



Monday, October 05, 2020

John Mahoney  
Mahoney Environmental  
1601 10th Ave.  
Greeley, CO 80631

Re: ALS Workorder: 2009363  
Project Name: Gail #1  
Project Number: 2020.124

Dear Mr. Mahoney:

Four soil samples were received from Mahoney Environmental, on 9/18/2020. The samples were scheduled for the following analyses:

GC/MS Volatiles

Total Extractable Petroleum Hydrocarbons (Diesel)

Total Volatile Petroleum Hydrocarbons (Gasoline)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental  
Katie M. OBrien  
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



## 2009363

### **GC/MS Volatiles:**

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

### **GRO:**

The samples were analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. TVPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C6 to C10.

All acceptance criteria were met.

### **DRO:**

The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

# ALS -- Fort Collins

## Sample Number(s) Cross-Reference Table

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**OrderNum:** 2009363

**Client Name:** Mahoney Environmental

**Client Project Name:** Gail #1

**Client Project Number:** 2020.124

**Client PO Number:**

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Soil - PB 1	2009363-1		SOIL	17-Sep-20	9:35
Soil - PB 2	2009363-2		SOIL	17-Sep-20	10:10
Soil - PB 3	2009363-3		SOIL	17-Sep-20	11:00
Soil - PB 4	2009363-4		SOIL	17-Sep-20	11:40



2225 Commerce Drive, Fort Collins, Colorado 80524  
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

**ALS WORKORDER #**

2009393

<b>PAGE</b>	<b>of</b>
1	1

[illegible]



ALS Environmental - Fort Collins  
CONDITION OF SAMPLE UPON RECEIPT FORM

Client Name/ID:

Mahoney

Workorder No:

2009363

Project Manager:

KMO

Initials:

TM


Date:

9/18/20

1. Are airbills / shipping documents present and/or removable?	<input checked="" type="checkbox"/> Drop Off	<input type="checkbox"/> YES	<input type="checkbox"/> NO
2. Are custody seals on shipping containers intact?	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
3. Are custody seals on sample containers intact?	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
4. Is there a COC (chain-of-custody) present?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
6. Are short-hold samples present?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
7. Are all samples within holding times for the requested analyses?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
8. Were all sample containers received intact? (not broken or leaking)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
9. Is there sufficient sample for the requested analyses?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
10. Are samples in proper containers for requested analyses? (form 250, Sample Handling Guidelines)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
11. Are all aqueous samples preserved correctly, if required?	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
12. Were unpreserved samples pH checked, if required?	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> YES	<input type="checkbox"/> NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm in diameter?	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> YES	<input type="checkbox"/> NO
14. Were the samples shipped on ice?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> YES	<input type="checkbox"/> NO
15. Were cooler temperatures measured at 0.1 - 6.0°C?	IR gun used: <input type="checkbox"/> #3 <input checked="" type="checkbox"/> #5	<input type="checkbox"/> Rad Only	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

Cooler #:	1
Temperature (°C):	4.4
# of custody seals on cooler:	0
External mR/hr reading:	-
Background mR/hr reading:	12
Were external mR/hr readings ≤ two times background and within DOT acceptance criteria? (If no, see Form 008)	
<input checked="" type="checkbox"/> N/A <input type="checkbox"/> YES <input type="checkbox"/> NO	
* Please provide details below for 'NO' responses in gray boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.	

All client bottle ID's vs ALS lab ID's double-checked by:	
TM	

If applicable, was the client contacted?	<input type="checkbox"/> YES <input type="checkbox"/> N/A	Contact Name	Date:
Project Manager Signature / Date:		 9/18/20	

Client: Mahoney Environmental

Date: 05-Oct-20

Project: 2020.124 Gail #1

Work Order: 2009363

Sample ID: Soil - PB 1

Lab ID: 2009363-1

Legal Location:

Matrix: SOIL

Collection Date: 9/17/2020 09:35

Percent Moisture: 15.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>		Prep Date: <b>9/23/2020</b>	PrepBy: <b>JRS</b>
Diesel Range Organics	5.9	J	9.3	MG/KG	1	9/24/2020 00:55
Surr: O-TERPHENYL	111		56-120	%REC	1	9/24/2020 00:55
<b>Gasoline Range Organics</b>			<b>SW8015</b>		Prep Date: <b>9/28/2020</b>	PrepBy: <b>ASZ</b>
GASOLINE RANGE ORGANICS	ND		0.6	MG/KG	1	9/28/2020 13:09
Surr: 2,3,4-TRIFLUOROTOLUENE	94		80-120	%REC	1	9/28/2020 13:09
<b>GC/MS Volatiles</b>			<b>SW8260</b>		Prep Date: <b>9/29/2020</b>	PrepBy: <b>TWK</b>
BENZENE	ND		5.6	UG/KG	1	9/29/2020 22:44
TOLUENE	ND		5.6	UG/KG	1	9/29/2020 22:44
ETHYLBENZENE	ND		5.6	UG/KG	1	9/29/2020 22:44
M+P-XYLENE	ND		7.8	UG/KG	1	9/29/2020 22:44
O-XYLENE	ND		5.6	UG/KG	1	9/29/2020 22:44
Surr: DIBROMOFLUOROMETHANE	96		77-125	%REC	1	9/29/2020 22:44
Surr: TOLUENE-D8	100		80-120	%REC	1	9/29/2020 22:44
Surr: 4-BROMOFLUOROBENZENE	97		71-121	%REC	1	9/29/2020 22:44

Client: Mahoney Environmental

Date: 05-Oct-20

Project: 2020.124 Gail #1

Work Order: 2009363

Sample ID: Soil - PB 2

Lab ID: 2009363-2

Legal Location:

Matrix: SOIL

Collection Date: 9/17/2020 10:10

Percent Moisture: 15.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>		Prep Date: <b>9/23/2020</b>	PrepBy: <b>JRS</b>
Diesel Range Organics	5.1	J	9.3	MG/KG	1	9/24/2020 01:16
Surr: O-TERPHENYL	107		56-120	%REC	1	9/24/2020 01:16
<b>Gasoline Range Organics</b>			<b>SW8015</b>		Prep Date: <b>9/28/2020</b>	PrepBy: <b>ASZ</b>
GASOLINE RANGE ORGANICS	ND		0.54	MG/KG	1	9/28/2020 13:57
Surr: 2,3,4-TRIFLUOROTOLUENE	85		80-120	%REC	1	9/28/2020 13:57
<b>GC/MS Volatiles</b>			<b>SW8260</b>		Prep Date: <b>9/29/2020</b>	PrepBy: <b>TWK</b>
BENZENE	ND		5.5	UG/KG	1	9/29/2020 23:06
TOLUENE	ND		5.5	UG/KG	1	9/29/2020 23:06
ETHYLBENZENE	ND		5.5	UG/KG	1	9/29/2020 23:06
M+P-XYLENE	ND		7.7	UG/KG	1	9/29/2020 23:06
O-XYLENE	ND		5.5	UG/KG	1	9/29/2020 23:06
Surr: DIBROMOFLUOROMETHANE	97		77-125	%REC	1	9/29/2020 23:06
Surr: TOLUENE-D8	101		80-120	%REC	1	9/29/2020 23:06
Surr: 4-BROMOFLUOROBENZENE	101		71-121	%REC	1	9/29/2020 23:06



Client: Mahoney Environmental

Date: 05-Oct-20

Project: 2020.124 Gail #1

Work Order: 2009363

Sample ID: Soil - PB 3

Lab ID: 2009363-3

Legal Location:

Matrix: SOIL

Collection Date: 9/17/2020 11:00

Percent Moisture: 14.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>		Prep Date: <b>9/23/2020</b>	PrepBy: <b>JRS</b>
Diesel Range Organics	ND		9.3	MG/KG	1	9/24/2020 01:38
Surr: O-TERPHENYL	109		56-120	%REC	1	9/24/2020 01:38
<b>Gasoline Range Organics</b>			<b>SW8015</b>		Prep Date: <b>9/28/2020</b>	PrepBy: <b>ASZ</b>
GASOLINE RANGE ORGANICS	ND		0.58	MG/KG	1	9/28/2020 14:44
Surr: 2,3,4-TRIFLUOROTOLUENE	87		80-120	%REC	1	9/28/2020 14:44
<b>GC/MS Volatiles</b>			<b>SW8260</b>		Prep Date: <b>9/29/2020</b>	PrepBy: <b>TWK</b>
BENZENE	ND		5.6	UG/KG	1	9/29/2020 23:28
TOLUENE	ND		5.6	UG/KG	1	9/29/2020 23:28
ETHYLBENZENE	ND		5.6	UG/KG	1	9/29/2020 23:28
M+P-XYLENE	ND		7.8	UG/KG	1	9/29/2020 23:28
O-XYLENE	ND		5.6	UG/KG	1	9/29/2020 23:28
Surr: DIBROMOFLUOROMETHANE	96		77-125	%REC	1	9/29/2020 23:28
Surr: TOLUENE-D8	101		80-120	%REC	1	9/29/2020 23:28
Surr: 4-BROMOFLUOROBENZENE	102		71-121	%REC	1	9/29/2020 23:28

Client: Mahoney Environmental

Date: 05-Oct-20

Project: 2020.124 Gail #1

Work Order: 2009363

Sample ID: Soil - PB 4

Lab ID: 2009363-4

Legal Location:

Matrix: SOIL

Collection Date: 9/17/2020 11:40

Percent Moisture: 14.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>		Prep Date: <b>9/23/2020</b>	PrepBy: <b>JRS</b>
Diesel Range Organics	5.1	J	9.3	MG/KG	1	9/24/2020 01:59
Surr: O-TERPHENYL	105		56-120	%REC	1	9/24/2020 01:59
<b>Gasoline Range Organics</b>			<b>SW8015</b>		Prep Date: <b>9/28/2020</b>	PrepBy: <b>ASZ</b>
GASOLINE RANGE ORGANICS	ND		0.58	MG/KG	1	9/28/2020 15:08
Surr: 2,3,4-TRIFLUOROTOLUENE	88		80-120	%REC	1	9/28/2020 15:08
<b>GC/MS Volatiles</b>			<b>SW8260</b>		Prep Date: <b>9/29/2020</b>	PrepBy: <b>TWK</b>
BENZENE	ND		5.5	UG/KG	1	9/29/2020 23:50
TOLUENE	ND		5.5	UG/KG	1	9/29/2020 23:50
ETHYLBENZENE	ND		5.5	UG/KG	1	9/29/2020 23:50
M+P-XYLENE	ND		7.7	UG/KG	1	9/29/2020 23:50
O-XYLENE	ND		5.5	UG/KG	1	9/29/2020 23:50
Surr: DIBROMOFLUOROMETHANE	98		77-125	%REC	1	9/29/2020 23:50
Surr: TOLUENE-D8	100		80-120	%REC	1	9/29/2020 23:50
Surr: 4-BROMOFLUOROBENZENE	99		71-121	%REC	1	9/29/2020 23:50

Client: Mahoney Environmental

Date: 05-Oct-20

Project: 2020.124 Gail #1

Work Order: 2009363

Sample ID: Soil - PB 4

Lab ID: 2009363-4

Legal Location:

Matrix: SOIL

Collection Date: 9/17/2020 11:40

Percent Moisture: 14.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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**Explanation of Qualifiers****Radiochemistry:**

- "Report Limit" is the MDC

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

\* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

**Inorganics:**

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

\* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

**Organics:**

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

\* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

## ALS -- Fort Collins

**Client:** Mahoney Environmental  
**Work Order:** 2009363  
**Project:** 2020.124 Gail #1

Date: 10/5/2020 11:01

## QC BATCH REPORT

Batch ID: **HC200923-81-1** Instrument ID **FUELS-1** Method: **SW8015M**

<b>LCS</b>	Sample ID: <b>HC200923-81</b>			Units: <b>MG/KG</b>			Analysis Date: <b>9/23/2020 19:54</b>					
Client ID:	Run ID: <b>HC200923-81A</b>			Prep Date: <b>9/23/2020</b>			DF: <b>1</b>					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
Diesel Range Organics	65.3	8	62.5		105	75-124				20		
Surr: O-TERPHENYL	10.7		12.5		85	56-120						

<b>LCSD</b>	Sample ID: <b>HC200923-81</b>			Units: <b>MG/KG</b>			Analysis Date: <b>9/23/2020 20:16</b>					
Client ID:	Run ID: <b>HC200923-81A</b>			Prep Date: <b>9/23/2020</b>			DF: <b>1</b>					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
Diesel Range Organics	68.3	8	62.5		109	75-124		65.3	4	20		
Surr: O-TERPHENYL	11.1		12.5		89	56-120			4			

MB		Sample ID: HC200923-81			Units: MG/KG		Analysis Date: 9/23/2020 19:33		
Client ID:		Run ID: HC200923-81A			Prep Date: 9/23/2020			DF: 1	
Analyte		Result	ReportLimit		Qual				
Diesel Range Organics		ND	8						
Surr: O-TERPHENYL		12.1			97	56-120			

The following samples were analyzed in this batch:

2009363-1	2009363-2	2009363-3
2009363-4		

Client: Mahoney Environmental  
 Work Order: 2009363  
 Project: 2020.124 Gail #1

## QC BATCH REPORT

Batch ID: **HC200928-61-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS	Sample ID: HC200928-61			Units: MG/KG			Analysis Date: 9/28/2020 11:34				
Client ID:		Run ID: HC200928-61A				Prep Date: 9/28/2020			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.33	0.5	2.5		93	78-120				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.474		0.5		95	80-120					

LCSD	Sample ID: <b>HC200928-61</b>			Units: <b>MG/KG</b>			Analysis Date: <b>9/28/2020 17:54</b>				
Client ID:	Run ID: <b>HC200928-61A</b>			Prep Date: <b>9/28/2020</b>			DF: <b>1</b>				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2.25	0.5	2.5		90	78-120		2.33	4	20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.482		0.5		96	80-120			2		

MB		Sample ID: HC200928-61		Units: MG/KG		Analysis Date: 9/28/2020 11:58	
Client ID:		Run ID: HC200928-61A		Prep Date: 9/28/2020		DF: 1	
Analyte		Result	ReportLimit	Qual			
GASOLINE RANGE ORGANICS		ND	0.5				
Surr: 2,3,4-TRIFLUOROTOLUENE		0.424		85	80-120		

The following samples were analyzed in this batch:

2009363-1	2009363-2	2009363-3
2009363-4		

Client: Mahoney Environmental  
 Work Order: 2009363  
 Project: 2020.124 Gail #1

## QC BATCH REPORT

Batch ID: **VL200929-4-1** Instrument ID: **HPV4** Method: **SW8260**

LCS	Sample ID: VL200929-4			Units: UG/KG		Analysis Date: 9/29/2020 20:50					
Client ID:	Run ID: VL200929-4A					Prep Date: 9/29/2020			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	39.6	5	40		99	70-129				30	
TOLUENE	40.9	5	40		102	68-125				30	
ETHYLBENZENE	42.8	5	40		107	70-123				30	
M+P-XYLENE	85.6	7	80		107	72-123				30	
O-XYLENE	43.6	5	40		109	73-121				30	
Surr: DIBROMOFLUOROMETHANE	49.2		50		98	77-125					
Surr: TOLUENE-D8	49.5		50		99	80-120					
Surr: 4-BROMOFLUOROBENZENE	50.1		50		100	71-121					

LCSD	Sample ID: VL200929-4			Units: UG/KG			Analysis Date: 9/29/2020 21:12				
Client ID:	Run ID: VL200929-4A			Prep Date: 9/29/2020			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	40.7	5	40		102	70-129		39.6	3	30	
TOLUENE	41.2	5	40		103	68-125		40.9	1	30	
ETHYLBENZENE	40.8	5	40		102	70-123		42.8	5	30	
M+P-XYLENE	81.6	7	80		102	72-123		85.6	5	30	
O-XYLENE	40.8	5	40		102	73-121		43.6	7	30	
Surr: DIBROMOFLUOROMETHANE	52.7		50		105	77-125			7		
Surr: TOLUENE-D8	50.5		50		101	80-120			2		
Surr: 4-BROMOFLUOROBENZENE	51.7		50		103	71-121			3		

MB		Sample ID: VL200929-4		Units: UG/KG		Analysis Date: 9/29/2020 22:22	
Client ID:		Run ID: VL200929-4A		Prep Date: 9/29/2020		DF: 1	
Analyte		Result	ReportLimit			Qual	
BENZENE		ND	5				
TOLUENE		ND	5				
ETHYLBENZENE		ND	5				
M+P-XYLENE		ND	7				
O-XYLENE		ND	5				
Surr: DIBROMOFLUOROMETHANE		46.8		94	77-125		
Surr: TOLUENE-D8		48		96	80-120		
Surr: 4-BROMOFLUOROBENZENE		51.9		104	71-121		

Client: Mahoney Environmental  
 Work Order: 2009363  
 Project: 2020.124 Gail #1

## QC BATCH REPORT

Batch ID: **VL200929-4-1** Instrument ID **HPV4** Method: **SW8260**

MS		Sample ID: 2009363-4				Units: UG/KG		Analysis Date: 9/30/2020 00:12			
Client ID: Soil - PB 4			Run ID: VL200929-4A				Prep Date: 9/29/2020			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	38.1	5.7	45.6	5.5	84	70-129				30	
TOLUENE	39.5	5.7	45.6	5.5	87	68-125				30	
ETHYLBENZENE	39.5	5.7	45.6	5.5	87	70-123				30	
M+P-XYLENE	79.3	7.98	91.2	7.7	85	72-123				30	
O-XYLENE	39.3	5.7	45.6	5.5	86	73-121				30	
Surr: DIBROMOFLUOROMETHANE	57.8		57		101	77-125					
Surr: TOLUENE-D8	56.5		57		99	80-120					
Surr: 4-BROMOFLUOROBENZENE	59.1		57		104	71-121					

MSD		Sample ID: 2009363-4				Units: UG/KG		Analysis Date: 9/30/2020 00:34			
Client ID: Soil - PB 4			Run ID: VL200929-4A			Prep Date: 9/29/2020			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	38	5.72	45.8	5.5	83	70-129		38.1	0	30	
TOLUENE	37.7	5.72	45.8	5.5	82	68-125		39.5	5	30	
ETHYLBENZENE	37.1	5.72	45.8	5.5	81	70-123		39.5	6	30	
M+P-XYLENE	73	8.01	91.6	7.7	80	72-123		79.3	8	30	
O-XYLENE	37.4	5.72	45.8	5.5	82	73-121		39.3	5	30	
Surr: DIBROMOFLUOROMETHANE	61		57.2		107	77-125			5		
Surr: TOLUENE-D8	56.9		57.2		99	80-120			1		
Surr: 4-BROMOFLUOROBENZENE	57.7		57.2		101	71-121			2		

The following samples were analyzed in this batch:

2009363-1	2009363-2	2009363-3
2009363-4		