



March 5, 2020

Ms. Susan von Gonten, Project Manager  
New Mexico Environment Department  
Petroleum Storage Tank Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505

**RE: MONITORING WELL INSTALLATION REPORT,  
Fairview Station, Española, New Mexico  
Facility #28779 SID #4657 WPID #4096-2**

Dear Ms. von Gonten:

Souder, Miller & Associates (SMA) is submitting this letter report for monitoring well installation at the Fairview Station site. This report was prepared for submittal to the New Mexico Environment Department (NMED), Petroleum Storage Tank Bureau (PSTB) pursuant to the work plan dated August 16, 2019 and approved by the NMED PSTB on September 30, 2019 (WPID #4096-2).

On January 9, 2020, SMA mobilized to the site and drilled and installed one monitoring well (MW-24) at the Wendy's Restaurant property located at 1610 N. Riverside Drive. JR Drilling LLC performed the drilling and well construction using a Geoprobe direct-push drill rig. The proposed location for monitoring well MW-25 was found to be in conflict with marked underground electric utility lines. Therefore, the MW-25 location was moved further east and an additional utility locate request was made. Moving monitoring well MW-25 meant the well installation was delayed until utilities could be marked. On January 28, 2020, SMA and JR Drilling remobilized to the site and completed installation of monitoring well MW-25.

Table 1 summarizes the analytical laboratory results of soil samples. Table 2a and 2b summarize the groundwater analytical laboratory results and field parameter measurements respectively. Figure 1 is a site map which depicts the locations of the monitoring wells and soil borings. Copies of field notes, photographs and laboratory reports are also attached.

The monitoring well bore holes were initially sampled using Geoprobe direct-push 2.5-inch diameter macro-core continuous samplers. The continuous soil samples were collected in four-foot long acetate liners. The soil samples were split with half of the sample used for field headspace analysis and half the sample stored on ice for potential laboratory analysis. Following soil sampling, the bore holes were over-drilled using 3.75-inch diameter drill rods.

Monitoring wells were constructed with 15 feet of 2-inch i.d., 0.010 inch slot PVC well screens pre-packed with silica sand (20-40 grade) and stainless steel mesh. The remaining well bore

annulus was backfilled with silica sand to two feet above the screened interval followed by at least two feet of hydrated bentonite chips and cement grout to approximately one foot below ground surface.

Monitoring well MW-24 was installed on the Wendy's property to the southwest of the Fairview Station property across North Riverside Drive. The well was drilled to 23.5 feet below ground surface (fbgs) with screen installed from 8 to 23 fbgs. Field screening results did not indicate any contamination in the well bore. The soil sample collected from 16 fbgs was submitted for laboratory analysis. This soil sample did not contain any contaminants of concern (COC) above laboratory practical quantitation limits (PQL).

Monitoring well MW-24 was developed and sampled on January 10, 2020. The well was developed using an electric submersible pump. The pump was run until the well was dry. The well was allowed to recharge and then dewatered two additional times. Following the third dewatering cycle the well was allowed to recharge and then was sampled. The water sample collected from MW-24 was submitted for laboratory analysis by EPA Methods 8260 and 504.1. None of the COCs were detected in the sample except methyl tert-butyl ether (MTBE). The sample contained 11 micrograms per liter ( $\mu\text{g}/\text{L}$ ) MTBE which is below the Environmental Improvement Board standard of 100  $\mu\text{g}/\text{L}$ .

Monitoring well MW-25 was installed on the Wendy's property south of the monitoring well MW-24 location. The well was drilled to 24 feet below ground surface (fbgs) with screen installed from 9 to 24 fbgs. Field screening results did not indicate any contamination in the well bore except the sample collected at 20 fbgs which had a photoionization detector (PID) reading of 42.8 parts per million. The PID reading of the sample collected at 20 fbgs indicates the presence of petroleum contaminants at low concentrations. A split of this soil sample was submitted for laboratory analysis. This soil sample did not contain any COCs above laboratory PQLs.

Monitoring well MW-25 was developed and sampled on January 29, 2020. The well was developed by pumping the well dry and allowing it to recharge four times. Following the fourth dewatering cycle the well was allowed to recharge and then was sampled. The water sample collected from MW-25 was submitted for laboratory analysis by EPA Methods 8260 and 504.1. None of the COCs were detected in the sample above laboratory PQLs.

The two monitoring wells installed on the Wendy's property have defined the down-gradient edge of the contaminant plume to the southwest of the source areas. Since MTBE is relatively soluble in water, its detection in monitoring well MW-24 suggests the leading edge of the contaminant plume extends to the Wendy's property. However, the edge of contamination concentrations that exceed regulatory limits is beneath North Riverside Drive east of the Wendy's property. Additional monitoring events will be required to determine if the contaminant plume is expanding, stable or contracting.

Ms. Susan von Gonten  
March 5, 2020

Sincerely,  
SOUDER, MILLER & ASSOCIATES



Alan Eschenbacher, P.G.  
Senior Geoscientist

Enclosures:

Photolog

Table 1 – Summary of Soil Sample Results

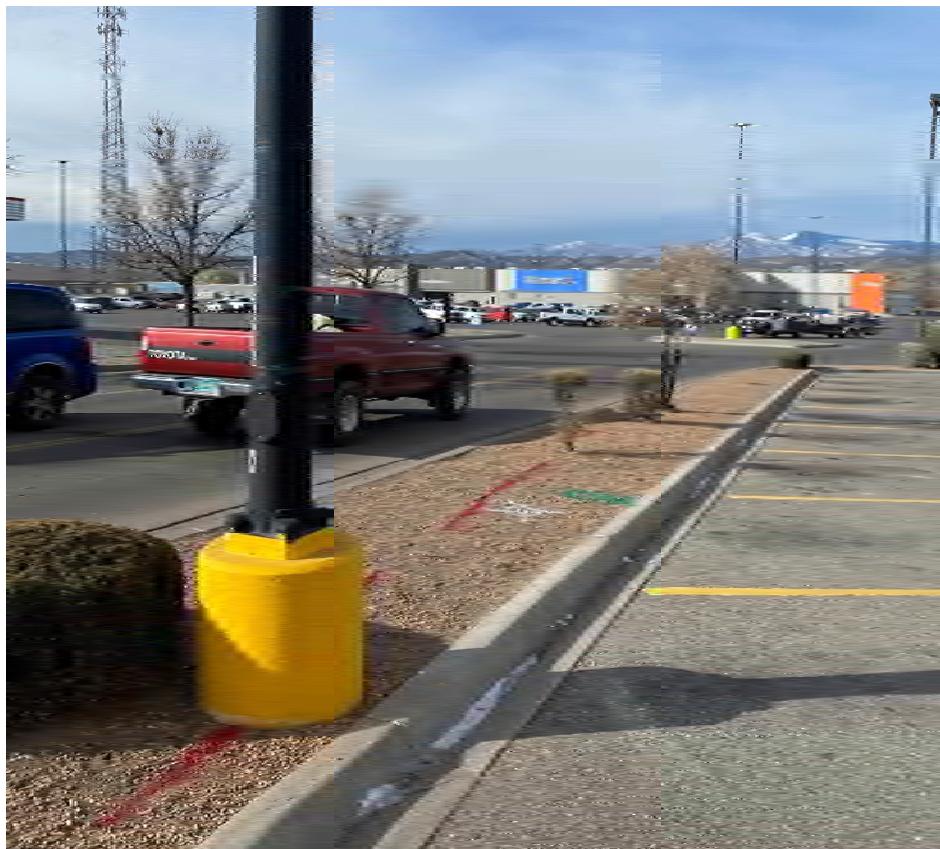
Tables 2a and 2b – Summary of Groundwater Sample Results

Figure 1 – Site Map

Monitoring well lithologic log/well completion diagrams

Field Notes

Analytical Laboratory Reports



**Photo 1** – Planned MW-25 location with conflicting underground electric utility locate



**Photo 2** – Geoprobe drill rig soil sampling at MW-24



**Photo 3 –** Prepacked well screen and casing prior to installation in MW-24



**Photo 4 –** Constructing well in MW-24 bore hole.



**Photo 5 – Constructing wellhead at MW-24.**



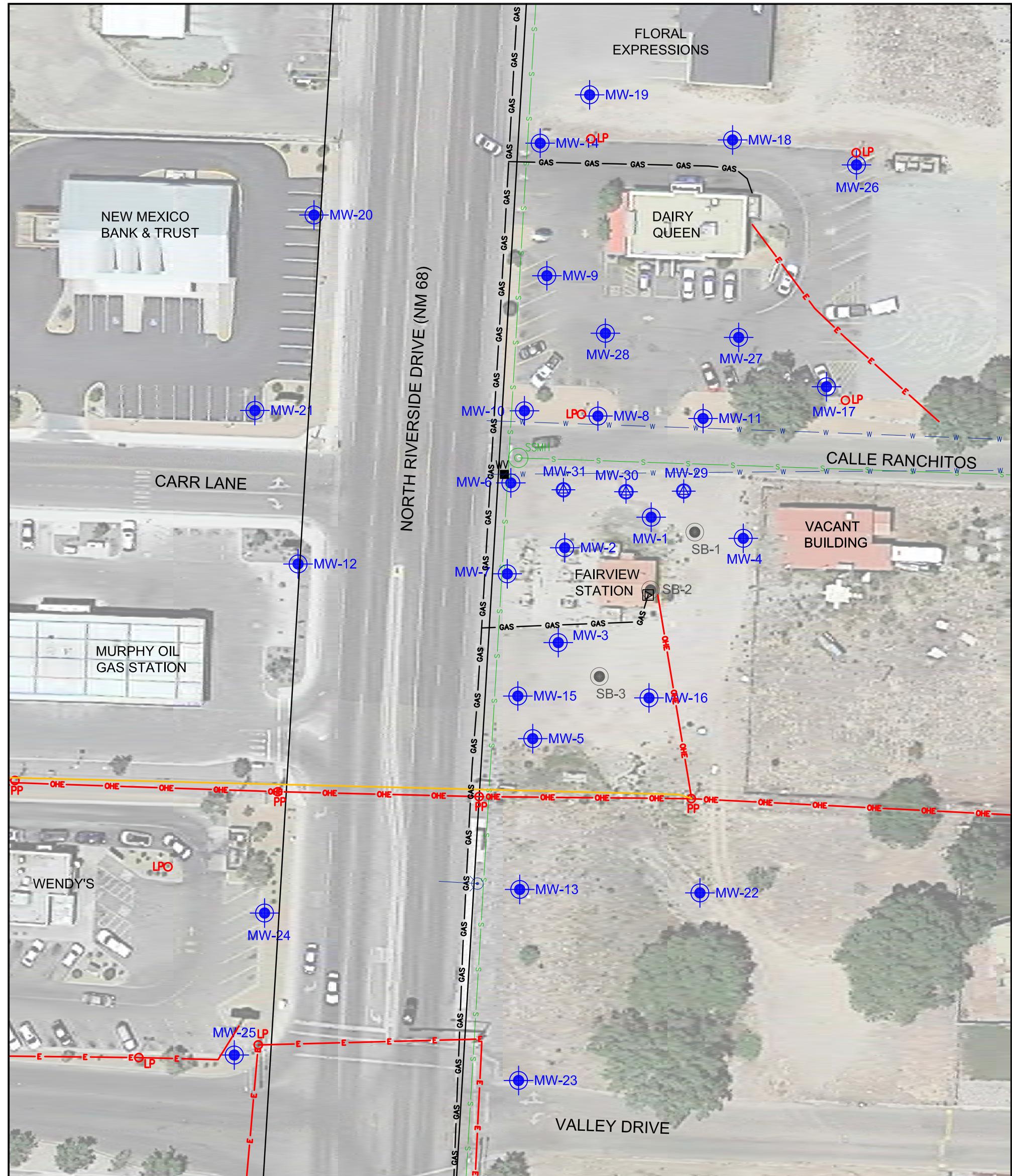
**Photo 6 – Developing MW-24 using a submersible DC electric pump.**



**Photo 7 – Soil sampling MW-25 bore hole.**



**Photo 8 – MW-25 after placing wellhead manway and concrete pad.**



## *LEGEND*

- |   |                                  |
|---|----------------------------------|
|  MW-7  | 2" MONITORING WELL               |
|  MW-30 | 4" MONITORING WELL               |
|  SB-1  | SOIL BORING LOCATION             |
|  SSMH  | SANITARY SEWER MAN HOLE          |
|  WV    | WATER VALVE                      |
|  FH    | FIRE HYDRANT                     |
|  NGM   | NATURAL GAS METER                |
|  PPO   | POWER POLE                       |
|  LPO   | LIGHT POLE                       |
|   | — w —— WATER LINE                |
|   | — y —— FIBER OPTIC LINE          |
|   | — OH —— OVERHEAD ELECTRIC LINE   |
|   | — E —— UNDERGROUND ELECTRIC LINE |
|   | — s —— SEWER PIPE                |
|   | — GAS —— NATURAL GAS LINE        |
|   | — . . . —— NMDOT RIGHT-OF-WAY    |



SCALE

0' 25' 50' 100'

Designed AJE	Drawn AJE	Checked SAM
Date:	FEBRUARY 2020	
Scale:	Hortz: Vert:	1" = 50' N/A
Project No:		
Sheet: Figure 1		



**SOUDER, MILLER & ASSOCIATES**  
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## SITE MAP FAIRVIEW STATION ESPAÑOLA, NEW MEXICO

TABLE 1. SUMMARY OF SOIL SAMPLE RESULTS  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO

Boring I.D.	Date	Depth (feet)	PID Result (ppm)	Method 8260B						Method 8015B	
				Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Total Naphthalenes	GRO	DRO
MW-24	01/09/20	16	0.0	<0.014	<0.028	<0.028	<0.057	<0.028	<0.277	<2.8	<9.6
MW-25	01/28/20	20	42.8	<0.016	<0.032	<0.032	<0.064	<0.032	<0.324	<3.2	<9.8

NOTES:

All concentrations in milligrams per kilogram (mg/kg) which is equivalent to parts per million (ppm)

MTBE = Methyl tertiary butyl ether

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

NA = Not analyzed

**TABLE 2a. SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
**FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitoring Well	Date	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	EDB	EDC	Total Naphthalenes*
<b>NMAC 20.6.2.3103 / NMPSTR Standards</b>		5	1000	750	620	100	0.05	5	30
MW-24	01/10/20	<1.0	<1.0	<1.0	<1.5	11	<0.0094	<1.0	<10.0
MW-25	01/29/20	<1.0	<1.0	<1.0	<1.5	<1.0	<0.0095	<1.0	<10.0

NOTES:

All concentrations in micrograms per liter (ug/L) which is equivalent to parts per billion (ppb)

All samples analyzed for volatile organic compounds by EPA method 8260B

EDB = Ethylene dibromide; Sample was analyzed for EDB using EPA method 504.1

EDC = Ethylene dichloride

MTBE = Methyl tertiary butyl ether

NA = Not analyzed

\* Standard for Total Naphthalenes = sum of Naphthalenes, 1-Methylnaphthalenes, and 2-Methylnaphthalenes

<sup>1</sup> = Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were analyzed by EPA method 8270C prior to December 2014

**TABLE 2b. SUMMARY OF GROUNDWATER SAMPLE FIELD MEASUREMENTS  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Well Number	Date Sampled	pH	SpC (uS/cm)	Temp (°C)	DO (mg/L)
MW-24	1/10/20	7.77	1,573	9.6	NM
MW-25	1/29/20	7.89	1,175	16.5	NM

NOTES:

DO = Dissolved oxygen

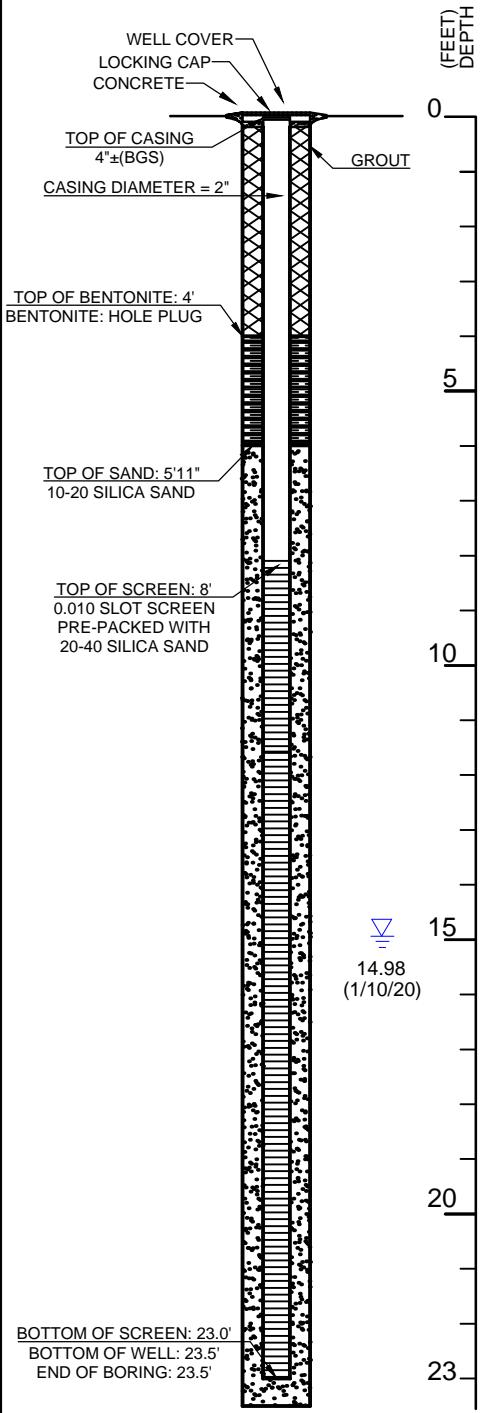
mg/L = Milligrams per liter

NAPL = Non-aqueous phase liquid

SpC = Specific conductance

uS/cm = Microsiemens per centimeter

### WELL COMPLETION DIAGRAM



EPA 8015 TPH  
GRO + DRO (mg/kg)

FIELD HEADSPACE  
RESULTS (ppm)

SOIL  
TYPE

### SOIL BORING LOG

#### SAMPLE DESCRIPTION

DEPTH (FEET)	SOIL TYPE	FIELD HEADSPACE RESULTS (ppm)	EPA 8015 TPH GRO + DRO (mg/kg)
0.0	BROWN SILTY CLAY, PLASTIC, MOIST, NO ODOR OR STAINING	NA	NA
0.0	BROWN SILTY CLAY, SOME SAND, MOIST, NO ODOR OR STAINING	NA	NA
0.0	BROWN SILTY CLAY, PLASTIC, MOIST, NO ODOR OR STAINING	NA	NA
<12.4	DARK BROWN HARD PACKED CLAY, DENSE, WET, NO ODOR OR STAINING	NA	NA
NA	NO RETURN - CLAY CUTTINGS	NA	NA
NA	NO RETURN - CLAY CUTTINGS	NA	NA
END OF HOLE			

**SOUDER, MILLER & ASSOCIATES**

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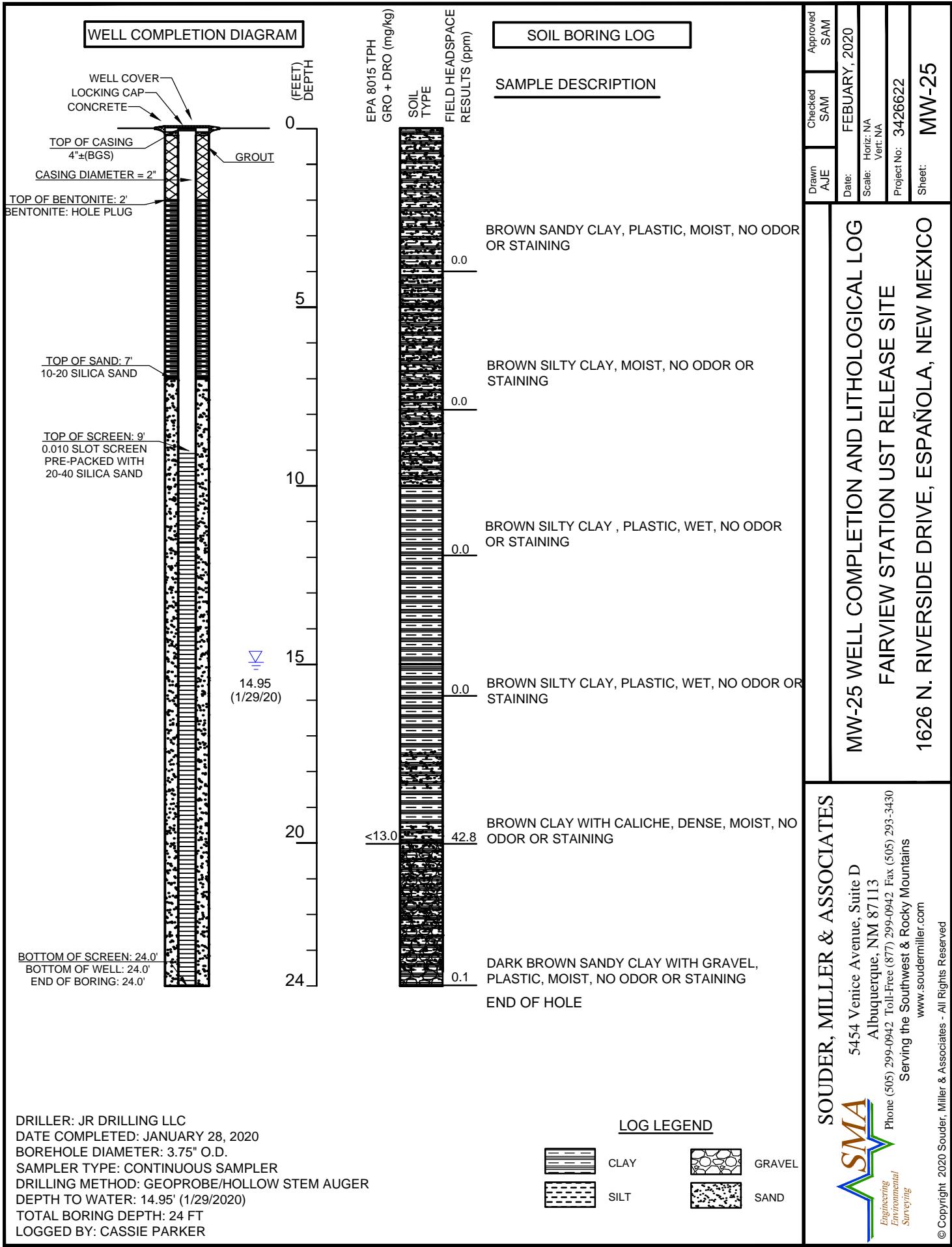
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**MW-24 WELL COMPLETION AND LITHOLOGICAL LOG**  
**FAIRVIEW STATION UST RELEASE SITE**  
**1626 N. RIVERSIDE DRIVE, ESPAÑOLA, NEW MEXICO**

Drawn AJE	Checked SAM	Approved SAM
Date: JANUARY, 2020		
Scale: Horiz: NA Vert: NA		
Project No: 3426622		
Sheet: MW-24		

DRILLER: JR DRILLING LLC  
DATE COMPLETED: JANUARY 9, 2020  
BOREHOLE DIAMETER: 3.75" O.D.  
SAMPLER TYPE: CONTINUOUS SAMPLER  
DRILLING METHOD: GEOPROBE/HOLLOW STEM AUGER  
DEPTH TO WATER: 14.98" (1/10/2020)  
TOTAL BORING DEPTH: 23.5 FT  
LOGGED BY: CASSIE PARKER





Project: Fairview Station

Project #

Borehole# MW-14

SMA Field Tech: C. Terkay

Rig/Sample Type:

5P Drilling

Driller:

Start Date/Time: 11/9/20

Stop Date/Time:

Borehole Diameter: 4"

Sample Depth	Time	Color	Secondary Soil Type	Primary Soil Type	Size	Grain Size (Sands Only)	Consolidation	Moisture	OVA results (ppm)	Remarks (Use trace, occasional, frequent and with to describe increasing amounts)
5-0	6-0	tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Poorly	Very Coarse Coarse Medium Fine	Rock Semi-consolidated Dense Plastic	Dry	0.0	Packed silty clay, No ova seen gravel
8-1	6-11	tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Well	Very Coarse Coarse Medium Fine	Rock Unconsolidated	Wet	0.0	Silty silty w/ traces of sand. There is more sand mixed in.
21-8	52-11	tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Poorly	Very Coarse Coarse Medium Fine	Rock Semi-consolidated Dense Plastic	Wet	0.0	No ova
91-21	52-11	tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Well	Very Coarse Coarse Medium Fine	Rock Unconsolidated	Wet	0.0	Wet silty clay w/ some sand
202-91	52-02	tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Poorly	Very Coarse Coarse Medium Fine	Rock Semi-consolidated Dense Plastic	Wet	0.0	Wet & packed clay. Difficult to break no ova
		tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Well	Very Coarse Coarse Medium Fine	Rock Unconsolidated	Wet		
		tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Poorly	Very Coarse Coarse Medium Fine	Rock Semi-consolidated Dense Plastic	Wet		
		tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Well	Very Coarse Coarse Medium Fine	Rock Unconsolidated	Wet		
		tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Poorly	Very Coarse Coarse Medium Fine	Rock Semi-consolidated Dense Plastic	Wet		
		tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Well	Very Coarse Coarse Medium Fine	Rock Unconsolidated	Wet		
		tan brown yellow red	Gravelly Sandy Silty Clayey	Boulder Cobble Pebble Gravel	Well	Very Coarse Coarse Medium Fine	Rock Semi-consolidated Dense Plastic	Wet		

Notes:

Project: Fern Project #

Project # \_\_\_\_\_  
SMA Field Task: \_\_\_\_\_

Borehole# HW-25  
Rig/SamplerType: Geoprobe  
Driller: J

Borehole# 11W-13  
Rig/SamplerType: Geodrill

**Notes:**

1800	C. Parker + R. McLean outside
1830	Decision to do new Bore-Call made for MW-25
1915	Setting up at MW-24.
1930	PID Calibrated
2000	Beginning to drill MW-24
2117	First well sample from 8-12 ft.
2222	TD of MW-24 is 23.8'
2230	Beginning to set well
MW-24	<p>Top of Bentonite chips 4'</p> <p>Top of silica sand 5' 11"</p> <p>Top of screen @ 8'</p> <p>TD @ 23.8'</p>

1500 Current depth to water 19.52' @ MW-24

1.5 bags of sand

0.75 bags of ben seal.

2 prepacks of 5f screen

1 regular screen 5f

2 5f blank sections

1600 TDN @ 18.72'  
Grouting + setting just finished  
everything still wet

11/10/20

0830 C.Parker onsite

TDN 14.98'

TD 23'

Well Development (Purge 9 well casings) using  
Volcano pump, for MW-24

3 well casings = 4.01g

9 well casings = 12.03g

Start like 0846

Pump stop 0848 → Water clear until stopped

MW 19.41

Setting pump lower

CHECKED

BY

1/10/20

0850 Pump starts 10s = 1 min

0853 Pump stopped. Well Dry  
Waiting for recharge  
Water ClearReadingspH

7.77

EC1389  
1573T

49.3

0900 Pump start

0903 Pump turned off

0915 Sampling

1/28/20

0930 C.Parker + JR Drilling outside

0945 Setting up at MW-2S

0950 PID Calibrated

1004 MW-24 DTW = 14.82'

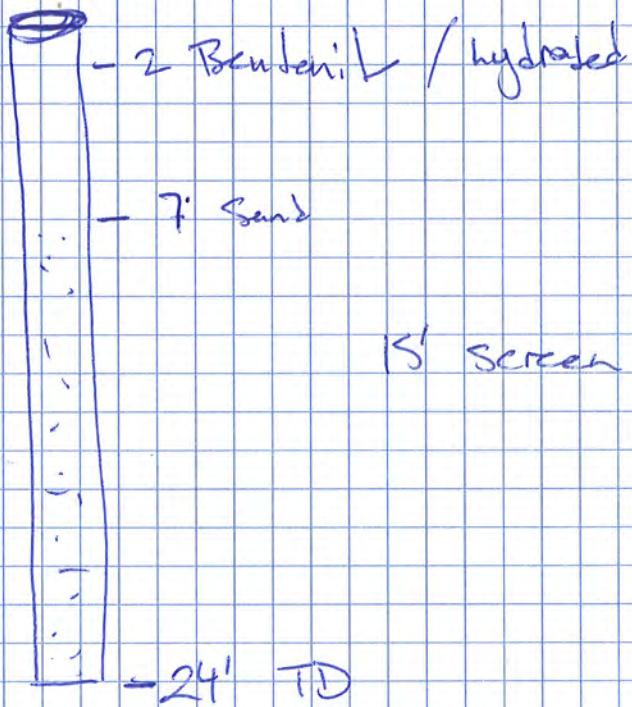
1005 Drilling MW-2S

1005 TD of 74'

1/28/20

11:21 Tripping out of M12-75 w/ 4" drill pipe  
+ overdrill w/ wires to get well in

Sand = 24'-9"  
Screen = 24'-9"  
Bentonite = 7'-2'



12:52 Bentonite seal in place

13:00 JR taking lunch

13:45 JR Back / going on Lower's Run

15:45 Finished Well vault, still wet

16:00 C Parker outside / Back to develop tomorrow morning

CHECKED

BY

1/29/20

0915 Arrive on site

DTW for MW-2S: 14.95'

TD : 23.25'

MN-2S  
 $36^{\circ}0'58''N$   
 $106^{\circ}3'53''W$   
elev ~ 5620 ft

Well Development 9 crossings = 12.45 g

Pump Start 0943  
Stop 0945, Dry  
- 1.5g

gpm = 0.75 gpm       $\sim 320 \text{ ft} = 20 \text{ s}$

Water clear      pH = 7.87      T(°F) = 61.7      ec = 1175

- Waiting for recharge

Pump Start 0955

Stop 0958, Dry

Water Cloudy

2.25 g

Recharge

Pump Start 1006

Pump Stop 1038

Water Clear

1.5g

Pump Start 1015

Clear

Pump Stop 1017, Dry

1.5

MN-2S  
 $36^{\circ}0'58''N$   
 $106^{\circ}3'53''W$   
elev ~ 5620'

pH = 7.56  
T(°F) = 65.3  
ec = 1244

1025 Sampled



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

February 07, 2020

Alan Eschenbacher  
Souder Miller & Associates  
5454 Venice Ave. NE Suite D  
Albuquerque, NM 87113  
TEL: (505) 299-0942  
FAX

RE: Fairview Stalren

OrderNo.: 2001B31

Dear Alan Eschenbacher:

Hall Environmental Analysis Laboratory received 2 sample(s) on 1/29/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001B31

Date Reported: 2/7/2020

**CLIENT:** Souder Miller & Associates

**Project:** Fairview Stalren

**Lab ID:** 2001B31-001

**Matrix:** SOIL

**Client Sample ID:** MW-25 18-20'

**Collection Date:** 1/28/2020 10:35:00 AM

**Received Date:** 1/29/2020 12:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	1/30/2020 5:28:40 PM	G66221
Surr: BFB	95.1	70-130		%Rec	1	1/30/2020 5:28:40 PM	G66221
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/31/2020 4:01:57 PM	50163
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/31/2020 4:01:57 PM	50163
Surr: DNOP	57.2	55.1-146		%Rec	1	1/31/2020 4:01:57 PM	50163
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	0.016		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Toluene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Ethylbenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Methyl tert-butyl ether (MTBE)	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2,4-Trimethylbenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,3,5-Trimethylbenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2-Dichloroethane (EDC)	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2-Dibromoethane (EDB)	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Naphthalene	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1-Methylnaphthalene	ND	0.13		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
2-Methylnaphthalene	ND	0.13		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Acetone	ND	0.48		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Bromobenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Bromodichloromethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Bromoform	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Bromomethane	ND	0.097		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
2-Butanone	ND	0.32		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Carbon disulfide	ND	0.32		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Carbon tetrachloride	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Chlorobenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Chloroethane	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Chloroform	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Chloromethane	ND	0.097		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
2-Chlorotoluene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
4-Chlorotoluene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
cis-1,2-DCE	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
cis-1,3-Dichloropropene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2-Dibromo-3-chloropropane	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Dibromochloromethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Dibromomethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2-Dichlorobenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001B31

Date Reported: 2/7/2020

**CLIENT:** Souder Miller & Associates

**Project:** Fairview Stalren

**Lab ID:** 2001B31-001

**Matrix:** SOIL

**Client Sample ID:** MW-25 18-20'

**Collection Date:** 1/28/2020 10:35:00 AM

**Received Date:** 1/29/2020 12:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichlorobenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,4-Dichlorobenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Dichlorodifluoromethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,1-Dichloroethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,1-Dichloroethene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2-Dichloropropane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,3-Dichloropropane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
2,2-Dichloropropane	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,1-Dichloropropene	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Hexachlorobutadiene	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
2-Hexanone	ND	0.32		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Isopropylbenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
4-Isopropyltoluene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
4-Methyl-2-pentanone	ND	0.32		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Methylene chloride	ND	0.097		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
n-Butylbenzene	ND	0.097		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
n-Propylbenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
sec-Butylbenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Styrene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
tert-Butylbenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,1,1,2-Tetrachloroethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,1,2,2-Tetrachloroethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Tetrachloroethene (PCE)	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
trans-1,2-DCE	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
trans-1,3-Dichloropropene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2,3-Trichlorobenzene	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2,4-Trichlorobenzene	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,1,1-Trichloroethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,1,2-Trichloroethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Trichloroethene (TCE)	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Trichlorofluoromethane	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
1,2,3-Trichloropropane	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Vinyl chloride	ND	0.032		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Xylenes, Total	ND	0.064		mg/Kg	1	1/30/2020 5:28:40 PM	S66221
Surr: Dibromofluoromethane	96.1	70-130	%Rec	1	1/30/2020 5:28:40 PM	S66221	
Surr: 1,2-Dichloroethane-d4	89.7	70-130	%Rec	1	1/30/2020 5:28:40 PM	S66221	
Surr: Toluene-d8	99.3	70-130	%Rec	1	1/30/2020 5:28:40 PM	S66221	
Surr: 4-Bromofluorobenzene	93.6	70-130	%Rec	1	1/30/2020 5:28:40 PM	S66221	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001B31

Date Reported: 2/7/2020

**CLIENT:** Souder Miller & Associates

**Project:** Fairview Stalren

**Lab ID:** 2001B31-002

**Client Sample ID:** MW-25

**Collection Date:** 1/29/2020 10:25:00 AM

**Matrix:** AQUEOUS

**Received Date:** 1/29/2020 12:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							
1,2-Dibromoethane	ND	0.0093		µg/L	1	2/4/2020 1:00:13 PM	50236
<b>NOTES:</b>							
No trip blank was included with work order							
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Toluene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Ethylbenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Naphthalene	ND	2.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1-Methylnaphthalene	ND	4.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
2-Methylnaphthalene	ND	4.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Acetone	ND	10		µg/L	1	2/6/2020 8:43:00 AM	B66348
Bromobenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Bromodichloromethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Bromoform	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Bromomethane	ND	3.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
2-Butanone	ND	10		µg/L	1	2/6/2020 8:43:00 AM	B66348
Carbon disulfide	ND	10		µg/L	1	2/6/2020 8:43:00 AM	B66348
Carbon Tetrachloride	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Chlorobenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Chloroethane	ND	2.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Chloroform	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Chloromethane	ND	3.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
2-Chlorotoluene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
4-Chlorotoluene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
cis-1,2-DCE	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Dibromochloromethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Dibromomethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,1-Dichloroethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 2001B31

Date Reported: 2/7/2020

**CLIENT:** Souder Miller & Associates

**Project:** Fairview Stalren

**Lab ID:** 2001B31-002

**Client Sample ID:** MW-25

**Collection Date:** 1/29/2020 10:25:00 AM

**Matrix:** AQUEOUS

**Received Date:** 1/29/2020 12:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloroethene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2-Dichloropropane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,3-Dichloropropane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
2,2-Dichloropropane	ND	2.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,1-Dichloropropene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Hexachlorobutadiene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
2-Hexanone	ND	10		µg/L	1	2/6/2020 8:43:00 AM	B66348
Isopropylbenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
4-Isopropyltoluene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
4-Methyl-2-pentanone	ND	10		µg/L	1	2/6/2020 8:43:00 AM	B66348
Methylene Chloride	ND	3.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
n-Butylbenzene	ND	3.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
n-Propylbenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
sec-Butylbenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Styrene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
tert-Butylbenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
trans-1,2-DCE	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Trichlorofluoromethane	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Vinyl chloride	ND	1.0		µg/L	1	2/6/2020 8:43:00 AM	B66348
Xylenes, Total	ND	1.5		µg/L	1	2/6/2020 8:43:00 AM	B66348
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%Rec	1	2/6/2020 8:43:00 AM	B66348
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	2/6/2020 8:43:00 AM	B66348
Surr: Dibromofluoromethane	100	70-130		%Rec	1	2/6/2020 8:43:00 AM	B66348
Surr: Toluene-d8	103	70-130		%Rec	1	2/6/2020 8:43:00 AM	B66348

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID: <b>MB-50236</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8011/504.1: EDB</b>
Client ID: <b>PBW</b>	Batch ID: <b>50236</b>	RunNo: <b>66282</b>
Prep Date: <b>2/4/2020</b>	Analysis Date: <b>2/4/2020</b>	SeqNo: <b>2276793</b> Units: <b>µg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
1,2-Dibromoethane	ND	0.010

Sample ID: <b>LCS-50236</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8011/504.1: EDB</b>
Client ID: <b>LCSW</b>	Batch ID: <b>50236</b>	RunNo: <b>66282</b>
Prep Date: <b>2/4/2020</b>	Analysis Date: <b>2/4/2020</b>	SeqNo: <b>2276794</b> Units: <b>µg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
1,2-Dibromoethane	0.10	0.010 0.1000 0 102 70 130

Sample ID: <b>MB-50236</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8011/504.1: EDB</b>
Client ID: <b>PBW</b>	Batch ID: <b>50236</b>	RunNo: <b>66282</b>
Prep Date: <b>2/4/2020</b>	Analysis Date: <b>2/4/2020</b>	SeqNo: <b>2276833</b> Units: <b>µg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
1,2-Dibromoethane	ND	0.010

**Qualifiers:**

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- PQL Practical Quantitative Limit
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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID: <b>MB-50163</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50163</b>	RunNo: <b>66212</b>								
Prep Date: <b>1/30/2020</b>	Analysis Date: <b>1/31/2020</b>	SeqNo: <b>2275177</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.3		10.00		83.4	55.1	146			
Sample ID: <b>LCS-50163</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50163</b>	RunNo: <b>66212</b>								
Prep Date: <b>1/30/2020</b>	Analysis Date: <b>1/31/2020</b>	SeqNo: <b>2275178</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.8	63.9	124			
Surr: DNOP	4.4		5.000		87.3	55.1	146			
Sample ID: <b>MB-50172</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50172</b>	RunNo: <b>66212</b>								
Prep Date: <b>1/30/2020</b>	Analysis Date: <b>1/31/2020</b>	SeqNo: <b>2275195</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.6		10.00		75.5	55.1	146			
Sample ID: <b>LCS-50172</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50172</b>	RunNo: <b>66212</b>								
Prep Date: <b>1/30/2020</b>	Analysis Date: <b>1/31/2020</b>	SeqNo: <b>2275196</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	2.9		5.000		57.7	55.1	146			
Sample ID: <b>MB-50189</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50189</b>	RunNo: <b>66246</b>								
Prep Date: <b>1/31/2020</b>	Analysis Date: <b>2/3/2020</b>	SeqNo: <b>2275621</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		93.6	55.1	146			
Sample ID: <b>LCS-50189</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50189</b>	RunNo: <b>66246</b>								
Prep Date: <b>1/31/2020</b>	Analysis Date: <b>2/3/2020</b>	SeqNo: <b>2275622</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.9	55.1	146			

**Qualifiers:**

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- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID: 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: Volatiles						
Client ID: LCSS		Batch ID: S66221		RunNo: 66221						
Prep Date:		Analysis Date: 1/30/2020		SeqNo: 2274600		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	70	130			
Toluene	0.98	0.050	1.000	0	97.5	70	130			
Chlorobenzene	0.98	0.050	1.000	0	97.9	70	130			
1,1-Dichloroethene	1.1	0.050	1.000	0	109	70	130			
Trichloroethene (TCE)	0.93	0.050	1.000	0	93.3	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.2	70	130			
Surr: Toluene-d8	0.48		0.5000		95.5	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.7	70	130			

Sample ID: mb1		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles						
Client ID: PBS		Batch ID: S66221		RunNo: 66221						
Prep Date:		Analysis Date: 1/30/2020		SeqNo: 2274612		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID:	mb1	SampType:	MBLK	TestCode: EPA Method 8260B: Volatiles							
Client ID:	PBS	Batch ID:	S66221	RunNo: 66221							
Prep Date:		Analysis Date:	1/30/2020	SeqNo: 2274612 Units: mg/Kg							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene		ND	0.050								
cis-1,2-DCE		ND	0.050								
cis-1,3-Dichloropropene		ND	0.050								
1,2-Dibromo-3-chloropropane		ND	0.10								
Dibromochloromethane		ND	0.050								
Dibromomethane		ND	0.050								
1,2-Dichlorobenzene		ND	0.050								
1,3-Dichlorobenzene		ND	0.050								
1,4-Dichlorobenzene		ND	0.050								
Dichlorodifluoromethane		ND	0.050								
1,1-Dichloroethane		ND	0.050								
1,1-Dichloroethene		ND	0.050								
1,2-Dichloropropane		ND	0.050								
1,3-Dichloropropane		ND	0.050								
2,2-Dichloropropane		ND	0.10								
1,1-Dichloropropene		ND	0.10								
Hexachlorobutadiene		ND	0.10								
2-Hexanone		ND	0.50								
Isopropylbenzene		ND	0.050								
4-Isopropyltoluene		ND	0.050								
4-Methyl-2-pentanone		ND	0.50								
Methylene chloride		ND	0.15								
n-Butylbenzene		ND	0.15								
n-Propylbenzene		ND	0.050								
sec-Butylbenzene		ND	0.050								
Styrene		ND	0.050								
tert-Butylbenzene		ND	0.050								
1,1,1,2-Tetrachloroethane		ND	0.050								
1,1,2,2-Tetrachloroethane		ND	0.050								
Tetrachloroethene (PCE)		ND	0.050								
trans-1,2-DCE		ND	0.050								
trans-1,3-Dichloropropene		ND	0.050								
1,2,3-Trichlorobenzene		ND	0.10								
1,2,4-Trichlorobenzene		ND	0.050								
1,1,1-Trichloroethane		ND	0.050								
1,1,2-Trichloroethane		ND	0.050								
Trichloroethene (TCE)		ND	0.050								
Trichlorofluoromethane		ND	0.050								
1,2,3-Trichloropropane		ND	0.10								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
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- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>S66221</b>	RunNo: <b>66221</b>								
Prep Date:	Analysis Date: <b>1/30/2020</b>	SeqNo: <b>2274612</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.48	0.5000		95.7	70	130				
Surr: 1,2-Dichloroethane-d4	0.46	0.5000		92.0	70	130				
Surr: Toluene-d8	0.50	0.5000		101	70	130				
Surr: 4-Bromofluorobenzene	0.47	0.5000		93.1	70	130				

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R66348</b>	RunNo: <b>66348</b>								
Prep Date:	Analysis Date: <b>2/5/2020</b>	SeqNo: <b>2279011</b> Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.1	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R66348</b>	RunNo: <b>66348</b>								
Prep Date:	Analysis Date: <b>2/5/2020</b>	SeqNo: <b>2279016</b> Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.7	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: <b>100ng lcs2</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B66348</b>	RunNo: <b>66348</b>								
Prep Date:	Analysis Date: <b>2/5/2020</b>	SeqNo: <b>2279195</b> Units: <b>µg/L</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.2	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: <b>mb2</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>PBW</b>	Batch ID: <b>B66348</b>	RunNo: <b>66348</b>								
Prep Date:	Analysis Date: <b>2/5/2020</b>	SeqNo: <b>2279196</b> Units: <b>µg/L</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID:	mb2	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	B66348	RunNo: 66348							
Prep Date:		Analysis Date:	2/5/2020	SeqNo:	2279196	Units:	µg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene		ND		1.0							
1,2-Dichloroethane (EDC)		ND		1.0							
1,2-Dibromoethane (EDB)		ND		1.0							
Naphthalene		ND		2.0							
1-Methylnaphthalene		ND		4.0							
2-Methylnaphthalene		ND		4.0							
Acetone		ND		10							
Bromobenzene		ND		1.0							
Bromodichloromethane		ND		1.0							
Bromoform		ND		1.0							
Bromomethane		ND		3.0							
2-Butanone		ND		10							
Carbon disulfide		ND		10							
Carbon Tetrachloride		ND		1.0							
Chlorobenzene		ND		1.0							
Chloroethane		ND		2.0							
Chloroform		ND		1.0							
Chloromethane		ND		3.0							
2-Chlorotoluene		ND		1.0							
4-Chlorotoluene		ND		1.0							
cis-1,2-DCE		ND		1.0							
cis-1,3-Dichloropropene		ND		1.0							
1,2-Dibromo-3-chloropropane		ND		2.0							
Dibromochloromethane		ND		1.0							
Dibromomethane		ND		1.0							
1,2-Dichlorobenzene		ND		1.0							
1,3-Dichlorobenzene		ND		1.0							
1,4-Dichlorobenzene		ND		1.0							
Dichlorodifluoromethane		ND		1.0							
1,1-Dichloroethane		ND		1.0							
1,1-Dichloroethene		ND		1.0							
1,2-Dichloropropane		ND		1.0							
1,3-Dichloropropane		ND		1.0							
2,2-Dichloropropane		ND		2.0							
1,1-Dichloropropene		ND		1.0							
Hexachlorobutadiene		ND		1.0							
2-Hexanone		ND		10							
Isopropylbenzene		ND		1.0							
4-Isopropyltoluene		ND		1.0							

**Qualifiers:**

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- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID:	mb2	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	B66348	RunNo: 66348						
Prep Date:		Analysis Date:	2/5/2020	SeqNo:	2279196	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.9	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001B31

07-Feb-20

Client: Souder Miller &amp; Associates

Project: Fairview Stalren

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>G66221</b>	RunNo: <b>66221</b>								
Prep Date:	Analysis Date: <b>1/30/2020</b>	SeqNo: <b>2274618</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.0	70	130			
Surr: BFB	460		500.0		91.6	70	130			

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>G66221</b>	RunNo: <b>66221</b>								
Prep Date:	Analysis Date: <b>1/30/2020</b>	SeqNo: <b>2274629</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	470		500.0		94.7	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

## Sample Log-In Check List

Client Name: **SMA ABQ**

Work Order Number: **2001B31**

RcptNo: **1**

Received By: **Daniel Marquez** *D. Marquez* 1/29/2020 12:20:00 PM

Completed By: **Leah Baca** *L.Baca* 1/29/2020 2:45:31 PM

Reviewed By: **LB** *LB* 1/29/2020

### Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes  No  Not Present

2. How was the sample delivered? Client

### Log In

3. Was an attempt made to cool the samples? Yes  No  NA

4. Were all samples received at a temperature of >0°C to 6.0°C Yes  No  NA

5. Sample(s) in proper container(s)? Yes  No

6. Sufficient sample volume for indicated test(s)? Yes  No

7. Are samples (except VOA and ONG) properly preserved? Yes  No

8. Was preservative added to bottles? Yes  No  NA

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes  No  NA

10. Were any sample containers received broken? Yes  No  NA

11. Does paperwork match bottle labels?  
 (Note discrepancies on chain of custody)

Yes  No

# of preserved  
bottles checked  
for pH:  
 (<2 or >12 unless noted)

Adjusted?  
 Checked by: *DM 1/29/20*

12. Are matrices correctly identified on Chain of Custody?

Yes  No

13. Is it clear what analyses were requested?

Yes  No

14. Were all holding times able to be met?

Yes  No

(If no, notify customer for authorization.)

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good				





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

January 20, 2020

Alan Eschenbacher  
Souder, Miller & Associates  
2904 Rodeo Park Drive East  
Building 100  
Santa Fe, NM 87505  
TEL: (505) 473-9211  
FAX: (505) 471-6675

RE: Fairview Station

OrderNo.: 2001448

Dear Alan Eschenbacher:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/10/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001448

Date Reported: 1/20/2020

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** MW-24 12'-16'

**Project:** Fairview Station

**Collection Date:** 1/9/2020 11:25:00 AM

**Lab ID:** 2001448-001

**Matrix:** MEOH (SOIL)

**Received Date:** 1/10/2020 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/15/2020 10:44:06 AM	49802
Surr: DNOP	89.4	55.1-146		%Rec	1	1/15/2020 10:44:06 AM	49802
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	1/15/2020 5:06:41 PM	S65822
Surr: BFB	91.5	66.6-105		%Rec	1	1/15/2020 5:06:41 PM	S65822
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	0.014		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Toluene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Ethylbenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Methyl tert-butyl ether (MTBE)	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2,4-Trimethylbenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,3,5-Trimethylbenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2-Dichloroethane (EDC)	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2-Dibromoethane (EDB)	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Naphthalene	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1-Methylnaphthalene	ND	0.11		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
2-Methylnaphthalene	ND	0.11		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Acetone	ND	0.43		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Bromobenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Bromodichloromethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Bromoform	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Bromomethane	ND	0.085		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
2-Butanone	ND	0.28		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Carbon disulfide	ND	0.28		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Carbon tetrachloride	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Chlorobenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Chloroethane	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Chloroform	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Chloromethane	ND	0.085		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
2-Chlorotoluene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
4-Chlorotoluene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
cis-1,2-DCE	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
cis-1,3-Dichloropropene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2-Dibromo-3-chloropropane	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Dibromochloromethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Dibromomethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2-Dichlorobenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,3-Dichlorobenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001448

Date Reported: 1/20/2020

**CLIENT:** Souder, Miller & Associates  
**Project:** Fairview Station  
**Lab ID:** 2001448-001

**Client Sample ID:** MW-24 12'-16'  
**Collection Date:** 1/9/2020 11:25:00 AM  
**Matrix:** MEOH (SOIL)    **Received Date:** 1/10/2020 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,4-Dichlorobenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Dichlorodifluoromethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,1-Dichloroethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,1-Dichloroethene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2-Dichloropropane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,3-Dichloropropane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
2,2-Dichloropropane	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,1-Dichloropropene	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Hexachlorobutadiene	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
2-Hexanone	ND	0.28		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Isopropylbenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
4-Isopropyltoluene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
4-Methyl-2-pentanone	ND	0.28		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Methylene chloride	ND	0.085		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
n-Butylbenzene	ND	0.085		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
n-Propylbenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
sec-Butylbenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Styrene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
tert-Butylbenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,1,1,2-Tetrachloroethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,1,2,2-Tetrachloroethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Tetrachloroethene (PCE)	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
trans-1,2-DCE	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
trans-1,3-Dichloropropene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2,3-Trichlorobenzene	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2,4-Trichlorobenzene	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,1,1-Trichloroethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,1,2-Trichloroethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Trichloroethene (TCE)	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Trichlorofluoromethane	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
1,2,3-Trichloropropane	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Vinyl chloride	ND	0.028		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Xylenes, Total	ND	0.057		mg/Kg	1	1/14/2020 5:22:00 AM	S65729
Surr: Dibromofluoromethane	92.3	70-130	%Rec	1	1/14/2020 5:22:00 AM	S65729	
Surr: 1,2-Dichloroethane-d4	88.1	70-130	%Rec	1	1/14/2020 5:22:00 AM	S65729	
Surr: Toluene-d8	97.1	70-130	%Rec	1	1/14/2020 5:22:00 AM	S65729	
Surr: 4-Bromofluorobenzene	98.2	70-130	%Rec	1	1/14/2020 5:22:00 AM	S65729	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001448

Date Reported: 1/20/2020

**CLIENT:** Souder, Miller & Associates  
**Project:** Fairview Station  
**Lab ID:** 2001448-002

**Matrix:** AQUEOUS

**Client Sample ID:** MW-24

**Collection Date:** 1/10/2020 9:15:00 AM  
**Received Date:** 1/10/2020 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							
1,2-Dibromoethane	ND	0.0094		µg/L	1	1/17/2020 5:25:05 AM	49841
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Toluene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Ethylbenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Methyl tert-butyl ether (MTBE)	11	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Naphthalene	ND	2.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Acetone	ND	10		µg/L	1	1/16/2020 4:32:40 AM	B65849
Bromobenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Bromoform	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Bromomethane	ND	3.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
2-Butanone	ND	10		µg/L	1	1/16/2020 4:32:40 AM	B65849
Carbon disulfide	ND	10		µg/L	1	1/16/2020 4:32:40 AM	B65849
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Chlorobenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Chloroethane	ND	2.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Chloroform	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Chloromethane	ND	3.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Dibromomethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001448

Date Reported: 1/20/2020

**CLIENT:** Souder, Miller & Associates  
**Project:** Fairview Station  
**Lab ID:** 2001448-002

**Matrix:** AQUEOUS

**Client Sample ID:** MW-24

**Collection Date:** 1/10/2020 9:15:00 AM  
**Received Date:** 1/10/2020 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
2-Hexanone	ND	10		µg/L	1	1/16/2020 4:32:40 AM	B65849
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2020 4:32:40 AM	B65849
Methylene Chloride	ND	3.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
n-Butylbenzene	ND	3.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Styrene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Vinyl chloride	ND	1.0		µg/L	1	1/16/2020 4:32:40 AM	B65849
Xylenes, Total	ND	1.5		µg/L	1	1/16/2020 4:32:40 AM	B65849
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	1	1/16/2020 4:32:40 AM	B65849
Surr: 4-Bromofluorobenzene	92.1	70-130		%Rec	1	1/16/2020 4:32:40 AM	B65849
Surr: Dibromofluoromethane	96.7	70-130		%Rec	1	1/16/2020 4:32:40 AM	B65849
Surr: Toluene-d8	98.1	70-130		%Rec	1	1/16/2020 4:32:40 AM	B65849

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001448

Date Reported: 1/20/2020

**CLIENT:** Souder, Miller & Associates  
**Project:** Fairview Station  
**Lab ID:** 2001448-003

**Client Sample ID:** Trip Blank  
**Collection Date:**  
**Matrix:** TRIP BLANK    **Received Date:** 1/10/2020 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							Analyst: CLP
1,2-Dibromoethane	ND	0.0095		µg/L	1	1/17/2020 5:40:11 AM	49841
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMR
Benzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Toluene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Ethylbenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Naphthalene	ND	2.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Acetone	ND	10		µg/L	1	1/16/2020 5:57:42 AM	B65849
Bromobenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Bromoform	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Bromomethane	ND	3.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
2-Butanone	ND	10		µg/L	1	1/16/2020 5:57:42 AM	B65849
Carbon disulfide	ND	10		µg/L	1	1/16/2020 5:57:42 AM	B65849
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Chlorobenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Chloroethane	ND	2.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Chloroform	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Chloromethane	ND	3.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Dibromomethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001448

Date Reported: 1/20/2020

**CLIENT:** Souder, Miller & Associates  
**Project:** Fairview Station  
**Lab ID:** 2001448-003

**Client Sample ID:** Trip Blank  
**Collection Date:**  
**Matrix:** TRIP BLANK    **Received Date:** 1/10/2020 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
2-Hexanone	ND	10		µg/L	1	1/16/2020 5:57:42 AM	B65849
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2020 5:57:42 AM	B65849
Methylene Chloride	ND	3.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
n-Butylbenzene	ND	3.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Styrene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Vinyl chloride	ND	1.0		µg/L	1	1/16/2020 5:57:42 AM	B65849
Xylenes, Total	ND	1.5		µg/L	1	1/16/2020 5:57:42 AM	B65849
Surr: 1,2-Dichloroethane-d4	93.1	70-130	%Rec	1	1/16/2020 5:57:42 AM	B65849	
Surr: 4-Bromofluorobenzene	91.4	70-130	%Rec	1	1/16/2020 5:57:42 AM	B65849	
Surr: Dibromofluoromethane	97.9	70-130	%Rec	1	1/16/2020 5:57:42 AM	B65849	
Surr: Toluene-d8	99.9	70-130	%Rec	1	1/16/2020 5:57:42 AM	B65849	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001448

Date Reported: 1/20/2020

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** MeOH Blank

**Project:** Fairview Station

**Collection Date:**

**Lab ID:** 2001448-004

**Matrix:** MEOH BLAN

**Received Date:** 1/10/2020 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	0.025		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Toluene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Ethylbenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Naphthalene	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
2-Methylnaphthalene	ND	0.20		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Acetone	ND	0.75		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Bromobenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Bromodichloromethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Bromoform	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Bromomethane	ND	0.15		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
2-Butanone	ND	0.50		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Carbon disulfide	ND	0.50		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Carbon tetrachloride	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Chlorobenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Chloroethane	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Chloroform	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Chloromethane	ND	0.15		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Dibromochloromethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Dibromomethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,1-Dichloroethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 2001448

Date Reported: 1/20/2020

**CLIENT:** Souder, Miller & Associates  
**Project:** Fairview Station  
**Lab ID:** 2001448-004

**Client Sample ID:** MeOH Blank  
**Collection Date:**  
**Matrix:** MEOH BLAN    **Received Date:** 1/10/2020 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
2-Hexanone	ND	0.50		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Isopropylbenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Methylene chloride	ND	0.15		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
n-Butylbenzene	ND	0.15		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
n-Propylbenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Styrene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Vinyl chloride	ND	0.050		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Xylenes, Total	ND	0.10		mg/Kg	1	1/14/2020 5:50:02 AM	S65729
Surr: Dibromofluoromethane	92.2	70-130	%Rec	1	1/14/2020 5:50:02 AM	S65729	
Surr: 1,2-Dichloroethane-d4	85.6	70-130	%Rec	1	1/14/2020 5:50:02 AM	S65729	
Surr: Toluene-d8	96.5	70-130	%Rec	1	1/14/2020 5:50:02 AM	S65729	
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	1/14/2020 5:50:02 AM	S65729	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID: <b>MB-49841</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8011/504.1: EDB</b>									
Client ID: <b>PBW</b>	Batch ID: <b>49841</b>	RunNo: <b>65871</b>									
Prep Date: <b>1/16/2020</b>	Analysis Date: <b>1/16/2020</b>	SeqNo: <b>2261832</b> Units: <b>µg/L</b>									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,2-Dibromoethane	ND	0.010									

Sample ID: <b>LCS-49841</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8011/504.1: EDB</b>									
Client ID: <b>LCSW</b>	Batch ID: <b>49841</b>	RunNo: <b>65871</b>									
Prep Date: <b>1/16/2020</b>	Analysis Date: <b>1/16/2020</b>	SeqNo: <b>2261834</b> Units: <b>µg/L</b>									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,2-Dibromoethane	0.085	0.010	0.1000	0	85.1	70	130				

Sample ID: <b>LCSD-49841</b>	SampType: <b>LCSD</b>	TestCode: <b>EPA Method 8011/504.1: EDB</b>									
Client ID: <b>LCSS02</b>	Batch ID: <b>49841</b>	RunNo: <b>65871</b>									
Prep Date: <b>1/16/2020</b>	Analysis Date: <b>1/16/2020</b>	SeqNo: <b>2261836</b> Units: <b>µg/L</b>									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,2-Dibromoethane	0.11	0.010	0.1000	0	109	70	130	24.4	20	R	

Sample ID: <b>MB-49841</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8011/504.1: EDB</b>									
Client ID: <b>PBW</b>	Batch ID: <b>49841</b>	RunNo: <b>65871</b>									
Prep Date: <b>1/16/2020</b>	Analysis Date: <b>1/16/2020</b>	SeqNo: <b>2262099</b> Units: <b>µg/L</b>									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,2-Dibromoethane	ND	0.010									

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID: <b>LCS-49802</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>49802</b>	RunNo: <b>65797</b>								
Prep Date: <b>1/14/2020</b>	Analysis Date: <b>1/15/2020</b>	SeqNo: <b>2259907</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	63	10	50.00	0	127	63.9	124			S
Surr: DNOP	5.5		5.000		110	55.1	146			
Sample ID: <b>MB-49802</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>49802</b>	RunNo: <b>65797</b>								
Prep Date: <b>1/14/2020</b>	Analysis Date: <b>1/15/2020</b>	SeqNo: <b>2259909</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	12		10.00		120	55.1	146			

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID: <b>rb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>S65822</b>	RunNo: <b>65822</b>								
Prep Date:	Analysis Date: <b>1/15/2020</b>	SeqNo: <b>2260456</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.0	66.6	105			

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>S65822</b>	RunNo: <b>65822</b>								
Prep Date:	Analysis Date: <b>1/15/2020</b>	SeqNo: <b>2260457</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	80	120			
Surr: BFB	1100		1000		107	66.6	105			S

Sample ID: <b>2001448-001ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>MW-24 12'-16'</b>	Batch ID: <b>S65822</b>	RunNo: <b>65822</b>								
Prep Date:	Analysis Date: <b>1/15/2020</b>	SeqNo: <b>2260459</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	14	2.8	14.23	0	97.6	69.1	142			
Surr: BFB	580		569.2		101	66.6	105			

Sample ID: <b>2001448-001amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>MW-24 12'-16'</b>	Batch ID: <b>S65822</b>	RunNo: <b>65822</b>								
Prep Date:	Analysis Date: <b>1/15/2020</b>	SeqNo: <b>2260460</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	2.8	14.23	0	105	69.1	142	7.19	20	
Surr: BFB	580		569.2		101	66.6	105	0	0	

**Qualifiers:**

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID: 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: Volatiles						
Client ID: LCSS		Batch ID: S65729		RunNo: 65729						
Prep Date:		Analysis Date: 1/13/2020		SeqNo: 2257651		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	104	70	130			
Toluene	0.98	0.050	1.000	0	98.4	70	130			
Chlorobenzene	0.99	0.050	1.000	0	99.3	70	130			
1,1-Dichloroethene	1.1	0.050	1.000	0	109	70	130			
Trichloroethene (TCE)	0.95	0.050	1.000	0	94.8	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.2	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.2	70	130			
Surr: Toluene-d8	0.49		0.5000		97.2	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.8	70	130			

Sample ID: mb1		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles						
Client ID: PBS		Batch ID: S65729		RunNo: 65729						
Prep Date:		Analysis Date: 1/13/2020		SeqNo: 2257656		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID:	mb1	SampType:	MBLK	TestCode: EPA Method 8260B: Volatiles							
Client ID:	PBS	Batch ID:	S65729	RunNo: 65729							
Prep Date:		Analysis Date:	1/13/2020	SeqNo: 2257656 Units: mg/Kg							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene		ND	0.050								
cis-1,2-DCE		ND	0.050								
cis-1,3-Dichloropropene		ND	0.050								
1,2-Dibromo-3-chloropropane		ND	0.10								
Dibromochloromethane		ND	0.050								
Dibromomethane		ND	0.050								
1,2-Dichlorobenzene		ND	0.050								
1,3-Dichlorobenzene		ND	0.050								
1,4-Dichlorobenzene		ND	0.050								
Dichlorodifluoromethane		ND	0.050								
1,1-Dichloroethane		ND	0.050								
1,1-Dichloroethene		ND	0.050								
1,2-Dichloropropane		ND	0.050								
1,3-Dichloropropane		ND	0.050								
2,2-Dichloropropane		ND	0.10								
1,1-Dichloropropene		ND	0.10								
Hexachlorobutadiene		ND	0.10								
2-Hexanone		ND	0.50								
Isopropylbenzene		ND	0.050								
4-Isopropyltoluene		ND	0.050								
4-Methyl-2-pentanone		ND	0.50								
Methylene chloride		ND	0.15								
n-Butylbenzene		ND	0.15								
n-Propylbenzene		ND	0.050								
sec-Butylbenzene		ND	0.050								
Styrene		ND	0.050								
tert-Butylbenzene		ND	0.050								
1,1,1,2-Tetrachloroethane		ND	0.050								
1,1,2,2-Tetrachloroethane		ND	0.050								
Tetrachloroethene (PCE)		ND	0.050								
trans-1,2-DCE		ND	0.050								
trans-1,3-Dichloropropene		ND	0.050								
1,2,3-Trichlorobenzene		ND	0.10								
1,2,4-Trichlorobenzene		ND	0.050								
1,1,1-Trichloroethane		ND	0.050								
1,1,2-Trichloroethane		ND	0.050								
Trichloroethene (TCE)		ND	0.050								
Trichlorofluoromethane		ND	0.050								
1,2,3-Trichloropropane		ND	0.10								

**Qualifiers:**

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- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>S65729</b>	RunNo: <b>65729</b>								
Prep Date:	Analysis Date: <b>1/13/2020</b>	SeqNo: <b>2257656</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.49	0.5000		98.5	70	130				
Surr: 1,2-Dichloroethane-d4	0.48	0.5000		96.0	70	130				
Surr: Toluene-d8	0.51	0.5000		101	70	130				
Surr: 4-Bromofluorobenzene	0.47	0.5000		93.6	70	130				

Sample ID: <b>Ics-49727</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>49727</b>	RunNo: <b>65729</b>								
Prep Date: <b>1/9/2020</b>	Analysis Date: <b>1/13/2020</b>	SeqNo: <b>2258424</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.50	0.5000		100	70	130				
Surr: 1,2-Dichloroethane-d4	0.49	0.5000		98.2	70	130				
Surr: Toluene-d8	0.48	0.5000		96.6	70	130				
Surr: 4-Bromofluorobenzene	0.45	0.5000		90.4	70	130				

Sample ID: <b>mb-49727</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>49727</b>	RunNo: <b>65729</b>								
Prep Date: <b>1/9/2020</b>	Analysis Date: <b>1/13/2020</b>	SeqNo: <b>2258430</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.48	0.5000		95.2	70	130				
Surr: 1,2-Dichloroethane-d4	0.46	0.5000		92.2	70	130				
Surr: Toluene-d8	0.50	0.5000		100	70	130				
Surr: 4-Bromofluorobenzene	0.47	0.5000		93.1	70	130				

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID: 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID:	R65849	RunNo: 65849						
Prep Date:	Analysis Date: 1/15/2020			SeqNo: 2261329		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.4	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.3	70	130			
Surr: Toluene-d8	9.7		10.00		97.1	70	130			

Sample ID: 100ng lcs2		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID:	B65849	RunNo: 65849						
Prep Date:	Analysis Date: 1/16/2020			SeqNo: 2261330		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	19	1.0	20.00	0	94.9	70	130			
Chlorobenzene	20	1.0	20.00	0	98.8	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.6	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID: 2001448-002a ms		SampType: MS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	MW-24	Batch ID:	B65849	RunNo: 65849						
Prep Date:	Analysis Date: 1/16/2020			SeqNo: 2261360		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	98.4	70	130			
Chlorobenzene	20	1.0	20.00	0	97.7	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.3	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.7	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.9	70	130			
Surr: Toluene-d8	9.8		10.00		97.8	70	130			

Sample ID: 2001448-002a msd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	MW-24	Batch ID:	B65849	RunNo: 65849						
Prep Date:	Analysis Date: 1/16/2020			SeqNo: 2261361		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID: 2001448-002a msd	SampType: MSD	TestCode: EPA Method 8260B: VOLATILES								
Client ID: MW-24	Batch ID: B65849	RunNo: 65849								
Prep Date:	Analysis Date: 1/16/2020	SeqNo: 2261361 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.8	70	130	4.46	20	
Toluene	18	1.0	20.00	0	92.2	70	130	6.53	20	
Chlorobenzene	19	1.0	20.00	0	94.0	70	130	3.84	20	
1,1-Dichloroethene	20	1.0	20.00	0	99.3	70	130	6.41	20	
Trichloroethene (TCE)	17	1.0	20.00	0	84.2	70	130	4.91	20	
Sur: 1,2-Dichloroethane-d4	9.5		10.00		95.2	70	130	0	0	
Sur: 4-Bromofluorobenzene	9.3		10.00		93.3	70	130	0	0	
Sur: Dibromofluoromethane	9.7		10.00		96.5	70	130	0	0	
Sur: Toluene-d8	9.6		10.00		96.5	70	130	0	0	

Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R65849	RunNo: 65849								
Prep Date:	Analysis Date: 1/15/2020	SeqNo: 2261368 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sur: 1,2-Dichloroethane-d4	9.3		10.00		92.5	70	130			
Sur: 4-Bromofluorobenzene	9.2		10.00		91.9	70	130			
Sur: Dibromofluoromethane	9.6		10.00		96.2	70	130			
Sur: Toluene-d8	10		10.00		101	70	130			

Sample ID: mb2	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: B65849	RunNo: 65849								
Prep Date:	Analysis Date: 1/16/2020	SeqNo: 2261369 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								

**Qualifiers:**

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 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 PQL Practical Quantitative Limit  
 S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 P Sample pH Not In Range  
 RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID:	mb2	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	B65849	RunNo: 65849							
Prep Date:		Analysis Date:	1/16/2020	SeqNo: 2261369 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromomethane		ND	3.0								
2-Butanone		ND	10								
Carbon disulfide		ND	10								
Carbon Tetrachloride		ND	1.0								
Chlorobenzene		ND	1.0								
Chloroethane		ND	2.0								
Chloroform		ND	1.0								
Chloromethane		ND	3.0								
2-Chlorotoluene		ND	1.0								
4-Chlorotoluene		ND	1.0								
cis-1,2-DCE		ND	1.0								
cis-1,3-Dichloropropene		ND	1.0								
1,2-Dibromo-3-chloropropane		ND	2.0								
Dibromochloromethane		ND	1.0								
Dibromomethane		ND	1.0								
1,2-Dichlorobenzene		ND	1.0								
1,3-Dichlorobenzene		ND	1.0								
1,4-Dichlorobenzene		ND	1.0								
Dichlorodifluoromethane		ND	1.0								
1,1-Dichloroethane		ND	1.0								
1,1-Dichloroethene		ND	1.0								
1,2-Dichloropropene		ND	1.0								
1,3-Dichloropropene		ND	1.0								
2,2-Dichloropropane		ND	2.0								
1,1-Dichloropropene		ND	1.0								
Hexachlorobutadiene		ND	1.0								
2-Hexanone		ND	10								
Isopropylbenzene		ND	1.0								
4-Isopropyltoluene		ND	1.0								
4-Methyl-2-pentanone		ND	10								
Methylene Chloride		ND	3.0								
n-Butylbenzene		ND	3.0								
n-Propylbenzene		ND	1.0								
sec-Butylbenzene		ND	1.0								
Styrene		ND	1.0								
tert-Butylbenzene		ND	1.0								
1,1,1,2-Tetrachloroethane		ND	1.0								
1,1,2,2-Tetrachloroethane		ND	2.0								
Tetrachloroethene (PCE)		ND	1.0								

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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2001448

20-Jan-20

Client: Souder, Miller &amp; Associates

Project: Fairview Station

Sample ID:	mb2	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	B65849	RunNo: 65849							
Prep Date:		Analysis Date:	1/16/2020	SeqNo:	2261369	Units:	µg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
trans-1,2-DCE		ND	1.0								
trans-1,3-Dichloropropene		ND	1.0								
1,2,3-Trichlorobenzene		ND	1.0								
1,2,4-Trichlorobenzene		ND	1.0								
1,1,1-Trichloroethane		ND	1.0								
1,1,2-Trichloroethane		ND	1.0								
Trichloroethene (TCE)		ND	1.0								
Trichlorofluoromethane		ND	1.0								
1,2,3-Trichloropropane		ND	2.0								
Vinyl chloride		ND	1.0								
Xylenes, Total		ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130				
Surr: 4-Bromofluorobenzene	8.9		10.00		88.6	70	130				
Surr: Dibromofluoromethane	9.8		10.00		97.6	70	130				
Surr: Toluene-d8	9.9		10.00		99.1	70	130				

**Qualifiers:**

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## Sample Log-In Check List

Client Name: SMA-SF

Work Order Number: 2001448

RcptNo: 1

Received By: John Caldwell

1/10/2020 11:10:00 AM

*John Caldwell*

Completed By: Leah Baca

1/13/2020 11:07:45 AM

*Leah Baca*

Reviewed By: ENM

1/13/20

### Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes  No  Not Present

2. How was the sample delivered? Client

### Log In

3. Was an attempt made to cool the samples? Yes  No  NA

4. Were all samples received at a temperature of >0°C to 6.0°C Yes  No  NA

5. Sample(s) in proper container(s)? Yes  No

6. Sufficient sample volume for indicated test(s)? Yes  No

7. Are samples (except VOA and ONG) properly preserved? Yes  No

8. Was preservative added to bottles? Yes  No  NA

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes  No  NA

10. Were any sample containers received broken? Yes  No

# of preserved bottles checked for pH:  
<2 or >12 unless noted  
Adjusted?  
Checked by: DAD 1/13/20

11. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes  No

13. Is it clear what analyses were requested? Yes  No

14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes  No

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:		Date	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good				

