



July 26, 2016

Mr. Scot A. Donato
Great Western Operating Company, LLC
1801 Broadway, Suite 500
Denver, Colorado 80202

**RE: Simpson #1 Tank Battery
Quarterly Groundwater Sampling
Weld County, Colorado
Olsson Project #015-3445**

Dear Mr. Donato,

Great Western Operating Company, LLC (GWOC) retained Olsson Associates (Olsson) to complete the third quarterly groundwater sampling event at the Simpson #1 Tank Battery (Site) located in the northeast quarter of the northeast quarter of Section 15, Township 6 North, Range 67 West. Olsson conducted the groundwater sampling activities on July 22, 2016. The activities were conducted in accordance with the Colorado Oil and Gas Conservation Commission (COGCC) Form 27 Site Investigation and Remediation Workplan approved in December 2015. This letter summarizes the project activities and analytical results.

The Site is an active oil and gas production facility located in an agricultural area, approximately 1,000 feet south of the intersection of County Roads 21 and 70 in Weld County, Colorado. Based on local topography groundwater is expected to flow to the southwest toward a ravine in place on the south side of the Site. According to the Colorado Division of Water Resources, the nearest domestic water well is located a quarter mile northeast and hydraulically up-gradient from the Site. Figure 1 illustrates the general location of the Site.

Groundwater Sampling Methods and Analytical Results

After recording the measured groundwater elevation, Olsson personnel purged monitoring well MW-1 of approximately 1.75 gallons of groundwater utilizing a dedicated polyethylene bailer and nylon cord. Due to slow groundwater recharge, Olsson was unable to purge three casing volumes of groundwater from the well. Groundwater was encountered at a depth of 15.91 feet below the top of the PVC well casing. During this project, Olsson personnel followed sampling procedures, equipment decontamination methods, and chain-of-custody procedures in accordance with U.S. Environmental Protection Agency (EPA) guidelines.

Following well purging, Olsson collected a groundwater sample from monitoring well MW-1 and delivered the sample to Origins Laboratory, Inc. (Origins) in Denver, Colorado for analysis. Origins analyzed the groundwater sample for BTEX using EPA Method 8260C. The groundwater analytical results are summarized on Figure 2 and are included in Table 1. The laboratory analytical report is included as Appendix A.

Table 1
Simpson #1 Tank Battery
Groundwater Analytical Summary
Weld County, Colorado

Sample Number	Sample Date	BTEX (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
COGCC Table 910-1 Concentration Levels		5	1000	700	10,000
MW-1	1/28/2016	ND	ND	ND	ND
MW-1	4/21/2016	ND	ND	ND	ND
MW-1	7/22/2016	ND	ND	ND	ND

Colorado Oil and Gas Conservation Commission (COGCC), 900 Series, Exploration and Production Waste Management, Table 910-1, Concentration Levels, February 1, 2014

BTEX - Benzene, toluene, ethylbenzene, total xylenes

µg/L - Micrograms per liter

Bold - Above COGCC Table 910-1 Concentration Levels

ND - Sample not reported above laboratory reporting limit

Based on the analytical results, BTEX concentrations were not detected at or above laboratory reporting limits, and were below their respective COGCC Table 910-1 concentrations in the groundwater sample from monitoring well MW-1.

The next quarterly sampling event is scheduled for October 2016. If BTEX concentrations are not detected, Olsson will request no further action from the COGCC.

Olsson Associates appreciates the opportunity to assist GWOC in performing groundwater monitoring at this Site. If you have any questions or require further information, please call us at 303.237.2072.

Sincerely,
Olsson Associates, Inc.

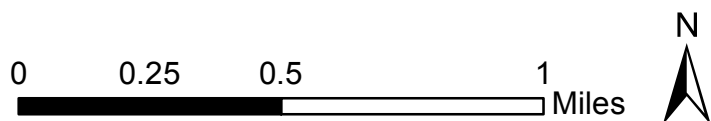
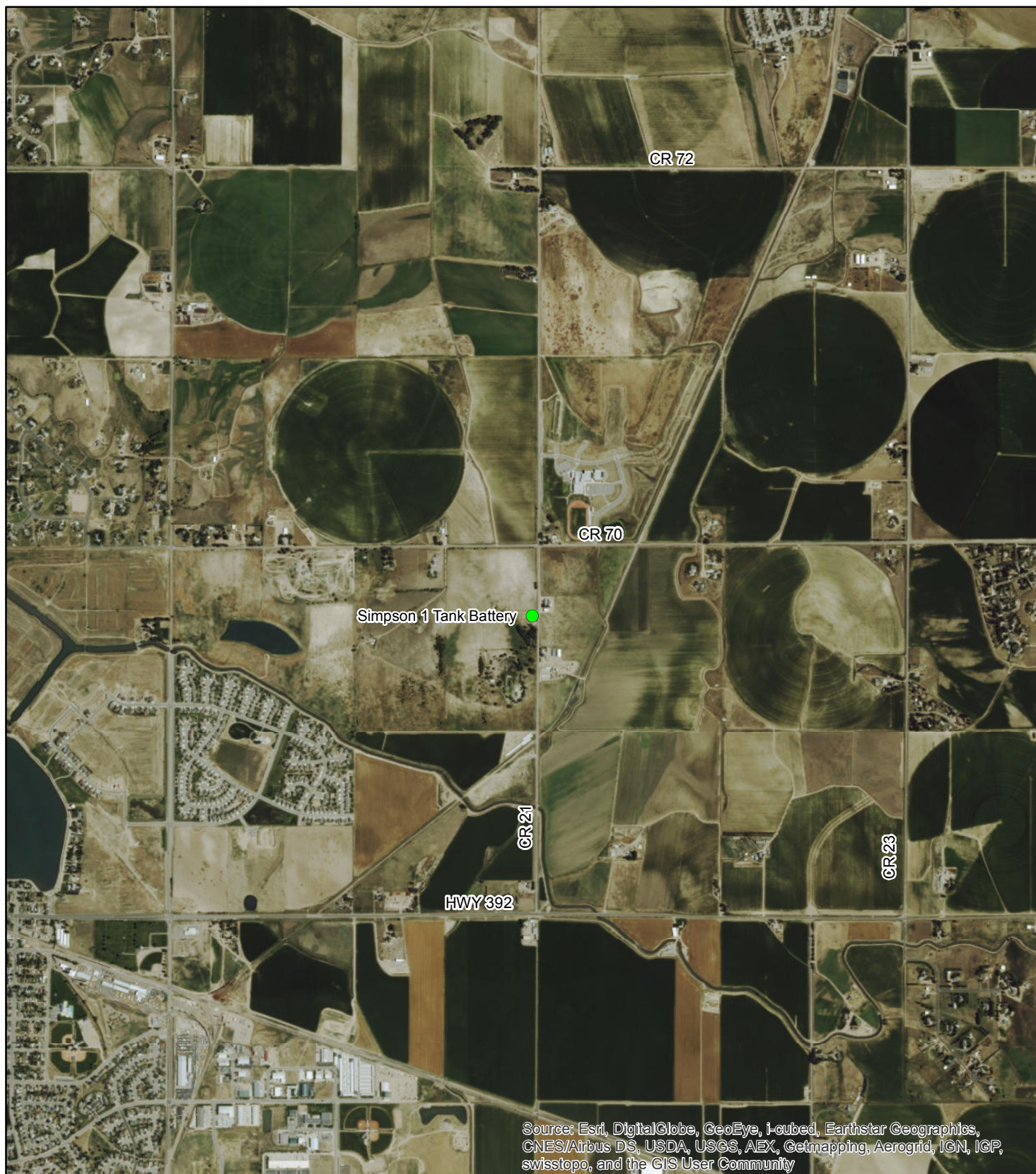


Brendan Cook
Associate Geologist



Jason Davidson, PG
Project Geologist

FIGURES



PROJECT: 015-3445
DRAWN BY: BPC
DATE: February 24, 2016

Simpson 1 Tank Battery
NENE 15 T6N R67W
Weld County, Colorado

OLSSON[®]
ASSOCIATES

FIGURE
1



PROJECT NO: 015-3445

DRAWN BY: BPC

DATE: 07/28/2016

Simpson #1 Tank Battery, Weld County, Colorado
Monitoring Well Location and Groundwater Analytical Results
July 22, 2016
NENE S15 T6N R67W

OLSSON
ASSOCIATES

4690 Table Mountain Drive
Suite 200
Golden, CO 80403
TEL 303-237-2072
FAX 303-237-2659

FIGURE

2

APPENDIX A LABORATORY ANALYTICAL REPORT



July 26, 2016

Olsson Associates

Jason Davidson

4690 Table Mountain Drive

Golden

CO 80403

Project Name - GWOG - Simpson 1

Project Number - 015-3445

Attached are your analytical results for GWOG - Simpson 1 received by Origins Laboratory, Inc. July 22, 2016. This project is associated with Origins project number X607255-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Olsson Associates

4690 Table Mountain Drive

Golden CO 80403

Jason Davidson

Project Number: 015-3445

Project: GWOG - Simpson 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	X607255-01	Water	July 22, 2016 8:31	07/22/2016 11:06

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President

Olsson Associates
4690 Table Mountain Drive
Golden CO 80403

Jason Davidson
Project Number: 015-3445
Project: GWOG - Simpson 1

www.originslaboratory.com

page of

X1007255

ORIGINS LABORATORY, INC

Client: Olsson Associates
Address: 300 E 11th St.
Green, WY 82401

Project Manager: Jason Davidson
Project Name: GWOG Simpson 1
Project Number: 015-3445

Telephone Number:
Email Address: jason@olssonassociates.com

Samples Collected By: JF

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix				Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other		
MW-1	7/22/14	0831	3	X				X				BTEX	1
													2
													3
													4
													5
													6
													7
													8
													9
													10
Relinquished By:	Date: 7/22/14	Time: 1104	Time: 1104	Received By:	Received By:	Date: 7/22/14	Date: 7/22/14	Time: 1106	Time: 1106	Turnaround Time:	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		

Temp Received: 4.1

Date Results Needed

Origins Laboratory, Inc.

Jefe Pellegrini

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Olsson Associates
4690 Table Mountain Drive
Golden CO 80403

Jason Davidson
Project Number: 015-3445
Project: GWOG - Simpson 1

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: X607255

Client: Olsson Assoc.

Client Project ID: GWOG Simpson #1

Checklist Completed by: Jeff Smith

Shipped Via: 4D
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 7/25/12

Airbill #: NA

Matrix(s) Received: (Check all that apply): Soil/Solid ☒ Water ☐ Other: ☐

Cooler Number/Temperature: 1 / 4.1 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: RYB

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄ / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input checked="" type="checkbox"/>			
Additional Comments (if any): <u>HCL</u>				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Jeff Smith
Reviewed by (Project Manager)

7/25/12
Date/Time Reviewed

Origins Laboratory, Inc.

Jeff Pellegrini

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Olsson Associates
4690 Table Mountain Drive
Golden CO 80403

Jason Davidson
Project Number: 015-3445
Project: GWOG - Simpson 1

MW-1

7/22/2016 8:31:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. X607255-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6G2509	07/25/2016	07/26/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Olsson Associates
4690 Table Mountain Drive
Golden CO 80403

Jason Davidson
Project Number: 015-3445
Project: GWOG - Simpson 1

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6G2509 - EPA 5030B (Water)

Blank (B6G2509-BLK1)

Prepared: 07/25/2016 Analyzed: 07/25/2016

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.1	84-121			
Surrogate: Toluene-d8	61		"	62.5		98.2	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.0	84-114			

Origins Laboratory, Inc.



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4690 Table Mountain Drive
Golden CO 80403

Jason Davidson
Project Number: 015-3445
Project: GWOG - Simpson 1

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6G2509 - EPA 5030B (Water)										
LCS (B6G2509-BS1)					Prepared: 07/25/2016 Analyzed: 07/25/2016					
Benzene	54.9	1.00	ug/L	50.0		110	73.3-129			
Toluene	55.1	1.00	"	50.0		110	76.2-123			
Ethylbenzene	54.8	1.00	"	50.0		110	73.6-130			
m,p-Xylene	110	2.00	"	100		110	76.1-126			
o-Xylene	54.0	1.00	"	50.0		108	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6G2509 - EPA 5030B (Water)

Matrix Spike (B6G2509-MS1)		Source: X607254-10			Prepared: 07/25/2016 Analyzed: 07/25/2016					
Benzene	52.7	1.00	ug/L	50.0	ND	105	74-130			
Toluene	50.4	1.00	"	50.0	ND	101	73-131			
Ethylbenzene	46.8	1.00	"	50.0	ND	93.7	76-132			
m,p-Xylene	95.2	2.00	"	100	ND	95.2	69-139			
o-Xylene	48.4	1.00	"	50.0	ND	96.8	74-131			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.7	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

Origins Laboratory, Inc.



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4690 Table Mountain Drive
Golden CO 80403

Jason Davidson
Project Number: 015-3445
Project: GWOG - Simpson 1

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6G2509 - EPA 5030B (Water)

Matrix Spike Dup (B6G2509-MSD1)		Source: X607254-10			Prepared: 07/25/2016 Analyzed: 07/25/2016					
Benzene	52.1	1.00	ug/L	50.0	ND	104	74-130	1.13	20	
Toluene	50.3	1.00	"	50.0	ND	101	73-131	0.298	20	
Ethylbenzene	47.1	1.00	"	50.0	ND	94.2	76-132	0.554	20	
m,p-Xylene	95.8	2.00	"	100	ND	95.8	69-139	0.628	20	
o-Xylene	48.4	1.00	"	50.0	ND	96.8	74-131	0.0207	20	
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.7	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.7	84-114			

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Jason Davidson
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Project: GWOG - Simpson 1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President