

metals
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MATRIX SPIKE SUMMARY

client:	<u>HDR, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>Q3466</u>
contract:	<u>HDRI08</u>			lab code:	<u>ACE</u>
matrix:	<u>Solid</u>	sample id:	<u>Q3451-01</u>	client id:	<u>TP-11MS</u>
Percent Solids for Sample:	89.8	Spiked ID:	Q3451-01MS	Percent Solids for Spike Sample:	89.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.31		0.014	U	0.31	101		CV

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MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>HDR, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>Q3466</u>
contract:	<u>HDRI08</u>			lab code:	<u>ACE</u>
matrix:	<u>Solid</u>	sample id:	<u>Q3451-01</u>	client id:	<u>TP-11MSD</u>
Percent Solids for Sample:	89.8	Spiked ID:	Q3451-01MSD	Percent Solids for Spike Sample:	89.8

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.29		0.014	U	0.28	104		CV

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MATRIX SPIKE SUMMARY

client: HDR, Inc. **level:** low **sdg no.:** Q3466
contract: HDRI08 **lab code:** ACE
matrix: Solid **sample id:** Q3469-01 **client id:** TP-13MS

Percent Solids for Sample: 91.1 **Spiked ID:** Q3469-01MS **Percent Solids for Spike Sample:** 91.1

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	5060		4010		97.6	1074		P
Antimony	mg/Kg	75 - 125	17.8		2.39	U	39.0	46	N	P
Arsenic	mg/Kg	75 - 125	34.8		1.48		39.0	85		P
Barium	mg/Kg	75 - 125	23.8		14.2		9.8	98		P
Beryllium	mg/Kg	75 - 125	8.81		0.35		9.8	86		P
Cadmium	mg/Kg	75 - 125	9.63		0.064	J	9.8	98		P
Calcium	mg/Kg	75 - 125	683		554		48.8	263		P
Chromium	mg/Kg	75 - 125	23.9		5.56		19.5	94		P
Cobalt	mg/Kg	75 - 125	13.6		3.16		9.8	107		P
Copper	mg/Kg	75 - 125	31.1		16.0		14.6	103		P
Iron	mg/Kg	75 - 125	9800		7710		150	1393		P
Lead	mg/Kg	75 - 125	52.8		5.18		48.8	97		P
Magnesium	mg/Kg	75 - 125	1310		1130		97.6	180		P
Manganese	mg/Kg	75 - 125	213		192		9.8	213		P
Nickel	mg/Kg	75 - 125	31.8		6.36		24.4	104		P
Potassium	mg/Kg	75 - 125	951		413		490	110		P
Selenium	mg/Kg	75 - 125	79.7		0.96	U	97.6	82		P
Silver	mg/Kg	75 - 125	3.42		0.12	J	3.7	89		P
Sodium	mg/Kg	75 - 125	484		321		150	109		P
Thallium	mg/Kg	75 - 125	95.9		1.91	U	97.6	98		P
Vanadium	mg/Kg	75 - 125	22.6		8.79		14.6	95		P
Zinc	mg/Kg	75 - 125	23.8		13.4		9.8	106		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: <u>HDR, Inc.</u>	level: <u>low</u>	sdg no.: <u>Q3466</u>
contract: <u>HDRI08</u>		lab code: <u>ACE</u>
matrix: <u>Solid</u>	sample id: <u>Q3469-01</u>	client id: <u>TP-13MSD</u>

Percent Solids for Sample: 91.1	Spiked ID: Q3469-01MSD	Percent Solids for Spike Sample: 91.1
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Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	4210		4010		96.3	206		P
Antimony	mg/Kg	75 - 125	17.4		2.39	U	38.5	45	N	P
Arsenic	mg/Kg	75 - 125	32.8		1.48		38.5	81		P
Barium	mg/Kg	75 - 125	21.4		14.2		9.6	76		P
Beryllium	mg/Kg	75 - 125	8.08		0.35		9.6	81		P
Cadmium	mg/Kg	75 - 125	8.83		0.064	J	9.6	91		P
Calcium	mg/Kg	75 - 125	568		554		48.1	29		P
Chromium	mg/Kg	75 - 125	21.4		5.56		19.3	82		P
Cobalt	mg/Kg	75 - 125	12.2		3.16		9.6	94		P
Copper	mg/Kg	75 - 125	27.2		16.0		14.4	78		P
Iron	mg/Kg	75 - 125	7310		7710		140	-287		P
Lead	mg/Kg	75 - 125	48.0		5.18		48.1	89		P
Magnesium	mg/Kg	75 - 125	1110		1130		96.3	-29		P
Manganese	mg/Kg	75 - 125	190		192		9.6	-17		P
Nickel	mg/Kg	75 - 125	28.3		6.36		24.1	91		P
Potassium	mg/Kg	75 - 125	847		413		480	91		P
Selenium	mg/Kg	75 - 125	76.2		0.96	U	96.3	79		P
Silver	mg/Kg	75 - 125	3.19		0.12	J	3.6	85		P
Sodium	mg/Kg	75 - 125	425		321		140	75		P
Thallium	mg/Kg	75 - 125	87.8		1.91	U	96.3	91		P
Vanadium	mg/Kg	75 - 125	20.0		8.79		14.4	78		P
Zinc	mg/Kg	75 - 125	20.4		13.4		9.6	73	N	P