



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

July 14, 2017

Ms. Jennifer Marsee  
Unit Supervisor  
Regional Air Pollution Control Agency  
117 South Main Street1  
Dayton, OH 45422

**Re: DFFO Order No. 9 Ambient Air Monitoring – July 3-4, 2017 – REVISION 1**  
**Stony Hollow Landfill**  
**Facility ID No. 08-57-04-3008**

Dear Ms. Marsee:

Stony Hollow Landfill, Inc. (Stony Hollow) contracted with LJB, Inc. (LJB) to perform the ambient air monitoring on the 1 in 3-day schedule as required by the Director's Final Findings and Orders, dated May 3, 2017. The 24-hour ambient air sampling was performed between July 3-4, 2017 and ALS Environmental performed the USEPA Method TO-15, ASTM D 5504-12, and OSHA 1007 analyses.

Please find attached the revised LJB ambient air monitoring report, which includes the ALS analytical results for the OSHA 1007 test, in addition to the USEPA TO-15 and ASTM D 5504-12 results. This report replaces the original report submitted on July 13, 2017.

Per a review of the analytical results, the measured concentrations within the air samples were below the laboratory reporting limits or the NIOSH RELs and ATSDR Chronic MRLs.

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



July 14, 2017

Mr. Peter Lucas  
 Waste Management – Stony Hollow Landfill  
 2460 South Gettysburg Avenue  
 Dayton, Ohio 45417

Via email: [plucas2@wm.com](mailto:plucas2@wm.com)

Re: July 3, 2017 ambient air sampling at Stony Hollow Landfill – Revision 1

Dear Mr. Lucas:

On July 3 through July 4, 2017 LJB Inc. collected two 24-hour ambient air samples at the Waste Management Stony Hollow Landfill. The samples included SHAA-N-17, collected from inside the northeast fence line of the landfill, and SHAA-S-17, collected from inside the southeast fence line of the landfill. One Summa canister and one UMEx 100 Passive Sampler were collected at each location. Attached is a map of the sample locations designated by Waste Management in accordance with the May 3, 2017 Ohio EPA Director’s Final Findings and Orders for Stony Hollow Landfill and the Air Monitor Siting Study prepared by SCS Engineers for Stony Hollow Landfill. Table 1 contains sample equipment and interval details.

TABLE 1

SAMPLE NO.	START DATE/TIME	END DATE/TIME	START PRESSURE	END PRESSURE	CANISTER NO.	CONTROLLER NO.	UMEX 100 SAMPLER NO.
SHAA-N-17	7/3/2017 09:27	7/4/2017 09:27	-29.2” Hg	-10.5” Hg	AS00866	SFC00187	A246672
SHAA-S-17	7/3/2017 09:46	7/4/2017 09:46	-29” Hg	-13” Hg	AS00654	SFC00085	A246653

Weather conditions reported for the sample period by the weather station located at Stony Hollow Landfill are shown in the attached graphs.

The completed UMEx 100 samplers were transported by courier from the LJB offices to ALS Environmental’s Cincinnati, Ohio laboratory on July 5, 2017, and were analyzed by OSHA Method 1007 on July 13, 2017. Final results were provided on July 14, 2017. The Summa canisters were transported by Federal Express second-day delivery, arriving at ALS Environmental’s Simi Valley, California Laboratory on July 7, 2017, and were analyzed by EPA Method TO-15 and ASTM Standard Test Method D5504-12 on July 7, 2017. Table 2 provides the summarized sample results.

The EPA Method TO-15 found that 2-butanone, 2-propanol, acetone, benzene, carbon disulfide, carbon tetrachloride, chloromethane, dichlorodifluoromethane, ethyl acetate, ethylbenzene, Freon 113, heptane, hexane, m,p-xylene, methylene chloride, o-xylene, styrene, tetrachloroethene, tetrahydrofuran, toluene and trichlorofluoromethane were detected above laboratory reporting limits; concentrations of all were

well below the NIOSH RELs and ASTDR chronic MRLs for these compounds. Propene was also detected above laboratory reporting limits; however, no NIOSH REL or ASTDR chronic MRL has been established for the inhalation route (gaseous air) of this compound.

The ASTM Standard Test Method D5504-12 did not detect any compounds above the laboratory reporting limits.

The OSHA Method 1007 detected formaldehyde above laboratory reporting limits; concentrations of this compound were well below the NIOSH REL and ATSDR chronic MRL. Propionaldehyde was also detected above laboratory reporting limits; however, no NIOSH REL or ASTDR chronic MRL has been established for the inhalation route (gaseous air) of this compound.

TABLE 2

ANALYTE	SHAA-N-17 <sup>1</sup> , ppbv	SHAA-S-17 <sup>1</sup> , ppbv	NIOSH REL <sup>2</sup> , ppbv	ATSDR Chronic MRL <sup>3</sup> , ppbv
EPA TO-15 (Summa canister)				
1,1,1-Trichloroethane	<0.16	<0.21	350,000	700
1,1,2,2-Tetrachloroethane	<0.13	<0.17	1,000	NA
1,1,2-Trichloroethane	<0.16	<0.21	10,000	NA
1,1-Dichloroethane	<0.22	<0.28	100,000	NA
1,1-Dichloroethene	<0.23	<0.29	200,000	20
1,2,4-Trichlorobenzene	<0.12	<0.15	5,000	NA
1,2,4-Trimethylbenzene	<0.18	<0.23	25,000	NA
1,2-Dibromoethane	<0.12	<0.15	45	NA
1,2-Dichlorobenzene	<0.15	<0.19	50,000	NA
1,2-Dichloroethane	<0.22	<0.28	1,000	600
1,2-Dichloropropane	<0.19	<0.25	75,000	7
1,3,5-Trimethylbenzene	<0.18	<0.23	25,000	NA
1,3-Butadiene	<0.40	<0.52	1,000	NA
1,3-Dichlorobenzene	<0.15	<0.19	50,000	NA
1,4-Dichlorobenzene	<0.15	<0.19	50,000	10
1,4-Dioxane	<0.25	<0.32	NA	30
2-Butanone	<b>1.3 (J)</b>	<b>0.58 (J)</b>	200	NA
2-Hexanone	<0.22	<0.28	1,000	NA
2-Propanol	<b>4.0</b>	<b>1.8 (J)</b>	400,000	NA
4-Ethyltoluene	<0.18	<0.23	NA	NA
4-Methyl-2-pentanone	<0.22	<0.28	50,000	NA
Acetone	<3.8	<b>6.2</b>	250,000	13,000
Benzene	<b>0.17 (J)</b>	<b>0.19 (J)</b>	100	3
Benzyl chloride	<0.17	<0.22	1,000	NA

ANALYTE	SHAA-N-17 <sup>1</sup> , ppbv	SHAA-S-17 <sup>1</sup> , ppbv	NIOSH REL <sup>2</sup> , ppbv	ATSDR Chronic MRL <sup>3</sup> , ppbv
Bromodichloromethane	<0.13	<0.17	NA	NA
Bromoform	<0.087	<0.11	500	NA
Bromomethane	<0.23	<0.29	20,000	5
Carbon disulfide	<b>0.10 (J)</b>	<3.7	1,000	300
Carbon tetrachloride	<b>0.058 (J)</b>	<b>0.056 (J)</b>	2,000	30
Chlorobenzene	<0.19	<0.25	75,000	NA
Chloroethane	<0.34	<0.43	1,000,000	15,000
Chloroform	<0.18	<0.23	2,000	20
Chloromethane	<b>0.23 (J)</b>	<b>0.24 (J)</b>	100,000	50
cis-1,2-Dichloroethene	<0.23	<0.29	200,000	NA
cis-1,3-Dichloropropene	<0.20	<0.25	1,000	7
Cumene	<0.18	<0.23	50,000	NA
Cyclohexane	<0.52	<0.67	300,000	NA
Dibromochloromethane	<0.11	<0.13	NA	NA
Dichlorodifluoromethane	<b>0.44</b>	<b>0.45</b>	1,000,000	NA
Ethyl acetate	<b>4.4</b>	<b>0.57 (J)</b>	400,000	NA
Ethylbenzene	<b>0.099 (J)</b>	<b>0.38</b>	100,000	60
Freon 113 (Trichlorotrifluoroethane)	<b>0.051 (J)</b>	<b>0.052 (J)</b>	1,000,000	NA
Freon 114 (1,2-Dichloro-1,1,2,2-tetrafluoroethane)	<0.13	<0.16	1,000,000	NA
Heptane (n-Heptane)	<b>0.15 (J)</b>	<0.28	85,000	NA
Hexachlorobutadiene	<0.084	<0.11	20	NA
Hexane (n-Hexane)	<b>0.23 (J)</b>	<b>0.15 (J)</b>	50,000	600
m,p-Xylene	<b>0.26 (J)</b>	<b>0.49 (J)</b>	100,000	50
Methylene chloride	<b>0.20 (J)</b>	<b>0.17 (J)</b>	25,000	300
MTBE (Methyl tert-butyl ether)	<0.25	<0.32	2,000	NA
Naphthalene	<0.17	<0.22	10,000	1
o-Xylene	<b>0.085 (J)</b>	<0.26	100,000	NA
Propene	<b>0.51 (J)</b>	<b>0.52 (J)</b>	NA	NA
Styrene	<b>0.081 (J)</b>	<0.27	50,000	200
Tetrachloroethene	<b>0.14</b>	<0.17	100,000	NA
Tetrahydrofuran	<0.30	<b>0.20 (J)</b>	200,000	NA
Toluene	<b>1.5</b>	<b>0.46</b>	100,000	1,000
trans-1,2-Dichloroethene	<0.23	<0.29	200,000	200
trans-1,3-Dichloropropene	<0.20	<0.25	1,000	7
Trichloroethene	<0.17	<0.21	100,000	NA
Trichlorofluoromethane	<b>0.19</b>	<b>0.26</b>	1,000,000	NA

ANALYTE	SHAA-N-17 <sup>1</sup> , ppbv	SHAA-S-17 <sup>1</sup> , ppbv	NIOSH REL <sup>2</sup> , ppbv	ATSDR Chronic MRL <sup>3</sup> , ppbv
Vinyl acetate	<2.5	<3.3	4,000	10
Vinyl chloride	<0.35	<0.45	1,000	30
ASTM D5504-12 (Summa canister)				
2,5-Dimethylthiophene	<9.0	<11	NA	NA
2-Ethylthiophene	<9.0	<11	NA	NA
3-Methylthiophene	<9.0	<11	NA	NA
Carbon disulfide	<4.5	<5.7	1,000	300
Carbonyl sulfide	<9.0	<11	NA	NA
Diethyl disulfide	<4.5	<5.7	NA	NA
Diethyl sulfide	<9.0	<11	NA	NA
Dimethyl disulfide	<4.5	<5.7	NA	NA
Dimethyl sulfide	<9.0	<11	NA	NA
Ethyl mercaptan	<9.0	<11	NA	NA
Ethyl methyl sulfide	<9.0	<11	NA	NA
Hydrogen sulfide	<9.0	<11	NA	20
Isobutyl mercaptan	<9.0	<11	NA	NA
Isopropyl mercaptan	<9.0	<11	NA	NA
Methyl mercaptan	<9.0	<11	NA	NA
n-Butyl mercaptan	<9.0	<11	NA	NA
n-Propyl mercaptan	<9.0	<11	NA	NA
tert-Butyl mercaptan	<9.0	<11	NA	NA
Tetrahydrothiophene	<9.0	<11	NA	NA
Thiophene	<9.0	<11	NA	NA
OSHA 1007 (UMEx 100 sampler)				
Acetaldehyde	<3.3	<3.3	NA	NA
Benzaldehyde	<2.3	<2.3	NA	NA
Butyraldehyde	<2.9	<2.9	NA	NA
Crotonaldehyde	<5.0	<5.0	2,000	NA
Formaldehyde	<b>4.1</b>	<b>4.6</b>	16	8
Hexanaldehyde	<3.5	<3.5	NA	NA
Propionaldehyde	<b>5.8</b>	<b>5.4</b>	NA	NA

(1) Air sample duration is over a 24 hour period

(2) NIOSH REL is based on the time-weighted average concentration for an 8-10 hour workday during a 40 hour work week

(3) ATSDR MRLs are derived for three time periods: acute (1-14 days), intermediate (14-364 days) and chronic (>365 days); the chronic ATSDR MRLs are provided within this Table

J = The result is an estimated concentration that is less than the method reporting limit but greater than the method detection limit

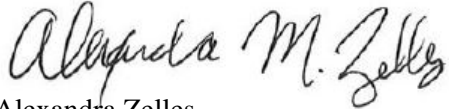
NA = Limit not established for inhalation route (gaseous air samples)

Mr. Peter Lucas: July 3, 2017 ambient air sampling – Rev. 1  
July 14, 2017  
Page 5

All ALS Environmental laboratory reports and chain of custody forms are attached. Please let me know if you have any questions.

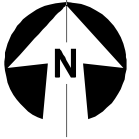
Sincerely,



LJB Inc.

A handwritten signature in black ink that reads "Alexandra M. Zelles". The signature is written in a cursive style with a large, stylized initial 'A'.

Alexandra Zelles  
Environmental Scientist





-  Air sample locations
-  Stony Hollow Landfill



0 225 450 900 Feet

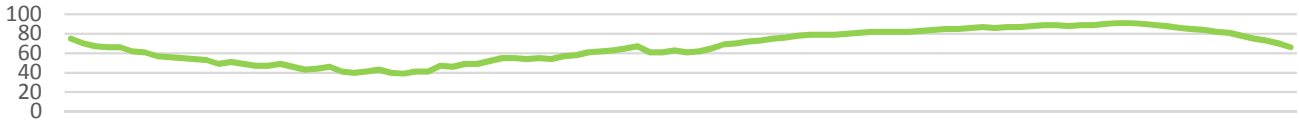
## > Waste Management Stony Hollow Landfill Ambient Air Sample Locations



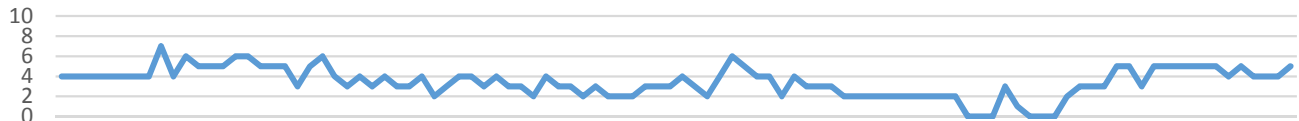
Temperature, °F



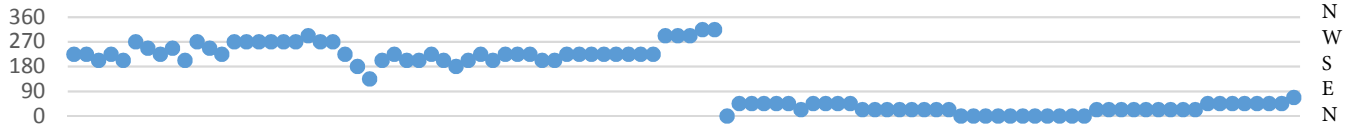
Relative Humidity, %



Wind Speed, mph



Wind Direction



Barometric Pressure, Inches Hg



Rain and Cumulative Rain, Inches



7/3/17 9:15 AM  
 10:00 AM  
 10:45 AM  
 11:30 AM  
 12:15 PM  
 1:00 PM  
 1:45 PM  
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 7:00 AM  
 7:45 AM  
 8:30 AM  
 9:15 AM  
 10:00 AM





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2655 Park Center Dr., Suite A  
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## LABORATORY REPORT

July 12, 2017

Peter Lucas  
Waste Management-Stony Hollow Landfill  
2460 S Gettysburg Ave.  
Dayton, OH 45417

**RE: Stony Hollow Landfill**

Dear Peter:

Enclosed are the results of the samples submitted to our laboratory on July 7, 2017. For your reference, these analyses have been assigned our service request number P1703244.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**

By Kate Kaneko at 8:34 am, 07/12/17

Kate Kaneko  
Project Manager



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Simi Valley, CA 93065  
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[www.alsglobal.com](http://www.alsglobal.com)

Client: Waste Management-Stony Hollow Landfill  
Project: Stony Hollow Landfill

Service Request No: P1703244

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## CASE NARRATIVE

The samples were received intact under chain of custody on July 7, 2017 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

### Sulfur Analysis

The samples were analyzed for twenty sulfur compounds per ASTM D 5504-12 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is included on the laboratory's NELAP scope of accreditation, however it is not part of the DoD-ELAP accreditation.

### Volatile Organic Compound Analysis

The samples were also analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The spike recovery of 2-propanol (isopropyl alcohol) in the Laboratory Control Sample (LCS) was outside the laboratory generated control criteria. The recovery error equates to a potential high bias. However, the recovery in question was within the method criteria, therefore the data quality has not been significantly affected. No corrective action was taken.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*



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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Arizona DHS	<a href="http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home">http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home</a>	AZ0694
Florida DOH (NELAP)	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E871020
Louisiana DEQ (NELAP)	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	05071
Maine DHHS	<a href="http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm">http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm</a>	2016036
Minnesota DOH (NELAP)	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	1177034
New Jersey DEP (NELAP)	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	CA009
New York DOH (NELAP)	<a href="http://www.wadsworth.org/labcert/elap/elap.html">http://www.wadsworth.org/labcert/elap/elap.html</a>	11221
Oregon PHD (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	4068-004
Pennsylvania DEP	<a href="http://www.depweb.state.pa.us/labs">http://www.depweb.state.pa.us/labs</a>	68-03307 (Registration)
PJLA (DoD ELAP)	<a href="http://www.pjlabs.com/search-accredited-labs">http://www.pjlabs.com/search-accredited-labs</a>	65818 (Testing)
Texas CEQ (NELAP)	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704413-17-8
Utah DOH (NELAP)	<a href="http://health.utah.gov/lab/environmental-lab-certification/">http://health.utah.gov/lab/environmental-lab-certification/</a>	CA01627201 6-6
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at [www.alsglobal.com](http://www.alsglobal.com), or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

# ALS ENVIRONMENTAL

## DETAIL SUMMARY REPORT

Client: Waste Management-Stony Hollow Landfill  
 Project ID: Stony Hollow Landfill

Service Request: P1703244

Date Received: 7/7/2017  
 Time Received: 09:30

ASTM D 5504-12 - Sulfur Can
TO-15 - VOC Cans

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	ASTM D 5504-12 - Sulfur Can	TO-15 - VOC Cans
SHAA-N-17	P1703244-001	Air	7/4/2017	09:27	AS00866	-4.37	3.79	X	X
SHAA-S-17	P1703244-002	Air	7/4/2017	09:46	AS00654	-6.42	4.26	X	X



# Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A  
 Simi Valley, California 93065  
 Phone (805) 526-7161  
 Fax (805) 526-7270

<b>Company Name &amp; Address (Reporting Information)</b> LJB Inc. c/o Waste Management-Stony Hollow 2500 Newmark Drive Miamisburg, OH 45342			<b>Project Name</b> Stony Hollow Landfill			<b>Requested Turnaround Time in Business Days (Surcharges) please circle</b> 1 Day (100%) 2 Day (75%) <u>3 Day (50%)</u> 4 Day (35%) 5 Day (25%) 10 Day-Standard			<b>ALS Project No.</b> P-1703244		
<b>Project Manager</b> Alex Zelles Phone 937-259-5022 Email Address for Result Reporting <a href="mailto:azelles@ljbinc.com">azelles@ljbinc.com</a> + <a href="mailto:smueller@ljbinc.com">smueller@ljbinc.com</a>			<b>P.O. # / Billing Information</b> Per Peter Lucas/WM			<b>ALS Contact:</b>			<b>Analysis Method</b> ASTM D 5504-12		
<b>Sampler (Print &amp; Sign)</b> Alex Zelles <i>Alex Zelles</i>			<b>Flow Controller # (Bar code # - FC #)</b>			<b>Canister Start Pressure "Hg</b>			<b>Canister End Pressure "Hg/psig</b>		
<b>Canister ID (Bar code # - AC, SC, etc.)</b>			<b>Canister Start Pressure "Hg</b>			<b>Canister End Pressure "Hg/psig</b>			<b>Sample Volume</b>		
<b>Client Sample ID</b> SHAA-N-17 SHAA-S-17			<b>Flow Controller # (Bar code # - FC #)</b> SF200187 SF200085			<b>Canister Start Pressure "Hg</b> -29.2 "Hg -29 "Hg			<b>Canister End Pressure "Hg/psig</b> -10.5 "Hg -13 "Hg		
<b>Laboratory ID Number</b> 1 2			<b>Date Collected</b> 7/15/17 7/14/17 7/14/17			<b>Time Collected</b> 0927 0927 0946			<b>Sample Volume</b>    		
<b>Comments</b> e.g. Actual Preservative or specific instructions			<b>Chain of Custody Seal: (Circle)</b> INTACT BROKEN ABSENT			<b>Project Requirements (MRLs, QAPP)</b>			<b>Project Requirements (MRLs, QAPP)</b>		
<b>Relinquished by: (Signature)</b> <i>Alex Zelles</i>			<b>Relinquished by: (Signature)</b> <i>[Signature]</i>			<b>Received by: (Signature)</b> <i>[Signature]</i>			<b>Received by: (Signature)</b> <i>[Signature]</i>		
<b>Date:</b> 7/15/17 <b>Time:</b> 06:30 am			<b>Date:</b> 7/17/17 <b>Time:</b> 08:30 am			<b>Date:</b> 7/17/17 <b>Time:</b> 09:30			<b>Date:</b> 7/17/17 <b>Time:</b> 09:30		
<b>Report Tier Levels - please select</b> Tier I - Results (Default if not specified) _____ Tier II (Results + QC Summaries) X Tier III (Results + QC & Calibration Summaries) _____ Tier IV (Data Validation Package) 10% Surcharge _____			<b>EDD required Yes / No</b>			<b>Units:</b>			<b>Chain of Custody Seal: (Circle)</b> INTACT BROKEN ABSENT		

**ALS Environmental  
Sample Acceptance Check Form**

Client: Waste Management-Stony Hollow Landfill Work order: P1703244  
 Project: Stony Hollow Landfill  
 Sample(s) received on: 7/7/17 Date opened: 7/7/17 by: ADAVID

*Note:* This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |   | Yes                                 | No                       | N/A                                 |
|---|-------------------------------------|--------------------------|-------------------------------------|
| 1 Were <b>sample containers</b> properly marked with client sample ID?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2 Did <b>sample containers</b> arrive in good condition?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 3 Were <b>chain-of-custody</b> papers used and filled out?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4 Did <b>sample container labels</b> and/or tags agree with custody papers?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 5 Was <b>sample volume</b> received adequate for analysis?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 6 Are samples within specified holding times?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 7 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were <b>custody seals</b> on outside of cooler/Box/Container?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? <u>Box sealing.</u> Sealing Lid?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| Were signature and date included?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| Were seals intact?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 9 Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are <b>pH</b> preserved?                                | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were <b>VOA vials</b> checked for presence/absence of air bubbles?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 <b>Tubes:</b> Are the tubes capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 <b>Badges:</b> Are the badges properly capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1703244-001.01	6.0 L Silonite Can					
P1703244-002.01	6.0 L Silonite Can					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** SHAA-N-17

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P1703244-001

Test Code: ASTM D 5504-12  
 Instrument ID: Agilent 7890A/GC22/SCD  
 Analyst: Mike Conejo  
 Sample Type: 6.0 L Silonite Canister  
 Test Notes:  
 Container ID: AS00866

Date Collected: 7/4/17  
 Time Collected: 09:27  
 Date Received: 7/7/17  
 Date Analyzed: 7/7/17  
 Time Analyzed: 13:50  
 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -4.37      Final Pressure (psig): 3.79

Canister Dilution Factor: 1.79

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	12	ND	9.0	
463-58-1	Carbonyl Sulfide	ND	22	ND	9.0	
74-93-1	Methyl Mercaptan	ND	18	ND	9.0	
75-08-1	Ethyl Mercaptan	ND	23	ND	9.0	
75-18-3	Dimethyl Sulfide	ND	23	ND	9.0	
75-15-0	Carbon Disulfide	ND	14	ND	4.5	
75-33-2	Isopropyl Mercaptan	ND	28	ND	9.0	
75-66-1	tert-Butyl Mercaptan	ND	33	ND	9.0	
107-03-9	n-Propyl Mercaptan	ND	28	ND	9.0	
624-89-5	Ethyl Methyl Sulfide	ND	28	ND	9.0	
110-02-1	Thiophene	ND	31	ND	9.0	
513-44-0	Isobutyl Mercaptan	ND	33	ND	9.0	
352-93-2	Diethyl Sulfide	ND	33	ND	9.0	
109-79-5	n-Butyl Mercaptan	ND	33	ND	9.0	
624-92-0	Dimethyl Disulfide	ND	17	ND	4.5	
616-44-4	3-Methylthiophene	ND	36	ND	9.0	
110-01-0	Tetrahydrothiophene	ND	32	ND	9.0	
638-02-8	2,5-Dimethylthiophene	ND	41	ND	9.0	
872-55-9	2-Ethylthiophene	ND	41	ND	9.0	
110-81-6	Diethyl Disulfide	ND	22	ND	4.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** SHAA-S-17

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P1703244-002

Test Code: ASTM D 5504-12  
 Instrument ID: Agilent 7890A/GC22/SCD  
 Analyst: Mike Conejo  
 Sample Type: 6.0 L Silonite Canister  
 Test Notes:  
 Container ID: AS00654

Date Collected: 7/4/17  
 Time Collected: 09:46  
 Date Received: 7/7/17  
 Date Analyzed: 7/7/17  
 Time Analyzed: 14:26  
 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -6.42      Final Pressure (psig): 4.26

Canister Dilution Factor: 2.29

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	16	ND	11	
463-58-1	Carbonyl Sulfide	ND	28	ND	11	
74-93-1	Methyl Mercaptan	ND	23	ND	11	
75-08-1	Ethyl Mercaptan	ND	29	ND	11	
75-18-3	Dimethyl Sulfide	ND	29	ND	11	
75-15-0	Carbon Disulfide	ND	18	ND	5.7	
75-33-2	Isopropyl Mercaptan	ND	36	ND	11	
75-66-1	tert-Butyl Mercaptan	ND	42	ND	11	
107-03-9	n-Propyl Mercaptan	ND	36	ND	11	
624-89-5	Ethyl Methyl Sulfide	ND	36	ND	11	
110-02-1	Thiophene	ND	39	ND	11	
513-44-0	Isobutyl Mercaptan	ND	42	ND	11	
352-93-2	Diethyl Sulfide	ND	42	ND	11	
109-79-5	n-Butyl Mercaptan	ND	42	ND	11	
624-92-0	Dimethyl Disulfide	ND	22	ND	5.7	
616-44-4	3-Methylthiophene	ND	46	ND	11	
110-01-0	Tetrahydrothiophene	ND	41	ND	11	
638-02-8	2,5-Dimethylthiophene	ND	53	ND	11	
872-55-9	2-Ethylthiophene	ND	53	ND	11	
110-81-6	Diethyl Disulfide	ND	29	ND	5.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Waste Management-Stony Hollow Landfill  
**Client Sample ID:** Method Blank  
**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244  
 ALS Sample ID: P170707-MB

Test Code: ASTM D 5504-12  
 Instrument ID: Agilent 7890A/GC22/SCD  
 Analyst: Mike Conejo  
 Sample Type: 6.0 L Silonite Canister  
 Test Notes:

Date Collected: NA  
 Time Collected: NA  
 Date Received: NA  
 Date Analyzed: 7/07/17  
 Time Analyzed: 07:59  
 Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** Lab Control Sample

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P170707-LCS

Test Code: ASTM D 5504-12

Instrument ID: Agilent 7890A/GC22/SCD

Analyst: Mike Conejo

Sample Type: 6.0 L Silonite Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 7/07/17

Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS	Data Qualifier
					Acceptance Limits	
7783-06-4	Hydrogen Sulfide	1,000	<b>1,010</b>	<b>101</b>	81-141	
463-58-1	Carbonyl Sulfide	1,000	<b>1,090</b>	<b>109</b>	81-147	
74-93-1	Methyl Mercaptan	1,000	<b>1,070</b>	<b>107</b>	80-144	

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** SHAA-N-17

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P1703244-001

Test Code: EPA TO-15

Date Collected: 7/4/17

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Received: 7/7/17

Analyst: Simon Cao

Date Analyzed: 7/7/17

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container ID: AS00866

Initial Pressure (psig): -4.37      Final Pressure (psig): 3.79

Canister Dilution Factor: 1.79

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	ppbV	ppbV	ppbV	Qualifier
115-07-1	Propene	<b>0.88</b>	0.90	0.25	<b>0.51</b>	0.52	0.15	<b>J</b>
75-71-8	Dichlorodifluoromethane (CFC 12)	<b>2.2</b>	0.90	0.30	<b>0.44</b>	0.18	0.062	
74-87-3	Chloromethane	<b>0.47</b>	0.90	0.27	<b>0.23</b>	0.43	0.13	<b>J</b>
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.90	0.34	ND	0.13	0.049	
75-01-4	Vinyl Chloride	ND	0.90	0.30	ND	0.35	0.12	
106-99-0	1,3-Butadiene	ND	0.90	0.39	ND	0.40	0.18	
74-83-9	Bromomethane	ND	0.90	0.34	ND	0.23	0.088	
75-00-3	Chloroethane	ND	0.90	0.30	ND	0.34	0.12	
67-64-1	Acetone	ND	9.0	1.4	ND	3.8	0.58	
75-69-4	Trichlorofluoromethane (CFC 11)	<b>1.1</b>	0.90	0.30	<b>0.19</b>	0.16	0.054	
67-63-0	2-Propanol (Isopropyl Alcohol)	<b>9.9</b>	9.0	0.75	<b>4.0</b>	3.6	0.31	
75-35-4	1,1-Dichloroethene	ND	0.90	0.30	ND	0.23	0.077	
75-09-2	Methylene Chloride	<b>0.70</b>	0.90	0.30	<b>0.20</b>	0.26	0.088	<b>J</b>
76-13-1	Trichlorotrifluoroethane (CFC 113)	<b>0.39</b>	0.90	0.30	<b>0.051</b>	0.12	0.040	<b>J</b>
75-15-0	Carbon Disulfide	<b>0.31</b>	9.0	0.27	<b>0.10</b>	2.9	0.086	<b>J</b>
156-60-5	trans-1,2-Dichloroethene	ND	0.90	0.34	ND	0.23	0.086	
75-34-3	1,1-Dichloroethane	ND	0.90	0.29	ND	0.22	0.071	
1634-04-4	Methyl tert-Butyl Ether	ND	0.90	0.30	ND	0.25	0.084	
108-05-4	Vinyl Acetate	ND	9.0	1.2	ND	2.5	0.33	
78-93-3	2-Butanone (MEK)	<b>3.9</b>	9.0	0.38	<b>1.3</b>	3.0	0.13	<b>J</b>
156-59-2	cis-1,2-Dichloroethene	ND	0.90	0.29	ND	0.23	0.072	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 2 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** SHAA-N-17

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P1703244-001

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Silonite Canister

Test Notes:

Container ID: AS00866

Date Collected: 7/4/17

Date Received: 7/7/17

Date Analyzed: 7/7/17

Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.37      Final Pressure (psig): 3.79

Canister Dilution Factor: 1.79

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	MDL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	<b>16</b>	1.8	0.63	<b>4.4</b>	0.50	0.17	
110-54-3	n-Hexane	<b>0.81</b>	0.90	0.27	<b>0.23</b>	0.25	0.076	<b>J</b>
67-66-3	Chloroform	ND	0.90	0.30	ND	0.18	0.062	
109-99-9	Tetrahydrofuran (THF)	ND	0.90	0.36	ND	0.30	0.12	
107-06-2	1,2-Dichloroethane	ND	0.90	0.29	ND	0.22	0.071	
71-55-6	1,1,1-Trichloroethane	ND	0.90	0.30	ND	0.16	0.056	
71-43-2	Benzene	<b>0.55</b>	0.90	0.29	<b>0.17</b>	0.28	0.090	<b>J</b>
56-23-5	Carbon Tetrachloride	<b>0.37</b>	0.90	0.27	<b>0.058</b>	0.14	0.043	<b>J</b>
110-82-7	Cyclohexane	ND	1.8	0.52	ND	0.52	0.15	
78-87-5	1,2-Dichloropropane	ND	0.90	0.29	ND	0.19	0.062	
75-27-4	Bromodichloromethane	ND	0.90	0.27	ND	0.13	0.040	
79-01-6	Trichloroethene	ND	0.90	0.25	ND	0.17	0.047	
123-91-1	1,4-Dioxane	ND	0.90	0.29	ND	0.25	0.080	
142-82-5	n-Heptane	<b>0.61</b>	0.90	0.30	<b>0.15</b>	0.22	0.074	<b>J</b>
10061-01-5	cis-1,3-Dichloropropene	ND	0.90	0.25	ND	0.20	0.055	
108-10-1	4-Methyl-2-pentanone	ND	0.90	0.29	ND	0.22	0.070	
10061-02-6	trans-1,3-Dichloropropene	ND	0.90	0.29	ND	0.20	0.063	
79-00-5	1,1,2-Trichloroethane	ND	0.90	0.29	ND	0.16	0.053	
108-88-3	Toluene	<b>5.7</b>	0.90	0.30	<b>1.5</b>	0.24	0.081	
591-78-6	2-Hexanone	ND	0.90	0.29	ND	0.22	0.070	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

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J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.



# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** SHAA-N-17

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P1703244-001

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Silonite Canister

Test Notes:

Container ID: AS00866

Date Collected: 7/4/17

Date Received: 7/7/17

Date Analyzed: 7/7/17

Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.37      Final Pressure (psig): 3.79

Canister Dilution Factor: 1.79

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	MDL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.90	0.29	ND	0.11	0.034	
106-93-4	1,2-Dibromoethane	ND	0.90	0.29	ND	0.12	0.037	
127-18-4	Tetrachloroethene	<b>0.97</b>	0.90	0.25	<b>0.14</b>	0.13	0.037	
108-90-7	Chlorobenzene	ND	0.90	0.29	ND	0.19	0.062	
100-41-4	Ethylbenzene	<b>0.43</b>	0.90	0.29	<b>0.099</b>	0.21	0.066	<b>J</b>
179601-23-1	m,p-Xylenes	<b>1.1</b>	1.8	0.54	<b>0.26</b>	0.41	0.12	<b>J</b>
75-25-2	Bromoform	ND	0.90	0.27	ND	0.087	0.026	
100-42-5	Styrene	<b>0.34</b>	0.90	0.27	<b>0.081</b>	0.21	0.063	<b>J</b>
95-47-6	o-Xylene	<b>0.37</b>	0.90	0.27	<b>0.085</b>	0.21	0.062	<b>J</b>
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.90	0.27	ND	0.13	0.039	
98-82-8	Cumene	ND	0.90	0.27	ND	0.18	0.055	
622-96-8	4-Ethyltoluene	ND	0.90	0.29	ND	0.18	0.058	
108-67-8	1,3,5-Trimethylbenzene	ND	0.90	0.29	ND	0.18	0.058	
95-63-6	1,2,4-Trimethylbenzene	ND	0.90	0.27	ND	0.18	0.055	
100-44-7	Benzyl Chloride	ND	0.90	0.20	ND	0.17	0.038	
541-73-1	1,3-Dichlorobenzene	ND	0.90	0.27	ND	0.15	0.045	
106-46-7	1,4-Dichlorobenzene	ND	0.90	0.25	ND	0.15	0.042	
95-50-1	1,2-Dichlorobenzene	ND	0.90	0.27	ND	0.15	0.045	
120-82-1	1,2,4-Trichlorobenzene	ND	0.90	0.29	ND	0.12	0.039	
91-20-3	Naphthalene	ND	0.90	0.32	ND	0.17	0.061	
87-68-3	Hexachlorobutadiene	ND	0.90	0.25	ND	0.084	0.024	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** SHAA-S-17

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P1703244-002

Test Code: EPA TO-15

Date Collected: 7/4/17

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Received: 7/7/17

Analyst: Simon Cao

Date Analyzed: 7/7/17

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Container ID: AS00654

Initial Pressure (psig): -6.42      Final Pressure (psig): 4.26

Canister Dilution Factor: 2.29

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppbV	ppbV	ppbV	Qualifier
115-07-1	Propene	<b>0.89</b>	1.1	0.32	<b>0.52</b>	0.67	0.19	<b>J</b>
75-71-8	Dichlorodifluoromethane (CFC 12)	<b>2.2</b>	1.1	0.39	<b>0.45</b>	0.23	0.079	
74-87-3	Chloromethane	<b>0.49</b>	1.1	0.34	<b>0.24</b>	0.55	0.17	<b>J</b>
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.1	0.44	ND	0.16	0.062	
75-01-4	Vinyl Chloride	ND	1.1	0.39	ND	0.45	0.15	
106-99-0	1,3-Butadiene	ND	1.1	0.50	ND	0.52	0.23	
74-83-9	Bromomethane	ND	1.1	0.44	ND	0.29	0.11	
75-00-3	Chloroethane	ND	1.1	0.39	ND	0.43	0.15	
67-64-1	Acetone	<b>15</b>	11	1.8	<b>6.2</b>	4.8	0.74	
75-69-4	Trichlorofluoromethane (CFC 11)	<b>1.5</b>	1.1	0.39	<b>0.26</b>	0.20	0.069	
67-63-0	2-Propanol (Isopropyl Alcohol)	<b>4.5</b>	11	0.96	<b>1.8</b>	4.7	0.39	<b>J</b>
75-35-4	1,1-Dichloroethene	ND	1.1	0.39	ND	0.29	0.098	
75-09-2	Methylene Chloride	<b>0.60</b>	1.1	0.39	<b>0.17</b>	0.33	0.11	<b>J</b>
76-13-1	Trichlorotrifluoroethane (CFC 113)	<b>0.40</b>	1.1	0.39	<b>0.052</b>	0.15	0.051	<b>J</b>
75-15-0	Carbon Disulfide	ND	11	0.34	ND	3.7	0.11	
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.44	ND	0.29	0.11	
75-34-3	1,1-Dichloroethane	ND	1.1	0.37	ND	0.28	0.091	
1634-04-4	Methyl tert-Butyl Ether	ND	1.1	0.39	ND	0.32	0.11	
108-05-4	Vinyl Acetate	ND	11	1.5	ND	3.3	0.42	
78-93-3	2-Butanone (MEK)	<b>1.7</b>	11	0.48	<b>0.58</b>	3.9	0.16	<b>J</b>
156-59-2	cis-1,2-Dichloroethene	ND	1.1	0.37	ND	0.29	0.092	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 2 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** SHAA-S-17

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P1703244-002

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Silonite Canister

Test Notes:

Container ID: AS00654

Date Collected: 7/4/17

Date Received: 7/7/17

Date Analyzed: 7/7/17

Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -6.42      Final Pressure (psig): 4.26

Canister Dilution Factor: 2.29

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	MDL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	<b>2.1</b>	2.3	0.80	<b>0.57</b>	0.64	0.22	<b>J</b>
110-54-3	n-Hexane	<b>0.52</b>	1.1	0.34	<b>0.15</b>	0.32	0.097	<b>J</b>
67-66-3	Chloroform	ND	1.1	0.39	ND	0.23	0.080	
109-99-9	Tetrahydrofuran (THF)	<b>0.60</b>	1.1	0.46	<b>0.20</b>	0.39	0.16	<b>J</b>
107-06-2	1,2-Dichloroethane	ND	1.1	0.37	ND	0.28	0.091	
71-55-6	1,1,1-Trichloroethane	ND	1.1	0.39	ND	0.21	0.071	
71-43-2	Benzene	<b>0.62</b>	1.1	0.37	<b>0.19</b>	0.36	0.11	<b>J</b>
56-23-5	Carbon Tetrachloride	<b>0.35</b>	1.1	0.34	<b>0.056</b>	0.18	0.055	<b>J</b>
110-82-7	Cyclohexane	ND	2.3	0.66	ND	0.67	0.19	
78-87-5	1,2-Dichloropropane	ND	1.1	0.37	ND	0.25	0.079	
75-27-4	Bromodichloromethane	ND	1.1	0.34	ND	0.17	0.051	
79-01-6	Trichloroethene	ND	1.1	0.32	ND	0.21	0.060	
123-91-1	1,4-Dioxane	ND	1.1	0.37	ND	0.32	0.10	
142-82-5	n-Heptane	ND	1.1	0.39	ND	0.28	0.095	
10061-01-5	cis-1,3-Dichloropropene	ND	1.1	0.32	ND	0.25	0.071	
108-10-1	4-Methyl-2-pentanone	ND	1.1	0.37	ND	0.28	0.089	
10061-02-6	trans-1,3-Dichloropropene	ND	1.1	0.37	ND	0.25	0.081	
79-00-5	1,1,2-Trichloroethane	ND	1.1	0.37	ND	0.21	0.067	
108-88-3	Toluene	<b>1.7</b>	1.1	0.39	<b>0.46</b>	0.30	0.10	
591-78-6	2-Hexanone	ND	1.1	0.37	ND	0.28	0.089	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** SHAA-S-17

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P1703244-002

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Silonite Canister

Test Notes:

Container ID: AS00654

Date Collected: 7/4/17

Date Received: 7/7/17

Date Analyzed: 7/7/17

Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -6.42      Final Pressure (psig): 4.26

Canister Dilution Factor: 2.29

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	MDL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	1.1	0.37	ND	0.13	0.043	
106-93-4	1,2-Dibromoethane	ND	1.1	0.37	ND	0.15	0.048	
127-18-4	Tetrachloroethene	ND	1.1	0.32	ND	0.17	0.047	
108-90-7	Chlorobenzene	ND	1.1	0.37	ND	0.25	0.080	
100-41-4	Ethylbenzene	<b>1.7</b>	1.1	0.37	<b>0.38</b>	0.26	0.084	
179601-23-1	m,p-Xylenes	<b>2.1</b>	2.3	0.69	<b>0.49</b>	0.53	0.16	<b>J</b>
75-25-2	Bromoform	ND	1.1	0.34	ND	0.11	0.033	
100-42-5	Styrene	ND	1.1	0.34	ND	0.27	0.081	
95-47-6	o-Xylene	ND	1.1	0.34	ND	0.26	0.079	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.1	0.34	ND	0.17	0.050	
98-82-8	Cumene	ND	1.1	0.34	ND	0.23	0.070	
622-96-8	4-Ethyltoluene	ND	1.1	0.37	ND	0.23	0.075	
108-67-8	1,3,5-Trimethylbenzene	ND	1.1	0.37	ND	0.23	0.075	
95-63-6	1,2,4-Trimethylbenzene	ND	1.1	0.34	ND	0.23	0.070	
100-44-7	Benzyl Chloride	ND	1.1	0.25	ND	0.22	0.049	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.34	ND	0.19	0.057	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.32	ND	0.19	0.053	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.34	ND	0.19	0.057	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.37	ND	0.15	0.049	
91-20-3	Naphthalene	ND	1.1	0.41	ND	0.22	0.079	
87-68-3	Hexachlorobutadiene	ND	1.1	0.32	ND	0.11	0.030	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** Method Blank

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P170707-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Silonite Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 7/7/17

Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	MDL	Result	MRL	MDL	Data
		µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppbV	ppbV	ppbV	Qualifier
115-07-1	Propene	ND	0.50	0.14	ND	0.29	0.081	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	0.17	ND	0.10	0.034	
74-87-3	Chloromethane	ND	0.50	0.15	ND	0.24	0.073	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	0.19	ND	0.072	0.027	
75-01-4	Vinyl Chloride	ND	0.50	0.17	ND	0.20	0.067	
106-99-0	1,3-Butadiene	ND	0.50	0.22	ND	0.23	0.099	
74-83-9	Bromomethane	ND	0.50	0.19	ND	0.13	0.049	
75-00-3	Chloroethane	ND	0.50	0.17	ND	0.19	0.064	
67-64-1	Acetone	ND	5.0	0.77	ND	2.1	0.32	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.50	0.17	ND	0.089	0.030	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	0.42	ND	2.0	0.17	
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	ND	0.13	0.043	
75-09-2	Methylene Chloride	ND	0.50	0.17	ND	0.14	0.049	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.50	0.17	ND	0.065	0.022	
75-15-0	Carbon Disulfide	ND	5.0	0.15	ND	1.6	0.048	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.19	ND	0.13	0.048	
75-34-3	1,1-Dichloroethane	ND	0.50	0.16	ND	0.12	0.040	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	0.17	ND	0.14	0.047	
108-05-4	Vinyl Acetate	ND	5.0	0.65	ND	1.4	0.18	
78-93-3	2-Butanone (MEK)	ND	5.0	0.21	ND	1.7	0.071	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.16	ND	0.13	0.040	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 2 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** Method Blank

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P170707-MB

Test Code: EPA TO-15

Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Received: NA

Analyst: Simon Cao

Date Analyzed: 7/7/17

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	MDL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	ND	1.0	0.35	ND	0.28	0.097	
110-54-3	n-Hexane	ND	0.50	0.15	ND	0.14	0.043	
67-66-3	Chloroform	ND	0.50	0.17	ND	0.10	0.035	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	0.20	ND	0.17	0.068	
107-06-2	1,2-Dichloroethane	ND	0.50	0.16	ND	0.12	0.040	
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.17	ND	0.092	0.031	
71-43-2	Benzene	ND	0.50	0.16	ND	0.16	0.050	
56-23-5	Carbon Tetrachloride	ND	0.50	0.15	ND	0.080	0.024	
110-82-7	Cyclohexane	ND	1.0	0.29	ND	0.29	0.084	
78-87-5	1,2-Dichloropropane	ND	0.50	0.16	ND	0.11	0.035	
75-27-4	Bromodichloromethane	ND	0.50	0.15	ND	0.075	0.022	
79-01-6	Trichloroethene	ND	0.50	0.14	ND	0.093	0.026	
123-91-1	1,4-Dioxane	ND	0.50	0.16	ND	0.14	0.044	
142-82-5	n-Heptane	ND	0.50	0.17	ND	0.12	0.041	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	ND	0.11	0.031	
108-10-1	4-Methyl-2-pentanone	ND	0.50	0.16	ND	0.12	0.039	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	ND	0.11	0.035	
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.16	ND	0.092	0.029	
108-88-3	Toluene	ND	0.50	0.17	ND	0.13	0.045	
591-78-6	2-Hexanone	ND	0.50	0.16	ND	0.12	0.039	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.



# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** Method Blank

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P170707-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Silonite Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 7/7/17

Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	MDL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
124-48-1	Dibromochloromethane	ND	0.50	0.16	ND	0.059	0.019	
106-93-4	1,2-Dibromoethane	ND	0.50	0.16	ND	0.065	0.021	
127-18-4	Tetrachloroethene	ND	0.50	0.14	ND	0.074	0.021	
108-90-7	Chlorobenzene	ND	0.50	0.16	ND	0.11	0.035	
100-41-4	Ethylbenzene	ND	0.50	0.16	ND	0.12	0.037	
179601-23-1	m,p-Xylenes	ND	1.0	0.30	ND	0.23	0.069	
75-25-2	Bromoform	ND	0.50	0.15	ND	0.048	0.015	
100-42-5	Styrene	ND	0.50	0.15	ND	0.12	0.035	
95-47-6	o-Xylene	ND	0.50	0.15	ND	0.12	0.035	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.15	ND	0.073	0.022	
98-82-8	Cumene	ND	0.50	0.15	ND	0.10	0.031	
622-96-8	4-Ethyltoluene	ND	0.50	0.16	ND	0.10	0.033	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.16	ND	0.10	0.033	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.15	ND	0.10	0.031	
100-44-7	Benzyl Chloride	ND	0.50	0.11	ND	0.097	0.021	
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.15	ND	0.083	0.025	
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.14	ND	0.083	0.023	
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.15	ND	0.083	0.025	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.16	ND	0.067	0.022	
91-20-3	Naphthalene	ND	0.50	0.18	ND	0.095	0.034	
87-68-3	Hexachlorobutadiene	ND	0.50	0.14	ND	0.047	0.013	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

**ALS ENVIRONMENTAL**

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

**Client:** Waste Management-Stony Hollow Landfill  
**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

Test Code: EPA TO-15  
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
 Analyst: Simon Cao  
 Sample Type: 6.0 L Silonite Canister(s)  
 Test Notes:

Date(s) Collected: 7/4/17  
 Date(s) Received: 7/7/17  
 Date(s) Analyzed: 7/7/17

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P170707-MB	<b>108</b>	<b>99</b>	<b>88</b>	70-130	
Lab Control Sample	P170707-LCS	<b>105</b>	<b>98</b>	<b>89</b>	70-130	
SHAA-N-17	P1703244-001	<b>109</b>	<b>96</b>	<b>86</b>	70-130	
SHAA-S-17	P1703244-002	<b>110</b>	<b>97</b>	<b>87</b>	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

# ALS ENVIRONMENTAL

## LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** Lab Control Sample

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P170707-LCS

Test Code: EPA TO-15

Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Received: NA

Analyst: Simon Cao

Date Analyzed: 7/7/17

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 0.125 Liter(s)

Test Notes:

CAS #	Compound	Spike Amount µg/m <sup>3</sup>	Result µg/m <sup>3</sup>	% Recovery	ALS	Data Qualifier
					Acceptance Limits	
115-07-1	Propene	210	226	108	52-127	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	204	97	68-109	
74-87-3	Chloromethane	210	235	112	51-130	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	211	188	89	66-114	
75-01-4	Vinyl Chloride	210	240	114	61-125	
106-99-0	1,3-Butadiene	210	298	142	62-144	
74-83-9	Bromomethane	210	215	102	73-123	
75-00-3	Chloroethane	210	234	111	69-122	
67-64-1	Acetone	1,060	1210	114	57-117	
75-69-4	Trichlorofluoromethane (CFC 11)	210	191	91	63-98	
67-63-0	2-Propanol (Isopropyl Alcohol)	424	519	122	66-121	L
75-35-4	1,1-Dichloroethene	213	215	101	76-118	
75-09-2	Methylene Chloride	212	205	97	60-118	
76-13-1	Trichlorotrifluoroethane (CFC 113)	212	189	89	73-114	
75-15-0	Carbon Disulfide	213	214	100	57-102	
156-60-5	trans-1,2-Dichloroethene	213	235	110	74-123	
75-34-3	1,1-Dichloroethane	212	224	106	69-111	
1634-04-4	Methyl tert-Butyl Ether	213	207	97	69-113	
108-05-4	Vinyl Acetate	1,060	1160	109	76-128	
78-93-3	2-Butanone (MEK)	212	236	111	63-127	
156-59-2	cis-1,2-Dichloroethene	212	224	106	72-117	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

L = Laboratory control sample recovery outside the specified limits, results may be biased high.

# ALS ENVIRONMENTAL

## LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** Lab Control Sample

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P170707-LCS

Test Code: EPA TO-15

Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Received: NA

Analyst: Simon Cao

Date Analyzed: 7/7/17

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 0.125 Liter(s)

Test Notes:

CAS #	Compound	Spike Amount µg/m <sup>3</sup>	Result µg/m <sup>3</sup>	% Recovery	ALS	Data Qualifier
					Acceptance Limits	
141-78-6	Ethyl Acetate	426	<b>499</b>	<b>117</b>	68-127	
110-54-3	n-Hexane	213	<b>237</b>	<b>111</b>	55-116	
67-66-3	Chloroform	212	<b>204</b>	<b>96</b>	70-109	
109-99-9	Tetrahydrofuran (THF)	213	<b>221</b>	<b>104</b>	72-113	
107-06-2	1,2-Dichloroethane	212	<b>209</b>	<b>99</b>	69-113	
71-55-6	1,1,1-Trichloroethane	212	<b>188</b>	<b>89</b>	72-115	
71-43-2	Benzene	212	<b>201</b>	<b>95</b>	65-107	
56-23-5	Carbon Tetrachloride	213	<b>188</b>	<b>88</b>	71-113	
110-82-7	Cyclohexane	425	<b>424</b>	<b>100</b>	71-115	
78-87-5	1,2-Dichloropropane	212	<b>233</b>	<b>110</b>	71-115	
75-27-4	Bromodichloromethane	214	<b>206</b>	<b>96</b>	75-118	
79-01-6	Trichloroethene	212	<b>189</b>	<b>89</b>	68-114	
123-91-1	1,4-Dioxane	213	<b>224</b>	<b>105</b>	81-131	
142-82-5	n-Heptane	213	<b>222</b>	<b>104</b>	68-116	
10061-01-5	cis-1,3-Dichloropropene	210	<b>226</b>	<b>108</b>	77-126	
108-10-1	4-Methyl-2-pentanone	213	<b>249</b>	<b>117</b>	69-126	
10061-02-6	trans-1,3-Dichloropropene	213	<b>229</b>	<b>108</b>	79-125	
79-00-5	1,1,2-Trichloroethane	212	<b>208</b>	<b>98</b>	75-119	
108-88-3	Toluene	212	<b>190</b>	<b>90</b>	59-118	
591-78-6	2-Hexanone	213	<b>256</b>	<b>120</b>	69-129	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.  
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

**ALS ENVIRONMENTAL**

LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

**Client:** Waste Management-Stony Hollow Landfill

**Client Sample ID:** Lab Control Sample

**Client Project ID:** Stony Hollow Landfill

ALS Project ID: P1703244

ALS Sample ID: P170707-LCS

Test Code: EPA TO-15

Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Date Received: NA

Analyst: Simon Cao

Date Analyzed: 7/7/17

Sample Type: 6.0 L Silonite Canister

Volume(s) Analyzed: 0.125 Liter(s)

Test Notes:

CAS #	Compound	Spike Amount µg/m <sup>3</sup>	Result µg/m <sup>3</sup>	% Recovery	ALS	Data Qualifier
					Acceptance Limits	
124-48-1	Dibromochloromethane	213	<b>198</b>	<b>93</b>	74-136	
106-93-4	1,2-Dibromoethane	212	<b>206</b>	<b>97</b>	73-131	
127-18-4	Tetrachloroethene	213	<b>181</b>	<b>85</b>	65-130	
108-90-7	Chlorobenzene	212	<b>192</b>	<b>91</b>	68-120	
100-41-4	Ethylbenzene	212	<b>193</b>	<b>91</b>	68-122	
179601-23-1	m,p-Xylenes	424	<b>386</b>	<b>91</b>	68-123	
75-25-2	Bromoform	212	<b>195</b>	<b>92</b>	69-130	
100-42-5	Styrene	212	<b>213</b>	<b>100</b>	71-133	
95-47-6	o-Xylene	212	<b>196</b>	<b>92</b>	68-122	
79-34-5	1,1,2,2-Tetrachloroethane	212	<b>231</b>	<b>109</b>	69-130	
98-82-8	Cumene	212	<b>195</b>	<b>92</b>	70-123	
622-96-8	4-Ethyltoluene	212	<b>209</b>	<b>99</b>	67-130	
108-67-8	1,3,5-Trimethylbenzene	212	<b>193</b>	<b>91</b>	67-124	
95-63-6	1,2,4-Trimethylbenzene	212	<b>206</b>	<b>97</b>	67-129	
100-44-7	Benzyl Chloride	212	<b>232</b>	<b>109</b>	79-138	
541-73-1	1,3-Dichlorobenzene	212	<b>206</b>	<b>97</b>	65-136	
106-46-7	1,4-Dichlorobenzene	213	<b>203</b>	<b>95</b>	66-141	
95-50-1	1,2-Dichlorobenzene	212	<b>204</b>	<b>96</b>	67-136	
120-82-1	1,2,4-Trichlorobenzene	212	<b>235</b>	<b>111</b>	64-134	
91-20-3	Naphthalene	214	<b>249</b>	<b>116</b>	62-136	
87-68-3	Hexachlorobutadiene	213	<b>189</b>	<b>89</b>	60-133	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.  
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.



14-Jul-2017

Alex Zelles  
Waste Management  
2460 S. Gettysburg Rd  
Dayton, OH 45417

Tel: (937) 356-6204  
Fax:

Re: Stony Hollow Landfill

Work Order: **1707055**

Dear Alex,

ALS Environmental received 2 samples on 05-Jul-2017 12:32 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 7.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

**Rob Nieman**

Electronically approved by: Rob Nieman

Rob Nieman  
Project Manager

ADDRESS 4388 Glendale Milford Rd Cincinnati, Ohio 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347

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Environmental 

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RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Work Order:** 1707055

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1707055-01	SHAA-N-17	Air		7/4/2017	7/5/2017	<input type="checkbox"/>
1707055-02	SHAA-S-17	Air		7/4/2017	7/5/2017	<input type="checkbox"/>

---

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Work Order:** 1707055

---

**Case Narrative**

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:

- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."



**Client:** Waste Management  
**Project:** Stony Hollow Landfill

**Work Order:** 1707055

**Analytical Results**

**Lab ID:** 1707055-01A  
**Client Sample ID:** SHAA-N-17

**Collection Date:** 7/4/2017  
**Matrix:** AIR

**Analyses**

<b>ALDEHYDE(S) BY OSHA 1007 MOD.</b>		Method: <b>O1007</b>	Time (Min): <b>1440</b>	Analyst: <b>MHW</b>
Date Analyzed: 7/13/2017		Reporting Limit		
	<b>µg/sample</b>	<b>µg/sample</b>	<b>ppm</b>	
Acetaldehyde	ND	0.20	<0.0033	
Benzaldehyde	ND	0.20	<0.0023	
Butyraldehyde	ND	0.20	<0.0029	
Crotonaldehyde	ND	0.20	<0.0050	
<b>Formaldehyde</b>	<b>0.21</b>	<b>0.20</b>	<b>0.0041</b>	
Hexanaldehyde	ND	0.20	<0.0035	
<b>Propionaldehyde</b>	<b>0.28</b>	<b>0.20</b>	<b>0.0058</b>	

**Lab ID:** 1707055-02A  
**Client Sample ID:** SHAA-S-17

**Collection Date:** 7/4/2017  
**Matrix:** AIR

**Analyses**

<b>ALDEHYDE(S) BY OSHA 1007 MOD.</b>		Method: <b>O1007</b>	Time (Min): <b>1440</b>	Analyst: <b>MHW</b>
Date Analyzed: 7/13/2017		Reporting Limit		
	<b>µg/sample</b>	<b>µg/sample</b>	<b>ppm</b>	
Acetaldehyde	ND	0.20	<0.0033	
Benzaldehyde	ND	0.20	<0.0023	
Butyraldehyde	ND	0.20	<0.0029	
Crotonaldehyde	ND	0.20	<0.0050	
<b>Formaldehyde</b>	<b>0.23</b>	<b>0.20</b>	<b>0.0046</b>	
Hexanaldehyde	ND	0.20	<0.0035	
<b>Propionaldehyde</b>	<b>0.26</b>	<b>0.20</b>	<b>0.0054</b>	

**Note:**

**Client:** Waste Management  
**Work Order:** 1707055  
**Project:** Stony Hollow Landfill

**QC BATCH REPORT**

Batch ID: **44365** Instrument ID: **HPLC2** Method: **O1007**

MBLK		Sample ID: <b>MBLK-44365-44365</b>			Units: <b>µg/sample</b>		Analysis Date: <b>7/13/2017</b>			
Client ID:		Run ID: <b>HPLC2_170713A</b>			SeqNo: <b>1546050</b>		Prep Date: <b>7/13/2017</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetaldehyde	ND	0.20								
Benzaldehyde	ND	0.20								
Butyraldehyde	ND	0.20								
Crotonaldehyde	ND	0.20								
Formaldehyde	ND	0.20								
Hexanaldehyde	ND	0.20								
Propionaldehyde	ND	0.20								

LCS		Sample ID: <b>LCS-44365-44365</b>			Units: <b>µg/sample</b>		Analysis Date: <b>7/13/2017</b>			
Client ID:		Run ID: <b>HPLC2_170713A</b>			SeqNo: <b>1546051</b>		Prep Date: <b>7/13/2017</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetaldehyde	0.7532	0.20	0.75	0	100	70-130	0			
Benzaldehyde	0.7681	0.20	0.75	0	102	70-130	0			
Butyraldehyde	0.7003	0.20	0.75	0	93.4	70-130	0			
Crotonaldehyde	0.7793	0.20	0.75	0	104	70-130	0			
Formaldehyde	0.7814	0.20	0.75	0	104	70-130	0			
Hexanaldehyde	0.7441	0.20	0.75	0	99.2	70-130	0			
Propionaldehyde	0.7933	0.20	0.75	0	106	70-130	0			

LCSD		Sample ID: <b>LCSD-44365-44365</b>			Units: <b>µg/sample</b>		Analysis Date: <b>7/13/2017</b>			
Client ID:		Run ID: <b>HPLC2_170713A</b>			SeqNo: <b>1546060</b>		Prep Date: <b>7/13/2017</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetaldehyde	0.7457	0.20	0.75	0	99.4	70-130	0.7532	1	20	
Benzaldehyde	0.7579	0.20	0.75	0	101	70-130	0.7681	1.34	20	
Butyraldehyde	0.7381	0.20	0.75	0	98.4	70-130	0.7003	5.26	20	
Crotonaldehyde	0.7733	0.20	0.75	0	103	70-130	0.7793	0.773	20	
Formaldehyde	0.7701	0.20	0.75	0	103	70-130	0.7814	1.46	20	
Hexanaldehyde	0.8883	0.20	0.75	0	118	70-130	0.7441	17.7	20	
Propionaldehyde	0.7727	0.20	0.75	0	103	70-130	0.7933	2.63	20	

The following samples were analyzed in this batch: 1707055-01A 1707055-02A

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

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**WorkOrder:** 1707055

**QUALIFIERS,  
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<u>Units Reported</u>	<u>Description</u>
µg/sample	

Sample Receipt Checklist

Client Name: STONYHOLLOWLANDFILL-DAY

Date/Time Received: 05-Jul-17 12:32

Work Order: 1707055

Received by: JNW

Checklist completed by: J an Wilcox 05-Jul-17  
eSignature | Date

Reviewed by: Rob Nieman 06-Jul-17  
eSignature | Date

Matrices:

Carrier name: ALSHN

Shipping container/cooler in good condition? Yes  No  Not Present

Custody seals intact on shipping container/cooler? Yes  No  Not Present

Custody seals intact on sample bottles? Yes  No  Not Present

Chain of custody present? Yes  No

Chain of custody signed when relinquished and received? Yes  No

Chain of custody agrees with sample labels? Yes  No

Samples in proper container/bottle? Yes  No

Sample containers intact? Yes  No

Sufficient sample volume for indicated test? Yes  No

All samples received within holding time? Yes  No

Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted

Water - pH acceptable upon receipt? Yes  No  N/A

pH adjusted? Yes  No  N/A

pH adjusted by:

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

1707055

**ANALYTICAL SERVICES REQUEST  
AND CHAIN OF CUSTODY**

Send to LJB:  Invoice  Results  Invoice  Results

Send to:  Invoice  Results

Contact: Alex Zelles      Contact: Peter Lucas

Address/Email: [azelles@ljbinc.com](mailto:azelles@ljbinc.com)      Address/Email: [plucas2@wm.com](mailto:plucas2@wm.com)

2500 Newmark Drive      2500 Newmark Drive

Miamisburg, OH 45342      Miamisburg, OH 45342

Phone: 937-259-5022 or 630-632-5859      Phone:

Fax:      Fax:

LJB job #:      P.O. #: Per Peter Lucas/W/M

Sample site: Stony Hollow Landfill

Sampled by: Alex Zelles

Signature: *Alex Zelles*

Rush       Phone results

Standard turnaround       Fax results

Need by: 3-day turnaround       Email results

Special instructions:

Sample ID	Date	Time	Matrix	Comp	Grab	# Bills
SHAA-N-17	7/3/17	0927	Air	01	X	1
SHAA-S-17	7/4/17	0946	Air	02	X	1

OSHA-1007

Analysis Requested

Remarks:

**ALS LAB USE ONLY**

COOLER TEMP: °C      pH ADJUSTMENTS:

COOLING METHOD: NONE      COOLER      WET ICE      DRY ICE      ICE PACK

DELIVERY METHOD: CLIENT      DROP BOX      FEDEX      UPS

STD MAIL      PRTY MAIL      ALS COURIER      OTHER:

CUSTODY SEALS: NONE      COOLER      PACKAGE      SAMPLES

EQUIP. RETURNED:

Relinquished by: *Alex Zelles*      Received by: *[Signature]*      Date/time: 7/5/17 8:38 AM      Date/time: 7/5/17 8:33 a

Relinquished by: *[Signature]*      Received by: *[Signature]*      Date/time: 7/5/17 11:40      Date/time: 7/5/17 12:32

Relinquished by:      Received at lab by:      Date/time: