

LAB CHRONICLE

OrderID:	Q1731	OrderDate:	4/4/2025 10:52:00 AM
Client:	JACOBS Engineering Group, Inc.	Project:	Former Schlumberger STC PTC Site D3868221
Contact:	John Ynfante	Location:	L31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1731-05	EB01-040325	Water	Metals Group4	6020B	04/03/25	04/04/25	04/07/25	04/03/25
Q1731-06	EB01-040325	Water	Dissolved ICP-Group2	6020B	04/03/25	04/04/25	04/07/25	04/03/25



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

Hit Summary Sheet
SW-846

SDG No.:	Q1731	Order ID:	Q1731
Client:	JACOBS Engineering Group, Inc.	Project ID:	Former Schlumberger STC PTC Site D386

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : EB01-040325								
Q1731-05	EB01-040325	Water	Aluminum	2.86	J	1.94	20.0	ug/L
Q1731-05	EB01-040325	Water	Lead	0.23	J	0.21	1.00	ug/L
Q1731-05	EB01-040325	Water	Manganese	0.66	J	0.43	1.00	ug/L
Q1731-05	EB01-040325	Water	Potassium	38.0	J	36.4	500	ug/L



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	04/03/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	04/03/25
Client Sample ID:	EB01-040325	SDG No.:	Q1731
Lab Sample ID:	Q1731-05	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2.86	J	1	1.94	20.0	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-36-0	Antimony	0.11	U	1	0.11	2.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-38-2	Arsenic	0.089	UN	1	0.089	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-39-3	Barium	0.21	U	1	0.21	10.0	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-41-7	Beryllium	0.32	U	1	0.32	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-43-9	Cadmium	0.34	U	1	0.34	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-47-3	Chromium	0.21	U	1	0.21	2.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-50-8	Copper	0.30	U	1	0.30	2.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7439-89-6	Iron	7.81	U	1	7.81	50.0	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7439-92-1	Lead	0.23	J	1	0.21	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7439-95-4	Magnesium	19.5	U	1	19.5	500	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7439-96-5	Manganese	0.66	J*	1	0.43	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-09-7	Potassium	38.0	JN	1	36.4	500	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7782-49-2	Selenium	2.90	U	1	2.90	5.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-23-5	Sodium	128	U	1	128	500	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group4			

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:	JACOBS Engineering Group, Inc.	Date Collected:	04/03/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	04/03/25
Client Sample ID:	EB01-040325	SDG No.:	Q1731
Lab Sample ID:	Q1731-06	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7439-89-6	Iron	7.81	U	1	7.81	50.0	ug/L	04/04/25 12:05	04/07/25 14:14	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Dissolved Metals Group3			

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

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731

Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

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
ICV01	Aluminum	477	500	95	90 - 110	P	04/04/2025	14:58	LB135315
	Antimony	206	200	103	90 - 110	P	04/04/2025	14:58	LB135315
	Arsenic	207	200	103	90 - 110	P	04/04/2025	14:58	LB135315
	Barium	103	100	103	90 - 110	P	04/04/2025	14:58	LB135315
	Beryllium	104	100	104	90 - 110	P	04/04/2025	14:58	LB135315
	Cadmium	107	100	107	90 - 110	P	04/04/2025	14:58	LB135315
	Chromium	102	100	102	90 - 110	P	04/04/2025	14:58	LB135315
	Copper	93.7	100	94	90 - 110	P	04/04/2025	14:58	LB135315
	Iron	2110	2000	106	90 - 110	P	04/04/2025	14:58	LB135315
	Lead	189	200	95	90 - 110	P	04/04/2025	14:58	LB135315
	Magnesium	1110	1200	93	90 - 110	P	04/04/2025	14:58	LB135315
	Manganese	90.8	100	91	90 - 110	P	04/04/2025	14:58	LB135315
	Potassium	2020	2000	101	90 - 110	P	04/04/2025	14:58	LB135315
	Selenium	216	200	108	90 - 110	P	04/04/2025	14:58	LB135315
	Sodium	1950	2000	98	90 - 110	P	04/04/2025	14:58	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731

Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731

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
LLICV	Aluminum	20.5	20.0	102	80 - 120	P	04/04/2025	15:17	LB135315
	Antimony	2.10	2.0	105	80 - 120	P	04/04/2025	15:17	LB135315
	Arsenic	1.13	1.0	113	80 - 120	P	04/04/2025	15:17	LB135315
	Barium	9.98	10.0	100	80 - 120	P	04/04/2025	15:17	LB135315
	Beryllium	1.18	1.0	118	80 - 120	P	04/04/2025	15:17	LB135315
	Cadmium	0.99	1.0	99	80 - 120	P	04/04/2025	15:17	LB135315
	Chromium	2.13	2.0	106	80 - 120	P	04/04/2025	15:17	LB135315
	Copper	1.93	2.0	96	80 - 120	P	04/04/2025	15:17	LB135315
	Iron	58.6	50.0	117	80 - 120	P	04/04/2025	15:17	LB135315
	Lead	0.98	1.0	98	80 - 120	P	04/04/2025	15:17	LB135315
	Magnesium	512	500	102	80 - 120	P	04/04/2025	15:17	LB135315
	Manganese	0.99	1.0	99	80 - 120	P	04/04/2025	15:17	LB135315
	Potassium	519	500	104	80 - 120	P	04/04/2025	15:17	LB135315
	Selenium	5.36	5.0	107	80 - 120	P	04/04/2025	15:17	LB135315
	Sodium	516	500	103	80 - 120	P	04/04/2025	15:17	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
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
CCV01	Aluminum	49300	50000	99	90 - 110	P	04/04/2025	15:30	LB135315
	Antimony	483	500	97	90 - 110	P	04/04/2025	15:30	LB135315
	Arsenic	497	500	100	90 - 110	P	04/04/2025	15:30	LB135315
	Barium	2490	2500	100	90 - 110	P	04/04/2025	15:30	LB135315
	Beryllium	510	500	102	90 - 110	P	04/04/2025	15:30	LB135315
	Cadmium	467	500	93	90 - 110	P	04/04/2025	15:30	LB135315
	Chromium	498	500	100	90 - 110	P	04/04/2025	15:30	LB135315
	Copper	4790	5000	96	90 - 110	P	04/04/2025	15:30	LB135315
	Iron	125000	125000	100	90 - 110	P	04/04/2025	15:30	LB135315
	Lead	2520	2500	101	90 - 110	P	04/04/2025	15:30	LB135315
	Magnesium	242000	250000	97	90 - 110	P	04/04/2025	15:30	LB135315
	Manganese	4860	5000	97	90 - 110	P	04/04/2025	15:30	LB135315
	Potassium	124000	125000	99	90 - 110	P	04/04/2025	15:30	LB135315
	Selenium	475	500	95	90 - 110	P	04/04/2025	15:30	LB135315
	Sodium	246000	250000	98	90 - 110	P	04/04/2025	15:30	LB135315
CCV02	Aluminum	49300	50000	99	90 - 110	P	04/04/2025	16:10	LB135315
	Antimony	497	500	99	90 - 110	P	04/04/2025	16:10	LB135315
	Arsenic	495	500	99	90 - 110	P	04/04/2025	16:10	LB135315
	Barium	2460	2500	98	90 - 110	P	04/04/2025	16:10	LB135315
	Beryllium	511	500	102	90 - 110	P	04/04/2025	16:10	LB135315
	Cadmium	478	500	96	90 - 110	P	04/04/2025	16:10	LB135315
	Chromium	498	500	100	90 - 110	P	04/04/2025	16:10	LB135315
	Copper	4760	5000	95	90 - 110	P	04/04/2025	16:10	LB135315
	Iron	126000	125000	101	90 - 110	P	04/04/2025	16:10	LB135315
	Lead	2520	2500	101	90 - 110	P	04/04/2025	16:10	LB135315
	Magnesium	249000	250000	100	90 - 110	P	04/04/2025	16:10	LB135315
	Manganese	4840	5000	97	90 - 110	P	04/04/2025	16:10	LB135315
	Potassium	126000	125000	101	90 - 110	P	04/04/2025	16:10	LB135315
	Selenium	470	500	94	90 - 110	P	04/04/2025	16:10	LB135315
	Sodium	248000	250000	99	90 - 110	P	04/04/2025	16:10	LB135315
CCV03	Aluminum	48800	50000	98	90 - 110	P	04/04/2025	16:24	LB135315
	Antimony	484	500	97	90 - 110	P	04/04/2025	16:24	LB135315
	Arsenic	487	500	97	90 - 110	P	04/04/2025	16:24	LB135315
	Barium	2410	2500	96	90 - 110	P	04/04/2025	16:24	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731

Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

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
CCV03	Beryllium	507	500	102	90 - 110	P	04/04/2025	16:24	LB135315
	Cadmium	467	500	93	90 - 110	P	04/04/2025	16:24	LB135315
	Chromium	494	500	99	90 - 110	P	04/04/2025	16:24	LB135315
	Copper	4700	5000	94	90 - 110	P	04/04/2025	16:24	LB135315
	Iron	123000	125000	99	90 - 110	P	04/04/2025	16:24	LB135315
	Lead	2490	2500	100	90 - 110	P	04/04/2025	16:24	LB135315
	Magnesium	247000	250000	99	90 - 110	P	04/04/2025	16:24	LB135315
	Manganese	4740	5000	95	90 - 110	P	04/04/2025	16:24	LB135315
	Potassium	124000	125000	99	90 - 110	P	04/04/2025	16:24	LB135315
	Selenium	470	500	94	90 - 110	P	04/04/2025	16:24	LB135315
	Sodium	246000	250000	99	90 - 110	P	04/04/2025	16:24	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
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
ICV01	Aluminum	468	500	94	90 - 110	P	04/07/2025	12:40	LB135332
	Antimony	197	200	98	90 - 110	P	04/07/2025	12:40	LB135332
	Arsenic	196	200	98	90 - 110	P	04/07/2025	12:40	LB135332
	Barium	99.6	100	100	90 - 110	P	04/07/2025	12:40	LB135332
	Beryllium	94.6	100	95	90 - 110	P	04/07/2025	12:40	LB135332
	Cadmium	106	100	106	90 - 110	P	04/07/2025	12:40	LB135332
	Chromium	99.1	100	99	90 - 110	P	04/07/2025	12:40	LB135332
	Copper	93.3	100	93	90 - 110	P	04/07/2025	12:40	LB135332
	Iron	1980	2000	99	90 - 110	P	04/07/2025	12:40	LB135332
	Lead	198	200	99	90 - 110	P	04/07/2025	12:40	LB135332
	Magnesium	1180	1200	99	90 - 110	P	04/07/2025	12:40	LB135332
	Manganese	93.7	100	94	90 - 110	P	04/07/2025	12:40	LB135332
	Potassium	1840	2000	92	90 - 110	P	04/07/2025	12:40	LB135332
	Selenium	200	200	100	90 - 110	P	04/07/2025	12:40	LB135332
	Sodium	2010	2000	100	90 - 110	P	04/07/2025	12:40	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731

Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

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
LLICV	Aluminum	23.7	20.0	119	80 - 120	P	04/07/2025	12:44	LB135332
	Antimony	1.89	2.0	94	80 - 120	P	04/07/2025	12:44	LB135332
	Arsenic	0.98	1.0	98	80 - 120	P	04/07/2025	12:44	LB135332
	Barium	9.25	10.0	92	80 - 120	P	04/07/2025	12:44	LB135332
	Beryllium	1.04	1.0	104	80 - 120	P	04/07/2025	12:44	LB135332
	Cadmium	0.93	1.0	93	80 - 120	P	04/07/2025	12:44	LB135332
	Chromium	2.00	2.0	100	80 - 120	P	04/07/2025	12:44	LB135332
	Copper	1.94	2.0	97	80 - 120	P	04/07/2025	12:44	LB135332
	Iron	50.0	50.0	100	80 - 120	P	04/07/2025	12:44	LB135332
	Lead	0.94	1.0	94	80 - 120	P	04/07/2025	12:44	LB135332
	Magnesium	533	500	106	80 - 120	P	04/07/2025	12:44	LB135332
	Manganese	0.99	1.0	99	80 - 120	P	04/07/2025	12:44	LB135332
	Potassium	488	500	98	80 - 120	P	04/07/2025	12:44	LB135332
	Selenium	4.90	5.0	98	80 - 120	P	04/07/2025	12:44	LB135332
	Sodium	533	500	107	80 - 120	P	04/07/2025	12:44	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
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
CCV01	Aluminum	53100	50000	106	90 - 110	P	04/07/2025	13:07	LB135332
	Antimony	519	500	104	90 - 110	P	04/07/2025	13:07	LB135332
	Arsenic	513	500	103	90 - 110	P	04/07/2025	13:07	LB135332
	Barium	2590	2500	104	90 - 110	P	04/07/2025	13:07	LB135332
	Beryllium	539	500	108	90 - 110	P	04/07/2025	13:07	LB135332
	Cadmium	510	500	102	90 - 110	P	04/07/2025	13:07	LB135332
	Chromium	514	500	103	90 - 110	P	04/07/2025	13:07	LB135332
	Copper	4640	5000	93	90 - 110	P	04/07/2025	13:07	LB135332
	Iron	124000	125000	99	90 - 110	P	04/07/2025	13:07	LB135332
	Lead	2550	2500	102	90 - 110	P	04/07/2025	13:07	LB135332
	Magnesium	267000	250000	107	90 - 110	P	04/07/2025	13:07	LB135332
	Manganese	5070	5000	101	90 - 110	P	04/07/2025	13:07	LB135332
	Potassium	131000	125000	104	90 - 110	P	04/07/2025	13:07	LB135332
	Selenium	494	500	99	90 - 110	P	04/07/2025	13:07	LB135332
	Sodium	269000	250000	108	90 - 110	P	04/07/2025	13:07	LB135332
CCV02	Aluminum	52200	50000	104	90 - 110	P	04/07/2025	13:58	LB135332
	Antimony	511	500	102	90 - 110	P	04/07/2025	13:58	LB135332
	Arsenic	479	500	96	90 - 110	P	04/07/2025	13:58	LB135332
	Barium	2530	2500	101	90 - 110	P	04/07/2025	13:58	LB135332
	Beryllium	513	500	102	90 - 110	P	04/07/2025	13:58	LB135332
	Cadmium	500	500	100	90 - 110	P	04/07/2025	13:58	LB135332
	Chromium	492	500	98	90 - 110	P	04/07/2025	13:58	LB135332
	Copper	4770	5000	95	90 - 110	P	04/07/2025	13:58	LB135332
	Iron	119000	125000	95	90 - 110	P	04/07/2025	13:58	LB135332
	Lead	2480	2500	99	90 - 110	P	04/07/2025	13:58	LB135332
	Magnesium	260000	250000	104	90 - 110	P	04/07/2025	13:58	LB135332
	Manganese	4870	5000	97	90 - 110	P	04/07/2025	13:58	LB135332
	Potassium	128000	125000	103	90 - 110	P	04/07/2025	13:58	LB135332
	Selenium	471	500	94	90 - 110	P	04/07/2025	13:58	LB135332
	Sodium	269000	250000	108	90 - 110	P	04/07/2025	13:58	LB135332
CCV03	Aluminum	53400	50000	107	90 - 110	P	04/07/2025	15:00	LB135332
	Antimony	499	500	100	90 - 110	P	04/07/2025	15:00	LB135332
	Arsenic	476	500	95	90 - 110	P	04/07/2025	15:00	LB135332
	Barium	2480	2500	99	90 - 110	P	04/07/2025	15:00	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731

Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

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
CCV03	Beryllium	499	500	100	90 - 110	P	04/07/2025	15:00	LB135332
	Cadmium	493	500	98	90 - 110	P	04/07/2025	15:00	LB135332
	Chromium	510	500	102	90 - 110	P	04/07/2025	15:00	LB135332
	Copper	5200	5000	104	90 - 110	P	04/07/2025	15:00	LB135332
	Iron	125000	125000	100	90 - 110	P	04/07/2025	15:00	LB135332
	Lead	2460	2500	98	90 - 110	P	04/07/2025	15:00	LB135332
	Magnesium	268000	250000	107	90 - 110	P	04/07/2025	15:00	LB135332
	Manganese	5040	5000	101	90 - 110	P	04/07/2025	15:00	LB135332
	Potassium	129000	125000	103	90 - 110	P	04/07/2025	15:00	LB135332
	Selenium	469	500	94	90 - 110	P	04/07/2025	15:00	LB135332
	Sodium	272000	250000	109	90 - 110	P	04/07/2025	15:00	LB135332

Metals

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CRDL STANDARD FOR AA & ICP

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
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
CRI	Aluminum	18.5	20.0	93	70 - 130	P	04/04/2025	15:37	LB135315
	Antimony	2.01	2.0	100	70 - 130	P	04/04/2025	15:37	LB135315
	Arsenic	1.10	1.0	110	70 - 130	P	04/04/2025	15:37	LB135315
	Barium	9.75	10.0	98	70 - 130	P	04/04/2025	15:37	LB135315
	Beryllium	1.04	1.0	104	70 - 130	P	04/04/2025	15:37	LB135315
	Cadmium	0.93	1.0	93	70 - 130	P	04/04/2025	15:37	LB135315
	Chromium	2.02	2.0	101	70 - 130	P	04/04/2025	15:37	LB135315
	Copper	2.40	2.0	120	70 - 130	P	04/04/2025	15:37	LB135315
	Iron	54.1	50.0	108	70 - 130	P	04/04/2025	15:37	LB135315
	Lead	0.98	1.0	98	70 - 130	P	04/04/2025	15:37	LB135315
	Magnesium	485	500	97	70 - 130	P	04/04/2025	15:37	LB135315
	Manganese	1.01	1.0	101	50 - 150	P	04/04/2025	15:37	LB135315
	Potassium	488	500	98	70 - 130	P	04/04/2025	15:37	LB135315
	Selenium	5.10	5.0	102	70 - 130	P	04/04/2025	15:37	LB135315
	Sodium	498	500	100	70 - 130	P	04/04/2025	15:37	LB135315
CRI	Aluminum	24.5	20.0	123	70 - 130	P	04/07/2025	13:20	LB135332
	Antimony	1.92	2.0	96	70 - 130	P	04/07/2025	13:20	LB135332
	Arsenic	1.03	1.0	103	70 - 130	P	04/07/2025	13:20	LB135332
	Barium	9.37	10.0	94	70 - 130	P	04/07/2025	13:20	LB135332
	Beryllium	1.00	1.0	100	70 - 130	P	04/07/2025	13:20	LB135332
	Cadmium	0.95	1.0	95	70 - 130	P	04/07/2025	13:20	LB135332
	Chromium	1.87	2.0	94	70 - 130	P	04/07/2025	13:20	LB135332
	Copper	1.86	2.0	93	70 - 130	P	04/07/2025	13:20	LB135332
	Iron	48.5	50.0	97	70 - 130	P	04/07/2025	13:20	LB135332
	Lead	0.91	1.0	91	70 - 130	P	04/07/2025	13:20	LB135332
	Magnesium	541	500	108	70 - 130	P	04/07/2025	13:20	LB135332
	Manganese	1.00	1.0	100	50 - 150	P	04/07/2025	13:20	LB135332
	Potassium	513	500	103	70 - 130	P	04/07/2025	13:20	LB135332
	Selenium	4.91	5.0	98	70 - 130	P	04/07/2025	13:20	LB135332
	Sodium	564	500	113	70 - 130	P	04/07/2025	13:20	LB135332



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: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	20.0	+/-20.0	U	20.0	P	04/04/2025	15:20	LB135315
	Antimony	2.00	+/-2.00	U	2.00	P	04/04/2025	15:20	LB135315
	Arsenic	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Barium	10.0	+/-10.0	U	10.0	P	04/04/2025	15:20	LB135315
	Beryllium	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Cadmium	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Chromium	2.00	+/-2.00	U	2.00	P	04/04/2025	15:20	LB135315
	Copper	2.00	+/-2.00	U	2.00	P	04/04/2025	15:20	LB135315
	Iron	50.0	+/-50.0	U	50.0	P	04/04/2025	15:20	LB135315
	Lead	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Magnesium	500	+/-500	U	500	P	04/04/2025	15:20	LB135315
	Manganese	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Potassium	500	+/-500	U	500	P	04/04/2025	15:20	LB135315
	Selenium	5.00	+/-5.00	U	5.00	P	04/04/2025	15:20	LB135315
	Sodium	500	+/-500	U	500	P	04/04/2025	15:20	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.		SDG No.: Q1731							
Contract: JACO05	Lab Code: CHEM	Case No.: Q1731	SAS No.: Q1731						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	20.0	+/-20.0	U	20.0	P	04/04/2025	15:33	LB135315
	Antimony	2.00	+/-2.00	U	2.00	P	04/04/2025	15:33	LB135315
	Arsenic	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Barium	10.0	+/-10.0	U	10.0	P	04/04/2025	15:33	LB135315
	Beryllium	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Cadmium	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Chromium	2.00	+/-2.00	U	2.00	P	04/04/2025	15:33	LB135315
	Copper	0.61	+/-2.00	J	2.00	P	04/04/2025	15:33	LB135315
	Iron	50.0	+/-50.0	U	50.0	P	04/04/2025	15:33	LB135315
	Lead	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Magnesium	500	+/-500	U	500	P	04/04/2025	15:33	LB135315
	Manganese	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Potassium	500	+/-500	U	500	P	04/04/2025	15:33	LB135315
	Selenium	5.00	+/-5.00	U	5.00	P	04/04/2025	15:33	LB135315
	Sodium	500	+/-500	U	500	P	04/04/2025	15:33	LB135315
CCB02	Aluminum	20.0	+/-20.0	U	20.0	P	04/04/2025	16:15	LB135315
	Antimony	2.00	+/-2.00	U	2.00	P	04/04/2025	16:15	LB135315
	Arsenic	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Barium	10.0	+/-10.0	U	10.0	P	04/04/2025	16:15	LB135315
	Beryllium	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Cadmium	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Chromium	0.40	+/-2.00	J	2.00	P	04/04/2025	16:15	LB135315
	Copper	0.36	+/-2.00	J	2.00	P	04/04/2025	16:15	LB135315
	Iron	50.0	+/-50.0	U	50.0	P	04/04/2025	16:15	LB135315
	Lead	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Magnesium	500	+/-500	U	500	P	04/04/2025	16:15	LB135315
	Manganese	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Potassium	500	+/-500	U	500	P	04/04/2025	16:15	LB135315
	Selenium	5.00	+/-5.00	U	5.00	P	04/04/2025	16:15	LB135315
	Sodium	500	+/-500	U	500	P	04/04/2025	16:15	LB135315
CCB03	Aluminum	20.0	+/-20.0	U	20.0	P	04/04/2025	16:28	LB135315
	Antimony	2.00	+/-2.00	U	2.00	P	04/04/2025	16:28	LB135315
	Arsenic	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Barium	10.0	+/-10.0	U	10.0	P	04/04/2025	16:28	LB135315
	Beryllium	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Cadmium	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Chromium	0.35	+/-2.00	J	2.00	P	04/04/2025	16:28	LB135315
	Copper	0.33	+/-2.00	J	2.00	P	04/04/2025	16:28	LB135315
	Iron	50.0	+/-50.0	U	50.0	P	04/04/2025	16:28	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: Q1731

Contract: JACO05

Lab Code: CHEM

Case No.: Q1731

SAS No.: Q1731

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Lead	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Magnesium	500	+/-500	U	500	P	04/04/2025	16:28	LB135315
	Manganese	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Potassium	500	+/-500	U	500	P	04/04/2025	16:28	LB135315
	Selenium	5.00	+/-5.00	U	5.00	P	04/04/2025	16:28	LB135315
	Sodium	500	+/-500	U	500	P	04/04/2025	16:28	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: Q1731

Contract: JACO05

Lab Code: CHEM

Case No.: Q1731

SAS No.: Q1731

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	2.11	+/-20.0	J	20.0	P	04/07/2025	12:48	LB135332
	Antimony	2.00	+/-2.00	U	2.00	P	04/07/2025	12:48	LB135332
	Arsenic	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Barium	10.0	+/-10.0	U	10.0	P	04/07/2025	12:48	LB135332
	Beryllium	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Cadmium	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Chromium	2.00	+/-2.00	U	2.00	P	04/07/2025	12:48	LB135332
	Copper	2.00	+/-2.00	U	2.00	P	04/07/2025	12:48	LB135332
	Iron	50.0	+/-50.0	U	50.0	P	04/07/2025	12:48	LB135332
	Lead	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Magnesium	500	+/-500	U	500	P	04/07/2025	12:48	LB135332
	Manganese	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Potassium	500	+/-500	U	500	P	04/07/2025	12:48	LB135332
	Selenium	5.00	+/-5.00	U	5.00	P	04/07/2025	12:48	LB135332
	Sodium	500	+/-500	U	500	P	04/07/2025	12:48	LB135332

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: Q1731

Contract: JACO05

Lab Code: CHEM

Case No.: Q1731

SAS No.: Q1731

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	20.0	+/-20.0	U	20.0	P	04/07/2025	13:17	LB135332
	Antimony	2.00	+/-2.00	U	2.00	P	04/07/2025	13:17	LB135332
	Arsenic	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Barium	10.0	+/-10.0	U	10.0	P	04/07/2025	13:17	LB135332
	Beryllium	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Cadmium	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Chromium	2.00	+/-2.00	U	2.00	P	04/07/2025	13:17	LB135332
	Copper	2.00	+/-2.00	U	2.00	P	04/07/2025	13:17	LB135332
	Iron	50.0	+/-50.0	U	50.0	P	04/07/2025	13:17	LB135332
	Lead	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Magnesium	500	+/-500	U	500	P	04/07/2025	13:17	LB135332
	Manganese	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Potassium	500	+/-500	U	500	P	04/07/2025	13:17	LB135332
	Selenium	5.00	+/-5.00	U	5.00	P	04/07/2025	13:17	LB135332
	Sodium	500	+/-500	U	500	P	04/07/2025	13:17	LB135332
CCB02	Aluminum	20.0	+/-20.0	U	20.0	P	04/07/2025	14:05	LB135332
	Antimony	2.00	+/-2.00	U	2.00	P	04/07/2025	14:05	LB135332
	Arsenic	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Barium	10.0	+/-10.0	U	10.0	P	04/07/2025	14:05	LB135332
	Beryllium	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Cadmium	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Chromium	2.00	+/-2.00	U	2.00	P	04/07/2025	14:05	LB135332
	Copper	2.00	+/-2.00	U	2.00	P	04/07/2025	14:05	LB135332
	Iron	50.0	+/-50.0	U	50.0	P	04/07/2025	14:05	LB135332
	Lead	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Magnesium	500	+/-500	U	500	P	04/07/2025	14:05	LB135332
	Manganese	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Potassium	500	+/-500	U	500	P	04/07/2025	14:05	LB135332
	Selenium	5.00	+/-5.00	U	5.00	P	04/07/2025	14:05	LB135332
	Sodium	500	+/-500	U	500	P	04/07/2025	14:05	LB135332
CCB03	Aluminum	20.0	+/-20.0	U	20.0	P	04/07/2025	15:13	LB135332
	Antimony	2.00	+/-2.00	U	2.00	P	04/07/2025	15:13	LB135332
	Arsenic	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Barium	10.0	+/-10.0	U	10.0	P	04/07/2025	15:13	LB135332
	Beryllium	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Cadmium	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Chromium	2.00	+/-2.00	U	2.00	P	04/07/2025	15:13	LB135332
	Copper	2.00	+/-2.00	U	2.00	P	04/07/2025	15:13	LB135332
	Iron	50.0	+/-50.0	U	50.0	P	04/07/2025	15:13	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: Q1731

Contract: JACO05

Lab Code: CHEM

Case No.: Q1731

SAS No.: Q1731

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Lead	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Magnesium	500	+/-500	U	500	P	04/07/2025	15:13	LB135332
	Manganese	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Potassium	500	+/-500	U	500	P	04/07/2025	15:13	LB135332
	Selenium	5.00	+/-5.00	U	5.00	P	04/07/2025	15:13	LB135332
	Sodium	500	+/-500	U	500	P	04/07/2025	15:13	LB135332

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: Q1731

Instrument: P7

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167465BL	WATER			Batch Number:	PB167465		Prep Date:	04/04/2025	
	Aluminum	20.0	<20.0	U	20.0	P	04/04/2025	15:40	LB135315
	Antimony	2.00	<2.00	U	2.00	P	04/04/2025	15:40	LB135315
	Arsenic	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Barium	10.0	<10.0	U	10.0	P	04/04/2025	15:40	LB135315
	Beryllium	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Cadmium	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Chromium	2.00	<2.00	U	2.00	P	04/04/2025	15:40	LB135315
	Copper	2.00	<2.00	U	2.00	P	04/04/2025	15:40	LB135315
	Iron	50.0	<50.0	U	50.0	P	04/04/2025	15:40	LB135315
	Lead	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Magnesium	500	<500	U	500	P	04/04/2025	15:40	LB135315
	Manganese	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Potassium	500	<500	U	500	P	04/04/2025	15:40	LB135315
	Selenium	5.00	<5.00	U	5.00	P	04/04/2025	15:40	LB135315
	Sodium	500	<500	U	500	P	04/04/2025	15:40	LB135315

Metals
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INTERFERENCE CHECK SAMPLE

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
ICS Source: EPA **Instrument ID:** P7

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	97000	100000	97	0	0	04/04/2025	15:24	LB135315
	Antimony	1.32	1.5	88	-2.5	5.5	04/04/2025	15:24	LB135315
	Arsenic	0.34	0.1	340	-1.9	2.1	04/04/2025	15:24	LB135315
	Barium	1.56	1.2	130	-18.8	21.2	04/04/2025	15:24	LB135315
	Beryllium	0.30			-2	2	04/04/2025	15:24	LB135315
	Cadmium	0.19	0.7	27	-1.3	2.7	04/04/2025	15:24	LB135315
	Chromium	21.2	21.0	101	17	25	04/04/2025	15:24	LB135315
	Copper	9.82	8.0	123	4	12	04/04/2025	15:24	LB135315
	Iron	106000	100000	106	0	0	04/04/2025	15:24	LB135315
	Lead	4.72	4.0	118	2	6	04/04/2025	15:24	LB135315
	Magnesium	99300	100000	99	0	0	04/04/2025	15:24	LB135315
	Manganese	7.49	7.0	107	5	9	04/04/2025	15:24	LB135315
	Potassium	103000	100000	103	0	0	04/04/2025	15:24	LB135315
	Selenium	0	0.3		-9.7	10	04/04/2025	15:24	LB135315
	Sodium	107000	100000	107	0	0	04/04/2025	15:24	LB135315
ICSAB01	Aluminum	90300	100000	90	0	0	04/04/2025	15:27	LB135315
	Antimony	20.8	22.0	94	18	26	04/04/2025	15:27	LB135315
	Arsenic	20.4	19.0	107	16.2	21.9	04/04/2025	15:27	LB135315
	Barium	21.1	22.0	96	2	42	04/04/2025	15:27	LB135315
	Beryllium	21.3	19.0	112	16.2	21.9	04/04/2025	15:27	LB135315
	Cadmium	19.6	20.0	98	17	23	04/04/2025	15:27	LB135315
	Chromium	40.5	40.0	101	34	46	04/04/2025	15:27	LB135315
	Copper	27.9	25.0	112	21	29	04/04/2025	15:27	LB135315
	Iron	99500	100000	100	0	0	04/04/2025	15:27	LB135315
	Lead	23.9	25.0	96	21.3	28.8	04/04/2025	15:27	LB135315
	Magnesium	92200	100000	92	0	0	04/04/2025	15:27	LB135315
	Manganese	25.7	27.0	95	23	31.1	04/04/2025	15:27	LB135315
	Potassium	97200	100000	97	0	0	04/04/2025	15:27	LB135315
	Selenium	19.9	19.0	105	9	29	04/04/2025	15:27	LB135315
	Sodium	100000	100000	100	0	0	04/04/2025	15:27	LB135315
ICSA01	Aluminum	94800	100000	95	0	0	04/07/2025	12:57	LB135332
	Antimony	1.24	1.5	83	-2.5	5.5	04/07/2025	12:57	LB135332
	Arsenic	0.37	0.1	370	-1.9	2.1	04/07/2025	12:57	LB135332
	Barium	1.42	1.2	118	-18.8	21.2	04/07/2025	12:57	LB135332
	Beryllium	0			-2	2	04/07/2025	12:57	LB135332
	Cadmium	0.49	0.7	70	-1.3	2.7	04/07/2025	12:57	LB135332
	Chromium	19.4	21.0	92	17	25	04/07/2025	12:57	LB135332
	Copper	6.88	8.0	86	4	12	04/07/2025	12:57	LB135332
	Iron	102000	100000	102	0	0	04/07/2025	12:57	LB135332
	Lead	4.37	4.0	109	2	6	04/07/2025	12:57	LB135332
	Magnesium	102000	100000	102	0	0	04/07/2025	12:57	LB135332
	Manganese	6.78	7.0	97	5	9	04/07/2025	12:57	LB135332

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
ICS Source: EPA **Instrument ID:** P8

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	Potassium	102000	100000	102	0	0	04/07/2025	12:57	LB135332
	Selenium	0.10	0.3	33	-9.7	10	04/07/2025	12:57	LB135332
	Sodium	109000	100000	109	0	0	04/07/2025	12:57	LB135332
ICSAB01	Aluminum	96200	100000	96	0	0	04/07/2025	13:04	LB135332
	Antimony	21.3	22.0	97	18	26	04/07/2025	13:04	LB135332
	Arsenic	21.0	19.0	110	16.2	21.9	04/07/2025	13:04	LB135332
	Barium	21.5	22.0	98	2	42	04/07/2025	13:04	LB135332
	Beryllium	21.3	19.0	112	16.2	21.9	04/07/2025	13:04	LB135332
	Cadmium	20.8	20.0	104	17	23	04/07/2025	13:04	LB135332
	Chromium	39.6	40.0	99	34	46	04/07/2025	13:04	LB135332
	Copper	24.7	25.0	99	21	29	04/07/2025	13:04	LB135332
	Iron	101000	100000	101	0	0	04/07/2025	13:04	LB135332
	Lead	23.7	25.0	95	21.3	28.8	04/07/2025	13:04	LB135332
	Magnesium	103000	100000	103	0	0	04/07/2025	13:04	LB135332
	Manganese	24.9	27.0	92	23	31.1	04/07/2025	13:04	LB135332
	Potassium	103000	100000	103	0	0	04/07/2025	13:04	LB135332
	Selenium	21.2	19.0	112	9	29	04/07/2025	13:04	LB135332
	Sodium	110000	100000	110	0	0	04/07/2025	13:04	LB135332



METAL QC DATA

metals
- 5a -
MATRIX SPIKE SUMMARY

client:	<u>JACOBS Engineering Group, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>Q1731</u>
contract:	<u>JACO05</u>	lab code:	<u>CHEM</u>	case no.:	<u>Q1731</u>
matrix:	<u>Water</u>	sample id:	<u>Q1711-01</u>	client id:	<u>MW-18B-56-040225MS</u>
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>Q1711-02</u>	Percent Solids for Spike Sample:	<u>NA</u>

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	9970		1470		10000	85		P
Antimony	ug/L	75 - 125	474		1.67	J	500	95		P
Arsenic	ug/L	75 - 125	0.93	J	0.85	J	500	0	N	P
Barium	ug/L	75 - 125	2240		119		2500	85		P
Beryllium	ug/L	75 - 125	491		1.00	U	500	98		P
Cadmium	ug/L	75 - 125	461		1.00	U	500	92		P
Chromium	ug/L	75 - 125	456		0.58	J	500	91		P
Copper	ug/L	75 - 125	4200		2.00	U	5000	84		P
Iron	ug/L	75 - 125	23000		560		25000	90		P
Lead	ug/L	75 - 125	2340		1.00	U	2500	94		P
Magnesium	ug/L	75 - 125	46600		315	J	50000	93		P
Manganese	ug/L	75 - 125	4190		4.19		5000	84		P
Potassium	ug/L	75 - 125	40800		23000		25000	71	N	P
Selenium	ug/L	75 - 125	481		5.00	U	500	96		P
Sodium	ug/L	75 - 125	64500		20000		50000	89		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>JACOBS Engineering Group, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>Q1731</u>
contract:	<u>JACO05</u>	lab code:	<u>CHEM</u>	case no.:	<u>Q1731</u>
matrix:	<u>Water</u>	sample id:	<u>Q1711-01</u>	client id:	<u>MW-18B-56-040225MSD</u>
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>Q1711-03</u>	Percent Solids for Spike Sample:	<u>NA</u>

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	10200		1470		10000	87		P
Antimony	ug/L	75 - 125	489		1.67	J	500	97		P
Arsenic	ug/L	75 - 125	1.01		0.85	J	500	0	N	P
Barium	ug/L	75 - 125	2280		119		2500	87		P
Beryllium	ug/L	75 - 125	495		1.00	U	500	99		P
Cadmium	ug/L	75 - 125	472		1.00	U	500	94		P
Chromium	ug/L	75 - 125	465		0.58	J	500	93		P
Copper	ug/L	75 - 125	4290		2.00	U	5000	86		P
Iron	ug/L	75 - 125	23400		560		25000	91		P
Lead	ug/L	75 - 125	2400		1.00	U	2500	96		P
Magnesium	ug/L	75 - 125	46800		315	J	50000	93		P
Manganese	ug/L	75 - 125	4270		4.19		5000	85		P
Potassium	ug/L	75 - 125	42000		23000		25000	76		P
Selenium	ug/L	75 - 125	490		5.00	U	500	98		P
Sodium	ug/L	75 - 125	64300		20000		50000	89		P

metals
- 5a -
MATRIX SPIKE SUMMARY

client:	<u>JACOBS Engineering Group, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>Q1731</u>
contract:	<u>JACO05</u>	lab code:	<u>CHEM</u>	case no.:	<u>Q1731</u>
matrix:	<u>Water</u>	sample id:	<u>Q1711-14</u>	client id:	<u>MW-18B-56-040225MS</u>
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>Q1711-15</u>	Percent Solids for Spike Sample:	<u>NA</u>

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	10700		1520		10000	92		P
Antimony	ug/L	75 - 125	514		1.75	J	500	102		P
Arsenic	ug/L	75 - 125	0.98	J	0.93	J	500	0	N	P
Barium	ug/L	75 - 125	2370		124		2500	90		P
Beryllium	ug/L	75 - 125	469		1.00	U	500	94		P
Cadmium	ug/L	75 - 125	507		1.00	U	500	101		P
Chromium	ug/L	75 - 125	470		2.00	U	500	94		P
Copper	ug/L	75 - 125	4210		2.00	U	5000	84		P
Iron	ug/L	75 - 125	21600		40.3	J	25000	86		P
Lead	ug/L	75 - 125	2400		1.00	U	2500	96		P
Magnesium	ug/L	75 - 125	52500		399	J	50000	104		P
Manganese	ug/L	75 - 125	4360		9.43		5000	87		P
Potassium	ug/L	75 - 125	45200		25100		25000	81		P
Selenium	ug/L	75 - 125	479		5.00	U	500	96		P
Sodium	ug/L	75 - 125	71500		22000		50000	99		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>JACOBS Engineering Group, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>Q1731</u>
contract:	<u>JACO05</u>	lab code:	<u>CHEM</u>	case no.:	<u>Q1731</u>
matrix:	<u>Water</u>	sample id:	<u>Q1711-14</u>	client id:	<u>MW-18B-56-040225MSD</u>
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>Q1711-16</u>	Percent Solids for Spike Sample:	<u>NA</u>

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	10700		1520		10000	91		P
Antimony	ug/L	75 - 125	511		1.75	J	500	102		P
Arsenic	ug/L	75 - 125	0.95	J	0.93	J	500	0	N	P
Barium	ug/L	75 - 125	2340		124		2500	89		P
Beryllium	ug/L	75 - 125	478		1.00	U	500	96		P
Cadmium	ug/L	75 - 125	502		1.00	U	500	100		P
Chromium	ug/L	75 - 125	474		2.00	U	500	95		P
Copper	ug/L	75 - 125	4210		2.00	U	5000	84		P
Iron	ug/L	75 - 125	21900		40.3	J	25000	87		P
Lead	ug/L	75 - 125	2440		1.00	U	2500	98		P
Magnesium	ug/L	75 - 125	52900		399	J	50000	105		P
Manganese	ug/L	75 - 125	4380		9.43		5000	87		P
Potassium	ug/L	75 - 125	45600		25100		25000	82		P
Selenium	ug/L	75 - 125	487		5.00	U	500	97		P
Sodium	ug/L	75 - 125	72900		22000		50000	102		P

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Level:** LOW **Client ID:** MW-18B-56-040225A
Sample ID: Q1711-01 **Spiked ID:** Q1711-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	1.10		0.85	J	500	0		P
Potassium	ug/L	75 - 125	41500		23000		25000	74		P

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Level:** LOW **Client ID:** MW-18B-56-040225A
Sample ID: Q1711-14 **Spiked ID:** Q1711-14A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	1.01		0.93	J	500	0		P

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Sample ID:** Q1711-01 **Client ID:** MW-18B-56-040225DUP
Percent Solids for Sample: NA **Duplicate ID** Q1711-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1470		1460		1		P
Antimony	ug/L	20	1.67	J	1.67	J	0		P
Arsenic	ug/L	20	0.85	J	0.93	J	9		P
Barium	ug/L	20	119		120		1		P
Beryllium	ug/L	20	1.00	U	1.00	U			P
Cadmium	ug/L	20	1.00	U	1.00	U			P
Chromium	ug/L	20	0.58	J	0.40	J	37		P
Copper	ug/L	20	2.00	U	2.00	U			P
Iron	ug/L	20	560		550		2		P
Lead	ug/L	20	1.00	U	1.00	U			P
Magnesium	ug/L	20	315	J	317	J	1		P
Manganese	ug/L	20	4.19		5.31		24		P
Potassium	ug/L	20	23000		23000		0		P
Selenium	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	20000		19800		1		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Sample ID:** Q1711-02 **Client ID:** MW-18B-56-040225MSD
Percent Solids for Sample: NA **Duplicate ID** Q1711-03 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	9970		10200		2		P
Antimony	ug/L	20	474		489		3		P
Arsenic	ug/L	20	0.93	J	1.01		8		P
Barium	ug/L	20	2240		2280		2		P
Beryllium	ug/L	20	491		495		1		P
Cadmium	ug/L	20	461		472		2		P
Chromium	ug/L	20	456		465		2		P
Copper	ug/L	20	4200		4290		2		P
Iron	ug/L	20	23000		23400		2		P
Lead	ug/L	20	2340		2400		3		P
Magnesium	ug/L	20	46600		46800		0		P
Manganese	ug/L	20	4190		4270		2		P
Potassium	ug/L	20	40800		42000		3		P
Selenium	ug/L	20	481		490		2		P
Sodium	ug/L	20	64500		64300		0		P

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Sample ID:** Q1711-14 **Client ID:** MW-18B-56-040225DUP
Percent Solids for Sample: NA **Duplicate ID** Q1711-14DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1520		1520		0		P
Antimony	ug/L	20	1.75	J	1.77	J	1		P
Arsenic	ug/L	20	0.93	J	0.88	J	6		P
Barium	ug/L	20	124		130		5		P
Beryllium	ug/L	20	1.00	U	1.00	U			P
Cadmium	ug/L	20	1.00	U	1.00	U			P
Chromium	ug/L	20	2.00	U	2.00	U			P
Copper	ug/L	20	2.00	U	2.00	U			P
Iron	ug/L	20	40.3	J	40.7	J	1		P
Lead	ug/L	20	1.00	U	1.00	U			P
Magnesium	ug/L	20	399	J	399	J	0		P
Manganese	ug/L	20	9.43		6.80		32	*	P
Potassium	ug/L	20	25100		24700		2		P
Selenium	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	22000		22100		0		P

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Sample ID:** Q1711-15 **Client ID:** MW-18B-56-040225MSD
Percent Solids for Sample: NA **Duplicate ID** Q1711-16 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	10700		10700		0		P
Antimony	ug/L	20	514		511		1		P
Arsenic	ug/L	20	0.98	J	0.95	J	3		P
Barium	ug/L	20	2370		2340		1		P
Beryllium	ug/L	20	469		478		2		P
Cadmium	ug/L	20	507		502		1		P
Chromium	ug/L	20	470		474		1		P
Copper	ug/L	20	4210		4210		0		P
Iron	ug/L	20	21600		21900		1		P
Lead	ug/L	20	2400		2440		2		P
Magnesium	ug/L	20	52500		52900		1		P
Manganese	ug/L	20	4360		4380		0		P
Potassium	ug/L	20	45200		45600		1		P
Selenium	ug/L	20	479		487		2		P
Sodium	ug/L	20	71500		72900		2		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167465BS							
Aluminum	ug/L	10000	10100		101	80 - 120	P
Antimony	ug/L	500	507		101	80 - 120	P
Arsenic	ug/L	500	511		102	80 - 120	P
Barium	ug/L	2500	2570		103	80 - 120	P
Beryllium	ug/L	500	511		102	80 - 120	P
Cadmium	ug/L	500	509		102	80 - 120	P
Chromium	ug/L	500	511		102	80 - 120	P
Copper	ug/L	5000	5130		103	80 - 120	P
Iron	ug/L	25000	27400		110	80 - 120	P
Lead	ug/L	2500	2520		101	80 - 120	P
Magnesium	ug/L	50000	51000		102	80 - 120	P
Manganese	ug/L	5000	5010		100	80 - 120	P
Potassium	ug/L	25000	25400		102	80 - 120	P
Selenium	ug/L	500	508		102	80 - 120	P
Sodium	ug/L	50000	52300		105	80 - 120	P

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P7

Start Date : 04/04/2025

Run Number: LB135315

End Date : 04/04/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	S0	1409	100		100		100		100		100	
S2	S2	1415	102		100		100		98		100	
S3	S3	1419	103		99		98		99		99	
S4	S4	1422	105		101		100		99		100	
S5	S5	1425	109		98		99		98		102	
S6	S6	1428	110		100		99		97		102	
S7	S7	1431	110		102		102		98		104	
S8	S8	1433	112		114		114		103		116	
ICV01	ICV01	1458	96		105		107		107		106	
LLICV	LLICV	1517	97		105		107		107		108	
ICB01	ICB01	1520	96		106		107		107		108	
ICSA01	ICSA01	1524	99		104		107		103		110	
ICSAB01	ICSAB01	1527	99		107		110		106		114	
CCV01	CCV01	1530	101		107		111		103		113	
CCB01	CCB01	1533	101		104		106		107		111	
CRI	CRI	1537	100		106		109		107		111	
PB167465BL	PB167465BL	1540	100		106		109		109		110	
PB167465BS	PB167465BS	1543	101		107		110		108		112	
ZZZZZZ	ZZZZZZ	1546										
Q1711-01DUP	MW-18B-56-0	1549	105		119		123		121		125	
Q1711-01L	MW-18B-56-0	1553	95		110		115		113		115	
Q1711-02	MW-18B-56-0	1556	107		120		125		120		126	
Q1711-03	MW-18B-56-0	1559	107		120		124		120		125	
Q1711-01A	MW-18B-56-0	1602	104		118		123		121		128	
CCV02	CCV02	1610	97		112		115		108		117	
CCB02	CCB02	1615	94		107		111		110		113	

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P7

Start Date : 04/04/2025

Run Number: LB135315

End Date : 04/04/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	S0	1409	100		100		100		100		100	
S2	S2	1415	100		101		101		102		101	
S3	S3	1419	99		100		100		102		103	
S4	S4	1422	98		101		101		104		104	
S5	S5	1425	95		100		100		106		106	
S6	S6	1428	96		102		100		108		107	
S7	S7	1431	99		103		101		110		110	
S8	S8	1433	108		109		99		110		108	
ICV01	ICV01	1458	109		110		110		111		109	
LLICV	LLICV	1517	108		109		109		109		106	
ICB01	ICB01	1520	106		109		108		111		109	
ICSA01	ICSA01	1524	103		107		105		112		110	
ICSAB01	ICSAB01	1527	105		111		107		114		113	
CCV01	CCV01	1530	108		110		104		112		111	
CCB01	CCB01	1533	104		111		110		112		110	
CRI	CRI	1537	106		110		109		112		109	
PB167465BL	PB167465BL	1540	106		109		110		112		109	
PB167465BS	PB167465BS	1543	105		108		108		112		110	
ZZZZZZ	ZZZZZZ	1546										
Q1711-01DUP	MW-18B-56-0	1549	122		124		122		122		120	
Q1711-01L	MW-18B-56-0	1553	112		116		114		113		112	
Q1711-02	MW-18B-56-0	1556	120		123		118		123		120	
Q1711-03	MW-18B-56-0	1559	120		123		120		121		120	
Q1711-01A	MW-18B-56-0	1602	120		122		120		122		122	
CCV02	CCV02	1610	116		117		111		117		115	
CCB02	CCB02	1615	109		112		111		111		109	

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	S0	1129	100		100		100		100		100	
S2	S2	1136	98		98		97		98		98	
S3	S3	1139	97		98		98		96		99	
S4	S4	1142	96		95		96		95		97	
S5	S5	1145	95		96		96		93		99	
S6	S6	1148	92		92		94		88		94	
S7	S7	1151	93		96		94		88		95	
S8	S8	1154	83		86		85		74		86	
ICV01	ICV01	1240	103		102		102		100		100	
LLICV	LLICV	1244	104		103		101		99		101	
ICB01	ICB01	1248	103		102		99		98		99	
ICSA01	ICSA01	1257	101		103		98		88		95	
ICSAB01	ICSAB01	1304	103		105		99		89		96	
CCV01	CCV01	1307	96		101		94		83		90	
CCB01	CCB01	1317	115		115		106		105		102	
CRI	CRI	1320	115		116		107		105		103	
ZZZZZZ	ZZZZZZ	1324										
ZZZZZZ	ZZZZZZ	1327										
ZZZZZZ	ZZZZZZ	1330										
Q1711-14DUP	MW-18B-56-0	1333	116		114		107		100		101	
Q1711-14L	MW-18B-56-0	1337	113		110		104		100		100	
Q1711-15	MW-18B-56-0	1340	116		112		104		96		98	
Q1711-16	MW-18B-56-0	1343	116		115		104		95		99	
CCV02	CCV02	1358	99		99		94		82		89	
CCB02	CCB02	1405	110		108		102		100		98	
Q1711-14A	MW-18B-56-0	1408	110		110		102		93		95	
Q1731-05	EB01-040325	1411	113		109		104		101		98	
Q1731-06	EB01-040325	1414	112		109		102		101		97	
ZZZZZZ	ZZZZZZ	1418										
ZZZZZZ	ZZZZZZ	1421										
ZZZZZZ	ZZZZZZ	1433										
ZZZZZZ	ZZZZZZ	1436										
ZZZZZZ	ZZZZZZ	1439										
ZZZZZZ	ZZZZZZ	1443										
ZZZZZZ	ZZZZZZ	1452										
CCV03	CCV03	1500	104		102		96		84		93	

Internal Standard %RI Limit: 70 - 130

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JAC005

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
CCB03	CCB03	1513	120		116		109		106		104	

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	S0	1129	100		100		100		100		100	
S2	S2	1136	99		100		101		100		99	
S3	S3	1139	96		97		97		98		98	
S4	S4	1142	95		94		96		98		98	
S5	S5	1145	96		95		94		98		97	
S6	S6	1148	95		95		91		97		97	
S7	S7	1151	99		93		89		96		96	
S8	S8	1154	92		88		78		89		89	
ICV01	ICV01	1240	105		102		99		98		99	
LLICV	LLICV	1244	103		101		100		99		98	
ICB01	ICB01	1248	102		100		100		98		98	
ICSA01	ICSA01	1257	104		100		90		94		95	
ICSAB01	ICSAB01	1304	110		104		91		95		95	
CCV01	CCV01	1307	108		101		86		92		93	
CCB01	CCB01	1317	117		111		108		103		102	
CRI	CRI	1320	117		111		107		102		102	
ZZZZZZ	ZZZZZZ	1324										
ZZZZZZ	ZZZZZZ	1327										
ZZZZZZ	ZZZZZZ	1330										
Q1711-14DUP	MW-18B-56-0	1333	117		112		104		103		103	
Q1711-14L	MW-18B-56-0	1337	113		108		104		101		101	
Q1711-15	MW-18B-56-0	1340	121		111		100		99		99	
Q1711-16	MW-18B-56-0	1343	121		110		100		99		100	
CCV02	CCV02	1358	112		104		87		93		94	
CCB02	CCB02	1405	109		106		103		97		97	
Q1711-14A	MW-18B-56-0	1408	117		106		94		96		96	
Q1731-05	EB01-040325	1411	113		107		103		99		98	
Q1731-06	EB01-040325	1414	110		106		103		99		97	
ZZZZZZ	ZZZZZZ	1418										
ZZZZZZ	ZZZZZZ	1421										
ZZZZZZ	ZZZZZZ	1433										
ZZZZZZ	ZZZZZZ	1436										
ZZZZZZ	ZZZZZZ	1439										
ZZZZZZ	ZZZZZZ	1443										
ZZZZZZ	ZZZZZZ	1452										
CCV03	CCV03	1500	108		103		89		95		95	

Internal Standard %RI Limit: 70 - 130

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
CCB03	CCB03	1513	116		113		109		103		103	

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P7

Start Date : 04/04/2025

Run Number: LB135315

End Date : 04/04/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	S0	1409	100		100							
S2	S2	1415	99		99							
S3	S3	1419	99		101							
S4	S4	1422	100		101							
S5	S5	1425	99		103							
S6	S6	1428	101		103							
S7	S7	1431	104		102							
S8	S8	1433	114		105							
ICV01	ICV01	1458	106		107							
LLICV	LLICV	1517	105		107							
ICB01	ICB01	1520	107		107							
ICSA01	ICSA01	1524	109		105							
ICSAB01	ICSAB01	1527	111		109							
CCV01	CCV01	1530	112		106							
CCB01	CCB01	1533	109		110							
CRI	CRI	1537	109		111							
PB167465BL	PB167465BL	1540	108		110							
PB167465BS	PB167465BS	1543	111		110							
ZZZZZZ	ZZZZZZ	1546										
Q1711-01DUP	MW-18B-56-04	1549	124		121							
Q1711-01L	MW-18B-56-04	1553	112		112							
Q1711-02	MW-18B-56-04	1556	124		122							
Q1711-03	MW-18B-56-04	1559	123		122							
Q1711-01A	MW-18B-56-04	1602	125		123							
CCV02	CCV02	1610	116		111							
CCB02	CCB02	1615	110		111							

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P7

Start Date : 04/04/2025

Run Number: LB135315

End Date : 04/04/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1409	100									
S2	S2	1415	100									
S3	S3	1419	103									
S4	S4	1422	103									
S5	S5	1425	105									
S6	S6	1428	104									
S7	S7	1431	104									
S8	S8	1433	98									
ICV01	ICV01	1458	107									
LLICV	LLICV	1517	104									
ICB01	ICB01	1520	108									
ICSA01	ICSA01	1524	105									
ICSAB01	ICSAB01	1527	109									
CCV01	CCV01	1530	102									
CCB01	CCB01	1533	109									
CRI	CRI	1537	109									
PB167465BL	PB167465BL	1540	109									
PB167465BS	PB167465BS	1543	107									
ZZZZZZ	ZZZZZZ	1546										
Q1711-01DUP	MW-18B-56-04	1549	117									
Q1711-01L	MW-18B-56-04	1553	110									
Q1711-02	MW-18B-56-04	1556	116									
Q1711-03	MW-18B-56-04	1559	116									
Q1711-01A	MW-18B-56-04	1602	117									
CCV02	CCV02	1610	107									
CCB02	CCB02	1615	109									

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	S0	1129	100		100							
S2	S2	1136	99		99							
S3	S3	1139	98		97							
S4	S4	1142	99		96							
S5	S5	1145	99		95							
S6	S6	1148	95		90							
S7	S7	1151	96		88							
S8	S8	1154	86		74							
ICV01	ICV01	1240	101		100							
LLICV	LLICV	1244	99		99							
ICB01	ICB01	1248	98		99							
ICSA01	ICSA01	1257	95		86							
ICSAB01	ICSAB01	1304	96		88							
CCV01	CCV01	1307	91		80							
CCB01	CCB01	1317	101		101							
CRI	CRI	1320	102		102							
ZZZZZZ	ZZZZZZ	1324										
ZZZZZZ	ZZZZZZ	1327										
ZZZZZZ	ZZZZZZ	1330										
Q1711-14DUP	MW-18B-56-04	1333	102		96							
Q1711-14L	MW-18B-56-04	1337	100		97							
Q1711-15	MW-18B-56-04	1340	99		93							
Q1711-16	MW-18B-56-04	1343	100		91							
CCV02	CCV02	1358	88		80							
CCB02	CCB02	1405	97		97							
Q1711-14A	MW-18B-56-04	1408	95		89							
Q1731-05	EB01-040325	1411	98		96							
Q1731-06	EB01-040325	1414	98		98							
ZZZZZZ	ZZZZZZ	1418										
ZZZZZZ	ZZZZZZ	1421										
ZZZZZZ	ZZZZZZ	1433										
ZZZZZZ	ZZZZZZ	1436										
ZZZZZZ	ZZZZZZ	1439										
ZZZZZZ	ZZZZZZ	1443										

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JAC005

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
ZZZZZZ	ZZZZZZ	1452										
CCV03	CCV03	1500	93		83							
CCB03	CCB03	1513	101		102							

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JAC005

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1129	100									
S2	S2	1136	101									
S3	S3	1139	99									
S4	S4	1142	97									
S5	S5	1145	95									
S6	S6	1148	92									
S7	S7	1151	89									
S8	S8	1154	76									
ICV01	ICV01	1240	98									
LLICV	LLICV	1244	98									
ICB01	ICB01	1248	97									
ICSA01	ICSA01	1257	86									
ICSAB01	ICSAB01	1304	86									
CCV01	CCV01	1307	81									
CCB01	CCB01	1317	101									
CRI	CRI	1320	101									
ZZZZZZ	ZZZZZZ	1324										
ZZZZZZ	ZZZZZZ	1327										
ZZZZZZ	ZZZZZZ	1330										
Q1711-14DUP	MW-18B-56-04	1333	99									
Q1711-14L	MW-18B-56-04	1337	98									
Q1711-15	MW-18B-56-04	1340	92									
Q1711-16	MW-18B-56-04	1343	93									
CCV02	CCV02	1358	83									
CCB02	CCB02	1405	96									
Q1711-14A	MW-18B-56-04	1408	89									
Q1731-05	EB01-040325	1411	98									
Q1731-06	EB01-040325	1414	97									
ZZZZZZ	ZZZZZZ	1418										
ZZZZZZ	ZZZZZZ	1421										
ZZZZZZ	ZZZZZZ	1433										
ZZZZZZ	ZZZZZZ	1436										
ZZZZZZ	ZZZZZZ	1439										
ZZZZZZ	ZZZZZZ	1443										

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JAC005

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
ZZZZZZ	ZZZZZZ	1452										
CCV03	CCV03	1500	84									
CCB03	CCB03	1513	104									

Metals
-9 -
ICP SERIAL DILUTIONS

SAMPLE NO.

MW-18B-56-040225L

Lab Name: Chemtech Consulting Group

Contract: JACO05

Lab Code: CHEM **Lb No.:** lb135315

Lab Sample ID : Q1711-01L **SDG No.:** Q1731

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ-ence	Q	M
Aluminum	1470		1510		3		P
Antimony	1.67	J	1.75	J	5		P
Arsenic	0.85	J	0.90	J	6		P
Barium	119		122		2		P
Beryllium	1.00	U	5.00	U			P
Cadmium	1.00	U	5.00	U			P
Chromium	0.58	J	10.0	U	100.0		P
Copper	2.00	U	10.0	U			P
Iron	560		580		4		P
Lead	1.00	U	5.00	U			P
Magnesium	315	J	323	J	2		P
Manganese	4.19		4.75	J	13		P
Potassium	23000		23300		1		P
Selenium	5.00	U	25.0	U			P
Sodium	20000		20100		1		P

Metals
-9 -
ICP SERIAL DILUTIONS

SAMPLE NO.

MW-18B-56-040225L

Lab Name: Chemtech Consulting Group **Contract:** JACO05
Lab Code: CHEM **Lb No.:** lb135332 **Lab Sample ID :** Q1711-14L **SDG No.:** Q1731
Matrix (soil/water): Water **Level (low/med):** LOW
Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ-ence	Q	M
Aluminum	1520		1560		2		P
Antimony	1.75	J	1.75	J	0		P
Arsenic	0.93	J	1.00	J	8		P
Barium	124		121		3		P
Beryllium	1.00	U	5.00	U			P
Cadmium	1.00	U	5.00	U			P
Chromium	2.00	U	10.0	U			P
Copper	2.00	U	10.0	U			P
Iron	40.3	J	250	U	100.0		P
Lead	1.00	U	5.00	U			P
Magnesium	399	J	408	J	2		P
Manganese	9.43		12.2		29		P
Potassium	25100		25800		3		P
Selenium	5.00	U	25.0	U			P
Sodium	22000		22500		2		P



METAL PREPARATION & INSTRUMENT DATA

METAL PREPARATION & ANALYICAL SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: Q1731

Contract: JACO05

Lab Code: CHEM

Method: _____

Case No.: Q1731

SAS No.: Q1731

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB167465							
PB167465BL	PB167465BL	MB	WATER	04/04/2025	50.0	50.0	
PB167465BS	PB167465BS	LCS	WATER	04/04/2025	50.0	50.0	
Q1711-01DUP	MW-18B-56-040225DUP	DUP	WATER	04/04/2025	50.0	50.0	
Q1711-02	MW-18B-56-040225MS	MS	WATER	04/04/2025	50.0	50.0	
Q1711-03	MW-18B-56-040225MSD	MSD	WATER	04/04/2025	50.0	50.0	
Q1711-14DUP	MW-18B-56-040225DUP	DUP	WATER	04/04/2025	50.0	50.0	
Q1711-15	MW-18B-56-040225MS	MS	WATER	04/04/2025	50.0	50.0	
Q1711-16	MW-18B-56-040225MSD	MSD	WATER	04/04/2025	50.0	50.0	
Q1731-05	EB01-040325	SAM	WATER	04/04/2025	50.0	50.0	
Q1731-06	EB01-040325	SAM	WATER	04/04/2025	50.0	50.0	

metals
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ANALYSIS RUN LOG

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab code: CHEM **Case no.:** Q1731

Sas no.: Q1731

Sdg no.: Q1731

Instrument id number: **Method:**

Run number: LB135315

Start date: 04/04/2025 **End date:** 04/04/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1409	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S2	S2	1	1415	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S3	S3	1	1419	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S4	S4	1	1422	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S5	S5	1	1425	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S6	S6	1	1428	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S7	S7	1	1431	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S8	S8	1	1433	Fe,Al,K,Mg,Na
ICV01	ICV01	1	1458	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
LLICV	LLICV	1	1517	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICB01	ICB01	1	1520	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICSA01	ICSA01	1	1524	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICSAB01	ICSAB01	1	1527	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCV01	CCV01	1	1530	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB01	CCB01	1	1533	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CRI	CRI	1	1537	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
PB167465BL	PB167465BL	1	1540	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
PB167465BS	PB167465BS	1	1543	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-01DUP	MW-18B-56-040225DUP	1	1549	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-01L	MW-18B-56-040225L	5	1553	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-02	MW-18B-56-040225MS	1	1556	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-03	MW-18B-56-040225MSD	1	1559	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-01A	MW-18B-56-040225A	1	1602	As,K
CCV02	CCV02	1	1610	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB02	CCB02	1	1615	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCV03	CCV03	1	1624	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB03	CCB03	1	1628	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se

metals
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ANALYSIS RUN LOG

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab code: CHEM **Case no.:** Q1731

Sas no.: Q1731

Sdg no.: Q1731

Instrument id number: **Method:**

Run number: LB135332

Start date: 04/07/2025 **End date:** 04/07/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1129	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S2	S2	1	1136	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S3	S3	1	1139	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S4	S4	1	1142	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S5	S5	1	1145	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S6	S6	1	1148	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S7	S7	1	1151	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S8	S8	1	1154	Fe,Al,K,Mg,Na
ICV01	ICV01	1	1240	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
LLICV	LLICV	1	1244	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICB01	ICB01	1	1248	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICSA01	ICSA01	1	1257	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICSAB01	ICSAB01	1	1304	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCV01	CCV01	1	1307	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB01	CCB01	1	1317	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CRI	CRI	1	1320	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-14DUP	MW-18B-56-040225DUP	1	1333	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-14L	MW-18B-56-040225L	5	1337	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-15	MW-18B-56-040225MS	1	1340	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-16	MW-18B-56-040225MSD	1	1343	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
CCV02	CCV02	1	1358	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB02	CCB02	1	1405	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-14A	MW-18B-56-040225A	1	1408	As
Q1731-05	EB01-040325	1	1411	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1731-06	EB01-040325	1	1414	Fe
CCV03	CCV03	1	1500	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB03	CCB03	1	1513	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se