



28-Jan-2016

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Black Hills- Stockpile Sampling**

Work Order: **1601818**

Dear Kris,

ALS Environmental received 4 samples on 21-Jan-2016 12:00 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 27.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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Client: HRL Compliance Solutions, Inc
Project: Black Hills- Stockpile Sampling
Work Order: 1601818

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1601818-01	Stockpile Confirmation Composite	Soil		1/20/2016 14:10	1/21/2016 12:00	<input type="checkbox"/>
1601818-02	Background 1	Soil		1/20/2016 14:20	1/21/2016 12:00	<input type="checkbox"/>
1601818-03	Background 2	Soil		1/20/2016 14:25	1/21/2016 12:00	<input type="checkbox"/>
1601818-04	Background 3	Soil		1/20/2016 14:30	1/21/2016 12:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: Black Hills- Stockpile Sampling
Work Order: 1601818

Case Narrative

Batch 81612, Method SVO_8270_S, Sample SLCSS1-81612: The LCS recovery was above the upper control limit for Anthracene. All the sample results in the batch were non-detect. No qualification is required.

Batch 81623, Method ICP_6010_S, Sample 1601818-02A MS/MSD: The MS and MSD recovery was outside of the control limit for Barium; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required.

Batch 81623, Method ICP_6010_S, Sample 1601818-02A MS/MSD: The MS and MSD recovery was below the lower control limit for Arsenic. The corresponding result in the parent sample may be biased low.

Batch 81623, Method ICP_6010_S, Sample 1601818-02A MS/MSD: The MS and MSD recovery was below the lower control limit and the RPD between the MS and MSD was outside of the control limit for Lead. The corresponding result in the parent sample should be considered estimated.

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 28-Jan-16

Client: HRL Compliance Solutions, Inc
Project: Black Hills- Stockpile Sampling
Sample ID: Stockpile Confirmation Composite
Collection Date: 1/20/2016 02:10 PM

Work Order: 1601818
Lab ID: 1601818-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 1/22/16	Analyst: IT
DRO (C10-C28)	64		9.7	mg/Kg-dry	1	1/25/2016 04:23 PM
Surr: 4-Terphenyl-d14	64.3		39-133	%REC	1	1/25/2016 04:23 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 1/25/16	Analyst: IT
GRO (C6-C10)	ND		3.1	mg/Kg-dry	1	1/25/2016 04:53 PM
Surr: Toluene-d8	94.2		50-150	%REC	1	1/25/2016 04:53 PM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 / 1/25/16	Analyst: RG
Mercury	1.5		0.37	mg/Kg-dry	20	1/26/2016 03:11 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 1/22/16	Analyst: JEC
Arsenic	4.3		0.43	mg/Kg-dry	1	1/25/2016 09:31 AM
Barium	230		0.43	mg/Kg-dry	1	1/25/2016 09:31 AM
Cadmium	ND		0.35	mg/Kg-dry	1	1/25/2016 09:31 AM
Chromium	7.5		0.43	mg/Kg-dry	1	1/25/2016 09:31 AM
Copper	10		0.43	mg/Kg-dry	1	1/25/2016 09:31 AM
Lead	10		0.43	mg/Kg-dry	1	1/25/2016 09:31 AM
Nickel	9.4		0.43	mg/Kg-dry	1	1/25/2016 09:31 AM
Selenium	0.72		0.43	mg/Kg-dry	1	1/25/2016 03:12 PM
Silver	ND		0.43	mg/Kg-dry	1	1/25/2016 09:31 AM
Zinc	36		0.86	mg/Kg-dry	1	1/25/2016 09:31 AM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 1/26/16	Analyst: JEC
Calcium	49		5.0	mg/L	10	1/26/2016 12:29 PM
Magnesium	11		2.0	mg/L	10	1/26/2016 12:29 PM
Sodium	240		2.0	mg/L	10	1/26/2016 12:29 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 1/26/16	Analyst: JEC
Sodium Adsorption Ratio	8.0		0.010	none	1	1/26/2016
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 1/22/16	Analyst: RS
Acenaphthene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Acenaphthylene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Anthracene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Benzo(a)anthracene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Benzo(a)pyrene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Benzo(b)fluoranthene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Benzo(g,h,i)perylene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Benzo(k)fluoranthene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Chrysene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 28-Jan-16

Client: HRL Compliance Solutions, Inc
Project: Black Hills- Stockpile Sampling
Sample ID: Stockpile Confirmation Composite
Collection Date: 1/20/2016 02:10 PM

Work Order: 1601818
Lab ID: 1601818-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Fluoranthene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Fluorene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Indeno(1,2,3-cd)pyrene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Naphthalene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Pyrene	ND		15	µg/Kg-dry	1	1/22/2016 05:36 PM
Surr: 2-Fluorobiphenyl	77.2		12-100	%REC	1	1/22/2016 05:36 PM
Surr: 4-Terphenyl-d14	112		25-137	%REC	1	1/22/2016 05:36 PM
Surr: Nitrobenzene-d5	74.6		37-107	%REC	1	1/22/2016 05:36 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 1/25/16		Analyst: DD
Benzene	ND		38	µg/Kg-dry	1	1/25/2016 03:07 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	1/25/2016 03:07 PM
m,p-Xylene	ND		75	µg/Kg-dry	1	1/25/2016 03:07 PM
o-Xylene	ND		38	µg/Kg-dry	1	1/25/2016 03:07 PM
Toluene	ND		38	µg/Kg-dry	1	1/25/2016 03:07 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	1/25/2016 03:07 PM
Surr: 1,2-Dichloroethane-d4	99.6		70-130	%REC	1	1/25/2016 03:07 PM
Surr: 4-Bromofluorobenzene	97.4		70-130	%REC	1	1/25/2016 03:07 PM
Surr: Dibromofluoromethane	96.4		70-130	%REC	1	1/25/2016 03:07 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	1/25/2016 03:07 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 1/26/16		Analyst: JB
Electrical Conductivity @ Saturation	1.9		0.12	mmhos/cm @2	25	1/27/2016 08:20 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.5		0.63	mg/Kg-dry	1	1/28/2016 08:47 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 1/25/16		Analyst: MB
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	1/27/2016 12:30 PM
MOISTURE			E160.3M			Analyst: ED
Moisture	20		0.050	% of sample	1	1/22/2016 04:05 PM
PH			SW9045D	Prep: EXTRACT / 1/25/16		Analyst: JB
pH	8.7			s.u.	1	1/25/2016 10:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 28-Jan-16

Client: HRL Compliance Solutions, Inc
Project: Black Hills- Stockpile Sampling
Sample ID: Background 1
Collection Date: 1/20/2016 02:20 PM

Work Order: 1601818
Lab ID: 1601818-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	6.5		SW846 6010C 0.45	mg/Kg-dry	Prep: SW3050B / 1/22/16 1	Analyst: JEC 1/25/2016 09:36 AM
SOLUBLE CATIONS FOR SAR						
Calcium	170		SW846 6010C 5.0	mg/L	Prep: USDA Method 20B / 1/26/16 10	Analyst: JEC 1/26/2016 12:41 PM
Magnesium	27		2.0	mg/L	10	1/26/2016 12:41 PM
Sodium	4.9		2.0	mg/L	10	1/26/2016 12:41 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	0.093		USDA H60 METHO 0.010	none	Prep: USDA Method 20B / 1/26/16 1	Analyst: JEC 1/26/2016
ELECTRICAL CONDUCTIVITY (SAR)						
Electrical Conductivity @ Saturation	1.1		USDA H60 METHO 0.050	mmhos/cm @2	Prep: USDA Method 20B / 1/26/16 10	Analyst: JB 1/27/2016 08:20 AM
MOISTURE						
Moisture	15		E160.3M 0.050	% of sample	1	Analyst: ED 1/22/2016 04:05 PM
PH						
pH	8.1		SW9045D s.u.		Prep: EXTRACT / 1/25/16 1	Analyst: JB 1/25/2016 10:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp**Date:** 28-Jan-16

Client: HRL Compliance Solutions, Inc
Project: Black Hills- Stockpile Sampling
Sample ID: Background 2
Collection Date: 1/20/2016 02:25 PM

Work Order: 1601818
Lab ID: 1601818-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 1/26/16	Analyst: JEC
Calcium	180		5.0	mg/L	10	1/26/2016 12:46 PM
Magnesium	21		2.0	mg/L	10	1/26/2016 12:46 PM
Sodium	62		2.0	mg/L	10	1/26/2016 12:46 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 1/26/16	Analyst: JEC
Sodium Adsorption Ratio	1.2		0.010	none	1	1/26/2016
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 1/26/16	Analyst: JB
Electrical Conductivity @ Saturation	1.3		0.050	mmhos/cm @2	10	1/27/2016 08:20 AM
MOISTURE			E160.3M			Analyst: ED
Moisture	18		0.050	% of sample	1	1/22/2016 04:05 PM
PH			SW9045D		Prep: EXTRACT / 1/25/16	Analyst: JB
pH	8.2			s.u.	1	1/25/2016 10:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 28-Jan-16

Client: HRL Compliance Solutions, Inc
Project: Black Hills- Stockpile Sampling
Sample ID: Background 3
Collection Date: 1/20/2016 02:30 PM

Work Order: 1601818
Lab ID: 1601818-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 1/26/16	Analyst: JEC
Calcium	210		5.0	mg/L	10	1/26/2016 12:52 PM
Magnesium	29		2.0	mg/L	10	1/26/2016 12:52 PM
Sodium	7.5		2.0	mg/L	10	1/26/2016 12:52 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 1/26/16	Analyst: JEC
Sodium Adsorption Ratio	0.13		0.010	none	1	1/26/2016
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 1/26/16	Analyst: JB
Electrical Conductivity @ Saturation	1.4		0.050	mmhos/cm @2	10	1/27/2016 08:20 AM
MOISTURE			E160.3M			Analyst: ED
Moisture	20		0.050	% of sample	1	1/22/2016 04:05 PM
PH			SW9045D		Prep: EXTRACT / 1/25/16	Analyst: JB
pH	8.0			s.u.	1	1/25/2016 10:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 28-Jan-16

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81613** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-81613-81613				Units: mg/Kg		Analysis Date: 1/25/2016 12:24 PM		
Client ID:		Run ID: GC8_160125B				SeqNo: 3670919		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) ND 4.1
Surr: 4-Terphenyl-d14 1.267 0 1.622 0 78.1 39-133 0

LCS		Sample ID: DLCSS1-81613-81613				Units: mg/Kg		Analysis Date: 1/25/2016 12:54 PM		
Client ID:		Run ID: GC8_160125B				SeqNo: 3670920		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 168.1 5.0 200 0 84.1 61-109 0
Surr: 4-Terphenyl-d14 1.334 0 2 0 66.7 39-133 0

MS		Sample ID: 1601820-01A MS				Units: mg/Kg		Analysis Date: 1/25/2016 01:24 PM		
Client ID:		Run ID: GC8_160125B				SeqNo: 3670921		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 4759 4.1 162.1 4333 263 48-110 0 SEO
Surr: 4-Terphenyl-d14 1.836 0 1.621 0 113 39-133 0

MSD		Sample ID: 1601820-01A MSD				Units: mg/Kg		Analysis Date: 1/25/2016 01:54 PM		
Client ID:		Run ID: GC8_160125B				SeqNo: 3670922		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28) 4140 4.1 162.6 4333 -119 48-110 4759 13.9 30 SEO
Surr: 4-Terphenyl-d14 1.853 0 1.626 0 114 39-133 1.836 0.896 30

The following samples were analyzed in this batch: 1601818-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81681** Instrument ID **GC10** Method: **SW8015D**

MBLK		Sample ID: MBLK-81681-81681				Units: µg/Kg		Analysis Date: 1/25/2016 04:03 PM		
Client ID:		Run ID: GC10_160125A				SeqNo: 3671721		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	4756	0	5000	0	95.1	50-150	0			

LCS		Sample ID: LCS-81681-81681				Units: µg/Kg		Analysis Date: 1/25/2016 03:39 PM		
Client ID:		Run ID: GC10_160125A				SeqNo: 3671720		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	603200	2,500	500000	0	121	70-130	0			
Surr: Toluene-d8	5131	0	5000	0	103	50-150	0			

MS		Sample ID: 1601820-01A MS				Units: µg/Kg		Analysis Date: 1/25/2016 06:07 PM		
Client ID:		Run ID: GC10_160125A				SeqNo: 3671726		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	593700	2,500	500000	0	119	70-130	0			
Surr: Toluene-d8	4462	0	5000	0	89.2	50-150	0			

MSD		Sample ID: 1601820-01A MSD				Units: µg/Kg		Analysis Date: 1/25/2016 06:32 PM		
Client ID:		Run ID: GC10_160125A				SeqNo: 3671727		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	576300	2,500	500000	0	115	70-130	593700	2.97	30	
Surr: Toluene-d8	4436	0	5000	0	88.7	50-150	4462	0.584	30	

The following samples were analyzed in this batch: 1601818-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81685** Instrument ID **HG1** Method: **SW7471B**

MBLK		Sample ID: MBLK-81685-81685				Units: mg/Kg		Analysis Date: 1/26/2016 01:01 PM		
Client ID:		Run ID: HG1_160126A				SeqNo: 3672063		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS		Sample ID: LCS-81685-81685				Units: mg/Kg		Analysis Date: 1/26/2016 01:03 PM		
Client ID:		Run ID: HG1_160126A				SeqNo: 3672064		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1708 0.020 0.1665 0 103 80-120 0

MS		Sample ID: 1601805-01BMS				Units: mg/Kg		Analysis Date: 1/26/2016 01:16 PM		
Client ID:		Run ID: HG1_160126A				SeqNo: 3672070		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1543 0.014 0.1177 0.02791 107 75-125 0

MSD		Sample ID: 1601805-01BMSD				Units: mg/Kg		Analysis Date: 1/26/2016 01:18 PM		
Client ID:		Run ID: HG1_160126A				SeqNo: 3672071		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1466 0.014 0.1148 0.02791 103 75-125 0.1543 5.15 35

The following samples were analyzed in this batch:

1601818-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81620** Instrument ID **ICP2** Method: **SW846 6010C**

DUP				Sample ID: 1601818-01ADUP			Units: mg/L		Analysis Date: 1/26/2016 12:35 PM		
Client ID: Stockpile Confirmation Composite				Run ID: ICP2_160126A			SeqNo: 3672095		Prep Date: 1/26/2016		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	62.72	5.0	0	0	0	0-0	48.95	24.7			
Magnesium	13.8	2.0	0	0	0	0-0	10.86	23.8			
Sodium	291	2.0	0	0	0	0-0	236.8	20.5			

DUP				Sample ID: 1601818-01ADUP				Units: none		Analysis Date: 1/26/2016		
Client ID: Stockpile Confirmation Composite				Run ID: SAR_160126A				SeqNo: 3672166		Prep Date: 1/26/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Sodium Adsorption Ratio	8.667	0.010	0	0	0		7.977	8.29	50			

The following samples were analyzed in this batch:

1601818-01A	1601818-02A	1601818-03A
1601818-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81623** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-81623-81623				Units: mg/Kg		Analysis Date: 1/25/2016 09:20 AM		
Client ID:		Run ID: ICP2_160125A				SeqNo: 3670607		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	0.05545	0.25								J
Copper	ND	0.50								
Lead	0.09381	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS		Sample ID: LCS-81623-81623				Units: mg/Kg		Analysis Date: 1/25/2016 09:26 AM		
Client ID:		Run ID: ICP2_160125A				SeqNo: 3670608		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.146	0.25	5	0	103	80-120	0			
Barium	4.668	0.25	5	0	93.4	80-120	0			
Cadmium	4.856	0.50	5	0	97.1	80-120	0			
Chromium	5.402	0.25	5	0	108	80-120	0			
Copper	5.094	0.50	5	0	102	80-120	0			
Lead	4.984	0.25	5	0	99.7	80-120	0			
Nickel	4.961	0.25	5	0	99.2	80-120	0			
Selenium	5.034	0.50	5	0	101	80-120	0			
Silver	5.081	0.25	5	0	102	80-120	0			
Zinc	5.186	0.50	5	0	104	80-120	0			

MS		Sample ID: 1601818-02AMS				Units: mg/Kg		Analysis Date: 1/25/2016 09:42 AM		
Client ID: Background 1		Run ID: ICP2_160125A				SeqNo: 3670611		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.736	0.39	7.776	5.573	53.5	75-125	0			S
Barium	84.49	0.39	7.776	84.59	-1.24	75-125	0			SO
Cadmium	7.114	0.78	7.776	-0.002685	91.5	75-125	0			
Chromium	11.4	0.39	7.776	3.247	105	75-125	0			
Copper	12.16	0.78	7.776	4.77	95	75-125	0			
Lead	12.14	0.39	7.776	6.896	67.4	75-125	0			S
Nickel	10.61	0.39	7.776	3.453	92	75-125	0			
Selenium	8.022	0.78	7.776	0.3953	98.1	75-125	0			
Silver	7.499	0.39	7.776	-0.08797	97.6	75-125	0			
Zinc	28.91	0.78	7.776	19.82	117	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81623** Instrument ID **ICP2** Method: **SW846 6010C**

MSD				Sample ID: 1601818-02AMSD			Units: mg/Kg		Analysis Date: 1/25/2016 09:47 AM		
Client ID: Background 1			Run ID: ICP2_160125A			SeqNo: 3670612		Prep Date: 1/22/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	9.486	0.39	7.764	5.573	50.4	75-125	9.736	2.6	20	S	
Barium	85.37	0.39	7.764	84.59	10.1	75-125	84.49	1.04	20	SO	
Cadmium	7.003	0.78	7.764	-0.002685	90.2	75-125	7.114	1.58	20		
Chromium	11.77	0.39	7.764	3.247	110	75-125	11.4	3.15	20		
Copper	11.86	0.78	7.764	4.77	91.3	75-125	12.16	2.47	20		
Lead	15.67	0.39	7.764	6.896	113	75-125	12.14	25.4	20	R	
Nickel	10.46	0.39	7.764	3.453	90.2	75-125	10.61	1.43	20		
Selenium	7.869	0.78	7.764	0.3953	96.3	75-125	8.022	1.93	20		
Silver	7.37	0.39	7.764	-0.08797	96.1	75-125	7.499	1.73	20		
Zinc	28.75	0.78	7.764	19.82	115	75-125	28.91	0.552	20		

The following samples were analyzed in this batch:

1601818-01A 1601818-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81612** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-81612-81612				Units: µg/Kg		Analysis Date: 1/22/2016 03:38 PM		
Client ID:		Run ID: SVMS6_160122A				SeqNo: 3670305		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1386	0	1667	0	83.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2015	0	1667	0	121	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1408	0	1667	0	84.5	37-107	0			

LCS		Sample ID: SLCSS1-81612-81612				Units: µg/Kg		Analysis Date: 1/22/2016 03:58 PM		
Client ID:		Run ID: SVMS6_160122A				SeqNo: 3670306		Prep Date: 1/22/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	552.3	6.7	666.7	0	82.8	45-110	0			
Acenaphthylene	544	6.7	666.7	0	81.6	45-105	0			
Anthracene	728.3	6.7	666.7	0	109	55-105	0			S
Benzo(a)anthracene	652	6.7	666.7	0	97.8	50-110	0			
Benzo(a)pyrene	687	6.7	666.7	0	103	50-110	0			
Benzo(b)fluoranthene	741.3	6.7	666.7	0	111	45-115	0			
Benzo(g,h,i)perylene	579	6.7	666.7	0	86.8	40-125	0			
Benzo(k)fluoranthene	684	6.7	666.7	0	103	45-115	0			
Chrysene	730.3	6.7	666.7	0	110	55-110	0			
Dibenzo(a,h)anthracene	617.3	6.7	666.7	0	92.6	40-125	0			
Fluoranthene	652.3	6.7	666.7	0	97.8	55-115	0			
Fluorene	585.7	6.7	666.7	0	87.8	50-110	0			
Indeno(1,2,3-cd)pyrene	692.7	6.7	666.7	0	104	40-120	0			
Naphthalene	576.7	6.7	666.7	0	86.5	40-105	0			
Pyrene	736.7	6.7	666.7	0	110	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1370	0	1667	0	82.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2047	0	1667	0	123	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1425	0	1667	0	85.5	37-107	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81612** Instrument ID **SVMS6** Method: **SW846 8270D**

MS				Sample ID: 1601748-01A MS				Units: µg/Kg		Analysis Date: 1/22/2016 04:17 PM	
Client ID:			Run ID: SVMS6_160122A			SeqNo: 3670307		Prep Date: 1/22/2016		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1632	740	989.1	0	165	45-110	0			S	
Acenaphthylene	2040	740	989.1	0	206	45-105	0			S	
Anthracene	1447	740	989.1	0	146	55-105	0			S	
Benzo(a)anthracene	3820	740	989.1	0	386	50-110	0			S	
Benzo(a)pyrene	5267	740	989.1	0	532	50-110	0			S	
Benzo(b)fluoranthene	2856	740	989.1	0	289	45-115	0			S	
Benzo(g,h,i)perylene	3857	740	989.1	0	390	40-125	0			S	
Benzo(k)fluoranthene	2485	740	989.1	0	251	45-115	0			S	
Chrysene	1150	740	989.1	0	116	55-110	0			S	
Dibenzo(a,h)anthracene	3264	740	989.1	0	330	40-125	0			S	
Fluoranthene	3783	740	989.1	0	382	55-115	0			S	
Fluorene	4302	740	989.1	2847	147	50-110	0			S	
Indeno(1,2,3-cd)pyrene	6787	740	989.1	0	686	40-120	0			S	
Naphthalene	18170	740	989.1	16750	144	40-105	0			SO	
Pyrene	1187	740	989.1	0	120	45-125	0				
Surr: 2-Fluorobiphenyl	2596	0	2473	0	105	12-100	0			S	
Surr: 4-Terphenyl-d14	3264	0	2473	0	132	25-137	0				
Surr: Nitrobenzene-d5	8679	0	2473	0	351	37-107	0			S	

MSD				Sample ID: 1601748-01A MSD				Units: µg/Kg		Analysis Date: 1/22/2016 04:37 PM	
Client ID:			Run ID: SVMS6_160122A			SeqNo: 3670308		Prep Date: 1/22/2016		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	2049	730	976	0	210	45-110	1632	22.7	30	S	
Acenaphthylene	2525	730	976	0	259	45-105	2040	21.3	30	S	
Anthracene	805.2	730	976	0	82.5	55-105	1447	57	30	R	
Benzo(a)anthracene	3733	730	976	0	382	50-110	3820	2.31	30	S	
Benzo(a)pyrene	5233	730	976	0	536	50-110	5267	0.634	30	S	
Benzo(b)fluoranthene	2855	730	976	0	292	45-115	2856	0.0458	30	S	
Benzo(g,h,i)perylene	3879	730	976	0	397	40-125	3857	0.569	30	S	
Benzo(k)fluoranthene	2415	730	976	0	247	45-115	2485	2.84	30	S	
Chrysene	1318	730	976	0	135	55-110	1150	13.6	30	S	
Dibenzo(a,h)anthracene	3147	730	976	0	322	40-125	3264	3.63	30	S	
Fluoranthene	3550	730	976	0	364	55-115	3783	6.36	30	S	
Fluorene	4026	730	976	2847	121	50-110	4302	6.64	30	S	
Indeno(1,2,3-cd)pyrene	6697	730	976	0	686	40-120	6787	1.34	30	S	
Naphthalene	18560	730	976	16750	185	40-105	18170	2.07	30	SO	
Pyrene	1244	730	976	0	127	45-125	1187	4.73	30	S	
Surr: 2-Fluorobiphenyl	2415	0	2440	0	99	12-100	2596	7.22	40		
Surr: 4-Terphenyl-d14	3147	0	2440	0	129	25-137	3264	3.63	40		
Surr: Nitrobenzene-d5	9296	0	2440	0	381	37-107	8679	6.86	40	S	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81612** Instrument ID **SVMS6** Method: **SW846 8270D**

The following samples were analyzed in this batch:

1601818-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81679** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: MBLK-81679-81679				Units: µg/Kg		Analysis Date: 1/26/2016 12:01 PM		
Client ID:		Run ID: VMS5_160126A				SeqNo: 3673075		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	1068	0	1000	0	107	70-130	0			
Surr: 4-Bromofluorobenzene	963	0	1000	0	96.3	70-130	0			
Surr: Dibromofluoromethane	1014	0	1000	0	101	70-130	0			
Surr: Toluene-d8	995.5	0	1000	0	99.6	70-130	0			

LCS		Sample ID: LCS-81679-81679				Units: µg/Kg		Analysis Date: 1/26/2016 10:42 AM		
Client ID:		Run ID: VMS5_160126A				SeqNo: 3673074		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	996	30	1000	0	99.6	75-125	0			
Ethylbenzene	1024	30	1000	0	102	75-125	0			
m,p-Xylene	2008	60	2000	0	100	80-125	0			
o-Xylene	978	30	1000	0	97.8	75-125	0			
Toluene	994	30	1000	0	99.4	70-125	0			
Xylenes, Total	2986	90	3000	0	99.6	75-125	0			
Surr: 1,2-Dichloroethane-d4	1030	0	1000	0	103	70-130	0			
Surr: 4-Bromofluorobenzene	1034	0	1000	0	103	70-130	0			
Surr: Dibromofluoromethane	1013	0	1000	0	101	70-130	0			
Surr: Toluene-d8	994.5	0	1000	0	99.4	70-130	0			

MS		Sample ID: 1601870-02A MS				Units: µg/Kg		Analysis Date: 1/25/2016 09:46 PM		
Client ID:		Run ID: VMS7_160125A				SeqNo: 3671441		Prep Date: 1/25/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1052	30	1000	0	105	75-125	0			
Ethylbenzene	1062	30	1000	0	106	75-125	0			
m,p-Xylene	2154	60	2000	0	108	80-125	0			
o-Xylene	1056	30	1000	0	106	75-125	0			
Toluene	1036	30	1000	0	104	70-125	0			
Xylenes, Total	3211	90	3000	0	107	75-125	0			
Surr: 1,2-Dichloroethane-d4	977.5	0	1000	0	97.8	70-130	0			
Surr: 4-Bromofluorobenzene	1004	0	1000	0	100	70-130	0			
Surr: Dibromofluoromethane	977.5	0	1000	0	97.8	70-130	0			
Surr: Toluene-d8	971	0	1000	0	97.1	70-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81679** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 1601870-02A MSD			Units: µg/Kg		Analysis Date: 1/25/2016 10:11 PM		
Client ID:			Run ID: VMS7_160125A			SeqNo: 3671443		Prep Date: 1/25/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1099	30	1006	0	109	75-125	1052	4.43	30		
Ethylbenzene	1093	30	1006	0	109	75-125	1062	2.84	30		
m,p-Xylene	2222	60	2012	0	110	80-125	2154	3.08	30		
o-Xylene	1080	30	1006	0	107	75-125	1056	2.24	30		
Toluene	1068	30	1006	0	106	70-125	1036	3.03	30		
Xylenes, Total	3302	91	3018	0	109	75-125	3211	2.8	30		
Surr: 1,2-Dichloroethane-d4	1023	0	1006	0	102	70-130	977.5	4.51	30		
Surr: 4-Bromofluorobenzene	1015	0	1006	0	101	70-130	1004	1.05	30		
Surr: Dibromofluoromethane	990.4	0	1006	0	98.4	70-130	977.5	1.32	30		
Surr: Toluene-d8	976.9	0	1006	0	97.1	70-130	971	0.602	30		

The following samples were analyzed in this batch: 1601818-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81620** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 1601818-01A DUP				Units: mmhos/cm @25°		Analysis Date: 1/27/2016 08:20 AM		
Client ID: Stockpile Confirmation Composite		Run ID: WETCHEM_160127D				SeqNo: 3673064		Prep Date: 1/26/2016		DF: 25
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.05	0.12	0	0	0		1.898	7.73	50	

The following samples were analyzed in this batch:

1601818-01A	1601818-02A	1601818-03A
1601818-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81675** Instrument ID **WETCHEM** Method: **SW9045D**

LCS				Sample ID: LCS-81675-81675				Units: s.u.			Analysis Date: 1/25/2016 10:15 AM			
Client ID:				Run ID: WETCHEM_160125C				SeqNo: 3670432			Prep Date: 1/25/2016		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

pH 4.01 0 4 0 100 90-110 0

DUP		Sample ID: 1601677-01A DUP					Units: s.u.		Analysis Date: 1/25/2016 10:15 AM		
Client ID:		Run ID: WETCHEM_160125C			SeqNo: 3670434		Prep Date: 1/25/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 7.53 0 0 0 0 0-0 7.48 0.666 20 H

DUP		Sample ID: 1601818-01A DUP			Units: s.u.		Analysis Date: 1/25/2016 10:15 AM					
Client ID: Stockpile Confirmation Composite		Run ID: WETCHEM_160125C			SeqNo: 3670444		Prep Date: 1/25/2016		DF: 1			
					SPK Ref Value		Control Limit		RPD Ref Value		RPD Limit	

pH 8.77 0 0 0 0 0-0 8.74 0.343 20

The following samples were analyzed in this batch:

1601818-01A	1601818-02A	1601818-03A
1601818-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **81797** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-81797-81797				Units: mg/Kg		Analysis Date: 1/27/2016 12:30 PM		
Client ID:		Run ID: WETCHEM_160127S		SeqNo: 3674295		Prep Date: 1/25/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.99

LCS		Sample ID: LCS-81797-81797				Units: mg/Kg		Analysis Date: 1/27/2016 12:30 PM		
Client ID:		Run ID: WETCHEM_160127S		SeqNo: 3674294		Prep Date: 1/25/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.39 1.0 5 0 87.8 80-120 0

MS		Sample ID: 1601818-01A MS				Units: mg/Kg		Analysis Date: 1/27/2016 12:30 PM		
Client ID: Stockpile Confirmation Composite		Run ID: WETCHEM_160127S		SeqNo: 3674290		Prep Date: 1/25/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3.879 0.93 4.673 0.125 80.3 75-125 0

MS		Sample ID: 1601818-01A MSI				Units: mg/Kg		Analysis Date: 1/27/2016 12:30 PM		
Client ID: Stockpile Confirmation Composite		Run ID: WETCHEM_160127S		SeqNo: 3674292		Prep Date: 1/25/2016		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3026 93 2875 0.125 105 75-125 0

MSD		Sample ID: 1601818-01A MSD				Units: mg/Kg		Analysis Date: 1/27/2016 12:30 PM		
Client ID: Stockpile Confirmation Composite		Run ID: WETCHEM_160127S		SeqNo: 3674291		Prep Date: 1/25/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.067 0.95 4.762 0.125 82.8 75-125 3.879 4.74 20

The following samples were analyzed in this batch: 1601818-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1601818
Project: Black Hills- Stockpile Sampling

QC BATCH REPORT

Batch ID: **R180528** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R180528				Units: % of sample		Analysis Date: 1/22/2016 04:05 PM		
Client ID:		Run ID: MOIST_160122B				SeqNo: 3669834		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R180528				Units: % of sample		Analysis Date: 1/22/2016 04:05 PM		
Client ID:		Run ID: MOIST_160122B				SeqNo: 3669833		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1601818-01A DUP				Units: % of sample		Analysis Date: 1/22/2016 04:05 PM		
Client ID: Stockpile Confirmation Composite		Run ID: MOIST_160122B				SeqNo: 3669822		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 20.4 0.050 0 0 0 20.04 1.78 20

DUP		Sample ID: 1601821-02A DUP				Units: % of sample		Analysis Date: 1/22/2016 04:05 PM		
Client ID:		Run ID: MOIST_160122B				SeqNo: 3669829		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 23 0.050 0 0 0 23.18 0.78 20

The following samples were analyzed in this batch:

1601818-01A	1601818-02A	1601818-03A
1601818-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202-8

WORKORDER #

1601818

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME

Black Hills - Stockpile Sampling

SAMPLER

Jordan Carlo

DATE

1/20/2016

SITE ID

Horseshoe Canyon Unit -3

TURNAROUND

Standard (5-Day)

PROJECT NO.

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

HRL COMPLIANCE SOLUTIONS Inc.

BILL TO COMPANY

HRL Compliance Solutions Inc.

SEND REPORT TO

Kris Rowe, Tanner Ridgway

INVOICE ATTN TO

Missy Derosé, Kim Cass, Staci Knob

ADDRESS

2385 F 1/2 RD

ADDRESS

2385 F 1/2 Rd

CITY / STATE / ZIP

GRAND JUNCTION CO 81505

CITY / STATE / ZIP

Grand Junction, CO 81505

PHONE

970-243-3271

PHONE

970-243-3271

FAX

970-243-3280

FAX

E-MAIL

krowe@hrlcomp.com,
tridgway@hrlcomp.com

E-MAIL

mderose@hrlcomp.com,
kcass@hrlcomp.com,
sknob@hrlcomp.com

DRO

GRO

BTEX

Semi Vols* - PAH

910-1 Metals*

SAR / EC / pH

ARSENIC

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

Stockpile Confirmation Composite

S

1/20/2016

2:10

2

8

X

X

X

X

X

X

Background 1

S

1/20/16

2:20

1

8

X

X

Background 2

S

1/20/16

2:25

1

8

X

Background 3

S

1/20/16

2:30

1

8

X

*Time Zone (Circle): EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)

X

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

*See attached analytical table (COGCP Table 910-1)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Jordan Carlo

1/20/2016

16:00

RECEIVED BY

N-R

1-20-16

1610

RELINQUISHED BY

N-M

1-20-16

1700

RECEIVED BY

M Broadbent

1/20/16

1200

RELINQUISHED BY

RECEIVED BY

ORIGIN: RLA (816) 298-1033
 NICK MARTINEZ
 ALS ENVIRONMENTAL PARACHUTE
 PARACHUTE SERVICE CENTER
 127 EAST 1ST ST
 PARACHUTE, CO 81635
 UNITED STATES US

SHIP DATE: 20 JAN 16
 ACTWGT: 50.00 LB
 CAD: 2264840/NET 3730
 DIMS: 14x26x15 IN
 BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

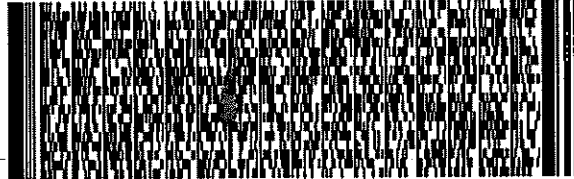
HOLLAND MI 49424

(816) 399-6070
 INV
 PO: PARACHUTE

REF: 012016-1

DEPT:

540310551727F



REL#
 3785346

THU - 21 JAN 10:30A
PRIORITY OVERNIGHT

TRK#
 0201 **7754 6376 4790**

XX HLMA

49424
GRR
 MI-US



ALS Environmental
 3352 128th Avenue
 Holland, Michigan 49424
 Tel. +1 616 399 6070
 Fax. +1 616 399 6165

This page to print your label to your laser or inkjet printer.
 Print the horizontal line.
 Cut and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Use original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in the cancellation of your FedEx account number. Charges, along with the cancellation of your FedEx account number, are your responsibility. Your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com, FedEx Express, applies to this shipment. Whether the result of loss, damage, delay, non-delivery, misdelivery, or any claim in excess of \$100 per package, document your actual loss and file a timely claim. Limitations on recovery apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the actual declared value. Recovery cannot exceed actual documented loss. Maximum for items of value, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written proof of loss required. See current FedEx Service Guide.

CUSTODY SEAL

Date: 1-20-16 Time: 11:30
 Name: ALS
 Company: ALS Environmental

Seal Broken By:

Date:

- After 9
 1. Use
 2. Fold
 3. Place
 Warning
 result in
 Use of
 will not
 misinfo
 found i
 of sale
 limited
 extraor
 claims

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **21-Jan-16 12:00**

Work Order: **1601818**

Received by: **MB**

Checklist completed by Meghan Broadbent
eSignature

21-Jan-16
Date

Reviewed by: Chad Whelton
eSignature

21-Jan-16
Date

Matrices: **soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>1.2/1.2</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>1/21/2016 1:34:43 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: