

metals
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MATRIX SPIKE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q2842
contract: JACO05 **lab code:** ACE
matrix: Water **sample id:** Q2842-03 **client id:** MW-17B-55.5-08122025MS
Percent Solids for Sample: NA **Spiked ID:** Q2842-04 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	8440		31.8		10000	84		P
Antimony	ug/L	75 - 125	464		0.22	J	500	93		P
Arsenic	ug/L	75 - 125	489		0.63	J	500	98		P
Barium	ug/L	75 - 125	2580		448		2500	85		P
Beryllium	ug/L	75 - 125	485		1.00	U	500	97		P
Cadmium	ug/L	75 - 125	473		1.00	U	500	95		P
Calcium	ug/L	75 - 125	73500		29600		50000	88		P
Chromium	ug/L	75 - 125	456		2.00	U	500	91		P
Cobalt	ug/L	75 - 125	476		8.23		500	94		P
Copper	ug/L	75 - 125	4350		2.00	U	5000	87		P
Iron	ug/L	75 - 125	28900		7590		25000	85		P
Lead	ug/L	75 - 125	2320		0.61	J	2500	93		P
Magnesium	ug/L	75 - 125	55100		9260		50000	92		P
Manganese	ug/L	75 - 125	4900		618		5000	86		P
Nickel	ug/L	75 - 125	478		11.3		500	93		P
Mercury	ug/L	82 - 119	3.75		0.20	U	4.0	94		CV
Potassium	ug/L	75 - 125	29700		7950		25000	87		P
Selenium	ug/L	75 - 125	475		5.00	U	500	95		P
Silver	ug/L	75 - 125	85.3		1.00	U	500	17	N	P
Sodium	ug/L	75 - 125	52200		6170		50000	92		P
Thallium	ug/L	75 - 125	462		0.21	J	500	92		P
Vanadium	ug/L	75 - 125	467		0.29	J	500	93		P
Zinc	ug/L	75 - 125	4520		3.08	J	5000	90		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q2842
contract: JACO05 **lab code:** ACE
matrix: Water **sample id:** Q2842-03 **client id:** MW-17B-55.5-08122025MSD
Percent Solids for Sample: NA **Spiked ID:** Q2842-05 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	8470		31.8		10000	84		P
Antimony	ug/L	75 - 125	482		0.22	J	500	96		P
Arsenic	ug/L	75 - 125	467		0.63	J	500	93		P
Barium	ug/L	75 - 125	2650		448		2500	88		P
Beryllium	ug/L	75 - 125	489		1.00	U	500	98		P
Cadmium	ug/L	75 - 125	484		1.00	U	500	97		P
Calcium	ug/L	75 - 125	74200		29600		50000	89		P
Chromium	ug/L	75 - 125	455		2.00	U	500	91		P
Cobalt	ug/L	75 - 125	481		8.23		500	95		P
Copper	ug/L	75 - 125	4370		2.00	U	5000	87		P
Iron	ug/L	75 - 125	29000		7590		25000	86		P
Lead	ug/L	75 - 125	2370		0.61	J	2500	95		P
Magnesium	ug/L	75 - 125	55000		9260		50000	91		P
Manganese	ug/L	75 - 125	4960		618		5000	87		P
Nickel	ug/L	75 - 125	483		11.3		500	94		P
Mercury	ug/L	82 - 119	3.89		0.20	U	4.0	97		CV
Potassium	ug/L	75 - 125	29900		7950		25000	88		P
Selenium	ug/L	75 - 125	469		5.00	U	500	94		P
Silver	ug/L	75 - 125	87.6		1.00	U	500	18	N	P
Sodium	ug/L	75 - 125	51900		6170		50000	92		P
Thallium	ug/L	75 - 125	477		0.21	J	500	95		P
Vanadium	ug/L	75 - 125	476		0.29	J	500	95		P
Zinc	ug/L	75 - 125	4550		3.08	J	5000	91		P

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MATRIX SPIKE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q2842
contract: JACO05 **lab code:** ACE
matrix: Water **sample id:** Q2842-09 **client id:** MW-17B-55.5-08122025MS
Percent Solids for Sample: NA **Spiked ID:** Q2842-10 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	8320		12.3	J	10000	83		P
Antimony	ug/L	75 - 125	474		0.23	J	500	95		P
Arsenic	ug/L	75 - 125	492		0.54	J	500	98		P
Barium	ug/L	75 - 125	2600		431		2500	87		P
Beryllium	ug/L	75 - 125	474		1.00	U	500	95		P
Cadmium	ug/L	75 - 125	473		1.00	U	500	95		P
Calcium	ug/L	75 - 125	72300		31900		50000	81		P
Chromium	ug/L	75 - 125	459		2.00	U	500	92		P
Cobalt	ug/L	75 - 125	475		8.13		500	93		P
Copper	ug/L	75 - 125	4250		2.00	U	5000	85		P
Iron	ug/L	75 - 125	27000		7020		25000	80		P
Lead	ug/L	75 - 125	2300		1.00	U	2500	92		P
Magnesium	ug/L	75 - 125	55500		9810		50000	91		P
Manganese	ug/L	75 - 125	4810		642		5000	83		P
Nickel	ug/L	75 - 125	463		10.3		500	91		P
Potassium	ug/L	75 - 125	29100		8190		25000	83		P
Selenium	ug/L	75 - 125	468		5.00	U	500	94		P
Silver	ug/L	75 - 125	85.3		1.00	U	500	17	N	P
Sodium	ug/L	75 - 125	53100		6520		50000	93		P
Thallium	ug/L	75 - 125	459		0.39	J	500	92		P
Vanadium	ug/L	75 - 125	471		0.17	J	500	94		P
Zinc	ug/L	75 - 125	4430		1.38	J	5000	89		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q2842
contract: JACO05 **lab code:** ACE
matrix: Water **sample id:** Q2842-09 **client id:** MW-17B-55.5-08122025MSD
Percent Solids for Sample: NA **Spiked ID:** Q2842-11 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	8320		12.3	J	10000	83		P
Antimony	ug/L	75 - 125	467		0.23	J	500	93		P
Arsenic	ug/L	75 - 125	494		0.54	J	500	99		P
Barium	ug/L	75 - 125	2520		431		2500	83		P
Beryllium	ug/L	75 - 125	469		1.00	U	500	94		P
Cadmium	ug/L	75 - 125	462		1.00	U	500	92		P
Calcium	ug/L	75 - 125	72600		31900		50000	81		P
Chromium	ug/L	75 - 125	457		2.00	U	500	91		P
Cobalt	ug/L	75 - 125	465		8.13		500	91		P
Copper	ug/L	75 - 125	4300		2.00	U	5000	86		P
Iron	ug/L	75 - 125	26700		7020		25000	79		P
Lead	ug/L	75 - 125	2270		1.00	U	2500	91		P
Magnesium	ug/L	75 - 125	55800		9810		50000	92		P
Manganese	ug/L	75 - 125	4930		642		5000	86		P
Nickel	ug/L	75 - 125	462		10.3		500	90		P
Potassium	ug/L	75 - 125	28700		8190		25000	82		P
Selenium	ug/L	75 - 125	468		5.00	U	500	94		P
Silver	ug/L	75 - 125	82.8		1.00	U	500	17	N	P
Sodium	ug/L	75 - 125	53300		6520		50000	94		P
Thallium	ug/L	75 - 125	454		0.39	J	500	91		P
Vanadium	ug/L	75 - 125	472		0.17	J	500	94		P
Zinc	ug/L	75 - 125	4430		1.38	J	5000	89		P