



**STONY HOLLOW LANDFILL, INC.**  
2460 S. Gettysburg Ave.  
Dayton, OH 45418  
(937) 268-1133  
(937) 267-5110 Fax

September 16, 2016

Ms. Eileen Moran  
Unit Supervisor  
Regional Air Pollution Control Agency  
117 South Main Street  
Dayton, OH 45422

**Re: Ambient Air Sampling Results  
Stony Hollow Landfill  
Facility ID No. 08-57-04-3008**

Dear Ms. Moran:

Stony Hollow Landfill, Inc. (Stony Hollow) contracted with SCS Engineers (SCS) to collect ambient air samples during the commencement of the landfill gas collection system Phase 1 vertical well installation. Four (4) downwind ambient air samples were collected between September 7-8, 2016 by SCS field personnel during gas construction activities.

Please find attached to this submittal letter the SCS ambient air sampling report, which includes the analytical results prepared by ALS Environmental. Per the SCS review of the analytical results, the measured concentrations within the air samples do not indicate a public health hazard is present.

If you have any questions, please contact the undersigned at (937) 356-6204.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Peter C. Lucas'.

Peter Lucas, P.E.  
District Engineer

cc: Russell Brown, Michelle Ackenhausen - Ohio EPA  
Stony Hollow files

## SCS ENGINEERS

September 15<sup>th</sup>, 2016

Mr. Peter Lucas, P.E.  
Waste Management  
2460 S. Gettysburg Ave.  
Dayton, OH 45417

Subject: Air Sampling Results - September 7<sup>th</sup> and 8<sup>th</sup> 2016 Sampling

Dear Mr. Lucas:

The following pages provide the sampling parameters and results from the sampling events on September 7<sup>th</sup> and September 8<sup>th</sup>, 2016. Two downwind samples were collected on each day using “certified clean” SUMMA canisters with flow control orifices. The following table provides the respective sampling parameters:

Date	Sample ID	Canister ID	Start Time	Stop Time
09/07/2016	VOC-1	425	09:20	13:50
09/07/2016	VOC-2	422	09:28	13:58
09/08/2016	VOC-3	496	07:55	14:55
09/08/2016	VOC-4	107	08:05	15:05

- *The following page provides the approximate sample locations for the samples referenced above.*

Upon completion of sampling, the canisters were shipped to ALS Environmental for analysis according to EPA Method TO-15. The samples were shipped overnight with chain of custody documentation instructing the lab to perform the analysis on a 2-working day turnaround time. Samples were received by ALS on 9/8/2016 and 9/9/2016. Analytical results were provided to SCS on 9/12/2016 and 09/13/16 according to the required schedule.

None of the samples collected had measured concentrations of specific compounds that exceeded or even approached the NIOSH REL or OSHA PEL relative to that compound. A comparison of the results to established benchmarks is provided on Pages 3 and 4. The measured concentrations of BTEX (Benzene, Toluene, Ethyl Benzene and Xylenes) compounds indicate the possibility the samples were influenced by vehicle exhaust. This is very possible due to the proximity of the nearby road to the sampling locations. The measured concentrations due not indicate a public health hazard is present.

The pages following this summary provide supplemental documentation including the sampling log from the site, the sample work order (chain of custody), and finally the analytical report from the lab. Please let me know if you have any questions or concerns.





The red arrow in figure above indicates the predominant wind direction during the periods samples were collected according to the facilities on-site weather station. Wind was generally from the South to Southwest during the sampled periods.

Regards,

Paul W. Schafer  
Vice President/Project Director  
**SCS ENGINEERS**

## VOC Sampling Results: EPA Method TO-15

Volatile Organic Compounds, TO-15 Sampling Results					
	All Results in Parts Per Billion (ppb)				NIOSH REL
Analyte	TO15-1	TO15-2	TO15-3	TO15-4	(ppb)
Propene	ND	ND	ND	ND	NA
Dichlorodifluoromethane	0.48	0.47	0.49	0.49	1000000
Chloromethane	0.68	0.67	ND	0.74	100000
Freon 114	ND	ND	ND	ND	NA
Vinyl chloride	ND	ND	ND	ND	1000
1,3-Butadiene	ND	ND	ND	ND	1000
Bromomethane	ND	ND	ND	ND	20000
Chloroethane	ND	ND	ND	ND	1000000
Ethanol	6.4	13	13	53	1000000
Isopropyl Alcohol	ND	ND	ND	ND	400000
Freon 11	0.23	0.25	0.24	0.34	1000000
Freon 113	ND	ND	ND	ND	1000000
1,1-Dichloroethene	ND	ND	ND	ND	200000
Acetone	3.9	4.9	5.3	8.1	250000
Carbon disulfide	ND	ND	1.3	ND	1000
Methylene Chloride	ND	ND	ND	0.34	25000
trans-1,2-Dichloroethene	ND	ND	ND	ND	200000
Methyl t-butyl ether	ND	ND	ND	ND	2000
Vinyl acetate	ND	ND	ND	ND	4000
2-Butanone (MEK)	0.33	0.80	1.1	3.0	200
cis-1,2-Dichloroethene	ND	ND	ND	ND	200000
1,1-Dichloroethane	ND	ND	ND	ND	NA
Ethyl acetate	ND	ND	ND	ND	400000
Hexane	ND	ND	0.16	0.19	50000
Chloroform	ND	ND	ND	ND	2000
Tetrahydrofuran	ND	1.1	ND	7.1	200000
1,2-Dichloroethane	ND	ND	ND	ND	1000
1,1,1-Trichloroethane	ND	ND	ND	ND	350000
Carbon tetrachloride	ND	ND	ND	ND	2000
Benzene	0.17	0.59	0.2	3.2	100

Analyte	All Results in Parts Per Billion (ppb)				NIOSH REL
	TO15-1	TO15-2	TO15-3	TO15-4	(ppb)
Cyclohexane	ND	ND	ND	ND	300000
Trichloroethene	ND	ND	ND	ND	100000
1,2-Dichloropropane	ND	ND	ND	ND	75000
Bromodichloromethane	ND	ND	ND	ND	NA
Heptane	ND	ND	ND	ND	85000
cis-1,3-Dichloropropene	ND	ND	ND	ND	1000
4-Methyl-2-pentanone	ND	ND	ND	0.16	50000
trans-1,3-Dichloropropene	ND	ND	ND	ND	1000
1,1,2-Trichloroethane	ND	ND	ND	ND	10000
Toluene	0.27	0.37	0.44	1.4	100000
2-Hexanone	ND	ND	ND	ND	1000
Tetrachloroethene	ND	ND	ND	ND	100000
Dibromochloromethane	ND	ND	ND	ND	NA
1,2-Dibromoethane	ND	ND	ND	ND	45
Chlorobenzene	ND	ND	ND	ND	75000
Ethyl benzene	ND	ND	ND	0.38	100000
m,p-Xylene	0.23	0.38	0.19	0.93	100000
o-Xylene	ND	ND	ND	0.31	100000
Styrene	ND	ND	ND	ND	50000
Bromoform	ND	ND	ND	ND	500
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	1000
4-Ethyl toluene	ND	ND	ND	ND	NA
1,3,5-Trimethylbenzene	ND	ND	ND	ND	25000
1,2,4-Trimethylbenzene	ND	0.19	ND	0.22	25000
1,3-Dichlorobenzene	ND	ND	ND	ND	50000
1,4-Dichlorobenzene	ND	ND	ND	ND	50000
Benzyl chloride	ND	ND	ND	ND	1000
1,2-Dichlorobenzene	ND	ND	ND	ND	50000
1,2,4-Trichlorobenzene	ND	ND	ND	ND	5000
Hexachlorobutadiene	ND	ND	ND	ND	20

*\*The stricter (i.e. lower concentration) is listed whenever both the NIOSH REL or OSHA PEL are published for each pollutant.*

# SCS Engineers

## VOC Sampling Log - TO-15

Sampling Date  Site Name  Operator

Sample Type	<input type="text" value="VOC"/>	Sample ID	<input type="text" value="VOC-1"/>	Comments: <input type="text" value="I checked Canister every half h&lt;br/&gt;and recorded Hg."/>
Cannister #	<input type="text" value="425"/>			
Start Time	<input type="text" value="9:20 AM"/>	Stop Time	<input type="text" value="1:50 PM"/>	
Start Po	<input type="text" value="29 Hg"/>	Stop Pf	<input type="text" value="10 Hg"/>	

Comments:

GPS : Latitude:

GPS Longitude:

Sample Type	<input type="text" value="VOC"/>	Sample ID	<input type="text" value="VOC-2"/>	Comments: <input type="text" value="I checked Canister every half h&lt;br/&gt;and recorded Hg."/>
Cannister #	<input type="text" value="422"/>			
Start Time	<input type="text" value="9:28 AM"/>	Stop Time	<input type="text" value="1:58 PM"/>	
Start Po	<input type="text" value="26 Hg"/>	Stop Pf	<input type="text" value="5 Hg"/>	

Comments:

GPS : Latitude:

GPS Longitude:

Sample Type	<input type="text" value="VOC"/>	Sample ID	<input type="text" value="VOC-"/>	Comments: <input type="text"/>
Cannister #	<input type="text"/>			
Start Time	<input type="text"/>	Stop Time	<input type="text"/>	
Start Po	<input type="text"/>	Stop Pf	<input type="text"/>	

Comments:

GPS : Latitude:

GPS Longitude:

Sample Type	<input type="text" value="VOC"/>	Sample ID	<input type="text" value="VOC-"/>	Comments: <input type="text"/>
Cannister #	<input type="text"/>			
Start Time	<input type="text"/>	Stop Time	<input type="text"/>	
Start Po	<input type="text"/>	Stop Pf	<input type="text"/>	

Comments:

GPS : Latitude:

GPS Longitude:

# SCS Engineers

## VOC Sampling Log - TO-15

Sampling Date  Site Name  Operator

Sample Type	<input type="text" value="VOC"/>	Sample ID	<input type="text" value="VOC-"/>
Cannister #	<input type="text" value="496"/>		
Start Time	<input type="text" value="7:55 AM"/>	Stop Time	<input type="text" value="2:55 PM"/>
Start Po	<input type="text" value="30 Hg"/>	Stop Pf	<input type="text" value="6 Hg"/>

Comments:   
I checked Canister every half h  
and recorded Hg.

Comments:

GPS : Latitude:

GPS Longitude:

Sample Type	<input type="text" value="VOC"/>	Sample ID	<input type="text" value="VOC-"/>
Cannister #	<input type="text" value="107"/>		
Start Time	<input type="text" value="8:05 AM"/>	Stop Time	<input type="text" value="3:05 PM"/>
Start Po	<input type="text" value="30 Hg"/>	Stop Pf	<input type="text" value="8 Hg"/>

Comments:   
I checked Canister every half h  
and recorded Hg.

Comments:

GPS : Latitude:

GPS Longitude:

Sample Type	<input type="text" value="VOC"/>	Sample ID	<input type="text" value="VOC-"/>
Cannister #	<input type="text"/>		
Start Time	<input type="text"/>	Stop Time	<input type="text"/>
Start Po	<input type="text"/>	Stop Pf	<input type="text"/>

Comments:

Comments:

GPS : Latitude:

GPS Longitude:

Sample Type	<input type="text" value="VOC"/>	Sample ID	<input type="text" value="VOC-"/>
Cannister #	<input type="text"/>		
Start Time	<input type="text"/>	Stop Time	<input type="text"/>
Start Po	<input type="text"/>	Stop Pf	<input type="text"/>

Comments:

Comments:

GPS : Latitude:

GPS Longitude:

5708/5



1625288



# ANALYTICAL REQUEST FORM

16057888

1.  REGULAR Status

RUSH Status Requested - ADDITIONAL CHARGE  
RESULTS REQUIRED BY 2 DAY TAT  
DATE  
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 9-7-16 Purchase Order No. 24216188.00 4. Quote No. \_\_\_\_\_

3. Company Name SCS ENGINEERS ALS Project Manager STELLA  
Address \_\_\_\_\_

Person to Contact Paul Schafer 5. Sample Collection

Telephone (619) 823-5333 Sampling Site STONEY HOLLOW

Fax Telephone ( ) \_\_\_\_\_ Industrial Process \_\_\_\_\_

E-mail Address PSchafer@SCSENGINEERS Date of Collection Wednesday 9-7-16

Billing Address (if different from above) Time Collected 9:20 AM to 1:58 PM

\_\_\_\_\_ Date of Shipment Wednesday 9-7-16

\_\_\_\_\_ Chain of Custody No. \_\_\_\_\_

\_\_\_\_\_ 6. How did you first learn about ALS? \_\_\_\_\_

### 7. REQUEST FOR ANALYSES

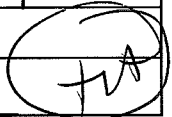
Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
<del>TO-15</del> 0425'	AIR	10 Hg	TO-15		
<del>TO-15</del> 0422'	AIR	5 Hg	TO-15		

\* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other  
\*\* 1. µg/sample 2. mg/m<sup>3</sup> 3. ppm 4. % 5. µg/m<sup>3</sup> 6. \_\_\_\_\_ (other) Please indicate one or more units in the column entitled Units\*\*  
Comments 2 listed on COC

Possible Contamination and/or Chemical Hazards \_\_\_\_\_

### 7. Chain of Custody (Optional)

Relinquished by <u>[Signature]</u>	Date/Time <u>9-7-16 4:48 pm</u>
Received by <u>[Signature]</u>	Date/Time <u>09-08-16 10:24</u>
Relinquished by _____	Date/Time _____
Received by _____	Date/Time _____







Environmental Division

Client: SCS

Account No:

Project/Job/Task:

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

ALS  
use only

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information
0137	08-25-16	725		SSB	29 Hg	10 Hg		
0425	✓	✓		✓				
0129	✓							
VFR Serial No.:								
0216	08-31-16		213.1	DS	29 Hg	10 Hg		
0756	✓		✓	✓				
0758	✓		✓	✓				

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location	Return to:
<u>Bill Miller</u>	9-7-16 4:48 pm	<u>Jennifer Jessor</u>	9-8-16 10:24	ALS Laboratory Group 960 W. LeVoy Drive Salt Lake City, UT 84123 800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a \$40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a \$40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Canister Chain of Custody



Client: **SCS**

Account No:

Project/Job/Task:

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

ALS  
use only

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information
0362	082416	225		DS	26 Hg	5 Hg		
0422								
0496								
0107								
0222								
VFR Serial No.:								
0650	083116		213.1	DS	26 Hg	5 Hg		
0427								
0717								
0713								
0715								
Original Field Sample Chain-of-Custody								
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location	Return to:				
<i>Ben Miller</i>	9/2/14 4:00pm	<i>James J. Fessel</i>	890810 10:21	ALS Laboratory Group 960 W. LeVoy Drive Salt Lake City, UT 84123 800-356-9135				

If canisters are kept for longer than the original project scheduled sampling, a \$40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a \$40 weekly rental fee will be charged for each unused can until they are returned to ALS.

5743/6



1625601



# ANALYTICAL REQUEST FORM

1625601

1.  REGULAR Status

RUSH Status Requested - ADDITIONAL CHARGE  
 RESULTS REQUIRED BY 2 DAY TAT  
 DATE \_\_\_\_\_  
 CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 9-8-16 Purchase Order No. 24216188.00

4. Quote No. \_\_\_\_\_

3. Company Name SCS ENGINEERS

ALS Project Manager STELLA

Address \_\_\_\_\_

5. Sample Collection

Sampling Site STONE HOLLOW

Person to Contact PAUL Schafer

Industrial Process \_\_\_\_\_

Telephone (619) 823-5333

Date of Collection Thursday 9-8-16

Fax Telephone ( ) \_\_\_\_\_

Time Collected 8:00 AM -

E-mail Address PSchafer@SCSENGINEERS.com

Date of Shipment THURSDAY 9-8-16

Billing Address (if different from above) \_\_\_\_\_

Chain of Custody No. \_\_\_\_\_

6. How did you first learn about ALS? \_\_\_\_\_

## 7. REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**
	0496	AIR	6 Hg	T0-15	
	0107	AIR	8 Hg	T0-15	

\* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

\*\* 1. µg/sample 2. mg/m<sup>3</sup> 3. ppm 4. % 5. µg/m<sup>3</sup> 6. \_\_\_\_\_ (other) Please indicate one or more units in the column entitled Units\*\*

Comments \_\_\_\_\_

Possible Contamination and/or Chemical Hazards \_\_\_\_\_

### 7. Chain of Custody (Optional)

Relinquished by [Signature] Date/Time 9-8-16 3:30pm  
 Received by [Signature] Date/Time 9-9-16 10:08:59  
 Relinquished by \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

[Handwritten initials]

**Canister Chain of Custody**



Client: **SCS**

Project/Job/Task:

Account No.:

Please do not apply adhesive labels directly on Canisters  
Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

ALS  
use only

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information
0362	08-24-16	22.5		DS	36 Hg <sup>9-1</sup>	5 Hg <sup>9-1</sup>		
0422					30 Hg	6 Hg		
0496					30 Hg	8 Hg		
0107								
0222								
VFR Serial No.:								
0650	08-31-16		~13.1	DS	30 Hg <sup>9-1</sup>	5 Hg <sup>9-1</sup>		
0427					30 Hg	6 Hg		
0717					30 Hg	8 Hg		
0713					30 Hg <sup>9-1</sup>	5 Hg <sup>9-1</sup>		
0715								

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
<i>[Signature]</i>	9/1/16 3:30 pm	<i>[Signature]</i>	9-9-16 - 8159

Return to:

ALS Laboratory Group  
960 W. LeVoy Drive  
Salt Lake City, UT 84123  
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a \$40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a \$40 weekly rental fee will be charged for each unused can until they are returned to ALS.



# ANALYTICAL REPORT

Report Date: September 12, 2016

Paul Schafer  
SCS Environmental  
970 Los Vallecitos Blvd.  
Suite 100  
San Marcos, CA 92069

Phone: 760-744-9611  
Fax: 760-744-8616  
E-mail: pschafer@scsengineers.com

Workorder: **34-1625288**

Project ID: 24216188.00/Stoney Hollow  
Purchase Order: 24216188.00  
Project Manager Stella Hanis

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
0425	1625288001	09/07/16	09/08/16	Stoney Hollow
0422	1625288002	09/07/16	09/08/16	Stoney Hollow

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, 84123 USA | PHONE +1 801 266 7700 | FAX +1 801 268 9992

ALS GROUP USA, CORP. An ALS Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



# ANALYTICAL REPORT

Workorder: **34-1625288**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

## Analytical Results

Sample ID: <b>0425</b>	Sampling Site: Stoney Hollow	Collected: 09/07/2016
Lab ID: 1625288001	Media: Summa 6 Liter Canister	Received: 09/08/2016
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air	Instrument ID: 5975-L
	Batch: IVOA/3356 (HBN: 176405)	Percent Solid: NA
	Analyzed: 09/08/2016 17:59	Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m <sup>3</sup> )	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.48	2.4	0.15	0.50	1	J
Chloromethane	<b>0.68</b>	<b>1.4</b>	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.23	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	<b>3.9</b>	<b>9.3</b>	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.33	0.98	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.17	0.53	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U

Results Continued on Next Page



# ANALYTICAL REPORT

Workorder: **34-1625288**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

## Analytical Results

Sample ID: <b>0425</b>	Sampling Site: Stoney Hollow	Collected: 09/07/2016
Lab ID: 1625288001	Media: Summa 6 Liter Canister	Received: 09/08/2016
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3356 (HBN: 176405) Analyzed: 09/08/2016 17:59	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Analyte	Result (ppb)	Result (ug/m <sup>3</sup> )	MDL (ppb)	RL (ppb)	Dilution	Qual
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.27	1.0	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.23	0.98	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U
Total Volatile Organics	22	89	NA	NA	1	J

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3356 (HBN: 176405) Analyzed: 09/08/2016 17:59	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Tentatively Identified Compound	Result (ppb)	Retention Time	Dilution	Qual
Ethanol	6.4	5.23	1	J



# ANALYTICAL REPORT

Workorder: **34-1625288**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

## Analytical Results

Sample ID: <b>0422</b>	Sampling Site: Stoney Hollow	Collected: 09/07/2016
Lab ID: 1625288002	Media: Summa 6 Liter Canister	Received: 09/08/2016
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air	Instrument ID: 5975-L
	Batch: IVOA/3356 (HBN: 176405)	Percent Solid: NA
	Analyzed: 09/08/2016 18:50	Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m <sup>3</sup> )	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.47	2.3	0.15	0.50	1	J
Chloromethane	<b>0.67</b>	<b>1.4</b>	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.25	1.4	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	<b>4.9</b>	<b>12</b>	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	<b>0.80</b>	<b>2.4</b>	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	<b>1.1</b>	<b>3.4</b>	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	<b>0.59</b>	<b>1.9</b>	0.15	0.50	1	
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U

Results Continued on Next Page





# ANALYTICAL REPORT

Workorder: **34-1625288**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

## Analytical Results

Sample ID: <b>0422</b>	Sampling Site: Stoney Hollow	Collected: 09/07/2016
Lab ID: 1625288002	Media: Summa 6 Liter Canister	Received: 09/08/2016
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3356 (HBN: 176405) Analyzed: 09/08/2016 18:50	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Analyte	Result (ppb)	Result (ug/m <sup>3</sup> )	MDL (ppb)	RL (ppb)	Dilution	Qual
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.37	1.4	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.38	1.6	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.19	0.93	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U
Total Volatile Organics	32	130	NA	NA	1	J

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3356 (HBN: 176405) Analyzed: 09/08/2016 18:50	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Tentatively Identified Compound	Result (ppb)	Retention Time	Dilution	Qual
Ethanol	13	5.20	1	J

## Comments

### Quality Control: EPA TO-15 - (HBN: 176405)

The following compounds in the CCV were outside of +/- 30%: vinyl acetate and ethyl acetate.



# ANALYTICAL REPORT

Workorder: **34-1625288**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 09/12/2016 12:06	/S/ Jordan Baum 09/12/2016 13:16

## Laboratory Contact Information

ALS Environmental  
960 W Levoy Drive  
Salt Lake City, Utah 84123

Phone: (801) 266-7700  
Email: als@alst.com  
Web: www.alst.com

## General Lab Comments

The results provided in this report relate only to the items tested.  
Samples were received in acceptable condition unless otherwise noted.  
Samples have not been blank corrected unless otherwise noted.  
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ANAB (DoD ELAP)	ADE-1420	<a href="http://www.anab.org/accredited-organizations/">http://www.anab.org/accredited-organizations/</a>
	Utah (NELAC)	DATA1	<a href="http://health.utah.gov/lab/labimp/">http://health.utah.gov/lab/labimp/</a>
	Nevada	UT00009	<a href="http://ndep.nv.gov/bsdwlabservice.htm">http://ndep.nv.gov/bsdwlabservice.htm</a>
	Oklahoma	UT00009	<a href="http://www.deq.state.ok.us/CSDnew/">http://www.deq.state.ok.us/CSDnew/</a>
	Iowa	IA# 376	<a href="http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx">http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx</a>
	Texas (TNI)	T104704456-11-1	<a href="http://www.tceq.texas.gov/field/qa/lab_accred_certif.html">http://www.tceq.texas.gov/field/qa/lab_accred_certif.html</a>
	Washington	C596-16	<a href="http://www.ecy.wa.gov/programs/eap/labs/index.html">http://www.ecy.wa.gov/programs/eap/labs/index.html</a>
Industrial Hygiene	Kansas	E-10416	<a href="http://www.kdheks.gov/lipo/index.html">http://www.kdheks.gov/lipo/index.html</a>
	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>
Washington		C596-16	<a href="http://www.ecy.wa.gov/programs/eap/labs/index.html">http://www.ecy.wa.gov/programs/eap/labs/index.html</a>
	Lead Testing:		
CPSC	ANAB (ISO 17025, CPSC)	ADE-1420	<a href="http://www.anab.org/accredited-organizations/">http://www.anab.org/accredited-organizations/</a>
Soil, Dust, Paint ,Air	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	<a href="http://www.aiclasscorp.com">http://www.aiclasscorp.com</a>



## ANALYTICAL REPORT

Workorder: **34-1625288**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

### Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.

RL = Reporting Limit, a verified value of method/media/instrument sensitivity.

CRDL = Contract Required Detection Limit

Reg. Limit = Regulatory Limit.

ND = Not Detected, testing result not detected above the MDL or RL.

< This testing result is less than the numerical value.

\*\* No result could be reported, see sample comments for details.

### Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.

J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

B = Qualifier indicates that the analyte was detected in the blank.

E = Qualifier indicates that the analyte result exceeds calibration range.

P = Qualifier indicates that the RPD between the two columns is greater than 40%.



# ANALYTICAL REPORT

Report Date: September 13, 2016

Paul Schafer  
SCS Environmental  
970 Los Vallecitos Blvd.  
Suite 100  
San Marcos, CA 92069

Phone: 760-744-9611  
Fax: 760-744-8616  
E-mail: pschafer@scsengineers.com

Workorder: **34-1625601**

Project ID: 24216188.00/Stoney Hollow  
Purchase Order: 24216188.00  
Project Manager Stella Hanis

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
0496	1625601001	09/08/16	09/09/16	Stoney Hollow
0107	1625601002	09/08/16	09/09/16	Stoney Hollow



# ANALYTICAL REPORT

Workorder: **34-1625601**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

## Analytical Results

Sample ID: <b>0496</b>	Sampling Site: Stoney Hollow	Collected: 09/08/2016
Lab ID: 1625601001	Media: Summa 6 Liter Canister	Received: 09/09/2016
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air	Instrument ID: 5975-L
	Batch: IVOA/3358 (HBN: 176478)	Percent Solid: NA
	Analyzed: 09/12/2016 17:33	Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m <sup>3</sup> )	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.49	2.4	0.15	0.50	1	J
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.24	1.4	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	<b>5.3</b>	<b>13</b>	0.30	1.0	1	
Carbon disulfide	<b>1.3</b>	<b>3.9</b>	0.15	0.50	1	
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	<b>1.1</b>	<b>3.3</b>	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.16	0.55	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.2	0.63	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U

Results Continued on Next Page



# ANALYTICAL REPORT

Workorder: **34-1625601**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

## Analytical Results

Sample ID: <b>0496</b>	Sampling Site: Stoney Hollow	Collected: 09/08/2016
Lab ID: 1625601001	Media: Summa 6 Liter Canister	Received: 09/09/2016
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3358 (HBN: 176478) Analyzed: 09/12/2016 17:33	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Analyte	Result (ppb)	Result (ug/m <sup>3</sup> )	MDL (ppb)	RL (ppb)	Dilution	Qual
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.44	1.7	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.19	0.82	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U
Total Volatile Organics	45	190	NA	NA	1	J

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3358 (HBN: 176478) Analyzed: 09/12/2016 17:33	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Tentatively Identified Compound	Result (ppb)	Retention Time	Dilution	Qual
Acetaldehyde	3.6	4.18	1	J
Ethanol	13	5.17	1	J



# ANALYTICAL REPORT

Workorder: **34-1625601**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

## Analytical Results

Sample ID: <b>0107</b>	Sampling Site: Stoney Hollow	Collected: 09/08/2016
Lab ID: 1625601002	Media: Summa 6 Liter Canister	Received: 09/09/2016
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3358 (HBN: 176478) Analyzed: 09/12/2016 18:25	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Analyte	Result (ppb)	Result (ug/m <sup>3</sup> )	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.49	2.4	0.15	0.50	1	J
Chloromethane	<b>0.74</b>	<b>1.5</b>	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.34	1.9	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	<b>8.1</b>	<b>19</b>	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.34	1.2	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	<b>3.0</b>	<b>8.7</b>	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.19	0.66	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	<b>7.1</b>	<b>21</b>	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	<b>3.2</b>	<b>10</b>	0.15	0.50	1	
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.16	0.66	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U

Results Continued on Next Page



# ANALYTICAL REPORT

Workorder: **34-1625601**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

## Analytical Results

Sample ID: <b>0107</b>	Sampling Site: Stoney Hollow	Collected: 09/08/2016
Lab ID: 1625601002	Media: Summa 6 Liter Canister	Received: 09/09/2016
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3358 (HBN: 176478) Analyzed: 09/12/2016 18:25	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Analyte	Result (ppb)	Result (ug/m <sup>3</sup> )	MDL (ppb)	RL (ppb)	Dilution	Qual
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	<b>1.4</b>	<b>5.3</b>	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.38	1.6	0.15	0.50	1	J
m,p-Xylene	<b>0.93</b>	<b>4.0</b>	0.15	0.50	1	
o-Xylene	0.31	1.3	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.22	1.1	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U
Total Volatile Organics	45	190	NA	NA	1	J

### Analysis Method - EPA TO-15

Preparation: Not Applicable	Analysis: EPA TO-15, Air Batch: IVOA/3358 (HBN: 176478) Analyzed: 09/12/2016 18:25	Instrument ID: 5975-L Percent Solid: NA Report Basis: Wet
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Tentatively Identified Compound	Result (ppb)	Retention Time	Dilution	Qual
Ethanol	53	5.15	1	J
Isopropyl Alcohol	6.5	5.82	1	J

## Comments

### Quality Control: EPA TO-15 - (HBN: 176478)

The following compounds in the CCV were outside of +/- 30% : Tetrahydrofuran and Chlorobenzene.





# ANALYTICAL REPORT

Workorder: **34-1625601**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 09/13/2016 11:34	/S/ Jordan Baum 09/13/2016 13:51

## Laboratory Contact Information

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Email: als@alst.com  
Web: www.alst.com

## General Lab Comments

The results provided in this report relate only to the items tested.  
Samples were received in acceptable condition unless otherwise noted.  
Samples have not been blank corrected unless otherwise noted.  
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ANAB (DoD ELAP)	ADE-1420	<a href="http://www.anab.org/accredited-organizations/">http://www.anab.org/accredited-organizations/</a>
	Utah (NELAC)	DATA1	<a href="http://health.utah.gov/lab/labimp/">http://health.utah.gov/lab/labimp/</a>
	Nevada	UT00009	<a href="http://ndep.nv.gov/bsdwlabservice.htm">http://ndep.nv.gov/bsdwlabservice.htm</a>
	Oklahoma	UT00009	<a href="http://www.deq.state.ok.us/CSDnew/">http://www.deq.state.ok.us/CSDnew/</a>
	Iowa	IA# 376	<a href="http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx">http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx</a>
	Texas (TNI)	T104704456-11-1	<a href="http://www.tceq.texas.gov/field/qa/lab_accred_certif.html">http://www.tceq.texas.gov/field/qa/lab_accred_certif.html</a>
	Washington	C596-16	<a href="http://www.ecy.wa.gov/programs/eap/labs/index.html">http://www.ecy.wa.gov/programs/eap/labs/index.html</a>
Industrial Hygiene	Kansas	E-10416	<a href="http://www.kdheks.gov/lipo/index.html">http://www.kdheks.gov/lipo/index.html</a>
	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>
Washington		C596-16	<a href="http://www.ecy.wa.gov/programs/eap/labs/index.html">http://www.ecy.wa.gov/programs/eap/labs/index.html</a>
	Lead Testing:		
CPSC	ANAB (ISO 17025, CPSC)	ADE-1420	<a href="http://www.anab.org/accredited-organizations/">http://www.anab.org/accredited-organizations/</a>
Soil, Dust, Paint ,Air	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	<a href="http://www.aiclasscorp.com">http://www.aiclasscorp.com</a>



## ANALYTICAL REPORT

Workorder: **34-1625601**

Client: SCS Tracer Environmental

Project Manager: Stella Hanis

### Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.

RL = Reporting Limit, a verified value of method/media/instrument sensitivity.

CRDL = Contract Required Detection Limit

Reg. Limit = Regulatory Limit.

ND = Not Detected, testing result not detected above the MDL or RL.

< This testing result is less than the numerical value.

\*\* No result could be reported, see sample comments for details.

### Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.

J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

B = Qualifier indicates that the analyte was detected in the blank.

E = Qualifier indicates that the analyte result exceeds calibration range.

P = Qualifier indicates that the RPD between the two columns is greater than 40%.