

metals
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MATRIX SPIKE SUMMARY

client: JPCL Engineering **level:** low **sdg no.:** Q2473
contract: JPCL01 **lab code:** ACE
matrix: Solid **sample id:** Q2484-06 **client id:** TP-104MS

Percent Solids for Sample: 87.3 **Spiked ID:** Q2484-06MS **Percent Solids for Spike Sample:** 87.3

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	11500		9230		95.5	2372		P
Antimony	mg/Kg	75 - 125	9.41		1.16	J	38.2	22	N	P
Arsenic	mg/Kg	75 - 125	43.0		7.48		38.2	93		P
Barium	mg/Kg	75 - 125	33.9		24.3		9.5	101		P
Beryllium	mg/Kg	75 - 125	8.26		0.73		9.5	79		P
Cadmium	mg/Kg	75 - 125	8.89		0.29	U	9.5	93		P
Calcium	mg/Kg	75 - 125	569		353		47.7	452		P
Chromium	mg/Kg	75 - 125	31.4		15.8		19.1	81		P
Cobalt	mg/Kg	75 - 125	8.21		1.43	U	9.5	86		P
Copper	mg/Kg	75 - 125	18.5		4.84		14.3	95		P
Iron	mg/Kg	75 - 125	20000		19400		140	365		P
Lead	mg/Kg	75 - 125	57.7		13.1		47.7	93		P
Magnesium	mg/Kg	75 - 125	858		717		95.5	148		P
Manganese	mg/Kg	75 - 125	73.7		73.8		9.5	-1		P
Mercury	mg/Kg	80 - 120	0.36		0.039		0.29	110		CV
Nickel	mg/Kg	75 - 125	31.3		7.27		23.9	101		P
Potassium	mg/Kg	75 - 125	857		420		480	91		P
Selenium	mg/Kg	75 - 125	70.7		4.47		95.5	69	N	P
Silver	mg/Kg	75 - 125	2.34		0.48	U	3.6	65	N	P
Sodium	mg/Kg	75 - 125	351		253		140	69	N	P
Thallium	mg/Kg	75 - 125	86.4		1.91	U	95.5	90		P
Vanadium	mg/Kg	75 - 125	41.6		30.8		14.3	76		P
Zinc	mg/Kg	75 - 125	24.4		16.3		9.5	85		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: <u>JPCL Engineering</u>	level: <u>low</u>	sdg no.: <u>Q2473</u>
contract: <u>JPCL01</u>		lab code: <u>ACE</u>
matrix: <u>Solid</u>	sample id: <u>Q2484-06</u>	client id: <u>TP-104MSD</u>
Percent Solids for Sample: 87.3	Spiked ID: Q2484-06MSD	Percent Solids for Spike Sample: 87.3

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	11800		9230		100	2492		P
Antimony	mg/Kg	75 - 125	10.8		1.16	J	41.1	23	N	P
Arsenic	mg/Kg	75 - 125	46.1		7.48		41.1	94		P
Barium	mg/Kg	75 - 125	32.4		24.3		10.3	78		P
Beryllium	mg/Kg	75 - 125	8.98		0.73		10.3	80		P
Cadmium	mg/Kg	75 - 125	9.81		0.29	U	10.3	96		P
Calcium	mg/Kg	75 - 125	445		353		51.4	179		P
Chromium	mg/Kg	75 - 125	32.6		15.8		20.5	81		P
Cobalt	mg/Kg	75 - 125	8.78		1.43	U	10.3	86		P
Copper	mg/Kg	75 - 125	19.0		4.84		15.4	92		P
Iron	mg/Kg	75 - 125	19900		19400		150	285		P
Lead	mg/Kg	75 - 125	60.7		13.1		51.4	93		P
Magnesium	mg/Kg	75 - 125	869		717		100	148		P
Manganese	mg/Kg	75 - 125	71.4		73.8		10.3	-23		P
Mercury	mg/Kg	80 - 120	0.38		0.039		0.31	111		CV
Nickel	mg/Kg	75 - 125	33.2		7.27		25.7	101		P
Potassium	mg/Kg	75 - 125	1050		420		510	122		P
Selenium	mg/Kg	75 - 125	79.1		4.47		100	73	N	P
Silver	mg/Kg	75 - 125	2.61		0.48	U	3.9	68	N	P
Sodium	mg/Kg	75 - 125	364		253		150	72	N	P
Thallium	mg/Kg	75 - 125	94.9		1.91	U	100	92		P
Vanadium	mg/Kg	75 - 125	43.5		30.8		15.4	83		P
Zinc	mg/Kg	75 - 125	24.6		16.3		10.3	81		P