

LAB CHRONICLE

OrderID:	Q1207	OrderDate:	1/28/2025 11:40:00 AM
Client:	RU2 Engineering, LLC	Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	Location:	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1207-03	JPP-2.1-012725	SOIL			01/27/25			01/28/25
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1207-07	JPP-5.1-012725	SOIL			01/27/25			01/28/25
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1207-11	JPP-4.5-012725	SOIL			01/27/25			01/28/25
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1207-15	JPP-16.2-012725	SOIL			01/27/25			01/28/25
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1207-19	JPP-20.2-012725	SOIL			01/27/25			01/28/25
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	

Hit Summary Sheet SW-846

SDG No.:	Q1207	Order ID:	Q1207
Client:	RU2 Engineering, LLC	Project ID:	NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-2.1-012725								
Q1207-03	JPP-2.1-012725	SOIL	Aluminum	4740		2.39	4.96	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Antimony	0.22	J	0.15	2.48	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Arsenic	3.16		0.29	0.99	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Barium	49.6		0.64	4.96	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Beryllium	0.42		0.012	0.30	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Cadmium	0.20	J	0.016	0.30	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Calcium	16700		2.78	99.3	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Chromium	12.4		0.054	0.50	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Cobalt	7.06		0.058	1.49	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Copper	56.0		0.47	0.99	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Iron	11700		2.67	4.96	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Lead	168		0.15	0.60	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Magnesium	8740		3.40	99.3	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Manganese	183		0.070	0.99	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Mercury	0.30		0.0060	0.014	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Nickel	23.3		0.089	1.99	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Potassium	886		28.5	99.3	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Silver	0.52		0.052	0.50	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Sodium	1840		35.8	99.3	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Vanadium	18.7		0.27	1.99	mg/Kg
Q1207-03	JPP-2.1-012725	SOIL	Zinc	171		0.11	1.99	mg/Kg
Client ID : JPP-5.1-012725								
Q1207-07	JPP-5.1-012725	SOIL	Aluminum	3610		2.15	4.45	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Antimony	0.28	J	0.13	2.23	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Arsenic	2.12		0.26	0.89	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Barium	34.7		0.57	4.45	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Beryllium	0.28		0.011	0.27	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Cadmium	0.33		0.014	0.27	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Calcium	19300		2.49	89.1	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Chromium	12.0		0.048	0.45	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Cobalt	5.02		0.052	1.34	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Copper	25.4		0.42	0.89	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Iron	9280		2.40	4.45	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Lead	66.7		0.13	0.53	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Magnesium	5160		3.06	89.1	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Manganese	131		0.063	0.89	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Mercury	0.16		0.0060	0.014	mg/Kg

Hit Summary Sheet
SW-846

SDG No.: Q1207

Order ID: Q1207

Client: RU2 Engineering, LLC

Project ID: NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1207-07	JPP-5.1-012725	SOIL	Nickel	14.4		0.080	1.78	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Potassium	1230		25.6	89.1	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Silver	0.17	J	0.046	0.45	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Sodium	761		32.2	89.1	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Vanadium	13.0		0.24	1.78	mg/Kg
Q1207-07	JPP-5.1-012725	SOIL	Zinc	56.1		0.098	1.78	mg/Kg
Client ID : JPP-4.5-012725								
Q1207-11	JPP-4.5-012725	SOIL	Aluminum	4510		2.59	5.37	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Antimony	0.21	J	0.16	2.69	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Arsenic	2.99		0.31	1.07	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Barium	43.3		0.69	5.37	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Beryllium	0.38		0.013	0.32	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Cadmium	0.32		0.017	0.32	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Calcium	25600		3.01	107	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Chromium	13.6		0.058	0.54	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Cobalt	5.58		0.062	1.61	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Copper	36.0		0.51	1.07	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Iron	12300		2.89	5.37	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Lead	92.8		0.16	0.65	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Magnesium	4220		3.69	107	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Manganese	145		0.076	1.07	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Mercury	0.45		0.0070	0.016	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Nickel	18.0		0.097	2.15	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Potassium	1260		30.9	107	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Silver	0.73		0.056	0.54	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Sodium	923		38.8	107	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Vanadium	15.5		0.29	2.15	mg/Kg
Q1207-11	JPP-4.5-012725	SOIL	Zinc	90.6		0.12	2.15	mg/Kg
Client ID : JPP-16.2-012725								
Q1207-15	JPP-16.2-012725	SOIL	Aluminum	3810		2.32	4.81	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Antimony	0.41	J	0.14	2.41	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Arsenic	3.83		0.28	0.96	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Barium	43.8		0.62	4.81	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Beryllium	0.30		0.012	0.29	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Cadmium	0.052	J	0.015	0.29	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Calcium	23300		2.70	96.3	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Chromium	11.3		0.052	0.48	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Cobalt	3.77		0.056	1.44	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Copper	24.4		0.45	0.96	mg/Kg

Hit Summary Sheet
SW-846

SDG No.:	Q1207	Order ID:	Q1207
Client:	RU2 Engineering, LLC	Project ID:	NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1207-15	JPP-16.2-012725	SOIL	Iron	9410		2.59	4.81	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Lead	141		0.14	0.58	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Magnesium	6000		3.30	96.3	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Manganese	141		0.068	0.96	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Mercury	0.28		0.0060	0.015	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Nickel	14.1		0.087	1.93	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Potassium	928		27.6	96.3	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Silver	0.23	J	0.050	0.48	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Sodium	2650		34.7	96.3	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Vanadium	14.2		0.26	1.93	mg/Kg
Q1207-15	JPP-16.2-012725	SOIL	Zinc	57.2		0.11	1.93	mg/Kg
Client ID : JPP-20.2-012725								
Q1207-19	JPP-20.2-012725	SOIL	Aluminum	3710		2.25	4.67	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Antimony	0.89	J	0.14	2.33	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Arsenic	5.02		0.27	0.93	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Barium	118		0.60	4.67	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Beryllium	0.34		0.011	0.28	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Cadmium	0.15	J	0.015	0.28	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Calcium	28200		2.61	93.4	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Chromium	10.6		0.050	0.47	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Cobalt	5.14		0.054	1.40	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Copper	101		0.44	0.93	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Iron	9670		2.51	4.67	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Lead	349		0.14	0.56	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Magnesium	3890		3.20	93.4	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Manganese	192		0.066	0.93	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Mercury	0.37		0.0060	0.014	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Nickel	19.9		0.084	1.87	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Potassium	1130		26.8	93.4	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Silver	0.26	J	0.049	0.47	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Sodium	3480		33.7	93.4	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Vanadium	12.7		0.25	1.87	mg/Kg
Q1207-19	JPP-20.2-012725	SOIL	Zinc	168		0.10	1.87	mg/Kg



SAMPLE DATA

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-2.1-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	87.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4740		1	2.39	4.96	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-36-0	Antimony	0.22	JN	1	0.15	2.48	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-38-2	Arsenic	3.16		1	0.29	0.99	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-39-3	Barium	49.6		1	0.64	4.96	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-41-7	Beryllium	0.42		1	0.012	0.30	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-43-9	Cadmium	0.20	J	1	0.016	0.30	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-70-2	Calcium	16700		1	2.78	99.3	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-47-3	Chromium	12.4		1	0.054	0.50	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-48-4	Cobalt	7.06		1	0.058	1.49	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-50-8	Copper	56.0	N	1	0.47	0.99	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7439-89-6	Iron	11700		1	2.67	4.96	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7439-92-1	Lead	168	N	1	0.15	0.60	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7439-95-4	Magnesium	8740		1	3.40	99.3	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7439-96-5	Manganese	183		1	0.070	0.99	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7439-97-6	Mercury	0.30		1	0.0060	0.014	mg/Kg	01/29/25 13:30	01/30/25 07:53	SW7471B	
7440-02-0	Nickel	23.3		1	0.089	1.99	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-09-7	Potassium	886	N	1	28.5	99.3	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7782-49-2	Selenium	0.99	U	1	0.33	0.99	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-22-4	Silver	0.52		1	0.052	0.50	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-23-5	Sodium	1840		1	35.8	99.3	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-28-0	Thallium	1.99	U	1	0.44	1.99	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-62-2	Vanadium	18.7	N	1	0.27	1.99	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050
7440-66-6	Zinc	171		1	0.11	1.99	mg/Kg	01/29/25 09:30	01/30/25 15:16	SW6010	SW3050

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	
Comments:	METALS-TAL			

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:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-5.1-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-07	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	3610		1	2.15	4.45	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-36-0	Antimony	0.28	JN	1	0.13	2.23	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-38-2	Arsenic	2.12		1	0.26	0.89	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-39-3	Barium	34.7		1	0.57	4.45	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-41-7	Beryllium	0.28		1	0.011	0.27	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-43-9	Cadmium	0.33		1	0.014	0.27	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-70-2	Calcium	19300		1	2.49	89.1	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-47-3	Chromium	12.0		1	0.048	0.45	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-48-4	Cobalt	5.02		1	0.052	1.34	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-50-8	Copper	25.4	N	1	0.42	0.89	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7439-89-6	Iron	9280		1	2.40	4.45	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7439-92-1	Lead	66.7	N	1	0.13	0.53	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7439-95-4	Magnesium	5160		1	3.06	89.1	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7439-96-5	Manganese	131		1	0.063	0.89	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7439-97-6	Mercury	0.16		1	0.0060	0.014	mg/Kg	01/29/25 13:30	01/30/25 07:56	SW7471B	
7440-02-0	Nickel	14.4		1	0.080	1.78	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-09-7	Potassium	1230	N	1	25.6	89.1	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7782-49-2	Selenium	0.89	U	1	0.29	0.89	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-22-4	Silver	0.17	J	1	0.046	0.45	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-23-5	Sodium	761		1	32.2	89.1	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-28-0	Thallium	1.78	U	1	0.39	1.78	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-62-2	Vanadium	13.0	N	1	0.24	1.78	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050
7440-66-6	Zinc	56.1		1	0.098	1.78	mg/Kg	01/29/25 09:30	01/30/25 15:50	SW6010	SW3050

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	
Comments:	METALS-TAL			

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:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-4.5-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-11	Matrix:	SOIL
Level (low/med):	low	% Solid:	81.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4510		1	2.59	5.37	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-36-0	Antimony	0.21	JN	1	0.16	2.69	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-38-2	Arsenic	2.99		1	0.31	1.07	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-39-3	Barium	43.3		1	0.69	5.37	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-41-7	Beryllium	0.38		1	0.013	0.32	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-43-9	Cadmium	0.32		1	0.017	0.32	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-70-2	Calcium	25600		1	3.01	107	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-47-3	Chromium	13.6		1	0.058	0.54	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-48-4	Cobalt	5.58		1	0.062	1.61	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-50-8	Copper	36.0	N	1	0.51	1.07	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7439-89-6	Iron	12300		1	2.89	5.37	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7439-92-1	Lead	92.8	N	1	0.16	0.65	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7439-95-4	Magnesium	4220		1	3.69	107	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7439-96-5	Manganese	145		1	0.076	1.07	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7439-97-6	Mercury	0.45		1	0.0070	0.016	mg/Kg	01/29/25 13:30	01/30/25 08:03	SW7471B	
7440-02-0	Nickel	18.0		1	0.097	2.15	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-09-7	Potassium	1260	N	1	30.9	107	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7782-49-2	Selenium	1.07	U	1	0.36	1.07	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-22-4	Silver	0.73		1	0.056	0.54	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-23-5	Sodium	923		1	38.8	107	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-28-0	Thallium	2.15	U	1	0.47	2.15	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-62-2	Vanadium	15.5	N	1	0.29	2.15	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050
7440-66-6	Zinc	90.6		1	0.12	2.15	mg/Kg	01/29/25 09:30	01/30/25 15:54	SW6010	SW3050

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	
Comments:	METALS-TAL			

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:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.2-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-15	Matrix:	SOIL
Level (low/med):	low	% Solid:	88.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	3810		1	2.32	4.81	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-36-0	Antimony	0.41	JN	1	0.14	2.41	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-38-2	Arsenic	3.83		1	0.28	0.96	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-39-3	Barium	43.8		1	0.62	4.81	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-41-7	Beryllium	0.30		1	0.012	0.29	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-43-9	Cadmium	0.052	J	1	0.015	0.29	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-70-2	Calcium	23300		1	2.70	96.3	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-47-3	Chromium	11.3		1	0.052	0.48	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-48-4	Cobalt	3.77		1	0.056	1.44	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-50-8	Copper	24.4	N	1	0.45	0.96	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7439-89-6	Iron	9410		1	2.59	4.81	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7439-92-1	Lead	141	N	1	0.14	0.58	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7439-95-4	Magnesium	6000		1	3.30	96.3	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7439-96-5	Manganese	141		1	0.068	0.96	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7439-97-6	Mercury	0.28		1	0.0060	0.015	mg/Kg	01/29/25 13:30	01/30/25 08:11	SW7471B	
7440-02-0	Nickel	14.1		1	0.087	1.93	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-09-7	Potassium	928	N	1	27.6	96.3	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7782-49-2	Selenium	0.96	U	1	0.32	0.96	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-22-4	Silver	0.23	J	1	0.050	0.48	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-23-5	Sodium	2650		1	34.7	96.3	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-28-0	Thallium	1.93	U	1	0.42	1.93	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-62-2	Vanadium	14.2	N	1	0.26	1.93	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050
7440-66-6	Zinc	57.2		1	0.11	1.93	mg/Kg	01/29/25 09:30	01/30/25 15:58	SW6010	SW3050

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	
Comments:	METALS-TAL			

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:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.2-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-19	Matrix:	SOIL
Level (low/med):	low	% Solid:	87.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	3710		1	2.25	4.67	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-36-0	Antimony	0.89	JN	1	0.14	2.33	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-38-2	Arsenic	5.02		1	0.27	0.93	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-39-3	Barium	118		1	0.60	4.67	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-41-7	Beryllium	0.34		1	0.011	0.28	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-43-9	Cadmium	0.15	J	1	0.015	0.28	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-70-2	Calcium	28200		1	2.61	93.4	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-47-3	Chromium	10.6		1	0.050	0.47	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-48-4	Cobalt	5.14		1	0.054	1.40	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-50-8	Copper	101	N	1	0.44	0.93	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7439-89-6	Iron	9670		1	2.51	4.67	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7439-92-1	Lead	349	N	1	0.14	0.56	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7439-95-4	Magnesium	3890		1	3.20	93.4	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7439-96-5	Manganese	192		1	0.066	0.93	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7439-97-6	Mercury	0.37		1	0.0060	0.014	mg/Kg	01/29/25 13:30	01/30/25 08:23	SW7471B	
7440-02-0	Nickel	19.9		1	0.084	1.87	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-09-7	Potassium	1130	N	1	26.8	93.4	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7782-49-2	Selenium	0.93	U	1	0.31	0.93	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-22-4	Silver	0.26	J	1	0.049	0.47	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-23-5	Sodium	3480		1	33.7	93.4	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-28-0	Thallium	1.87	U	1	0.41	1.87	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-62-2	Vanadium	12.7	N	1	0.25	1.87	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050
7440-66-6	Zinc	168		1	0.10	1.87	mg/Kg	01/29/25 09:30	01/30/25 16:03	SW6010	SW3050

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	
Comments:	METALS-TAL			

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



METAL CALIBRATION DATA

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207
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
ICV74	Mercury	3.74	4.0	94	90 - 110	CV	01/30/2025	07:26	LB134478

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207
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
CCV84	Mercury	5.04	5.0	101	90 - 110	CV	01/30/2025	07:30	LB134478
CCV85	Mercury	5.10	5.0	102	90 - 110	CV	01/30/2025	07:58	LB134478
CCV86	Mercury	5.17	5.0	103	90 - 110	CV	01/30/2025	08:34	LB134478

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1207

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207

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	2350	2500	94	90 - 110	P	01/30/2025	11:49	LB134493
	Antimony	1000	1000	100	90 - 110	P	01/30/2025	11:49	LB134493
	Arsenic	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Barium	470	520	90	90 - 110	P	01/30/2025	11:49	LB134493
	Beryllium	472	510	92	90 - 110	P	01/30/2025	11:49	LB134493
	Cadmium	502	510	98	90 - 110	P	01/30/2025	11:49	LB134493
	Calcium	9280	10000	93	90 - 110	P	01/30/2025	11:49	LB134493
	Chromium	522	520	100	90 - 110	P	01/30/2025	11:49	LB134493
	Cobalt	504	520	97	90 - 110	P	01/30/2025	11:49	LB134493
	Copper	523	510	103	90 - 110	P	01/30/2025	11:49	LB134493
	Iron	9560	10000	96	90 - 110	P	01/30/2025	11:49	LB134493
	Lead	1000	1000	100	90 - 110	P	01/30/2025	11:49	LB134493
	Magnesium	5450	6000	91	90 - 110	P	01/30/2025	11:49	LB134493
	Manganese	519	520	100	90 - 110	P	01/30/2025	11:49	LB134493
	Nickel	507	530	96	90 - 110	P	01/30/2025	11:49	LB134493
	Potassium	9440	9900	95	90 - 110	P	01/30/2025	11:49	LB134493
	Selenium	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Silver	252	250	101	90 - 110	P	01/30/2025	11:49	LB134493
	Sodium	9500	10000	95	90 - 110	P	01/30/2025	11:49	LB134493
	Thallium	1020	1000	102	90 - 110	P	01/30/2025	11:49	LB134493
	Vanadium	455	500	91	90 - 110	P	01/30/2025	11:49	LB134493
	Zinc	1010	1000	101	90 - 110	P	01/30/2025	11:49	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC SDG No.: Q1207
 Contract: RUTW01 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207
 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	89.2	100	89	80 - 120	P	01/30/2025	11:56	LB134493
	Antimony	49.5	50.0	99	80 - 120	P	01/30/2025	11:56	LB134493
	Arsenic	21.3	20.0	107	80 - 120	P	01/30/2025	11:56	LB134493
	Barium	83.9	100	84	80 - 120	P	01/30/2025	11:56	LB134493
	Beryllium	5.55	6.0	92	80 - 120	P	01/30/2025	11:56	LB134493
	Cadmium	5.60	6.0	93	80 - 120	P	01/30/2025	11:56	LB134493
	Calcium	1830	2000	92	80 - 120	P	01/30/2025	11:56	LB134493
	Chromium	9.80	10.0	98	80 - 120	P	01/30/2025	11:56	LB134493
	Cobalt	28.7	30.0	96	80 - 120	P	01/30/2025	11:56	LB134493
	Copper	21.6	20.0	108	80 - 120	P	01/30/2025	11:56	LB134493
	Iron	106	100	106	80 - 120	P	01/30/2025	11:56	LB134493
	Lead	12.2	12.0	102	80 - 120	P	01/30/2025	11:56	LB134493
	Magnesium	1970	2000	99	80 - 120	P	01/30/2025	11:56	LB134493
	Manganese	18.0	20.0	90	80 - 120	P	01/30/2025	11:56	LB134493
	Nickel	38.6	40.0	97	80 - 120	P	01/30/2025	11:56	LB134493
	Potassium	1920	2000	96	80 - 120	P	01/30/2025	11:56	LB134493
	Selenium	19.1	20.0	96	80 - 120	P	01/30/2025	11:56	LB134493
	Silver	10.4	10.0	104	80 - 120	P	01/30/2025	11:56	LB134493
	Sodium	1920	2000	96	80 - 120	P	01/30/2025	11:56	LB134493
	Thallium	39.0	40.0	98	80 - 120	P	01/30/2025	11:56	LB134493
	Vanadium	34.8	40.0	87	80 - 120	P	01/30/2025	11:56	LB134493
	Zinc	38.3	40.0	96	80 - 120	P	01/30/2025	11:56	LB134493

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC SDG No.: Q1207
 Contract: RUTW01 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207
 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	9490	10000	95	90 - 110	P	01/30/2025	12:41	LB134493
	Antimony	5010	5000	100	90 - 110	P	01/30/2025	12:41	LB134493
	Arsenic	4950	5000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Barium	9130	10000	91	90 - 110	P	01/30/2025	12:41	LB134493
	Beryllium	237	250	95	90 - 110	P	01/30/2025	12:41	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Calcium	23200	25000	93	90 - 110	P	01/30/2025	12:41	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Cobalt	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	12:41	LB134493
	Iron	4690	5000	94	90 - 110	P	01/30/2025	12:41	LB134493
	Lead	4840	5000	97	90 - 110	P	01/30/2025	12:41	LB134493
	Magnesium	23200	25000	93	90 - 110	P	01/30/2025	12:41	LB134493
	Manganese	2260	2500	90	90 - 110	P	01/30/2025	12:41	LB134493
	Nickel	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Potassium	23700	25000	95	90 - 110	P	01/30/2025	12:41	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	12:41	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	12:41	LB134493
	Sodium	24100	25000	96	90 - 110	P	01/30/2025	12:41	LB134493
	Thallium	5080	5000	102	90 - 110	P	01/30/2025	12:41	LB134493
CCV02	Vanadium	2350	2500	94	90 - 110	P	01/30/2025	12:41	LB134493
	Zinc	2460	2500	98	90 - 110	P	01/30/2025	12:41	LB134493
	Aluminum	9600	10000	96	90 - 110	P	01/30/2025	13:33	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	13:33	LB134493
	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	13:33	LB134493
	Barium	9200	10000	92	90 - 110	P	01/30/2025	13:33	LB134493
	Beryllium	232	250	93	90 - 110	P	01/30/2025	13:33	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	13:33	LB134493
	Calcium	23300	25000	93	90 - 110	P	01/30/2025	13:33	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	13:33	LB134493
	Cobalt	2410	2500	96	90 - 110	P	01/30/2025	13:33	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	13:33	LB134493
	Iron	4770	5000	96	90 - 110	P	01/30/2025	13:33	LB134493
	Lead	4830	5000	97	90 - 110	P	01/30/2025	13:33	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC SDG No.: Q1207
 Contract: RUTW01 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207
 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
CCV02	Magnesium	23300	25000	93	90 - 110	P	01/30/2025	13:33	LB134493
	Manganese	2250	2500	90	90 - 110	P	01/30/2025	13:33	LB134493
	Nickel	2420	2500	97	90 - 110	P	01/30/2025	13:33	LB134493
	Potassium	24400	25000	97	90 - 110	P	01/30/2025	13:33	LB134493
	Selenium	5050	5000	101	90 - 110	P	01/30/2025	13:33	LB134493
	Silver	1200	1250	96	90 - 110	P	01/30/2025	13:33	LB134493
	Sodium	25000	25000	100	90 - 110	P	01/30/2025	13:33	LB134493
	Thallium	5120	5000	102	90 - 110	P	01/30/2025	13:33	LB134493
	Vanadium	2360	2500	94	90 - 110	P	01/30/2025	13:33	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	13:33	LB134493
CCV03	Aluminum	9650	10000	96	90 - 110	P	01/30/2025	14:34	LB134493
	Antimony	4780	5000	96	90 - 110	P	01/30/2025	14:34	LB134493
	Arsenic	4880	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Barium	9430	10000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Beryllium	231	250	92	90 - 110	P	01/30/2025	14:34	LB134493
	Cadmium	2490	2500	100	90 - 110	P	01/30/2025	14:34	LB134493
	Calcium	23500	25000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Chromium	985	1000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Cobalt	2440	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
	Copper	1200	1250	96	90 - 110	P	01/30/2025	14:34	LB134493
	Iron	4870	5000	97	90 - 110	P	01/30/2025	14:34	LB134493
	Lead	4910	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Magnesium	23400	25000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Manganese	2300	2500	92	90 - 110	P	01/30/2025	14:34	LB134493
	Nickel	2450	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
	Potassium	24900	25000	100	90 - 110	P	01/30/2025	14:34	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	14:34	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	14:34	LB134493
	Sodium	25200	25000	101	90 - 110	P	01/30/2025	14:34	LB134493
	Thallium	5070	5000	102	90 - 110	P	01/30/2025	14:34	LB134493
	Vanadium	2380	2500	95	90 - 110	P	01/30/2025	14:34	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	14:34	LB134493
CCV04	Aluminum	9670	10000	97	90 - 110	P	01/30/2025	15:25	LB134493
	Antimony	4980	5000	100	90 - 110	P	01/30/2025	15:25	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC SDG No.: Q1207
 Contract: RUTW01 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207
 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
CCV04	Arsenic	4890	5000	98	90 - 110	P	01/30/2025	15:25	LB134493
	Barium	9350	10000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Beryllium	231	250	92	90 - 110	P	01/30/2025	15:25	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Calcium	23400	25000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Chromium	1000	1000	100	90 - 110	P	01/30/2025	15:25	LB134493
	Cobalt	2370	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Copper	1230	1250	98	90 - 110	P	01/30/2025	15:25	LB134493
	Iron	4940	5000	99	90 - 110	P	01/30/2025	15:25	LB134493
	Lead	4750	5000	95	90 - 110	P	01/30/2025	15:25	LB134493
	Magnesium	23400	25000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Manganese	2280	2500	91	90 - 110	P	01/30/2025	15:25	LB134493
	Nickel	2380	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Potassium	25200	25000	101	90 - 110	P	01/30/2025	15:25	LB134493
	Selenium	4950	5000	99	90 - 110	P	01/30/2025	15:25	LB134493
	Silver	1220	1250	98	90 - 110	P	01/30/2025	15:25	LB134493
	Sodium	25700	25000	103	90 - 110	P	01/30/2025	15:25	LB134493
	Thallium	5090	5000	102	90 - 110	P	01/30/2025	15:25	LB134493
	Vanadium	2390	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Zinc	2480	2500	99	90 - 110	P	01/30/2025	15:25	LB134493
CCV05	Aluminum	9750	10000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Antimony	4910	5000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Arsenic	4830	5000	97	90 - 110	P	01/30/2025	16:24	LB134493
	Barium	9330	10000	93	90 - 110	P	01/30/2025	16:24	LB134493
	Beryllium	234	250	94	90 - 110	P	01/30/2025	16:24	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Calcium	23700	25000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Chromium	991	1000	99	90 - 110	P	01/30/2025	16:24	LB134493
	Cobalt	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Copper	1220	1250	98	90 - 110	P	01/30/2025	16:24	LB134493
	Iron	4830	5000	96	90 - 110	P	01/30/2025	16:24	LB134493
	Lead	4740	5000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Manganese	2310	2500	92	90 - 110	P	01/30/2025	16:24	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC SDG No.: Q1207
 Contract: RUTW01 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207
 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	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Potassium	24500	25000	98	90 - 110	P	01/30/2025	16:24	LB134493
	Selenium	4860	5000	97	90 - 110	P	01/30/2025	16:24	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	16:24	LB134493
	Sodium	24900	25000	100	90 - 110	P	01/30/2025	16:24	LB134493
	Thallium	4980	5000	100	90 - 110	P	01/30/2025	16:24	LB134493
	Vanadium	2410	2500	96	90 - 110	P	01/30/2025	16:24	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	16:24	LB134493
CCV06	Aluminum	9690	10000	97	90 - 110	P	01/30/2025	17:19	LB134493
	Antimony	5050	5000	101	90 - 110	P	01/30/2025	17:19	LB134493
	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	17:19	LB134493
	Barium	9260	10000	93	90 - 110	P	01/30/2025	17:19	LB134493
	Beryllium	235	250	94	90 - 110	P	01/30/2025	17:19	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Calcium	23500	25000	94	90 - 110	P	01/30/2025	17:19	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	17:19	LB134493
	Cobalt	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Copper	1260	1250	100	90 - 110	P	01/30/2025	17:19	LB134493
	Iron	4800	5000	96	90 - 110	P	01/30/2025	17:19	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	17:19	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	17:19	LB134493
	Manganese	2290	2500	92	90 - 110	P	01/30/2025	17:19	LB134493
	Nickel	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Potassium	24300	25000	97	90 - 110	P	01/30/2025	17:19	LB134493
	Selenium	4970	5000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Silver	1230	1250	99	90 - 110	P	01/30/2025	17:19	LB134493
	Sodium	24900	25000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Thallium	5010	5000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Vanadium	2380	2500	95	90 - 110	P	01/30/2025	17:19	LB134493
	Zinc	2470	2500	99	90 - 110	P	01/30/2025	17:19	LB134493
CCV07	Aluminum	9880	10000	99	90 - 110	P	01/30/2025	18:11	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	18:11	LB134493
	Barium	9620	10000	96	90 - 110	P	01/30/2025	18:11	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC SDG No.: Q1207
 Contract: RUTW01 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207
 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
CCV07	Beryllium	237	250	95	90 - 110	P	01/30/2025	18:11	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Calcium	24100	25000	96	90 - 110	P	01/30/2025	18:11	LB134493
	Chromium	1020	1000	102	90 - 110	P	01/30/2025	18:11	LB134493
	Cobalt	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	18:11	LB134493
	Iron	5050	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	18:11	LB134493
	Magnesium	24100	25000	96	90 - 110	P	01/30/2025	18:11	LB134493
	Manganese	2360	2500	94	90 - 110	P	01/30/2025	18:11	LB134493
	Nickel	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Potassium	25700	25000	103	90 - 110	P	01/30/2025	18:11	LB134493
	Selenium	5000	5000	100	90 - 110	P	01/30/2025	18:11	LB134493
	Silver	1270	1250	101	90 - 110	P	01/30/2025	18:11	LB134493
	Sodium	26300	25000	105	90 - 110	P	01/30/2025	18:11	LB134493
	Thallium	5060	5000	101	90 - 110	P	01/30/2025	18:11	LB134493
	Vanadium	2450	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Zinc	2520	2500	101	90 - 110	P	01/30/2025	18:11	LB134493
CCV08	Aluminum	9710	10000	97	90 - 110	P	01/30/2025	18:45	LB134493
	Antimony	5060	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	18:45	LB134493
	Barium	9470	10000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Beryllium	234	250	94	90 - 110	P	01/30/2025	18:45	LB134493
	Cadmium	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Calcium	23600	25000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Cobalt	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Copper	1250	1250	100	90 - 110	P	01/30/2025	18:45	LB134493
	Iron	4940	5000	99	90 - 110	P	01/30/2025	18:45	LB134493
	Lead	4860	5000	97	90 - 110	P	01/30/2025	18:45	LB134493
	Magnesium	23700	25000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Manganese	2310	2500	92	90 - 110	P	01/30/2025	18:45	LB134493
	Nickel	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Potassium	25100	25000	100	90 - 110	P	01/30/2025	18:45	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207
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
CCV08	Selenium	5030	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Silver	1250	1250	100	90 - 110	P	01/30/2025	18:45	LB134493
	Sodium	25600	25000	102	90 - 110	P	01/30/2025	18:45	LB134493
	Thallium	5060	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Vanadium	2410	2500	96	90 - 110	P	01/30/2025	18:45	LB134493
	Zinc	2450	2500	98	90 - 110	P	01/30/2025	18:45	LB134493

Metals

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CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207
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	0.17	0.2	85	40 - 160	CV	01/30/2025	07:35	LB134478
CRI01	Aluminum	84.9	100	85	40 - 160	P	01/30/2025	12:05	LB134493
	Antimony	47.1	50.0	94	40 - 160	P	01/30/2025	12:05	LB134493
	Arsenic	21.5	20.0	107	40 - 160	P	01/30/2025	12:05	LB134493
	Barium	90.1	100	90	40 - 160	P	01/30/2025	12:05	LB134493
	Beryllium	5.61	6.0	93	40 - 160	P	01/30/2025	12:05	LB134493
	Cadmium	5.56	6.0	93	40 - 160	P	01/30/2025	12:05	LB134493
	Calcium	1880	2000	94	40 - 160	P	01/30/2025	12:05	LB134493
	Chromium	9.97	10.0	100	40 - 160	P	01/30/2025	12:05	LB134493
	Cobalt	28.5	30.0	95	40 - 160	P	01/30/2025	12:05	LB134493
	Copper	21.8	20.0	109	40 - 160	P	01/30/2025	12:05	LB134493
	Iron	81.5	100	82	40 - 160	P	01/30/2025	12:05	LB134493
	Lead	10.9	12.0	91	40 - 160	P	01/30/2025	12:05	LB134493
	Magnesium	2010	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Manganese	18.2	20.0	91	40 - 160	P	01/30/2025	12:05	LB134493
	Nickel	38.1	40.0	95	40 - 160	P	01/30/2025	12:05	LB134493
	Potassium	2030	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Selenium	18.4	20.0	92	40 - 160	P	01/30/2025	12:05	LB134493
	Silver	11.1	10.0	111	40 - 160	P	01/30/2025	12:05	LB134493
	Sodium	2020	2000	101	40 - 160	P	01/30/2025	12:05	LB134493
	Thallium	40.0	40.0	100	40 - 160	P	01/30/2025	12:05	LB134493
	Vanadium	34.7	40.0	87	40 - 160	P	01/30/2025	12:05	LB134493
	Zinc	39.3	40.0	98	40 - 160	P	01/30/2025	12:05	LB134493



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

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	RU2 Engineering, LLC				SDG No.:	Q1207				
Contract:	RUTW01	Lab Code:	CHEM		Case No.:	Q1207		SAS No.:	Q1207	
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number	
ICB74	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	07:28	LB134478	

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>RU2 Engineering, LLC</u>		SDG No.: <u>Q1207</u>							
Contract: <u>RUTW01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>Q1207</u>	SAS No.: <u>Q1207</u>						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB84	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	07:32	LB134478
CCB85	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	08:00	LB134478
CCB86	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	08:37	LB134478

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	12:00	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:00	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:00	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	12:00	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:00	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	12:00	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	12:00	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>RU2 Engineering, LLC</u>		SDG No.: <u>Q1207</u>							
Contract: <u>RUTW01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>Q1207</u>	SAS No.: <u>Q1207</u>						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	12:47	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:47	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:47	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	12:47	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:47	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	12:47	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	12:47	LB134493
CCB02	Aluminum	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	13:37	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	13:37	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	13:37	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	13:37	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	13:37	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>RU2 Engineering, LLC</u>		SDG No.: <u>Q1207</u>							
Contract: <u>RUTW01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>Q1207</u>	SAS No.: <u>Q1207</u>						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	13:37	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	13:37	LB134493
CCB03	Aluminum	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	14:38	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	14:38	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	14:38	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	14:38	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	14:38	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	14:38	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	14:38	LB134493
CCB04	Aluminum	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	15:29	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	15:29	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	15:29	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	15:29	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	15:29	LB134493



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Client: RU2 Engineering, LLC

SDG No.: Q1207

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1207

SAS No.: Q1207

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	15:29	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	15:29	LB134493
CCB05	Aluminum	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	16:28	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	16:28	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	16:28	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	16:28	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	16:28	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	16:28	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
CCB06	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	16:28	LB134493
	Aluminum	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	17:24	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	17:24	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	17:24	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>RU2 Engineering, LLC</u>		SDG No.: <u>Q1207</u>							
Contract: <u>RUTW01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>Q1207</u>	SAS No.: <u>Q1207</u>						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	17:24	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	17:24	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	17:24	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	17:24	LB134493
CCB07	Aluminum	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	18:15	LB134493
	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:15	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:15	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	18:15	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:15	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	18:15	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	18:15	LB134493
CCB08	Aluminum	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Antimony	50.0	+/-50.0	U	50.0	P	01/30/2025	18:51	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Beryllium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:51	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:51	LB134493
	Calcium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493
	Cobalt	30.0	+/-30.0	U	30.0	P	01/30/2025	18:51	LB134493
	Copper	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Iron	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:51	LB134493
	Magnesium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Manganese	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Nickel	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Potassium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493
	Sodium	2000	+/-2000	U	2000	P	01/30/2025	18:51	LB134493
	Thallium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Vanadium	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493
	Zinc	40.0	+/-40.0	U	40.0	P	01/30/2025	18:51	LB134493

Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC

SDG No.: Q1207

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166349BL		SOLID		Batch Number:	PB166349		Prep Date:	01/29/2025	
	Mercury	0.013	<0.013	U	0.013	CV	01/30/2025	07:42	LB134478

Metals
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PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC

SDG No.: Q1207

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB166330BL	SOLID			Batch Number:	PB166330		Prep Date:	01/29/2025	
	Aluminum	4.44	<4.44	U	4.44	P	01/30/2025	16:07	LB134493
	Antimony	2.22	<2.22	U	2.22	P	01/30/2025	16:07	LB134493
	Arsenic	0.89	<0.89	U	0.89	P	01/30/2025	16:07	LB134493
	Barium	4.44	<4.44	U	4.44	P	01/30/2025	16:07	LB134493
	Beryllium	0.27	<0.27	U	0.27	P	01/30/2025	16:07	LB134493
	Cadmium	0.27	<0.27	U	0.27	P	01/30/2025	16:07	LB134493
	Calcium	88.9	<88.9	U	88.9	P	01/30/2025	16:07	LB134493
	Chromium	0.44	<0.44	U	0.44	P	01/30/2025	16:07	LB134493
	Cobalt	1.33	<1.33	U	1.33	P	01/30/2025	16:07	LB134493
	Copper	0.89	<0.89	U	0.89	P	01/30/2025	16:07	LB134493
	Iron	4.44	<4.44	U	4.44	P	01/30/2025	16:07	LB134493
	Lead	0.53	<0.53	U	0.53	P	01/30/2025	16:07	LB134493
	Magnesium	88.9	<88.9	U	88.9	P	01/30/2025	16:07	LB134493
	Manganese	0.89	<0.89	U	0.89	P	01/30/2025	16:07	LB134493
	Nickel	1.78	<1.78	U	1.78	P	01/30/2025	16:07	LB134493
	Potassium	88.9	<88.9	U	88.9	P	01/30/2025	16:07	LB134493
	Selenium	0.89	<0.89	U	0.89	P	01/30/2025	16:07	LB134493
	Silver	0.44	<0.44	U	0.44	P	01/30/2025	16:07	LB134493
	Sodium	88.9	<88.9	U	88.9	P	01/30/2025	16:07	LB134493
	Thallium	1.78	<1.78	U	1.78	P	01/30/2025	16:07	LB134493
	Vanadium	1.78	<1.78	U	1.78	P	01/30/2025	16:07	LB134493
	Zinc	1.78	<1.78	U	1.78	P	01/30/2025	16:07	LB134493

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: <u>RU2 Engineering, LLC</u>	SDG No.: <u>Q1207</u>
Contract: <u>RUTW01</u>	Lab Code: <u>CHEM</u>
ICS Source: <u>EPA</u>	Case No.: <u>Q1207</u>
	SAS No.: <u>Q1207</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	235000	255000	92	216000	294000	01/30/2025	12:10	LB134493
	Antimony	-3.14			-50	50	01/30/2025	12:10	LB134493
	Arsenic	-3.20			-20	20	01/30/2025	12:10	LB134493
	Barium	1.95	6.0	32	-94	106	01/30/2025	12:10	LB134493
	Beryllium	1.36			-6	6	01/30/2025	12:10	LB134493
	Cadmium	-0.88	1.0	88	-5	7	01/30/2025	12:10	LB134493
	Calcium	218000	245000	89	208000	282000	01/30/2025	12:10	LB134493
	Chromium	56.0	52.0	108	42	62	01/30/2025	12:10	LB134493
	Cobalt	0.92			-30	30	01/30/2025	12:10	LB134493
	Copper	21.7	2.0	1085	-18	22	01/30/2025	12:10	LB134493
	Iron	92700	101000	92	85600	116500	01/30/2025	12:10	LB134493
	Lead	6.67			-12	12	01/30/2025	12:10	LB134493
	Magnesium	234000	255000	92	216000	294000	01/30/2025	12:10	LB134493
	Manganese	3.50	7.0	50	-13	27	01/30/2025	12:10	LB134493
	Nickel	2.07	2.0	104	-38	42	01/30/2025	12:10	LB134493
	Potassium	133			0	0	01/30/2025	12:10	LB134493
	Selenium	-14.4			-20	20	01/30/2025	12:10	LB134493
	Silver	-0.54			-10	10	01/30/2025	12:10	LB134493
	Sodium	23.8			0	0	01/30/2025	12:10	LB134493
	Thallium	11.1			-40	40	01/30/2025	12:10	LB134493
	Vanadium	5.11			-40	40	01/30/2025	12:10	LB134493
	Zinc	1.05			-40	40	01/30/2025	12:10	LB134493
ICSAB01	Aluminum	243000	247000	98	209000	285000	01/30/2025	12:28	LB134493
	Antimony	644	618	104	525	711	01/30/2025	12:28	LB134493
	Arsenic	118	104	114	88.4	120	01/30/2025	12:28	LB134493
	Barium	456	537	85	437	637	01/30/2025	12:28	LB134493
	Beryllium	475	495	96	420	570	01/30/2025	12:28	LB134493
	Cadmium	1020	972	105	826	1120	01/30/2025	12:28	LB134493
	Calcium	224000	235000	95	199000	271000	01/30/2025	12:28	LB134493
	Chromium	583	542	108	460	624	01/30/2025	12:28	LB134493
	Cobalt	514	476	108	404	548	01/30/2025	12:28	LB134493
	Copper	526	511	103	434	588	01/30/2025	12:28	LB134493
	Iron	99900	99300	101	84400	114500	01/30/2025	12:28	LB134493
	Lead	57.1	49.0	116	37	61	01/30/2025	12:28	LB134493
	Magnesium	241000	248000	97	210000	286000	01/30/2025	12:28	LB134493
	Manganese	448	507	88	430	584	01/30/2025	12:28	LB134493
	Nickel	1020	954	107	810	1100	01/30/2025	12:28	LB134493
	Potassium	109			0	0	01/30/2025	12:28	LB134493
	Selenium	36.8	46.0	80	26	66	01/30/2025	12:28	LB134493
	Silver	222	201	110	170	232	01/30/2025	12:28	LB134493
	Sodium	7.13			0	0	01/30/2025	12:28	LB134493
	Thallium	104	108	96	68	148	01/30/2025	12:28	LB134493

Metals
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INTERFERENCE CHECK SAMPLE

Client: <u>RU2 Engineering, LLC</u>	SDG No.: <u>Q1207</u>
Contract: <u>RUTW01</u> Lab Code: <u>CHEM</u>	Case No.: <u>Q1207</u> SAS No.: <u>Q1207</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	463	491	94	417	565	01/30/2025	12:28	LB134493
	Zinc	1080	952	113	809	1095	01/30/2025	12:28	LB134493



METAL QC DATA

metals
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MATRIX SPIKE SUMMARY

client:	<u>RU2 Engineering, LLC</u>	level:	<u>low</u>	sdg no.:	<u>Q1207</u>
contract:	<u>RUTW01</u>	lab code:	<u>CHEM</u>	case no.:	<u>Q1207</u>
matrix:	<u>Solid</u>	sample id:	<u>Q1207-03</u>	client id:	<u>JPP-2.1-012725MS</u>
Percent Solids for Sample:	87.6	Spiked ID:	Q1207-03MS	Percent Solids for Spike Sample:	87.6

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	5090		4740		100	352		P
Antimony	mg/Kg	75 - 125	16.4		0.22	J	41.0	39	N	P
Arsenic	mg/Kg	75 - 125	40.1		3.16		41.0	90		P
Barium	mg/Kg	75 - 125	66.4		49.6		10.2	165		P
Beryllium	mg/Kg	75 - 125	8.74		0.42		10.2	82		P
Cadmium	mg/Kg	75 - 125	10.0		0.20	J	10.2	96		P
Calcium	mg/Kg	75 - 125	8150		16700		51.2	-16707		P
Chromium	mg/Kg	75 - 125	32.7		12.4		20.5	99		P
Cobalt	mg/Kg	75 - 125	19.4		7.06		10.2	121		P
Copper	mg/Kg	75 - 125	93.0		56.0		15.4	240	N	P
Iron	mg/Kg	75 - 125	11900		11700		150	127		P
Lead	mg/Kg	75 - 125	274		168		51.2	208	N	P
Magnesium	mg/Kg	75 - 125	3040		8740		100	-5700		P
Manganese	mg/Kg	75 - 125	209		183		10.2	261		P
Nickel	mg/Kg	75 - 125	52.8		23.3		25.6	115		P
Potassium	mg/Kg	75 - 125	1300		886		510	81		P
Selenium	mg/Kg	75 - 125	83.9		0.99	U	100	84		P
Silver	mg/Kg	75 - 125	3.91		0.52		3.8	89		P
Sodium	mg/Kg	75 - 125	1870		1840		150	25		P
Thallium	mg/Kg	75 - 125	99.4		1.99	U	100	99		P
Vanadium	mg/Kg	75 - 125	29.0		18.7		15.4	67	N	P
Zinc	mg/Kg	75 - 125	348		171		10.2	1739		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>RU2 Engineering, LLC</u>	level:	<u>low</u>	sdg no.:	<u>Q1207</u>
contract:	<u>RUTW01</u>	lab code:	<u>CHEM</u>	case no.:	<u>Q1207</u>
matrix:	<u>Solid</u>	sample id:	<u>Q1207-03</u>	client id:	<u>JPP-2.1-012725MSD</u>
Percent Solids for Sample:	87.6	Spiked ID:	Q1207-03MSD	Percent Solids for Spike Sample:	87.6

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	4620		4740		92.8	-128		P
Antimony	mg/Kg	75 - 125	14.9		0.22	J	37.1	40	N	P
Arsenic	mg/Kg	75 - 125	36.9		3.16		37.1	91		P
Barium	mg/Kg	75 - 125	61.8		49.6		9.3	131		P
Beryllium	mg/Kg	75 - 125	7.88		0.42		9.3	80		P
Cadmium	mg/Kg	75 - 125	9.20		0.20	J	9.3	97		P
Calcium	mg/Kg	75 - 125	7440		16700		46.4	-19970		P
Chromium	mg/Kg	75 - 125	29.2		12.4		18.6	90		P
Cobalt	mg/Kg	75 - 125	17.8		7.06		9.3	116		P
Copper	mg/Kg	75 - 125	85.5		56.0		13.9	212		P
Iron	mg/Kg	75 - 125	11000		11700		140	-514		P
Lead	mg/Kg	75 - 125	252		168		46.4	182	N	P
Magnesium	mg/Kg	75 - 125	2770		8740		92.8	-6433		P
Manganese	mg/Kg	75 - 125	194		183		9.3	119		P
Nickel	mg/Kg	75 - 125	48.6		23.3		23.2	109		P
Potassium	mg/Kg	75 - 125	1210		886		460	69	N	P
Selenium	mg/Kg	75 - 125	76.9		0.99	U	92.8	83		P
Silver	mg/Kg	75 - 125	3.57		0.52		3.5	87		P
Sodium	mg/Kg	75 - 125	1730		1840		140	-78		P
Thallium	mg/Kg	75 - 125	90.6		1.99	U	92.8	98		P
Vanadium	mg/Kg	75 - 125	26.6		18.7		13.9	57	N	P
Zinc	mg/Kg	75 - 125	310		171		9.3	1495		P

metals
- 5a -
MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC level: low sdg no.: Q1207
contract: RUTW01 lab code: CHEM case no.: Q1207 sas no.: Q1207
matrix: Solid sample id: Q1207-15 client id: JPP-16.2-012725MS
Percent Solids for Sample: 88.8 Spiked ID: Q1207-15MS Percent Solids for Spike Sample: 88.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.54		0.28		0.28	90		CV

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>RU2 Engineering, LLC</u>	level:	<u>low</u>	sdg no.:	<u>Q1207</u>		
contract:	<u>RUTW01</u>	lab code:	<u>CHEM</u>	case no.:	<u>Q1207</u>	sas no.:	<u>Q1207</u>
matrix:	<u>Solid</u>	sample id:	<u>Q1207-15</u>	client id:	<u>JPP-16.2-012725MSD</u>		
Percent Solids for Sample:	88.8	Spiked ID:	Q1207-15MSD	Percent Solids for Spike Sample:	88.8		

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.55		0.28		0.27	98		CV

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207
Matrix: Solid **Level:** LOW **Client ID:** JPP-2.1-012725A
Sample ID: Q1207-03 **Spiked ID:** Q1207-03A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	15.2		0.22	J	39.7	38		P
Copper	mg/Kg	75 - 125	91.3		56.0		14.9	237		P
Lead	mg/Kg	75 - 125	266		168		49.6	198		P
Potassium	mg/Kg	75 - 125	1250		886		500	73		P
Vanadium	mg/Kg	75 - 125	27.9		18.7		14.9	62		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207
Matrix: Solid **Sample ID:** Q1207-03 **Client ID:** JPP-2.1-012725DUP
Percent Solids for Sample: 87.6 **Duplicate ID** Q1207-03DUP **Percent Solids for Spike Sample:** 87.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	4740		4830		2		P
Antimony	mg/Kg	20	0.22	J	0.26	J	16		P
Arsenic	mg/Kg	20	3.16		3.01		5		P
Barium	mg/Kg	20	49.6		49.8		0		P
Beryllium	mg/Kg	20	0.42		0.43		2		P
Cadmium	mg/Kg	20	0.20	J	0.20	J	1		P
Calcium	mg/Kg	20	16700		17000		2		P
Chromium	mg/Kg	20	12.4		12.8		3		P
Cobalt	mg/Kg	20	7.06		7.12		1		P
Copper	mg/Kg	20	56.0		55.6		1		P
Iron	mg/Kg	20	11700		11900		2		P
Lead	mg/Kg	20	168		168		0		P
Magnesium	mg/Kg	20	8740		8820		1		P
Manganese	mg/Kg	20	183		183		0		P
Nickel	mg/Kg	20	23.3		23.4		0		P
Potassium	mg/Kg	20	886		898		1		P
Selenium	mg/Kg	20	0.99	U	0.99	U			P
Silver	mg/Kg	20	0.52		0.49	J	6		P
Sodium	mg/Kg	20	1840		1860		1		P
Thallium	mg/Kg	20	1.99	U	1.98	U			P
Vanadium	mg/Kg	20	18.7		19.0		2		P
Zinc	mg/Kg	20	171		175		2		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207
Matrix: Solid **Sample ID:** Q1207-03MS **Client ID:** JPP-2.1-012725MSD
Percent Solids for Sample: 87.6 **Duplicate ID** Q1207-03MSD **Percent Solids for Spike Sample:** 87.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	5090		4620		10		P
Antimony	mg/Kg	20	16.4		14.9		10		P
Arsenic	mg/Kg	20	40.1		36.9		8		P
Barium	mg/Kg	20	66.4		61.8		7		P
Beryllium	mg/Kg	20	8.74		7.88		10		P
Cadmium	mg/Kg	20	10.0		9.20		9		P
Calcium	mg/Kg	20	8150		7440		9		P
Chromium	mg/Kg	20	32.7		29.2		11		P
Cobalt	mg/Kg	20	19.4		17.8		9		P
Copper	mg/Kg	20	93.0		85.5		8		P
Iron	mg/Kg	20	11900		11000		8		P
Lead	mg/Kg	20	274		252		8		P
Magnesium	mg/Kg	20	3040		2770		9		P
Manganese	mg/Kg	20	209		194		7		P
Nickel	mg/Kg	20	52.8		48.6		8		P
Potassium	mg/Kg	20	1300		1210		7		P
Selenium	mg/Kg	20	83.9		76.9		9		P
Silver	mg/Kg	20	3.91		3.57		9		P
Sodium	mg/Kg	20	1870		1730		8		P
Thallium	mg/Kg	20	99.4		90.6		9		P
Vanadium	mg/Kg	20	29.0		26.6		9		P
Zinc	mg/Kg	20	348		310		12		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	<u>RU2 Engineering, LLC</u>	Level:	<u>LOW</u>	SDG No.:	<u>Q1207</u>
Contract:	<u>RUTW01</u>	Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1207</u>
Matrix:	<u>Solid</u>	Sample ID:	<u>Q1207-15</u>	Client ID:	<u>JPP-16.2-012725DUP</u>
Percent Solids for Sample:	88.8	Duplicate ID	Q1207-15DUP	Percent Solids for Spike Sample:	88.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.28		0.29		0		CV

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	<u>RU2 Engineering, LLC</u>	Level:	<u>LOW</u>	SDG No.:	<u>Q1207</u>
Contract:	<u>RUTW01</u>	Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1207</u>
Matrix:	<u>Solid</u>	Sample ID:	<u>Q1207-15MS</u>	Client ID:	<u>JPP-16.2-012725MSD</u>
Percent Solids for Sample:	88.8	Duplicate ID	Q1207-15MSD	Percent Solids for Spike Sample:	88.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.54		0.55		2		CV

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166330BS							
Aluminum	mg/Kg	88.9	82.1		92	80 - 120	P
Antimony	mg/Kg	35.6	35.5		100	80 - 120	P
Arsenic	mg/Kg	35.6	36.3		102	80 - 120	P
Barium	mg/Kg	8.9	7.73		87	80 - 120	P
Beryllium	mg/Kg	8.9	8.18		92	80 - 120	P
Cadmium	mg/Kg	8.9	8.60		97	80 - 120	P
Calcium	mg/Kg	44.4	42.2	J	95	80 - 120	P
Chromium	mg/Kg	17.8	18.0		101	80 - 120	P
Cobalt	mg/Kg	8.9	8.63		97	80 - 120	P
Copper	mg/Kg	13.3	13.8		104	80 - 120	P
Iron	mg/Kg	130	129		99	80 - 120	P
Lead	mg/Kg	44.4	43.2		97	80 - 120	P
Magnesium	mg/Kg	88.9	81.2	J	91	80 - 120	P
Manganese	mg/Kg	8.9	7.99		90	80 - 120	P
Nickel	mg/Kg	22.2	21.8		98	80 - 120	P
Potassium	mg/Kg	440	428		97	80 - 120	P
Selenium	mg/Kg	88.9	90.2		102	80 - 120	P
Silver	mg/Kg	3.3	3.23		98	80 - 120	P
Sodium	mg/Kg	130	134		103	80 - 120	P
Thallium	mg/Kg	88.9	91.0		102	80 - 120	P
Vanadium	mg/Kg	13.3	12.3		92	80 - 120	P
Zinc	mg/Kg	8.9	8.85		99	80 - 120	P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1207
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1207 **SAS No.:** Q1207

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166349BS Mercury	mg/Kg	0.25	0.23		90	80 - 120	CV

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

JPP-2.1-012725L

Lab Name: Chemtech Consulting Group

Contract: RUTW01

Lab Code: CHEM Lb No.: lb134493 Lab Sample ID : Q1207-03L SDG No.: Q1207

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
		C		C				
Aluminum		4740		5170		9		P
Antimony		0.22	J	12.4	U	100.0		P
Arsenic		3.16		3.28	J	4		P
Barium		49.6		51.8		5		P
Beryllium		0.42		0.51	J	21		P
Cadmium		0.20	J	1.49	U	100.0		P
Calcium		16700		18700		12		P
Chromium		12.4		14.6		18		P
Cobalt		7.06		7.20	J	2		P
Copper		56.0		66.5		19		P
Iron		11700		12900		10		P
Lead		168		177		6		P
Magnesium		8740		9610		10		P
Manganese		183		205		12		P
Nickel		23.3		24.2		4		P
Potassium		886		933		5		P
Selenium		0.99	U	4.96	U			P
Silver		0.52		0.65	J	27		P
Sodium		1840		1890		3		P
Thallium		1.99	U	9.93	U			P
Vanadium		18.7		20.7		11		P
Zinc		171		197		16		P

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

JPP-16.2-012725L

Lab Name: Chemtech Consulting Group

Contract: RUTW01

Lab Code: CHEM **Lb No.:** lb134478

Lab Sample ID : Q1207-15L **SDG No.:** Q1207

Matrix (soil/water): Solid

Level (low/med): LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Differ- ence	Q	M
Mercury	0.28	0.31	9		CV



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC

SDG No.: Q1207

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1207

SAS No.: Q1207

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 INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC

SDG No.: Q1207

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1207

SAS No.: Q1207

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement 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: RU2 Engineering, LLC

SDG No.: Q1207

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1207

SAS No.: Q1207

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: RU2 Engineering, LLC

SDG No.: Q1207

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1207

SAS No.: Q1207

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: RU2 Engineering, LLC

SDG No.: Q1207

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1207

SAS No.: Q1207

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

METAL
PREPARATION &
ANALYICAL
SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client:	<u>RU2 Engineering, LLC</u>	SDG No.:	<u>Q1207</u>
Contract:	<u>RUTW01</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>Q1207</u>
		SAS No.:	<u>Q1207</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB166330							
PB166330BL	PB166330BL	MB	SOLID	01/29/2025	2.25	100.0	100.00
PB166330BS	PB166330BS	LCS	SOLID	01/29/2025	2.25	100.0	100.00
Q1207-03	JPP-2.1-012725	SAM	SOLID	01/29/2025	2.30	100.0	87.60
Q1207-03DUP	JPP-2.1-012725DUP	DUP	SOLID	01/29/2025	2.31	100.0	87.60
Q1207-03MS	JPP-2.1-012725MS	MS	SOLID	01/29/2025	2.23	100.0	87.60
Q1207-03MSD	JPP-2.1-012725MSD	MSD	SOLID	01/29/2025	2.46	100.0	87.60
Q1207-07	JPP-5.1-012725	SAM	SOLID	01/29/2025	2.47	100.0	90.90
Q1207-11	JPP-4.5-012725	SAM	SOLID	01/29/2025	2.28	100.0	81.60
Q1207-15	JPP-16.2-012725	SAM	SOLID	01/29/2025	2.34	100.0	88.80
Q1207-19	JPP-20.2-012725	SAM	SOLID	01/29/2025	2.44	100.0	87.80

Metals

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SAMPLE PREPARATION SUMMARY

Client:	<u>RU2 Engineering, LLC</u>	SDG No.:	<u>Q1207</u>
Contract:	<u>RUTW01</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>Q1207</u>
		SAS No.:	<u>Q1207</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB166349							
PB166349BL	PB166349BL	MB	SOLID	01/29/2025	0.56	35.0	100.00
PB166349BS	PB166349BS	LCS	SOLID	01/29/2025	0.57	35.0	100.00
Q1207-03	JPP-2.1-012725	SAM	SOLID	01/29/2025	0.56	35.0	87.60
Q1207-07	JPP-5.1-012725	SAM	SOLID	01/29/2025	0.54	35.0	90.90
Q1207-11	JPP-4.5-012725	SAM	SOLID	01/29/2025	0.52	35.0	81.60
Q1207-15	JPP-16.2-012725	SAM	SOLID	01/29/2025	0.54	35.0	88.80
Q1207-15DUP	JPP-16.2-012725DUP	DUP	SOLID	01/29/2025	0.53	35.0	88.80
Q1207-15MS	JPP-16.2-012725MS	MS	SOLID	01/29/2025	0.56	35.0	88.80
Q1207-15MSD	JPP-16.2-012725MSD	MSD	SOLID	01/29/2025	0.58	35.0	88.80
Q1207-19	JPP-20.2-012725	SAM	SOLID	01/29/2025	0.58	35.0	87.80

metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1207 **Sas no.:** Q1207 **Sdg no.:** Q1207

Instrument id number: **Method:** **Run number:** LB134478

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0706	HG
S0.2	S0.2	1	0708	HG
S2.5	S2.5	1	0710	HG
S5	S5	1	0713	HG
S7.5	S7.5	1	0715	HG
S10	S10	1	0723	HG
ICV74	ICV74	1	0726	HG
ICB74	ICB74	1	0728	HG
CCV84	CCV84	1	0730	HG
CCB84	CCB84	1	0732	HG
CRA	CRA	1	0735	HG
PB166349BL	PB166349BL	1	0742	HG
PB166349BS	PB166349BS	1	0744	HG
Q1207-03	JPP-2.1-012725	1	0753	HG
Q1207-07	JPP-5.1-012725	1	0756	HG
CCV85	CCV85	1	0758	HG
CCB85	CCB85	1	0800	HG
Q1207-11	JPP-4.5-012725	1	0803	HG
Q1207-15	JPP-16.2-012725	1	0811	HG
Q1207-15DUP	JPP-16.2-012725DUP	1	0813	HG
Q1207-15MS	JPP-16.2-012725MS	1	0815	HG
Q1207-15MSD	JPP-16.2-012725MSD	1	0821	HG
Q1207-19	JPP-20.2-012725	1	0823	HG
Q1207-15L	JPP-16.2-012725L	5	0830	HG
CCV86	CCV86	1	0834	HG
CCB86	CCB86	1	0837	HG

metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1207 **Sas no.:** Q1207 **Sdg no.:** Q1207

Instrument id number: **Method:** **Run number:** LB134493

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1107	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	1112	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	1116	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	1120	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	1125	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	1129	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	1149	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	1156	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	1200	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	1205	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	1210	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	1228	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	1241	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	1247	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	1333	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	1337	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	1434	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	1438	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03	JPP-2.1-012725	1	1516	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03DUP	JPP-2.1-012725DUP	1	1521	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	1525	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	1529	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03L	JPP-2.1-012725L	5	1533	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03MS	JPP-2.1-012725MS	1	1538	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03MSD	JPP-2.1-012725MSD	1	1542	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-03A	JPP-2.1-012725A	1	1546	Cu,K,Pb,Sb,V
Q1207-07	JPP-5.1-012725	1	1550	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-11	JPP-4.5-012725	1	1554	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-15	JPP-16.2-012725	1	1558	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1207-19	JPP-20.2-012725	1	1603	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB166330BL	PB166330BL	1	1607	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB166330BS	PB166330BS	1	1611	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	1624	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	1628	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1719	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	1724	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	1811	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	1815	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV08	CCV08	1	1845	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB08	CCB08	1	1851	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn