



29-May-2014

Mark Mumby
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Clough 2-A Backgrounds 5.20.14**

Work Order: **14051131**

Dear Mark,

ALS Environmental received 3 samples on 22-May-2014 09:30 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 13.

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, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Work Order: 14051131

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>
14051131-01	Clough 2-A B-1	Soil		5/20/2014 12:30	5/22/2014 09:30	<input type="checkbox"/>
14051131-02	Clough 2-A B-2	Soil		5/20/2014 12:35	5/22/2014 09:30	<input type="checkbox"/>
14051131-03	Clough 2-A B-3	Soil		5/20/2014 12:45	5/22/2014 09:30	<input type="checkbox"/>

<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
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
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: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-1
Collection Date: 5/20/2014 12:30 PM

Work Order: 14051131
Lab ID: 14051131-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	5.8		1.8	mg/Kg-dry	5	5/24/2014 04:11 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	1.3		0.050	% of sample	1	5/22/2014 04:52 PM

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

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-2
Collection Date: 5/20/2014 12:35 PM

Work Order: 14051131
Lab ID: 14051131-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	8.4		2.0	mg/Kg-dry	5	5/24/2014 04:35 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	7.1		0.050	% of sample	1	5/22/2014 04:52 PM

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

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-3
Collection Date: 5/20/2014 12:45 PM

Work Order: 14051131
Lab ID: 14051131-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	7.6		2.0	mg/Kg-dry	5	5/24/2014 04:41 AM
SOLUBLE CATIONS FOR SAR			SW6020A		Prep: USDA Method 20B / 5/27/14	Analyst: RH
Calcium	47		10	mg/L	20	5/28/2014 01:55 AM
Magnesium	12		4.0	mg/L	20	5/28/2014 01:55 AM
Sodium	57		4.0	mg/L	20	5/28/2014 01:55 AM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 5/27/14	Analyst: RH
Sodium Adsorption Ratio	1.9		0.010	none	1	5/27/2014
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 5/27/14	Analyst: JB
Electrical Conductivity @ Saturation	0.61		0.050	mmhos/cm @25	10	5/28/2014 12:15 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	10		0.050	% of sample	1	5/22/2014 04:52 PM
PH			SW9045D		Prep: EXTRACT / 5/23/14	Analyst: AT
pH	8.6			s.u.	1	5/23/2014 03:00 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:01 AM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778963		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS		Sample ID: LCS-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:08 AM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778964		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.298	0.25	5	0	86	80-120	0			

MS		Sample ID: 14051131-01AMS				Units: mg/Kg		Analysis Date: 5/24/2014 04:17 AM		
Client ID: Clough 2-A B-1		Run ID: ICPMS1_140523A				SeqNo: 2778992		Prep Date: 5/22/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.67	1.8	7.112	5.756	83.2	75-125	0			

MSD		Sample ID: 14051131-01AMSD				Units: mg/Kg		Analysis Date: 5/24/2014 04:23 AM		
Client ID: Clough 2-A B-1		Run ID: ICPMS1_140523A				SeqNo: 2778993		Prep Date: 5/22/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.14	1.8	7.174	5.756	103	75-125	11.67	11.8	25	

The following samples were analyzed in this batch:		14051131-01A	14051131-02A	14051131-03A
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Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14051131-03BDUP				Units: mg/L		Analysis Date: 5/28/2014 02:01 AM		
Client ID: Clough 2-A B-3		Run ID: ICPMS2_140527A				SeqNo: 2782400		Prep Date: 5/27/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	44.9	10	0	0	0	0-0	46.9	4.36		
Magnesium	11.67	4.0	0	0	0	0-0	12.4	6.02		
Sodium	47.98	4.0	0	0	0	0-0	57.48	18		

DUP		Sample ID: 14051131-03BDUP				Units: none		Analysis Date: 5/27/2014		
Client ID: Clough 2-A B-3		Run ID: SAR_140527A				SeqNo: 2782921		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.65	0.010	0	0	0		1.929	15.6	50	

The following samples were analyzed in this batch:

14051131-03B

Batch ID: **58939** Instrument ID **WETCHEM** Method: **USDA H60 Method**

Dup		Sample ID: 14051131-03B DUP				Units: mmhos/cm @25°C		Analysis Date: 5/28/2014 12:15 PM		
Client ID: Clough 2-A B-3		Run ID: WETCHEM_140528B				SeqNo: 2782946		Prep Date: 5/27/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.564	0.050	0	0	0		0.606	7.18	50	

The following samples were analyzed in this batch:

14051131-03B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **58981** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-58981-58981					Units: s.u.			Analysis Date: 5/23/2014 03:00 PM				
Client ID:					Run ID: WETCHEM_140523L					SeqNo: 2778211			Prep Date: 5/23/2014			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD		RPD Limit	Qual
pH					4		0	4	0	100		90-110	0				

DUP					Sample ID: 14051124-01B DUP					Units: s.u.		Analysis Date: 5/23/2014 03:00 PM		
Client ID:				Run ID: WETCHEM_140523L				SeqNo: 2778213		Prep Date: 5/23/2014		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		8.03	0	0	0	0	0-0	7.95	1	20				

The following samples were analyzed in this batch:

14051131-03A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **R141309** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R141309				Units: % of sample		Analysis Date: 5/22/2014 04:52 PM		
Client ID:		Run ID: MOIST_140522C				SeqNo: 2776941		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-R141309				Units: % of sample		Analysis Date: 5/22/2014 04:52 PM		
Client ID:		Run ID: MOIST_140522C				SeqNo: 2776940		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: 14051122-03B DUP				Units: % of sample		Analysis Date: 5/22/2014 04:52 PM		
Client ID:		Run ID: MOIST_140522C				SeqNo: 2776923		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 2.23 0.050 0 0 0 0-0 2.21 0.901 20

DUP		Sample ID: 14051122-10B DUP				Units: % of sample		Analysis Date: 5/22/2014 04:52 PM		
Client ID:		Run ID: MOIST_140522C				SeqNo: 2776932		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 3.07 0.050 0 0 0 0-0 2.67 13.9 20

The following samples were analyzed in this batch:

14051131-01A	14051131-02A	14051131-03A
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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 #

14051131

PAGE

1 of 1

DISPOSAL

(By Lab) or Return to Client

PROJECT NAME WPX Clough 2-A

SAMPLER Reed Wold

DATE

5/21/14

SITE ID

Clough 2-A

TURNAROUND

Standard

EDD FORMAT

PURCHASE ORDER

PROJECT No.

Back ground

COMPANY NAME

HRL Compliance

SEND REPORT TO

Mark Mumby

ADDRESS

2385 F 1/2 Rd

CITY / STATE / ZIP

Grand Junction, CO 81506

PHONE

970-243-3271

FAX

970-243-3280

E-MAIL

mmumby@hrlcomp.com
rwold@hrlcomp.com

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

Arsenic
SAR/6-1/14

1

Clough 2-A B-1

SO

5/20/14

12:30

1

X

2

Clough 2-A B-2

↓

↓

12:35

1

X

3

Clough 2-A B-3

↓

↓

12:45

2

X

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

Reed Wold

Reed Wold

5/21/14 4:00

RECEIVED BY

Wold

Wold

5/21/14 4:00

RELINQUISHED BY

Wold

Wold

5/21/14 4:00

RECEIVED BY

Wold

Wold

5/22/14 0930

RELINQUISHED BY

Wold

Wold

5/22/14 0930

RECEIVED BY

Wold

Wold

5/22/14 0930

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **22-May-14 09:30**

Work Order: **14051131**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

22-May-14
Date

Reviewed by: Ann Preston
eSignature

22-May-14
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"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.4 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/22/2014 12:26:50 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:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 49424

Origin ID: GRRA



Ship Date: 21MAY14
 ActWgt: 72.0 LB
 CAD: 2264840/NET3400

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



SHIP TO: (616) 399-6070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL SENDER

Ref # 052114-2
 Invoice #
 PO # Parachute
 Dept #

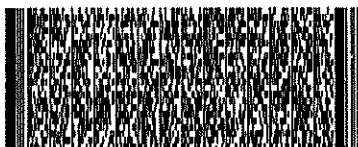
HOLLAND, MI 49424

THU - 22 MAY 10:30A
 PRIORITY OVERNIGHT

TRK# 7700 5970 9173
 0291

68 GRRA

49424
 MI-US
 GRR



022G140203F220

After printing this label:

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