



30-Jul-2013

Herman Lucero
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Caerus Chevron 41-8D 13-199 7/22/13**

Work Order: **1307799**

Dear Herman,

ALS Environmental received 3 samples on 23-Jul-2013 10:00 AM 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 14.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13
Work Order: 1307799

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>
1307799-01	BKGD 1	Soil		7/22/2013 13:45	7/23/2013 10:00	<input type="checkbox"/>
1307799-02	BKGD 2	Soil		7/22/2013 13:35	7/23/2013 10:00	<input type="checkbox"/>
1307799-03	BKGD 3	Soil		7/22/2013 13:30	7/23/2013 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13
WorkOrder: 1307799

QUALIFIERS, ACRONYMS, UNITS

<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

<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
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
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: 30-Jul-13

Client: HRL Compliance Solutions

Project: Caerus Chevron 41-8D 13-199 7/22/13

Sample ID: BKGD 1

Collection Date: 7/22/2013 01:45 PM

Work Order: 1307799

Lab ID: 1307799-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 7/25/2013	Analyst: ML
Arsenic	39		9.2	mg/Kg-dry	5	7/27/2013 02:20 AM
SOLUBLE CATIONS FOR SAR			SW6020A		Prep Date: 7/25/2013	Analyst: RH
Calcium	81		10	mg/L	20	7/26/2013 03:49 PM
Magnesium	28		4.0	mg/L	20	7/26/2013 03:49 PM
Sodium	120		4.0	mg/L	20	7/26/2013 03:49 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep Date: 7/25/2013	Analyst: RH
Sodium Adsorption Ratio	2.8		0.010	none	1	7/26/2013
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep Date: 7/25/2013	Analyst: JB
Electrical Conductivity @ Saturation	1.2		0.050	mmhos/cm @25	10	7/25/2013 03:10 PM
MOISTURE			A2540 G			Analyst: BD
Moisture	82		0.050	% of sample	1	7/23/2013 12:40 PM
PH			SW9045D		Prep Date: 7/23/2013	Analyst: JB
pH	9.1			s.u.	1	7/23/2013 11:00 AM

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

ALS Group USA, Corp

Date: 30-Jul-13

Client: HRL Compliance Solutions

Project: Caerus Chevron 41-8D 13-199 7/22/13

Sample ID: BKGD 2

Collection Date: 7/22/2013 01:35 PM

Work Order: 1307799

Lab ID: 1307799-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 7/25/2013	Analyst: ML
Arsenic	8.3		2.0	mg/Kg-dry	5	7/27/2013 02:44 AM
MOISTURE			A2540 G			Analyst: BD
Moisture	7.3		0.050	% of sample	1	7/23/2013

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

ALS Group USA, Corp

Date: 30-Jul-13

Client: HRL Compliance Solutions

Project: Caerus Chevron 41-8D 13-199 7/22/13

Sample ID: BKGD 3

Collection Date: 7/22/2013 01:30 PM

Work Order: 1307799

Lab ID: 1307799-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 7/25/2013	Analyst: ML
Arsenic	8.6		1.8	mg/Kg-dry	5	7/27/2013 02:50 AM
MOISTURE			A2540 G			Analyst: BD
Moisture	5.2		0.050	% of sample	1	7/23/2013

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

Client: HRL Compliance Solutions

Work Order: 1307799

Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: 50013

Instrument ID ICPMS1

Method: SW6020A

MBLK		Sample ID: MBLK-50013-50013				Units: mg/Kg		Analysis Date: 7/26/2013 02:01 PM		
Client ID:		Run ID: ICPMS1_130726A				SeqNo: 2392468		Prep Date: 7/25/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.03916	0.25								J

LCS		Sample ID: LCS-50013-50013				Units: mg/Kg		Analysis Date: 7/26/2013 02:07 PM		
Client ID:		Run ID: ICPMS1_130726A				SeqNo: 2392469		Prep Date: 7/25/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.799	0.25	5	0	96	80-120	0			

MS		Sample ID: 1307769-02BMS				Units: mg/Kg		Analysis Date: 7/26/2013 02:19 PM		
Client ID:		Run ID: ICPMS1_130726A				SeqNo: 2392471		Prep Date: 7/25/2013		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.8	1.9	7.418	5.276	101	75-125	0			

MSD		Sample ID: 1307769-02BMSD				Units: mg/Kg		Analysis Date: 7/26/2013 02:25 PM		
Client ID:		Run ID: ICPMS1_130726A				SeqNo: 2392472		Prep Date: 7/25/2013		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.82	1.9	7.645	5.276	112	75-125	12.8	7.68	25	

The following samples were analyzed in this batch:

1307799-01A	1307799-02A	1307799-03A
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Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **49915** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 1307634-01B DUP				Units: mmhos/cm @25°C		Analysis Date: 7/25/2013 03:10 PM		
Client ID:		Run ID: WETCHEM_130725J				SeqNo: 2390794		Prep Date: 7/25/2013		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.583	0.050	0	0	0		1.847	15.4	50	

The following samples were analyzed in this batch:

1307799-01B

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **49934** Instrument ID **WETCHEM** Method: **SW9045D**

LCS				Sample ID: LCS-49934-49934				Units: s.u.			Analysis Date: 7/23/2013 11:00 AM			
Client ID:				Run ID: WETCHEM_130723L				SeqNo: 2388161			Prep Date: 7/23/2013		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		4.53	0	4.4	0	103	90-110	0						

DUP					Sample ID: 1307798-01B DUP					Units: s.u.			Analysis Date: 7/23/2013 11:00 AM		
Client ID:					Run ID: WETCHEM_130723L					SeqNo: 2388163		Prep Date: 7/23/2013		DF: 1	
Analyte					Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH					9.13	0	0	0	0	0-0	9.13	0	20		

The following samples were analyzed in this batch:

1307799-01A

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **R124049** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R124049				Units: % of sample			Analysis Date: 7/23/2013 12:40 PM		
Client ID:		Run ID: MOIST_130723A				SeqNo: 2388372			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-R124049				Units: % of sample			Analysis Date: 7/23/2013 12:40 PM		
Client ID:		Run ID: MOIST_130723A				SeqNo: 2388371			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: 1307776-06A DUP				Units: % of sample			Analysis Date: 7/23/2013 12:40 PM		
Client ID:		Run ID: MOIST_130723A				SeqNo: 2388357			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 48.63 0.050 0 0 0 0-0 49.35 1.47 20

DUP		Sample ID: 1307798-01B DUP				Units: % of sample			Analysis Date: 7/23/2013 12:40 PM		
Client ID:		Run ID: MOIST_130723A				SeqNo: 2388365			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 19.99 0.050 0 0 0 0-0 20.28 1.44 20

The following samples were analyzed in this batch:

1307799-01A

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **R124058** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R124058					Units: % of sample			Analysis Date: 7/23/2013		
Client ID:		Run ID: MOIST_130723C				SeqNo: 2388576		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-R124058					Units: % of sample			Analysis Date: 7/23/2013		
Client ID:		Run ID: MOIST_130723C			SeqNo: 2388574		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: 1307794-01B DUP					Units: % of sample			Analysis Date: 7/23/2013		
Client ID:		Run ID: MOIST_130723C			SeqNo: 2388528		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 15.1 0.050 0 0 0 0-0 15.45 2.29 20

DUP	Sample ID: 1307801-04A DUP					Units: % of sample		Analysis Date: 7/23/2013		
Client ID:			Run ID: MOIST_130723C			SeqNo: 2388551		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 32.26 0.050 0 0 0 0-0 31.81 1.4 20

The following samples were analyzed in this batch:

1307799-02A 1307799-03A

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 202r8

WORKORDER
#

1307799

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME

CAERUS CHEVRON 41-8D

SAMPLER

Casey Richardson

DATE

7-22-13

TURNAROUND

5 DAY

SITE ID

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

HCSI

BILL TO COMPANY

PDC Energy

SEND REPORT TO

Herman Lucero

INVOICE ATTN TO

Ed Winters

ADDRESS

2385 F 1/2 Road

ADDRESS

120 Railroad Ave. Suite D

CITY / STATE / ZIP

Grand Junction, CO. 81505

CITY / STATE / ZIP

Parachute, CO 81635

PHONE

970-243-3271

PHONE

970-285-9606

FAX

970-243-3280

FAX

E-MAIL

hlucero@hrlcomp.com

E-MAIL

ewinters@peld.com

Lab ID

Field ID

Matrix

Sample
Date

Sample
Time

Bottles

Pres.

QC

SAR/EC/AR

ARSENIC

1

BKGD 1

SOIL

7-22-13

1345

2

8

X

X

2

BKGD 2

SOIL

7-22-13

1335

1

8

X

3

BKGD 3

SOIL

7-22-13

1330

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)

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

Casey Richardson

Casey Richardson

7-22-13

1625

RECEIVED BY

Colby Koerner

Colby Koerner

7/22/13

1625

RELINQUISHED BY

Colby Koerner

Colby Koerner

7/22/13

1625

RECEIVED BY

Fed Ex

RELINQUISHED BY

Diane F Shaw

Diane F Shaw

7/23/13

1000

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 23-Jul-13 10:00

Work Order: 1307799

Received by: DS

Checklist completed by Diane Shaw 23-Jul-13
eSignature Date

Reviewed by: Ann Preston 28-Jul-13
eSignature 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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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"/>	
Temperature(s)/Thermometer(s):	<u>5.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>7/23/2013 10:56:26 AM</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:			
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (970) 424-4749
Lab Hub, LLC

Origin ID: RILA



127 E First Street

PARACHUTE, CO 81635



J13111302120326

SHIP TO: (616) 399-6070

BILL RECIPIENT

Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

Ship Date: 22JUL13
ActWgt: 80.0 LB
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code



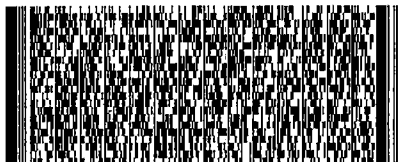
Ref # 1001-072213-3
Invoice #
PO #
Dept #

TUE - 23 JUL 3:00P
STANDARD OVERNIGHT

TRK# 7962 8879 8431
0201

XX GRRR

49424
MI-US
GRR



518G1/AA04/63AB

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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