Iron	3.99	<2.5	U	5.00	P	11/19/2025	13:27	LB137974
	Lead	0.13	<0.3	U	0.60	P	11/19/2025	13:27	LB137974
	Magnesium	12.0	<50	U	100	P	11/19/2025	13:27	LB137974
	Manganese	0.14	<0.5	U	1.00	P	11/19/2025	13:27	LB137974
	Nickel	0.13	<1	U	2.00	P	11/19/2025	13:27	LB137974
	Potassium	27.7	<50	U	100	P	11/19/2025	13:27	LB137974
	Selenium	0.26	<0.5	U	1.00	P	11/19/2025	13:27	LB137974
	Silver	0.12	<0.25	U	0.50	P	11/19/2025	13:27	LB137974
	Sodium	17.8	<50	U	100	P	11/19/2025	13:27	LB137974
	Thallium	0.23	<1	U	2.00	P	11/19/2025	13:27	LB137974
	Vanadium	0.25	<1	U	2.00	P	11/19/2025	13:27	LB137974
	Zinc	0.23	<1	U	2.00	P	11/19/2025	13:27	LB137974



METAL CALIBRATION DATA

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV121	Mercury	3.97	4.0	99	90 - 110	CV	11/19/2025	09:52	LB137962

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12	Mercury	4.94	5.0	99	90 - 110	CV	11/19/2025	09:57	LB137962
CCV13	Mercury	4.87	5.0	97	90 - 110	CV	11/19/2025	10:24	LB137962
CCV14	Mercury	4.81	5.0	96	90 - 110	CV	11/19/2025	10:42	LB137962

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	7910	8000	99	90 - 110	P	11/19/2025	12:45	LB137974
	Antimony	3960	4000	99	90 - 110	P	11/19/2025	12:45	LB137974
	Arsenic	3860	4000	96	90 - 110	P	11/19/2025	12:45	LB137974
	Barium	8100	8000	101	90 - 110	P	11/19/2025	12:45	LB137974
	Beryllium	199	200	99	90 - 110	P	11/19/2025	12:45	LB137974
	Cadmium	1920	2000	96	90 - 110	P	11/19/2025	12:45	LB137974
	Calcium	19800	20000	99	90 - 110	P	11/19/2025	12:45	LB137974
	Chromium	787	800	98	90 - 110	P	11/19/2025	12:45	LB137974
	Cobalt	1940	2000	97	90 - 110	P	11/19/2025	12:45	LB137974
	Copper	993	1000	99	90 - 110	P	11/19/2025	12:45	LB137974
	Iron	3940	4000	98	90 - 110	P	11/19/2025	12:45	LB137974
	Lead	3820	4000	96	90 - 110	P	11/19/2025	12:45	LB137974
	Magnesium	19600	20000	98	90 - 110	P	11/19/2025	12:45	LB137974
	Manganese	2000	2000	100	90 - 110	P	11/19/2025	12:45	LB137974
	Nickel	1950	2000	97	90 - 110	P	11/19/2025	12:45	LB137974
	Potassium	19500	20000	98	90 - 110	P	11/19/2025	12:45	LB137974
	Selenium	3860	4000	96	90 - 110	P	11/19/2025	12:45	LB137974
	Silver	1030	1000	103	90 - 110	P	11/19/2025	12:45	LB137974
	Sodium	19400	20000	97	90 - 110	P	11/19/2025	12:45	LB137974
	Thallium	3880	4000	97	90 - 110	P	11/19/2025	12:45	LB137974
	Vanadium	1980	2000	99	90 - 110	P	11/19/2025	12:45	LB137974
	Zinc	1970	2000	98	90 - 110	P	11/19/2025	12:45	LB137974

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	116	100	116	80 - 120	P	11/19/2025	12:49	LB137974
	Antimony	49.5	50.0	99	80 - 120	P	11/19/2025	12:49	LB137974
	Arsenic	22.2	20.0	111	80 - 120	P	11/19/2025	12:49	LB137974
	Barium	103	100	103	80 - 120	P	11/19/2025	12:49	LB137974
	Beryllium	6.42	6.0	107	80 - 120	P	11/19/2025	12:49	LB137974
	Cadmium	5.94	6.0	99	80 - 120	P	11/19/2025	12:49	LB137974
	Calcium	2110	2000	106	80 - 120	P	11/19/2025	12:49	LB137974
	Chromium	10.2	10.0	102	80 - 120	P	11/19/2025	12:49	LB137974
	Cobalt	29.6	30.0	98	80 - 120	P	11/19/2025	12:49	LB137974
	Copper	21.1	20.0	106	80 - 120	P	11/19/2025	12:49	LB137974
	Iron	119	100	119	80 - 120	P	11/19/2025	12:49	LB137974
	Lead	11.4	12.0	95	80 - 120	P	11/19/2025	12:49	LB137974
	Magnesium	2150	2000	108	80 - 120	P	11/19/2025	12:49	LB137974
	Manganese	21.7	20.0	109	80 - 120	P	11/19/2025	12:49	LB137974
	Nickel	40.2	40.0	100	80 - 120	P	11/19/2025	12:49	LB137974
	Potassium	1940	2000	97	80 - 120	P	11/19/2025	12:49	LB137974
	Selenium	19.8	20.0	99	80 - 120	P	11/19/2025	12:49	LB137974
	Silver	11.0	10.0	110	80 - 120	P	11/19/2025	12:49	LB137974
	Sodium	1690	2000	85	80 - 120	P	11/19/2025	12:49	LB137974
	Thallium	46.7	40.0	117	80 - 120	P	11/19/2025	12:49	LB137974
	Vanadium	40.3	40.0	101	80 - 120	P	11/19/2025	12:49	LB137974
	Zinc	44.2	40.0	110	80 - 120	P	11/19/2025	12:49	LB137974

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9580	10000	96	90 - 110	P	11/19/2025	13:19	LB137974
	Antimony	4690	5000	94	90 - 110	P	11/19/2025	13:19	LB137974
	Arsenic	4700	5000	94	90 - 110	P	11/19/2025	13:19	LB137974
	Barium	9560	10000	96	90 - 110	P	11/19/2025	13:19	LB137974
	Beryllium	240	250	96	90 - 110	P	11/19/2025	13:19	LB137974
	Cadmium	2330	2500	93	90 - 110	P	11/19/2025	13:19	LB137974
	Calcium	23800	25000	95	90 - 110	P	11/19/2025	13:19	LB137974
	Chromium	965	1000	96	90 - 110	P	11/19/2025	13:19	LB137974
	Cobalt	2330	2500	93	90 - 110	P	11/19/2025	13:19	LB137974
	Copper	1180	1250	94	90 - 110	P	11/19/2025	13:19	LB137974
	Iron	4790	5000	96	90 - 110	P	11/19/2025	13:19	LB137974
	Lead	4680	5000	94	90 - 110	P	11/19/2025	13:19	LB137974
	Magnesium	23700	25000	95	90 - 110	P	11/19/2025	13:19	LB137974
	Manganese	2380	2500	95	90 - 110	P	11/19/2025	13:19	LB137974
	Nickel	2340	2500	93	90 - 110	P	11/19/2025	13:19	LB137974
	Potassium	23700	25000	95	90 - 110	P	11/19/2025	13:19	LB137974
	Selenium	4700	5000	94	90 - 110	P	11/19/2025	13:19	LB137974
	Silver	1200	1250	96	90 - 110	P	11/19/2025	13:19	LB137974
	Sodium	23200	25000	93	90 - 110	P	11/19/2025	13:19	LB137974
	Thallium	4870	5000	97	90 - 110	P	11/19/2025	13:19	LB137974
	Vanadium	2390	2500	96	90 - 110	P	11/19/2025	13:19	LB137974
	Zinc	2420	2500	97	90 - 110	P	11/19/2025	13:19	LB137974
CCV02	Aluminum	10300	10000	102	90 - 110	P	11/19/2025	14:56	LB137974
	Antimony	5010	5000	100	90 - 110	P	11/19/2025	14:56	LB137974
	Arsenic	5020	5000	100	90 - 110	P	11/19/2025	14:56	LB137974
	Barium	10200	10000	102	90 - 110	P	11/19/2025	14:56	LB137974
	Beryllium	250	250	100	90 - 110	P	11/19/2025	14:56	LB137974
	Cadmium	2500	2500	100	90 - 110	P	11/19/2025	14:56	LB137974
	Calcium	25400	25000	102	90 - 110	P	11/19/2025	14:56	LB137974
	Chromium	1030	1000	103	90 - 110	P	11/19/2025	14:56	LB137974
	Cobalt	2500	2500	100	90 - 110	P	11/19/2025	14:56	LB137974
	Copper	1260	1250	101	90 - 110	P	11/19/2025	14:56	LB137974
	Iron	5120	5000	102	90 - 110	P	11/19/2025	14:56	LB137974
	Lead	5000	5000	100	90 - 110	P	11/19/2025	14:56	LB137974

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: HDR, Inc.
Contract: HDRI08
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

SDG No.: Q3662
Lab Code: ACE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	25300	25000	101	90 - 110	P	11/19/2025	14:56	LB137974
	Manganese	2520	2500	101	90 - 110	P	11/19/2025	14:56	LB137974
	Nickel	2500	2500	100	90 - 110	P	11/19/2025	14:56	LB137974
	Potassium	25100	25000	100	90 - 110	P	11/19/2025	14:56	LB137974
	Selenium	5000	5000	100	90 - 110	P	11/19/2025	14:56	LB137974
	Silver	1260	1250	101	90 - 110	P	11/19/2025	14:56	LB137974
	Sodium	24400	25000	97	90 - 110	P	11/19/2025	14:56	LB137974
	Thallium	4870	5000	98	90 - 110	P	11/19/2025	14:56	LB137974
	Vanadium	2560	2500	102	90 - 110	P	11/19/2025	14:56	LB137974
	Zinc	2530	2500	101	90 - 110	P	11/19/2025	14:56	LB137974
CCV03	Aluminum	10000	10000	100	90 - 110	P	11/19/2025	16:14	LB137974
	Antimony	5130	5000	103	90 - 110	P	11/19/2025	16:14	LB137974
	Arsenic	5120	5000	102	90 - 110	P	11/19/2025	16:14	LB137974
	Barium	9980	10000	100	90 - 110	P	11/19/2025	16:14	LB137974
	Beryllium	241	250	96	90 - 110	P	11/19/2025	16:14	LB137974
	Cadmium	2500	2500	100	90 - 110	P	11/19/2025	16:14	LB137974
	Calcium	24700	25000	99	90 - 110	P	11/19/2025	16:14	LB137974
	Chromium	1020	1000	102	90 - 110	P	11/19/2025	16:14	LB137974
	Cobalt	2500	2500	100	90 - 110	P	11/19/2025	16:14	LB137974
	Copper	1290	1250	103	90 - 110	P	11/19/2025	16:14	LB137974
	Iron	5200	5000	104	90 - 110	P	11/19/2025	16:14	LB137974
	Lead	5040	5000	101	90 - 110	P	11/19/2025	16:14	LB137974
	Magnesium	24500	25000	98	90 - 110	P	11/19/2025	16:14	LB137974
	Manganese	2450	2500	98	90 - 110	P	11/19/2025	16:14	LB137974
	Nickel	2500	2500	100	90 - 110	P	11/19/2025	16:14	LB137974
	Potassium	25600	25000	103	90 - 110	P	11/19/2025	16:14	LB137974
	Selenium	5140	5000	103	90 - 110	P	11/19/2025	16:14	LB137974
	Silver	1280	1250	102	90 - 110	P	11/19/2025	16:14	LB137974
	Sodium	24800	25000	99	90 - 110	P	11/19/2025	16:14	LB137974
	Thallium	4830	5000	97	90 - 110	P	11/19/2025	16:14	LB137974
CCV04	Vanadium	2520	2500	101	90 - 110	P	11/19/2025	16:14	LB137974
	Zinc	2510	2500	100	90 - 110	P	11/19/2025	16:14	LB137974
	Aluminum	9770	10000	98	90 - 110	P	11/19/2025	17:05	LB137974
	Antimony	4990	5000	100	90 - 110	P	11/19/2025	17:05	LB137974

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client:	<u>HDR, Inc.</u>	SDG No.:	<u>Q3662</u>
Contract:	<u>HDRI08</u>	Lab Code:	<u>ACE</u>
Initial Calibration Source:	<u>EPA</u>		
Continuing Calibration Source:	<u>Inorganic Ventures</u>		

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	5040	5000	101	90 - 110	P	11/19/2025	17:05	LB137974
	Barium	9560	10000	96	90 - 110	P	11/19/2025	17:05	LB137974
	Beryllium	241	250	97	90 - 110	P	11/19/2025	17:05	LB137974
	Cadmium	2450	2500	98	90 - 110	P	11/19/2025	17:05	LB137974
	Calcium	24200	25000	97	90 - 110	P	11/19/2025	17:05	LB137974
	Chromium	1000	1000	100	90 - 110	P	11/19/2025	17:05	LB137974
	Cobalt	2450	2500	98	90 - 110	P	11/19/2025	17:05	LB137974
	Copper	1250	1250	100	90 - 110	P	11/19/2025	17:05	LB137974
	Iron	5010	5000	100	90 - 110	P	11/19/2025	17:05	LB137974
	Lead	4960	5000	99	90 - 110	P	11/19/2025	17:05	LB137974
	Magnesium	24000	25000	96	90 - 110	P	11/19/2025	17:05	LB137974
	Manganese	2400	2500	96	90 - 110	P	11/19/2025	17:05	LB137974
	Nickel	2460	2500	98	90 - 110	P	11/19/2025	17:05	LB137974
	Potassium	24900	25000	100	90 - 110	P	11/19/2025	17:05	LB137974
	Selenium	5020	5000	100	90 - 110	P	11/19/2025	17:05	LB137974
	Silver	1250	1250	100	90 - 110	P	11/19/2025	17:05	LB137974
	Sodium	25000	25000	100	90 - 110	P	11/19/2025	17:05	LB137974
	Thallium	4600	5000	92	90 - 110	P	11/19/2025	17:05	LB137974
	Vanadium	2450	2500	98	90 - 110	P	11/19/2025	17:05	LB137974
	Zinc	2460	2500	98	90 - 110	P	11/19/2025	17:05	LB137974
CCV05	Aluminum	10300	10000	103	90 - 110	P	11/19/2025	18:07	LB137974
	Antimony	5160	5000	103	90 - 110	P	11/19/2025	18:07	LB137974
	Arsenic	5200	5000	104	90 - 110	P	11/19/2025	18:07	LB137974
	Barium	10000	10000	100	90 - 110	P	11/19/2025	18:07	LB137974
	Beryllium	251	250	100	90 - 110	P	11/19/2025	18:07	LB137974
	Cadmium	2560	2500	102	90 - 110	P	11/19/2025	18:07	LB137974
	Calcium	25400	25000	102	90 - 110	P	11/19/2025	18:07	LB137974
	Chromium	1070	1000	107	90 - 110	P	11/19/2025	18:07	LB137974
	Cobalt	2550	2500	102	90 - 110	P	11/19/2025	18:07	LB137974
	Copper	1300	1250	104	90 - 110	P	11/19/2025	18:07	LB137974
	Iron	5410	5000	108	90 - 110	P	11/19/2025	18:07	LB137974
	Lead	5150	5000	103	90 - 110	P	11/19/2025	18:07	LB137974
	Magnesium	25300	25000	101	90 - 110	P	11/19/2025	18:07	LB137974
	Manganese	2520	2500	101	90 - 110	P	11/19/2025	18:07	LB137974

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2550	2500	102	90 - 110	P	11/19/2025	18:07	LB137974
	Potassium	26700	25000	107	90 - 110	P	11/19/2025	18:07	LB137974
	Selenium	5170	5000	104	90 - 110	P	11/19/2025	18:07	LB137974
	Silver	1340	1250	107	90 - 110	P	11/19/2025	18:07	LB137974
	Sodium	26300	25000	105	90 - 110	P	11/19/2025	18:07	LB137974
	Thallium	4670	5000	93	90 - 110	P	11/19/2025	18:07	LB137974
	Vanadium	2570	2500	103	90 - 110	P	11/19/2025	18:07	LB137974
	Zinc	2620	2500	105	90 - 110	P	11/19/2025	18:07	LB137974
CCV06	Aluminum	9510	10000	95	90 - 110	P	11/19/2025	18:35	LB137974
	Antimony	4950	5000	99	90 - 110	P	11/19/2025	18:35	LB137974
	Arsenic	4980	5000	100	90 - 110	P	11/19/2025	18:35	LB137974
	Barium	9380	10000	94	90 - 110	P	11/19/2025	18:35	LB137974
	Beryllium	229	250	92	90 - 110	P	11/19/2025	18:35	LB137974
	Cadmium	2420	2500	97	90 - 110	P	11/19/2025	18:35	LB137974
	Calcium	23500	25000	94	90 - 110	P	11/19/2025	18:35	LB137974
	Chromium	964	1000	96	90 - 110	P	11/19/2025	18:35	LB137974
	Cobalt	2420	2500	97	90 - 110	P	11/19/2025	18:35	LB137974
	Copper	1240	1250	99	90 - 110	P	11/19/2025	18:35	LB137974
	Iron	4940	5000	99	90 - 110	P	11/19/2025	18:35	LB137974
	Lead	4900	5000	98	90 - 110	P	11/19/2025	18:35	LB137974
	Magnesium	23300	25000	93	90 - 110	P	11/19/2025	18:35	LB137974
	Manganese	2330	2500	93	90 - 110	P	11/19/2025	18:35	LB137974
	Nickel	2420	2500	97	90 - 110	P	11/19/2025	18:35	LB137974
	Potassium	24300	25000	97	90 - 110	P	11/19/2025	18:35	LB137974
	Selenium	4970	5000	99	90 - 110	P	11/19/2025	18:35	LB137974
	Silver	1210	1250	97	90 - 110	P	11/19/2025	18:35	LB137974
	Sodium	24100	25000	96	90 - 110	P	11/19/2025	18:35	LB137974
	Thallium	5100	5000	102	90 - 110	P	11/19/2025	18:35	LB137974
	Vanadium	2390	2500	95	90 - 110	P	11/19/2025	18:35	LB137974
	Zinc	2390	2500	96	90 - 110	P	11/19/2025	18:35	LB137974



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

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CRDL STANDARD FOR AA & ICP

Client: HDR, Inc. **SDG No.:** Q3662
Contract: HDRI08 **Lab Code:** ACE
Initial Calibration Source: _____
Continuing Calibration Source: _____

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.21	0.2	103	70 - 130	CV	11/19/2025	10:01	LB137962
CRI01	Aluminum	110	100	110	65 - 135	P	11/19/2025	12:57	LB137974
	Antimony	50.0	50.0	100	65 - 135	P	11/19/2025	12:57	LB137974
	Arsenic	23.9	20.0	120	65 - 135	P	11/19/2025	12:57	LB137974
	Barium	99.7	100	100	65 - 135	P	11/19/2025	12:57	LB137974
	Beryllium	6.43	6.0	107	65 - 135	P	11/19/2025	12:57	LB137974
	Cadmium	5.89	6.0	98	65 - 135	P	11/19/2025	12:57	LB137974
	Calcium	2090	2000	104	65 - 135	P	11/19/2025	12:57	LB137974
	Chromium	9.95	10.0	100	65 - 135	P	11/19/2025	12:57	LB137974
	Cobalt	29.4	30.0	98	65 - 135	P	11/19/2025	12:57	LB137974
	Copper	21.2	20.0	106	65 - 135	P	11/19/2025	12:57	LB137974
	Iron	103	100	103	65 - 135	P	11/19/2025	12:57	LB137974
	Lead	10.1	12.0	84	65 - 135	P	11/19/2025	12:57	LB137974
	Magnesium	2170	2000	108	65 - 135	P	11/19/2025	12:57	LB137974
	Manganese	21.8	20.0	109	65 - 135	P	11/19/2025	12:57	LB137974
	Nickel	40.0	40.0	100	65 - 135	P	11/19/2025	12:57	LB137974
	Potassium	1780	2000	89	65 - 135	P	11/19/2025	12:57	LB137974
	Selenium	18.5	20.0	92	65 - 135	P	11/19/2025	12:57	LB137974
	Silver	10.7	10.0	107	65 - 135	P	11/19/2025	12:57	LB137974
	Sodium	1470	2000	74	65 - 135	P	11/19/2025	12:57	LB137974
	Thallium	42.1	40.0	105	65 - 135	P	11/19/2025	12:57	LB137974
	Vanadium	42.5	40.0	106	65 - 135	P	11/19/2025	12:57	LB137974
	Zinc	42.5	40.0	106	65 - 135	P	11/19/2025	12:57	LB137974

Metals
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INTERFERENCE CHECK SAMPLE

Client: <u>HDR, Inc.</u>	SDG No.: <u>Q3662</u>
Contract: <u>HDRI08</u>	Lab Code: <u>ACE</u>
ICS Source: <u>EPA</u>	Instrument ID: <u>P4</u>

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	251000	255000	98	216000	294000	11/19/2025	13:02	LB137974
	Antimony	-1.23			-50	50	11/19/2025	13:02	LB137974
	Arsenic	8.44			-20	20	11/19/2025	13:02	LB137974
	Barium	3.47	6.0	58	-94	106	11/19/2025	13:02	LB137974
	Beryllium	0.83			-6	6	11/19/2025	13:02	LB137974
	Cadmium	6.34	1.0	634	-5	7	11/19/2025	13:02	LB137974
	Calcium	239000	245000	98	208000	282000	11/19/2025	13:02	LB137974
	Chromium	51.9	52.0	100	42	62	11/19/2025	13:02	LB137974
	Cobalt	2.37			-30	30	11/19/2025	13:02	LB137974
	Copper	-4.52	2.0	226	-18	22	11/19/2025	13:02	LB137974
	Iron	97000	101000	96	85600	116500	11/19/2025	13:02	LB137974
	Lead	7.25			-12	12	11/19/2025	13:02	LB137974
	Magnesium	254000	255000	100	216000	294000	11/19/2025	13:02	LB137974
	Manganese	12.1	7.0	173	-13	27	11/19/2025	13:02	LB137974
	Nickel	5.72	2.0	286	-38	42	11/19/2025	13:02	LB137974
	Potassium	-90.2			0	0	11/19/2025	13:02	LB137974
	Selenium	1.34			-20	20	11/19/2025	13:02	LB137974
	Silver	-6.41			-10	10	11/19/2025	13:02	LB137974
	Sodium	-262			0	0	11/19/2025	13:02	LB137974
	Thallium	26.1			-40	40	11/19/2025	13:02	LB137974
	Vanadium	1.64			-40	40	11/19/2025	13:02	LB137974
	Zinc	6.22			-40	40	11/19/2025	13:02	LB137974
ICSAB01	Aluminum	248000	247000	100	209000	285000	11/19/2025	13:06	LB137974
	Antimony	597	618	97	525	711	11/19/2025	13:06	LB137974
	Arsenic	112	104	108	88.4	120	11/19/2025	13:06	LB137974
	Barium	494	537	92	437	637	11/19/2025	13:06	LB137974
	Beryllium	493	495	100	420	570	11/19/2025	13:06	LB137974
	Cadmium	992	972	102	826	1120	11/19/2025	13:06	LB137974
	Calcium	236000	235000	100	199000	271000	11/19/2025	13:06	LB137974
	Chromium	551	542	102	460	624	11/19/2025	13:06	LB137974
	Cobalt	494	476	104	404	548	11/19/2025	13:06	LB137974
	Copper	467	511	91	434	588	11/19/2025	13:06	LB137974
	Iron	96100	99300	97	84400	114500	11/19/2025	13:06	LB137974
	Lead	57.4	49.0	117	37	61	11/19/2025	13:06	LB137974
	Magnesium	251000	248000	101	210000	286000	11/19/2025	13:06	LB137974
	Manganese	493	507	97	430	584	11/19/2025	13:06	LB137974
	Nickel	981	954	103	810	1100	11/19/2025	13:06	LB137974
	Potassium	-158			0	0	11/19/2025	13:06	LB137974
	Selenium	54.5	46.0	118	26	66	11/19/2025	13:06	LB137974
	Silver	186	201	92	170	232	11/19/2025	13:06	LB137974
	Sodium	-257			0	0	11/19/2025	13:06	LB137974
	Thallium	146	108	135	68	148	11/19/2025	13:06	LB137974

Metals
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INTERFERENCE CHECK SAMPLE

Client: <u>HDR, Inc.</u>	SDG No.: <u>Q3662</u>
Contract: <u>HDRI08</u>	Lab Code: <u>ACE</u>
ICS Source: <u>EPA</u>	Instrument ID: <u>P4</u>

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Vanadium	484	491	99	417	565	11/19/2025	13:06	LB137974
	Zinc	1030	952	108	809	1095	11/19/2025	13:06	LB137974



METAL QC DATA

metals
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MATRIX SPIKE SUMMARY

client: HDR, Inc. **level:** low **sdg no.:** Q3662
contract: HDRI08 **lab code:** ACE
matrix: Solid **sample id:** Q3669-01 **client id:** EO-01-11182025MS

Percent Solids for Sample: 92.9 **Spiked ID:** Q3669-01MS **Percent Solids for Spike Sample:** 92.9

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	6560		6170		97.9	398		P
Antimony	mg/Kg	75 - 125	14.9		2.52	U	39.1	38	N	P
Arsenic	mg/Kg	75 - 125	33.2		2.61		39.1	78		P
Barium	mg/Kg	75 - 125	32.3		23.0		9.8	95		P
Beryllium	mg/Kg	75 - 125	7.63		0.40		9.8	74	N	P
Cadmium	mg/Kg	75 - 125	10.9		1.46		9.8	97		P
Calcium	mg/Kg	75 - 125	2700		2560		48.9	287		P
Chromium	mg/Kg	75 - 125	25.9		10.6		19.6	78		P
Cobalt	mg/Kg	75 - 125	17.6		8.51		9.8	93		P
Copper	mg/Kg	75 - 125	32.2		14.7		14.7	119		P
Iron	mg/Kg	75 - 125	14100		14800		150	-465		P
Lead	mg/Kg	75 - 125	160		21.3		48.9	284	N	P
Magnesium	mg/Kg	75 - 125	2110		2020		97.9	87		P
Manganese	mg/Kg	75 - 125	219		197		9.8	226		P
Mercury	mg/Kg	80 - 120	0.35		0.032		0.27	116		CV
Nickel	mg/Kg	75 - 125	35.9		12.8		24.5	94		P
Potassium	mg/Kg	75 - 125	769		397		490	76		P
Selenium	mg/Kg	75 - 125	74.5		1.01	U	97.9	76		P
Silver	mg/Kg	75 - 125	2.13		0.50	U	3.7	58	N	P
Sodium	mg/Kg	75 - 125	576		468		150	71	N	P
Thallium	mg/Kg	75 - 125	83.4		2.01	U	97.9	85		P
Vanadium	mg/Kg	75 - 125	35.7		25.7		14.7	68	N	P
Zinc	mg/Kg	75 - 125	44.4		35.1		9.8	95		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: <u>HDR, Inc.</u>	level: <u>low</u>	sdg no.: <u>Q3662</u>
contract: <u>HDRI08</u>		lab code: <u>ACE</u>
matrix: <u>Solid</u>	sample id: <u>Q3669-01</u>	client id: <u>EO-01-11182025MSD</u>
Percent Solids for Sample: 92.9	Spiked ID: Q3669-01MSD	Percent Solids for Spike Sample: 92.9

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	7300		6170		97.0	1166		P
Antimony	mg/Kg	75 - 125	14.6		2.52	U	38.8	38	N	P
Arsenic	mg/Kg	75 - 125	33.0		2.61		38.8	78		P
Barium	mg/Kg	75 - 125	34.9		23.0		9.7	123		P
Beryllium	mg/Kg	75 - 125	7.67		0.40		9.7	75		P
Cadmium	mg/Kg	75 - 125	11.5		1.46		9.7	103		P
Calcium	mg/Kg	75 - 125	3160		2560		48.5	1245		P
Chromium	mg/Kg	75 - 125	26.2		10.6		19.4	80		P
Cobalt	mg/Kg	75 - 125	19.2		8.51		9.7	110		P
Copper	mg/Kg	75 - 125	32.4		14.7		14.5	122		P
Iron	mg/Kg	75 - 125	15800		14800		150	671		P
Lead	mg/Kg	75 - 125	83.3		21.3		48.5	128	N	P
Magnesium	mg/Kg	75 - 125	2390		2020		97.0	374		P
Manganese	mg/Kg	75 - 125	232		197		9.7	365		P
Mercury	mg/Kg	80 - 120	0.34		0.032		0.28	110		CV
Nickel	mg/Kg	75 - 125	39.2		12.8		24.2	109		P
Potassium	mg/Kg	75 - 125	873		397		480	99		P
Selenium	mg/Kg	75 - 125	73.2		1.01	U	97.0	76		P
Silver	mg/Kg	75 - 125	1.99		0.50	U	3.6	55	N	P
Sodium	mg/Kg	75 - 125	677		468		150	139	N	P
Thallium	mg/Kg	75 - 125	88.4		2.01	U	97.0	91		P
Vanadium	mg/Kg	75 - 125	39.8		25.7		14.5	98		P
Zinc	mg/Kg	75 - 125	40.5		35.1		9.7	56	N	P

Metals
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POST DIGEST SPIKE SUMMARY

Client: <u>HDR, Inc.</u>	SDG No.: <u>Q3662</u>	
Contract: <u>HDRI08</u>	Lab Code: <u>ACE</u>	
Matrix: <u>Solid</u>	Level: <u>LOW</u>	Client ID: <u>EO-01-11182025A</u>
Sample ID: <u>Q3669-01</u>	Spiked ID: <u>Q3669-01A</u>	

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	23.8		2.52	U	40.2	59	N	P
Beryllium	mg/Kg	75 - 125	6.58		0.40		10.1	61	N	P
Lead	mg/Kg	75 - 125	53.0		21.3		50.3	63	N	P
Silver	mg/Kg	75 - 125	1.74		0.50	U	3.80	46	N	P
Sodium	mg/Kg	75 - 125	477		468		150	6	N	P
Vanadium	mg/Kg	75 - 125	31.2		25.7		15.1	37	N	P
Zinc	mg/Kg	75 - 125	34.2		35.1		10.1	-9	N	P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: HDR, Inc. **Level:** LOW **SDG No.:** Q3662
Contract: HDRI08 **Lab Code:** ACE
Matrix: Solid **Sample ID:** Q3669-01 **Client ID:** EO-01-11182025DUP

Percent Solids for Sample: 92.9 **Duplicate ID** Q3669-01DUP **Percent Solids for Spike Sample:** 92.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6170		6220		1		P
Antimony	mg/Kg	20	2.52	U	2.54	U			P
Arsenic	mg/Kg	20	2.61		2.67		2		P
Barium	mg/Kg	20	23.0		23.6		3		P
Beryllium	mg/Kg	20	0.40		0.41		2		P
Cadmium	mg/Kg	20	1.46		1.44		1		P
Calcium	mg/Kg	20	2560		2590		1		P
Chromium	mg/Kg	20	10.6		10.6		1		P
Cobalt	mg/Kg	20	8.51		8.44		1		P
Copper	mg/Kg	20	14.7		14.6		1		P
Iron	mg/Kg	20	14800		14800		0		P
Lead	mg/Kg	20	21.3		21.1		1		P
Magnesium	mg/Kg	20	2020		2040		1		P
Manganese	mg/Kg	20	197		201		2		P
Mercury	mg/Kg	20	0.032		0.032		0		CV
Nickel	mg/Kg	20	12.8		12.7		1		P
Potassium	mg/Kg	20	397		391		2		P
Selenium	mg/Kg	20	1.01	U	1.02	U			P
Silver	mg/Kg	20	0.50	U	0.51	U			P
Sodium	mg/Kg	20	468		466		0		P
Thallium	mg/Kg	20	2.01	U	2.03	U			P
Vanadium	mg/Kg	20	25.7		25.8		0		P
Zinc	mg/Kg	20	35.1		34.4		2		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	<u>HDR, Inc.</u>	Level:	<u>LOW</u>	SDG No.:	<u>Q3662</u>
Contract:	<u>HDRI08</u>			Lab Code:	<u>ACE</u>
Matrix:	<u>Solid</u>	Sample ID:	<u>Q3669-01MS</u>	Client ID:	<u>EO-01-11182025MSD</u>
Percent Solids for Sample:	92.9	Duplicate ID	Q3669-01MSD	Percent Solids for Spike Sample:	92.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6560		7300		11		P
Antimony	mg/Kg	20	14.9		14.6		2		P
Arsenic	mg/Kg	20	33.2		33.0		1		P
Barium	mg/Kg	20	32.3		34.9		8		P
Beryllium	mg/Kg	20	7.63		7.67		1		P
Cadmium	mg/Kg	20	10.9		11.5		5		P
Calcium	mg/Kg	20	2700		3160		16		P
Chromium	mg/Kg	20	25.9		26.2		1		P
Cobalt	mg/Kg	20	17.6		19.2		9		P
Copper	mg/Kg	20	32.2		32.4		1		P
Iron	mg/Kg	20	14100		15800		11		P
Lead	mg/Kg	20	160		83.3		63	*	P
Magnesium	mg/Kg	20	2110		2390		12		P
Manganese	mg/Kg	20	219		232		6		P
Mercury	mg/Kg	20	0.35		0.34		1		CV
Nickel	mg/Kg	20	35.9		39.2		9		P
Potassium	mg/Kg	20	769		873		13		P
Selenium	mg/Kg	20	74.5		73.2		2		P
Silver	mg/Kg	20	2.13		1.99		7		P
Sodium	mg/Kg	20	576		677		16		P
Thallium	mg/Kg	20	83.4		88.4		6		P
Vanadium	mg/Kg	20	35.7		39.8		11		P
Zinc	mg/Kg	20	44.4		40.5		9		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB170614BS Mercury	mg/Kg	0.28	0.32		112	80 - 120	CV

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client:	<u>HDR, Inc.</u>	SDG No.:	<u>Q3662</u>
Contract:	<u>HDRI08</u>	Lab Code:	<u>ACE</u>

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB170617BS							
Aluminum	mg/Kg	100	99.1		99	80 - 120	P
Antimony	mg/Kg	40.0	38.7		97	80 - 120	P
Arsenic	mg/Kg	40.0	38.4		96	80 - 120	P
Barium	mg/Kg	10.0	9.69		97	80 - 120	P
Beryllium	mg/Kg	10.0	9.90		99	80 - 120	P
Cadmium	mg/Kg	10.0	9.47		95	80 - 120	P
Calcium	mg/Kg	50.0	57.0	J	114	80 - 120	P
Chromium	mg/Kg	20.0	20.3		102	80 - 120	P
Cobalt	mg/Kg	10.0	9.49		95	80 - 120	P
Copper	mg/Kg	15.0	14.8		99	80 - 120	P
Iron	mg/Kg	150	150		100	80 - 120	P
Lead	mg/Kg	50.0	46.7		93	80 - 120	P
Magnesium	mg/Kg	100	101		101	80 - 120	P
Manganese	mg/Kg	10.0	9.95		100	80 - 120	P
Nickel	mg/Kg	25.0	23.9		96	80 - 120	P
Potassium	mg/Kg	500	473		95	80 - 120	P
Selenium	mg/Kg	100	96.2		96	80 - 120	P
Silver	mg/Kg	3.8	3.84		101	80 - 120	P
Sodium	mg/Kg	150	143		95	80 - 120	P
Thallium	mg/Kg	100	95.8		96	80 - 120	P
Vanadium	mg/Kg	15.0	14.6		97	80 - 120	P
Zinc	mg/Kg	10.0	10.5		105	80 - 120	P

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

EO-01-11182025L

Lab Name: Alliance **Contract:** HDRI08
Lab Code: ACE **Lb No.:** lb137974 **Lab Sample ID :** Q3669-01L **SDG No.:** Q3662
Matrix (soil/water): Solid **Level (low/med):** LOW
Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ-ence		Q	M
Aluminum	6170		7590		23			P
Antimony	2.52	U	12.6	U				P
Arsenic	2.61		2.73	J	4			P
Barium	23.0		29.4		28			P
Beryllium	0.40		0.50	J	26			P
Cadmium	1.46		0.96	J	34			P
Calcium	2560		3240		27			P
Chromium	10.6		13.1		23			P
Cobalt	8.51		8.24		3			P
Copper	14.7		19.0		29			P
Iron	14800		18700		26			P
Lead	21.3		21.1		1			P
Magnesium	2020		2490		23			P
Manganese	197		256		30			P
Mercury	0.032		0.072	U	100.0			CV
Nickel	12.8		12.7		1			P
Potassium	397		452	J	14			P
Selenium	1.01	U	5.03	U				P
Silver	0.50	U	2.52	U				P
Sodium	468		535		14			P
Thallium	2.01	U	2.01	J	100.0			P
Vanadium	25.7		31.7		23			P
Zinc	35.1		42.3		21			P

metals
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ANALYSIS RUN LOG

Client: HDR, Inc.

Contract: HDRI08

Lab code: ACE

Sdg no.: Q3662

Instrument id number: _____

Method: _____

Run number: LB137962

Start date: 11/19/2025

End date: 11/19/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0932	HG
S0.2	S0.2	1	0934	HG
S2.5	S2.5	1	0939	HG
S5	S5	1	0941	HG
S7.5	S7.5	1	0943	HG
S10	S10	1	0948	HG
ICV121	ICV121	1	0952	HG
ICB121	ICB121	1	0954	HG
CCV12	CCV12	1	0957	HG
CCB12	CCB12	1	0959	HG
CRA	CRA	1	1001	HG
PB170614BL	PB170614BL	1	1008	HG
PB170614BS	PB170614BS	1	1010	HG
Q3662-02	B3-0.0-1.0-20251117	1	1012	HG
Q3662-04	B1-0.0-1.0-20251117	1	1015	HG
CCV13	CCV13	1	1024	HG
CCB13	CCB13	1	1026	HG
Q3669-01DUP	EO-01-11182025DUP	1	1031	HG
Q3669-01MS	EO-01-11182025MS	1	1033	HG
Q3669-01MSD	EO-01-11182025MSD	1	1035	HG
Q3669-01L	EO-01-11182025L	5	1037	HG
CCV14	CCV14	1	1042	HG
CCB14	CCB14	1	1044	HG

metals
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ANALYSIS RUN LOG

Client: HDR, Inc.

Contract: HDRI08

Lab code: ACE

Sdg no.: Q3662

Instrument id number: _____

Method: _____

Run number: LB137974

Start date: 11/19/2025

End date: 11/19/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1220	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1224	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1228	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1232	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1236	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1241	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1245	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1249	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1253	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1257	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1302	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1306	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1319	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1323	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB170617BL	PB170617BL	1	1327	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB170617BS	PB170617BS	1	1332	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q3662-02	B3-0.0-1.0-20251117	1	1434	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q3662-04	B1-0.0-1.0-20251117	1	1438	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1456	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1500	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q3669-01DUP	EO-01-11182025DUP	1	1601	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q3669-01L	EO-01-11182025L	5	1605	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1614	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1618	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q3669-01MS	EO-01-11182025MS	1	1622	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q3669-01MSD	EO-01-11182025MSD	1	1626	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1705	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1709	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1807	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1811	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q3669-01A	EO-01-11182025A	1	1820	Ag,Be,Na,Pb,Sb,V,Zn
CCV06	CCV06	1	1835	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1842	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Instrument ID:

Date:

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

Metals

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ICP INTERELEMEN CORRECTION FACTORS

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Instrument ID:

Date:

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Instrument ID:

Date:

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMEN CORRECTION FACTORS

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Instrument ID:

Date:

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Instrument ID:

Date:

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

LAB CHRONICLE

OrderID:	Q3662	OrderDate:	11/18/2025 11:14:00 AM
Client:	HDR, Inc.	Project:	PVWC Linear Construction
Contact:	Andrew Wadden	Location:	D41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3662-02	B3-0.0-1.0-20251117	SOIL	Mercury	7471B	11/17/25	11/19/25	11/19/25	11/18/25
			Metals ICP-TAL	6010D		11/19/25	11/19/25	
Q3662-04	B1-0.0-1.0-20251117	SOIL	Mercury	7471B	11/17/25	11/19/25	11/19/25	11/18/25
			Metals ICP-TAL	6010D		11/19/25	11/19/25	



METAL PREPARATION & ANALYICAL SUMMARY

Metals
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SAMPLE PREPARATION SUMMARY

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Method: _____

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB170614							
PB170614BL	PB170614BL	MB	SOLID	11/19/2025	0.50	35.0	100.00
PB170614BS	PB170614BS	LCS	SOLID	11/19/2025	0.50	35.0	100.00
Q3662-02	B3-0.0-1.0-20251117	SAM	SOLID	11/19/2025	0.50	35.0	84.70
Q3662-04	B1-0.0-1.0-20251117	SAM	SOLID	11/19/2025	0.54	35.0	88.10
Q3669-01DUP	EO-01-11182025DUP	DUP	SOLID	11/19/2025	0.52	35.0	92.90
Q3669-01MS	EO-01-11182025MS	MS	SOLID	11/19/2025	0.55	35.0	92.90
Q3669-01MSD	EO-01-11182025MSD	MSD	SOLID	11/19/2025	0.53	35.0	92.90

Metals

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SAMPLE PREPARATION SUMMARY

Client: HDR, Inc.

SDG No.: Q3662

Contract: HDRI08

Lab Code: ACE

Method:

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB170617							
PB170617BL	PB170617BL	MB	SOLID	11/19/2025	2.00	100.0	100.00
PB170617BS	PB170617BS	LCS	SOLID	11/19/2025	2.00	100.0	100.00
Q3662-02	B3-0.0-1.0-20251117	SAM	SOLID	11/19/2025	2.22	100.0	84.70
Q3662-04	B1-0.0-1.0-20251117	SAM	SOLID	11/19/2025	2.20	100.0	88.10
Q3669-01DUP	EO-01-11182025DUP	DUP	SOLID	11/19/2025	2.12	100.0	92.90
Q3669-01MS	EO-01-11182025MS	MS	SOLID	11/19/2025	2.20	100.0	92.90
Q3669-01MSD	EO-01-11182025MSD	MSD	SOLID	11/19/2025	2.22	100.0	92.90

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137962

Review By	mohan	Review On	11/20/2025 12:52:59 PM
Supervise By	jaswal	Supervise On	11/21/2025 12:22:19 PM
STD. NAME	STD REF.#		
ICAL Standard	MP88014,MP88015,MP88016,MP88017,MP88018,MP88019		
ICV Standard	MP88020		
CCV Standard	MP88022		
ICSA Standard			
CRI Standard	MP88024		
LCS Standard			
Chk Standard	MP88021,MP88023,MP88025,MP88027		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	11/19/25 09:32		mohan	OK
2	S0.2	S0.2	CAL2	11/19/25 09:34		mohan	OK
3	S2.5	S2.5	CAL3	11/19/25 09:39		mohan	OK
4	S5	S5	CAL4	11/19/25 09:41		mohan	OK
5	S7.5	S7.5	CAL5	11/19/25 09:43		mohan	OK
6	S10	S10	CAL6	11/19/25 09:48		mohan	OK
7	ICV121	ICV121	ICV	11/19/25 09:52		mohan	OK
8	ICB121	ICB121	ICB	11/19/25 09:54		mohan	OK
9	CCV12	CCV12	CCV	11/19/25 09:57		mohan	OK
10	CCB12	CCB12	CCB	11/19/25 09:59		mohan	OK
11	CRA	CRA	CRDL	11/19/25 10:01		mohan	OK
12	HighStd	HighStd	HIGH STD	11/19/25 10:03		mohan	OK
13	ChkStd	ChkStd	SAM	11/19/25 10:06		mohan	OK
14	PB170614BL	PB170614BL	MB	11/19/25 10:08		mohan	OK
15	PB170614BS	PB170614BS	LCS	11/19/25 10:10		mohan	OK
16	Q3662-02	B3-0.0-1.0-20251117	SAM	11/19/25 10:12		mohan	OK
17	Q3662-04	B1-0.0-1.0-20251117	SAM	11/19/25 10:15		mohan	OK
18	Q3664-01	ARS20-0001	SAM	11/19/25 10:17		mohan	OK

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137962

Review By	mohan	Review On	11/20/2025 12:52:59 PM
Supervise By	jaswal	Supervise On	11/21/2025 12:22:19 PM
STD. NAME	STD REF.#		
ICAL Standard	MP88014,MP88015,MP88016,MP88017,MP88018,MP88019		
ICV Standard	MP88020		
CCV Standard	MP88022		
ICSA Standard			
CRI Standard	MP88024		
LCS Standard			
Chk Standard	MP88021,MP88023,MP88025,MP88027		

19	Q3664-03	ARS20-0013	SAM	11/19/25 10:19		mohan	OK
20	Q3664-05	291399	SAM	11/19/25 10:22		mohan	OK
21	CCV13	CCV13	CCV	11/19/25 10:24		mohan	OK
22	CCB13	CCB13	CCB	11/19/25 10:26		mohan	OK
23	Q3669-01	EO-01-11182025	SAM	11/19/25 10:28		mohan	OK
24	Q3669-01DUP	EO-01-11182025DUP	DUP	11/19/25 10:31		mohan	OK
25	Q3669-01MS	EO-01-11182025MS	MS	11/19/25 10:33		mohan	OK
26	Q3669-01MSD	EO-01-11182025MSD	MSD	11/19/25 10:35		mohan	OK
27	Q3669-01L	EO-01-11182025L	SD	11/19/25 10:37		mohan	OK
28	Q3669-01A	EO-01-11182025A	PS	11/19/25 10:40		mohan	OK
29	CCV14	CCV14	CCV	11/19/25 10:42		mohan	OK
30	CCB14	CCB14	CCB	11/19/25 10:44		mohan	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB137974

Review By	jaswal	Review On	11/20/2025 12:52:04 PM
Supervise By	mohan	Supervise On	11/20/2025 1:09:45 PM
STD. NAME	STD REF.#		
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638		
ICV Standard	MP87644,MP87643		
CCV Standard	MP87647		
ICSA Standard	MP87645,MP87646		
CRI Standard	MP87643		
LCS Standard			
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	11/19/25 12:20		Jaswal	OK
2	S1	S1	CAL2	11/19/25 12:24		Jaswal	OK
3	S2	S2	CAL3	11/19/25 12:28		Jaswal	OK
4	S3	S3	CAL4	11/19/25 12:32		Jaswal	OK
5	S4	S4	CAL5	11/19/25 12:36		Jaswal	OK
6	S5	S5	CAL6	11/19/25 12:41		Jaswal	OK
7	ICV01	ICV01	ICV	11/19/25 12:45		Jaswal	OK
8	LLICV01	LLICV01	LLICV	11/19/25 12:49		Jaswal	OK
9	ICB01	ICB01	ICB	11/19/25 12:53		Jaswal	OK
10	CRI01	CRI01	CRDL	11/19/25 12:57		Jaswal	OK
11	ICSA01	ICSA01	ICSA	11/19/25 13:02		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	11/19/25 13:06		Jaswal	OK
13	ICSADL	ICSADL	ICSA	11/19/25 13:10		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	11/19/25 13:14		Jaswal	OK
15	CCV01	CCV01	CCV	11/19/25 13:19		Jaswal	OK
16	CCB01	CCB01	CCB	11/19/25 13:23		Jaswal	OK
17	PB170617BL	PB170617BL	MB	11/19/25 13:27		Jaswal	OK
18	PB170617BS	PB170617BS	LCS	11/19/25 13:32		Jaswal	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB137974

Review By	jaswal	Review On	11/20/2025 12:52:04 PM
Supervise By	mohan	Supervise On	11/20/2025 1:09:45 PM
STD. NAME	STD REF.#		
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638		
ICV Standard	MP87644,MP87643		
CCV Standard	MP87647		
ICSA Standard	MP87645,MP87646		
CRI Standard	MP87643		
LCS Standard			
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650		

19	PB170626BL	PB170626BL	MB	11/19/25 13:36		Jaswal	OK
20	PB170626BS	PB170626BS	LCS	11/19/25 13:40		Jaswal	OK
21	LR-1	LR-1	HIGH STD	11/19/25 14:09		Jaswal	OK
22	LR-2	LR-2	HIGH STD	11/19/25 14:19		Jaswal	OK
23	LR-3	LR-3	HIGH STD	11/19/25 14:30		Jaswal	OK
24	Q3662-02	B3-0.0-1.0-20251117	SAM	11/19/25 14:34		Jaswal	OK
25	Q3662-04	B1-0.0-1.0-20251117	SAM	11/19/25 14:38		Jaswal	OK
26	Q3664-01	ARS20-0001	SAM	11/19/25 14:42		Jaswal	OK
27	CCV02	CCV02	CCV	11/19/25 14:56		Jaswal	OK
28	CCB02	CCB02	CCB	11/19/25 15:00		Jaswal	OK
29	Q3664-03	ARS20-0013	SAM	11/19/25 15:05		Jaswal	OK
30	Q3664-05	291399	SAM	11/19/25 15:09		Jaswal	OK
31	Q3667-01	RIGHT-SIDE-WALL	SAM	11/19/25 15:13		Jaswal	OK
32	Q3667-05	LEFT-SIDE-FLOOR	SAM	11/19/25 15:22		Jaswal	OK
33	Q3667-03	LEFT-SIDE-WALL	SAM	11/19/25 15:44		Jaswal	OK
34	Q3667-07	ELEVATED-DIVIDE	SAM	11/19/25 15:48		Jaswal	OK
35	Q3668-01	2015	SAM	11/19/25 15:53		Jaswal	OK
36	Q3669-01	EO-01-11182025	SAM	11/19/25 15:57		Jaswal	OK
37	Q3669-01DUP	EO-01-11182025DUP	DUP	11/19/25 16:01		Jaswal	OK
38	Q3669-01L	EO-01-11182025L	SD	11/19/25 16:05		Jaswal	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB137974

Review By	jaswal	Review On	11/20/2025 12:52:04 PM
Supervise By	mohan	Supervise On	11/20/2025 1:09:45 PM
STD. NAME	STD REF.#		
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638		
ICV Standard	MP87644,MP87643		
CCV Standard	MP87647		
ICSA Standard	MP87645,MP87646		
CRI Standard	MP87643		
LCS Standard			
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650		

39	CCV03	CCV03	CCV	11/19/25 16:14		Jaswal	OK
40	CCB03	CCB03	CCB	11/19/25 16:18		Jaswal	OK
41	Q3669-01MS	EO-01-11182025MS	MS	11/19/25 16:22		Jaswal	OK
42	Q3669-01MSD	EO-01-11182025MSD	MSD	11/19/25 16:26		Jaswal	OK
43	Q3583-07	CHRT27080	SAM	11/19/25 16:35		Jaswal	OK
44	Q3652-04	TP-1	SAM	11/19/25 16:39		Jaswal	OK
45	Q3652-04DUP	TP-1DUP	DUP	11/19/25 16:44		Jaswal	OK
46	Q3652-04L	TP-1L	SD	11/19/25 16:48		Jaswal	OK
47	Q3652-04MS	TP-1MS	MS	11/19/25 16:52		Jaswal	OK
48	Q3652-04MSD	TP-1MSD	MSD	11/19/25 16:56		Jaswal	OK
49	Q3652-04A	TP-1A	PS	11/19/25 17:01	0.1ML M6008,M6017-10ML SAMPLE	Jaswal	OK
50	CCV04	CCV04	CCV	11/19/25 17:05		Jaswal	OK
51	CCB04	CCB04	CCB	11/19/25 17:09		Jaswal	OK
52	Q3657-01	SEWAREN-CONCRE	SAM	11/19/25 17:13		Jaswal	OK
53	Q3659-01	TANK-1-COMP-1	SAM	11/19/25 17:18		Jaswal	OK
54	Q3659-02	TANK-1-COMP-2	SAM	11/19/25 17:22		Jaswal	OK
55	Q3662-05	B1-0.0-1.0-20251117	SAM	11/19/25 17:27		Jaswal	OK
56	Q3667-02	RIGHT-SIDE-WALL	SAM	11/19/25 17:31		Jaswal	OK
57	Q3667-04	LEFT-SIDE-WALL	SAM	11/19/25 17:35		Jaswal	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB137974

Review By	jaswal	Review On	11/20/2025 12:52:04 PM
Supervise By	mohan	Supervise On	11/20/2025 1:09:45 PM
STD. NAME	STD REF.#		
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638		
ICV Standard	MP87644,MP87643		
CCV Standard	MP87647		
ICSA Standard	MP87645,MP87646		
CRI Standard	MP87643		
LCS Standard			
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650		

58	Q3667-06	LEFT-SIDE-FLOOR	SAM	11/19/25 17:40		Jaswal	OK
59	Q3667-08	ELEVATED-DIVIDE	SAM	11/19/25 17:45		Jaswal	OK
60	PB170600TB	PB170600TB	MB	11/19/25 17:49		Jaswal	OK
61	Q3667-03DL	LEFT-SIDE-WALLDL	SAM	11/19/25 17:54	NOT USE	Jaswal	Not Ok
62	CCV05	CCV05	CCV	11/19/25 18:07		Jaswal	OK
63	CCB05	CCB05	CCB	11/19/25 18:11		Jaswal	OK
64	Q3667-07DL	ELEVATED-DIVIDED	SAM	11/19/25 18:15	NOT USE	Jaswal	Not Ok
65	Q3669-01A	EO-01-11182025A	PS	11/19/25 18:20	0.1ML M6008,M6017-10ML SAMPLE	Jaswal	OK
66	CCV06	CCV06	CCV	11/19/25 18:35		Jaswal	OK
67	CCB06	CCB06	CCB	11/19/25 18:42		Jaswal	OK

SOP ID : M7471B-Mercury-19

SDG No : N/A

Matrix : SOIL

Pipette ID: ICP A

Balance ID : M SC-3

Filter paper ID : N/A

pH Strlp ID : N/A

Hood ID : #1

Block ID: 1. HOT BLOCK #3 2. N/A

Start Digest Date: 11/19/2025 Time : 08:10 Temp : 96 °C

End Digest Date: 11/19/2025 Time : 08:40 Temp : 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #3

Dig Technician Signature:

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standard Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP88020
CCV	30mL	MP88022
CRA	30mL	MP88024
Blank Spike	0.48mL	MP88013
Matrix Spike	0.48mL	MP88013

Chemical Used	ML/SAMPLE USED	Lot Number
AQUA REGIA	1.5MI	MP88026
KMnO4 (5%)	4.5mL	MP87634
Hydroxylamine HCL (12%)	2.0MI	MP87636
PTFE Boiling Stones	N/A	M5582
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP88014
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP88015
2.5 ppb	S2.5	30mL	MP88016
5.0 ppb	S5.0	30mL	MP88017
7.5 ppb	S7.5	30mL	MP88018
10.0 ppb	S10.0	30mL	MP88019
ICV	ICV	30mL	MP88020
ICB	ICB	30mL	MP88021
CCV	CCV	30mL	MP88022
CCB	CCB	30mL	MP88023
CRI	CRI	30mL	MP88024
CHK STD	CHK STD	30mL	MP88025

Extraction Conformance/Non-Conformance Comments:

N/A		
Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/19/25 09:10	MBM et al	MBM et al
09:10	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Comment	Prep Pos
PB170614BL	PBS614	0.50	35	N/A	N/A	3-1
PB170614BS	LCS614	0.50	35	N/A	MP88013	2
Q3662-02	B3-0.0-1.0-20251117	0.50	35	N/A	N/A	3
Q3662-04	B3-0.0-1.0-20251117	0.54	35	N/A	N/A	4
Q3664-01	ARS20-0001	0.54	35	N/A	N/A	5
Q3664-03	ARS20-0013	0.60	35	N/A	N/A	6
Q3664-05	291399	0.50	35	N/A	N/A	7
Q3669-01	EO-01-11182025	0.52	35	N/A	N/A	8
Q3669-01DUP	EO-01-11182025DUP	0.52	35	N/A	N/A	9
Q3669-01MS	EO-01-11182025MS	0.55	35	N/A	MP88013	10
Q3669-01MSD	EO-01-11182025MSD	0.53	35	N/A	MP88013	11

SOP ID : M3050B-Digestion-20

SDG No : N/A

Matrix : SOIL

Pipette ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOCK #2 2. N/A

Start Digest Date: 11/19/2025 Time : 10:05 Temp : 96 °C

End Digest Date: 11/19/2025 Time : 12:14 Temp : 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #2

Dig Technician Signature: *SPS*

Supervisor Signature: *SO*

Temp : 1. 96°C 2. N/A

Standardized Name	MLS USED	STD REF. # FROM LOG
LFS-1	1.00	M6209
LFS-2	1.00	M6201
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	5.00	M6187
1:1 HNO3	10.00	MP86978
30% H2O2	3.00	M6170
Conc. HCL	10.00	M6151
PTFE Boiling Stones	N/A	M5581
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#2 CELL#35 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/19/25 13:00	<i>SPS met dis</i>	<i>SO (on deck lab)</i>
13:00	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
PB170617BL	PBS617	N/A	2.00	100	Colorless	Colorless	Fine	No	N/A	1
PB170617BS	LCS617	N/A	2.00	100	Colorless	Colorless	Fine	No	M6209,M6201	2
Q3662-02	B3-0.0-1.0-20251117	N/A	2.22	100	Brown	Yellow	Medium	No	N/A	3
Q3662-04	B3-0.0-1.0-20251117	N/A	2.20	100	Brown	Yellow	Medium	No	N/A	4
Q3664-01	ARS20-0001	N/A	2.22	100	Brown	Yellow	Medium	No	N/A	5
Q3664-03	ARS20-0013	N/A	2.40	100	Brown	Yellow	Medium	No	N/A	6
Q3664-05	291399	N/A	2.24	100	Brown	Yellow	Medium	No	N/A	7
Q3667-01	RIGHT-SIDE-WALL	N/A	2.36	100	Brown	Yellow	Medium	No	N/A	8
Q3667-03	LEFT-SIDE-WALL	N/A	2.32	100	Brown	Yellow	Medium	No	N/A	9
Q3667-05	LEFT-SIDE-FLOOR	N/A	2.36	100	Brown	Yellow	Medium	No	N/A	10
Q3667-07	ELEVATED-DIVIDE	N/A	2.26	100	Brown	Yellow	Medium	No	N/A	11
Q3668-01	2015	N/A	2.36	100	Brown	Yellow	Medium	No	N/A	12
Q3669-01	EO-01-11182025	N/A	2.14	100	Brown	Yellow	Medium	No	N/A	13
Q3669-01MS	EO-01-11182025MS	N/A	2.20	100	Brown	Yellow	Medium	No	M6209,M6201	15
Q3669-01MSD	EO-01-11182025MSD	N/A	2.22	100	Brown	Yellow	Medium	No	M6209,M6201	16
Q3669-01DUP	EO-01-11182025DUP	N/A	2.12	100	Brown	Yellow	Medium	No	N/A	14