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

June 20, 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 – June 6-7, 2017 (REVISED)
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 June 6 – June 7, 2017 and ALS Environmental performed the USEPA Method TO-15, ASTM D 5504-12, and OSHA 1007 analyses.

The initial analytical results showed elevated formaldehyde results for both air samples. ALS Environmental reviewed the results and determined the formaldehyde results were incorrect due to a false positive peak being present.

Please find attached to this submittal letter the LJB revised ambient air monitoring report, which includes the revised analytical results. 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 MRLs.

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

Sincerely,

Beth Shiverdecker for
Peter Lucas, P.E.
District Engineer

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

June 20, 2017

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

Via email: plucas2@wm.com

Re: June 6, 2017 ambient air sampling at Stony Hollow Landfill

Dear Mr. Lucas:

This is a revised report for the sampling period noted below. ALS Environmental's Cincinnati laboratory submitted a revised report on June 20, 2017; formaldehyde results were corrected due to a false positive peak being present.

On June 6 through June 7, 2017 LJB Inc. collected two 24-hour ambient air samples at the Waste Management Stony Hollow Landfill. The samples included SHAA-N-08, collected from inside the northeast fence line of the landfill, and SHAA-S-08, 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-08	6/6/2017 09:44	6/7/2017 09:44	-30" Hg (+)	-17.5" Hg	AS01137	SFC00192	A245322
SHAA-S-08	6/6/2017 10:41	6/7/2017 10:41	-30" Hg	-12" Hg	AS00435	SFC00031	A245316

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 June 7, 2017 and were analyzed by OSHA Method 1007 on June 8, 2017 per the three-day turnaround time previously arranged. The Summa canisters were transported by Federal Express second-day delivery, arriving at ALS Environmental's Simi Valley, California Laboratory on June 9, 2017, and were analyzed by EPA Method TO-15 on June 13, 2017 and ASTM Standard Test Method D5504-12 on June 9, 2017. Table 2 provides the summarized sample results.

The EPA Method TO-15 found that only 2-butanone, 2-propanol, acetone, carbon tetrachloride, chloromethane, dichlorodifluoromethane, ethyl acetate, Freon 113, hexane, methylene chloride, tetrahydrofuran, toluene, trichloroethene and trichlorofluoromethane were detected above laboratory reporting limits; concentrations of all were well below the NIOSH RELs and ASTDR MRLs for these compounds. Propene was also detected above laboratory reporting limits; however, no NIOSH REL or ASTDR 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 crotonaldehyde and formaldehyde above laboratory reporting limits; concentrations of both of these compounds were well below the NIOSH REL and ATSDR MRL. Acetaldehyde was detected above laboratory reporting limits; however, no NIOSH REL or ASTDR MRL has been established for the inhalation route (gaseous air) of this compound.

TABLE 2

ANALYTE	SHAA-N-08[1], ppbv	SHAA-S-08[1], ppbv	NIOSH REL[2], ppbv	ATSDR MRL[3], ppbv
EPA TO-15 (Summa canister)				
1,1,1-Trichloroethane	<0.23	<0.18	350,000	700
1,1,2,2-Tetrachloroethane	<0.19	<0.14	1,000	NA
1,1,2-Trichloroethane	<0.23	<0.18	10,000	NA
1,1-Dichloroethane	<0.32	<0.24	100,000	NA
1,1-Dichloroethene	<0.32	<0.24	200,000	20
1,2,4-Trichlorobenzene	<0.17	<0.13	5,000	NA
1,2,4-Trimethylbenzene	<0.26	<0.19	25,000	NA
1,2-Dibromoethane	<0.17	<0.12	45	NA
1,2-Dichlorobenzene	<0.21	<0.16	50,000	NA
1,2-Dichloroethane	<0.24	<0.24	1,000	600
1,2-Dichloropropane	<0.28	<0.21	75,000	7
1,3,5-Trimethylbenzene	<0.26	<0.19	25,000	NA
1,3-Butadiene	<0.58	<0.43	1,000	NA
1,3-Dichlorobenzene	<0.21	<0.16	50,000	NA
1,4-Dichlorobenzene	<0.21	<0.16	50,000	10
1,4-Dioxane	<0.35	<0.27	NA	30
2-Butanone	**0.23 (J)**	**0.23 (J)**	200	NA
2-Hexanone	<0.31	<0.23	1,000	NA
2-Propanol	**0.85 (J)**	<3.9	400,000	NA
4-Ethyltoluene	<0.26	<0.19	NA	NA
4-Methyl-2-pentanone	<0.31	<0.23	50,000	NA
Acetone	**3.6 (J)**	**3.2 (J)**	250,000	13,000

ANALYTE	SHAA-N-08[1], ppbv	SHAA-S-08[1], ppbv	NIOSH REL[2], ppbv	ATSDR MRL[3], ppbv
Benzene	<0.40	<0.30	100	3
Benzyl chloride	<0.25	<0.18	1,000	NA
Bromodichloromethane	<0.19	<0.14	NA	NA
Bromoform	<0.12	<0.092	500	NA
Bromomethane	<0.33	<0.25	20,000	5
Carbon disulfide	<4.1	<3.1	1,000	300
Carbon tetrachloride	**0.062 (J)**	**0.058 (J)**	2,000	30
Chlorobenzene	<0.28	<0.21	75,000	NA
Chloroethane	<0.48	<0.36	1,000,000	15,000
Chloroform	<0.26	<0.20	2,000	20
Chloromethane	<0.62	**0.16 (J)**	100,000	50
cis-1,2-Dichloroethene	<0.32	<0.24	200,000	NA
cis-1,3-Dichloropropene	<0.28	<0.21	1,000	7
Cumene	<0.26	<0.19	50,000	NA
Cyclohexane	<0.74	<0.56	300,000	NA
Dibromochloromethane	<0.15	<0.11	NA	NA
Dichlorodifluoromethane	**0.46**	**0.47**	1,000,000	NA
Ethyl acetate	**1.1**	**2.3**	400,000	NA
Ethylbenzene	<0.29	<0.22	100,000	60
Freon 113 (Trichlorotrifluoroethane)	**0.058 (J)**	**0.054 (J)**	1,000,000	NA
Freon 114 (1,2-Dichloro-1,1,2,2-tetrafluoroethane)	<0.18	<0.14	1,000,000	NA
Heptane (n-Heptane)	<0.31	<0.23	85,000	NA
Hexachlorobutadiene	<0.12	<0.090	20	NA
Hexane (n-Hexane)	<0.36	**0.15 (J)**	50,000	600
m,p-Xylene	<0.59	<0.44	100,000	50
Methylene chloride	<0.37	**<0.094 (J)**	25,000	300
MTBE (Methyl tert-butyl ether)	<0.35	<0.26	2,000	NA
Naphthalene	<0.24	<0.18	10,000	1
o-Xylene	<0.29	<0.22	100,000	NA
Propene	**0.82**	**0.28 (J)**	NA	NA
Styrene	<0.30	<0.22	50,000	200
Tetrachloroethene	<0.19	<0.14	100,000	NA
Tetrahydrofuran	<0.43	**0.17 (J)**	200,000	NA
Toluene	**0.16 (J)**	**0.33**	100,000	1,000
trans-1,2-Dichloroethene	<0.32	<0.24	200,000	200
trans-1,3-Dichloropropene	<0.28	<0.21	1,000	7

ANALYTE	SHAA-N-08[1], ppbv	SHAA-S-08[1], ppbv	NIOSH REL[2], ppbv	ATSDR MRL[3], ppbv
Trichloroethene	**0.10 (J)**	<0.18	100,000	NA
Trichlorofluoromethane	**0.20 (J)**	**0.48**	1,000,000	NA
Vinyl acetate	<3.6	<2.7	4,000	10
Vinyl chloride	<0.50	<0.37	1,000	30
ASTM D5504-12 (Summa canister)				
2,5-Dimethylthiophene	13	9.6	NA	NA
2-Ethylthiophene	13	9.6	NA	NA
3-Methylthiophene	<13	<9.6	NA	NA
Carbon disulfide	<6.4	<4.8	1,000	300
Carbonyl sulfide	<13	<9.6	NA	NA
Diethyl disulfide	<6.4	<4.8	NA	NA
Diethyl sulfide	<13	<9.6	NA	NA
Dimethyl disulfide	<6.4	<4.8	NA	NA
Dimethyl sulfide	<13	<9.6	NA	NA
Ethyl mercaptan	<13	<9.6	NA	NA
Ethyl methyl sulfide	<13	<9.6	NA	NA
Hydrogen sulfide	<13	<9.6	NA	2
Isobutyl mercaptan	<13	<9.6	NA	NA
Isopropyl mercaptan	<13	<9.6	NA	NA
Methyl mercaptan	<13	<9.6	NA	NA
n-Butyl mercaptan	<13	<9.6	NA	NA
n-Propyl mercaptan	<13	<9.6	NA	NA
tert-Butyl mercaptan	<13	<9.6	NA	NA
Tetrahydrothiophene	<13	<9.6	NA	NA
Thiophene	<13	<9.6	NA	NA
OSHA 1007 (UMEx 100 sampler)				
Acetaldehyde	**2.4**	<1.5	NA	NA
Benzaldehyde	<1.0	<1.0	NA	NA
Butyraldehyde	<1.3	<1.3	NA	NA
Crotonaldehyde	**3.7**	**2.5**	2,000	NA
Formaldehyde[(4)]	~~**29**~~ **4.6**	~~**21**~~ **2.3**	16	8
Hexanaldehyde	<1.6	<1.6	NA	NA
Propionaldehyde	<1.9	<1.9	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) The ATSDR MRL are derived for three time periods: acute (1-14 days), intermediate (14-364 days) and chronic (>365 days)
(4) Formaldehyde results were corrected by ALS Cincinnati due to false positive peak being present; text that has been strikethrough are the results from the original report and are followed by the revised results

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)

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

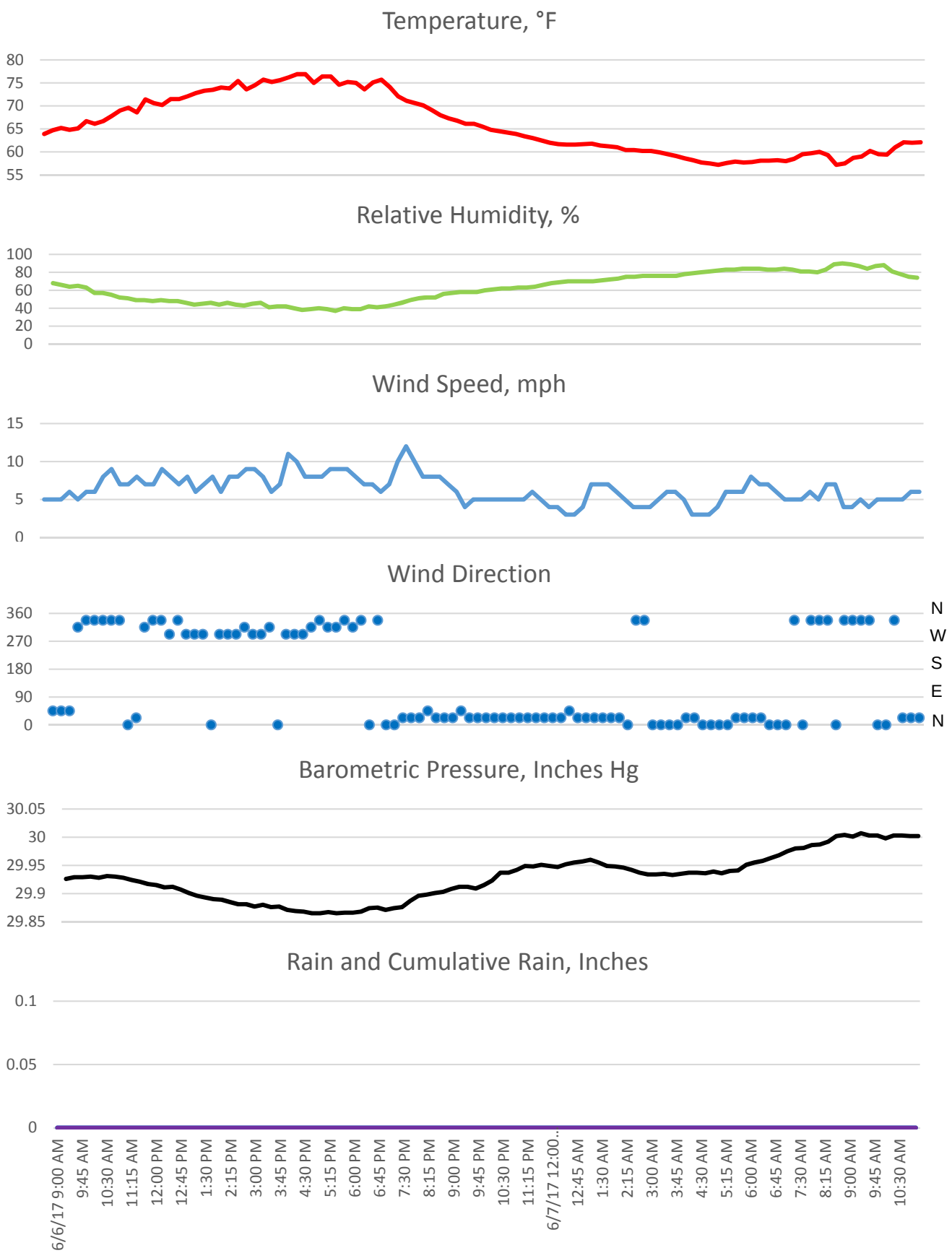
Sincerely,

LJB Inc.

Alexandra Zelles
Environmental Scientist

> Waste Management Stony Hollow Landfill

Ambient Air Sample Locations


Temperature, °F
80
75
70
65
60
55
Relative Humidity, %
100
80
60
40
20
0
Wind Speed, mph
15
10
5
0
Wind Direction
360
270
180
90
0
N
W
S
E
N
Barometric Pressure, Inches Hg
30.05
30
29.95
29.9
29.85
Rain and Cumulative Rain, Inches
0.1
0.05
0
6/6/17 9:00 AM
9:45 AM
10:30 AM
11:15 AM
12:00 PM
12:45 PM
1:30 PM
2:15 PM
3:00 PM
3:45 PM
4:30 PM
5:15 PM
6:00 PM
6:45 PM
7:30 PM
8:15 PM
9:00 PM
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10:30 PM
11:15 PM
6/7/17 12:00...
12:45 AM
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3:45 AM
4:30 AM
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6:00 AM
6:45 AM
7:30 AM
8:15 AM
9:00 AM
9:45 AM
10:30 AM

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LABORATORY REPORT

June 14, 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 June 9, 2017. For your reference, these analyses have been assigned our service request number P1702784.

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. 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

Samantha Henningsen

By Samantha Henningsen at 11:47 am, Jun 14, 2017

For Kate Kaneko
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
F: +1 805 526 7270
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Client: Waste Management-Stony Hollow Landfill
Project: Stony Hollow Landfill

Service Request No: P1702784

CASE NARRATIVE

The samples were received intact under chain of custody on June 9, 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 bromomethane 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 is not 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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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2016036
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1177034
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-004
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413-16-7
Utah DOH (NELAP)	http://health.utah.gov/lab/environmental-lab-certification/	CA016272016-6
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	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, 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 Service Request: P1702784

Project ID: Stony Hollow Landfill

Date Received: 6/9/2017

Time Received: 10:45

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-08	P1702784-001	Air	6/7/2017	09:44	AS01137	-7.52	3.60	X	X
SHAA-S-08	P1702784-002	Air	6/7/2017	10:41	AS00435	-5.02	3.76	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

Requested Turnaround Time-in-Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) **3 Day (50%)** 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No. PT20784

Company Name & Address (Reporting Information)
LJB Inc. c/o Waste Management-Stony Hollow
2500 Newmark Drive
Miamisburg, OH 45342

Project Name: Stony Hollow Landfill

Project Number:

Project Manager: Alex Zelles

P.O. # / Billing Information: Per Peter Lucas/WM

Phone: 937-259-5022

Fax:

Email Address for Result Reporting: azelles@ljbinc.com + smueller@ljbinc.com

Sampler (Print & Sign): Michael A. Mueller

ALS Contact:

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	TO-15	ASTM D 5504-12	Comments e.g. Actual Preservative or specific instructions
SHAA-N-08	1	6/6/17 - 6/7/17	0944 - 0944	AS01137	SFC00192	-30"Hg(ft)	-17.5" Hg		X	X	
SHAA-S-08	2	6/6/17 - 6/7/17	1041 - 1041	AS00485	SFC00081	-30" Hg	-12" Hg		X	X	

Report Tier Levels - please select

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 _____

EDD required Yes / No
Type: _____ Units: _____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Michael A. Mueller	6/7/17	11:10 am	via FedEx 7793 1294 4329		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
				6/8/17	0936

Cooler / Blank Temperature ___ °C

ALS Environmental

Sample Acceptance Check Form

Client: Waste Management-Stony Hollow Landfill Work order: P1702784

Project: Stony Hollow Landfill

Sample(s) received on: 6/9/17 Date opened: 6/9/17 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 **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were **custody seals** on outside of cooler/Box/Container?	☒	☐	☐
	Location of seal(s)? _____ Sealing Lid?	☒	☐	☐
	Were signature and date included?	☒	☐	☐
	Were seals intact?	☒	☐	☐
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1702784-001.01	6.0 L Silonite Can					
P1702784-002.01	6.0 L Silonite Can					

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

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-N-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-001

Test Code:	ASTM D 5504-12	Date Collected:	6/7/17
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	09:44
Analyst:	Mike Conejo	Date Received:	6/9/17
Sample Type:	6.0 L Silonite Canister	Date Analyzed:	6/9/17
Test Notes:		Time Analyzed:	15:04
Container ID:	AS01137	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -7.52 Final Pressure (psig): 3.60

Canister Dilution Factor: 2.55

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	18	ND	13	
463-58-1	Carbonyl Sulfide	ND	31	ND	13	
74-93-1	Methyl Mercaptan	ND	25	ND	13	
75-08-1	Ethyl Mercaptan	ND	32	ND	13	
75-18-3	Dimethyl Sulfide	ND	32	ND	13	
75-15-0	Carbon Disulfide	ND	20	ND	6.4	
75-33-2	Isopropyl Mercaptan	ND	40	ND	13	
75-66-1	tert-Butyl Mercaptan	ND	47	ND	13	
107-03-9	n-Propyl Mercaptan	ND	40	ND	13	
624-89-5	Ethyl Methyl Sulfide	ND	40	ND	13	
110-02-1	Thiophene	ND	44	ND	13	
513-44-0	Isobutyl Mercaptan	ND	47	ND	13	
352-93-2	Diethyl Sulfide	ND	47	ND	13	
109-79-5	n-Butyl Mercaptan	ND	47	ND	13	
624-92-0	Dimethyl Disulfide	ND	25	ND	6.4	
616-44-4	3-Methylthiophene	ND	51	ND	13	
110-01-0	Tetrahydrothiophene	ND	46	ND	13	
638-02-8	2,5-Dimethylthiophene	ND	58	ND	13	
872-55-9	2-Ethylthiophene	ND	58	ND	13	
110-81-6	Diethyl Disulfide	ND	32	ND	6.4	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-S-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-002

Test Code:	ASTM D 5504-12	Date Collected:	6/7/17
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	10:41
Analyst:	Mike Conejo	Date Received:	6/9/17
Sample Type:	6.0 L Silonite Canister	Date Analyzed:	6/9/17
Test Notes:		Time Analyzed:	15:26
Container ID:	AS00435	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -5.02 Final Pressure (psig): 3.76

Canister Dilution Factor: 1.91

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	13	ND	9.6	
463-58-1	Carbonyl Sulfide	ND	23	ND	9.6	
74-93-1	Methyl Mercaptan	ND	19	ND	9.6	
75-08-1	Ethyl Mercaptan	ND	24	ND	9.6	
75-18-3	Dimethyl Sulfide	ND	24	ND	9.6	
75-15-0	Carbon Disulfide	ND	15	ND	4.8	
75-33-2	Isopropyl Mercaptan	ND	30	ND	9.6	
75-66-1	tert-Butyl Mercaptan	ND	35	ND	9.6	
107-03-9	n-Propyl Mercaptan	ND	30	ND	9.6	
624-89-5	Ethyl Methyl Sulfide	ND	30	ND	9.6	
110-02-1	Thiophene	ND	33	ND	9.6	
513-44-0	Isobutyl Mercaptan	ND	35	ND	9.6	
352-93-2	Diethyl Sulfide	ND	35	ND	9.6	
109-79-5	n-Butyl Mercaptan	ND	35	ND	9.6	
624-92-0	Dimethyl Disulfide	ND	18	ND	4.8	
616-44-4	3-Methylthiophene	ND	38	ND	9.6	
110-01-0	Tetrahydrothiophene	ND	34	ND	9.6	
638-02-8	2,5-Dimethylthiophene	ND	44	ND	9.6	
872-55-9	2-Ethylthiophene	ND	44	ND	9.6	
110-81-6	Diethyl Disulfide	ND	24	ND	4.8	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **Method Blank** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P170609-MB

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Mike Conejo Date Received: NA
Sample Type: 6.0 L Silonite Canister Date Analyzed: 6/09/17
Test Notes: Time Analyzed: 08:17
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P170609-LCS

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 6/09/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	1,000	**916**	**92**	75-148	
463-58-1	Carbonyl Sulfide	1,000	**965**	**97**	70-137	
74-93-1	Methyl Mercaptan	1,000	**916**	**92**	72-139	

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-N-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-001

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS01137

Initial Pressure (psig): -7.52 Final Pressure (psig): 3.60

Canister Dilution Factor: 2.55

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**1.4**	1.3	0.36	**0.82**	0.74	0.21	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.3**	1.3	0.43	**0.46**	0.26	0.088	
74-87-3	Chloromethane	ND	1.3	0.38	ND	0.62	0.19	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.3	0.48	ND	0.18	0.069	
75-01-4	Vinyl Chloride	ND	1.3	0.43	ND	0.50	0.17	
106-99-0	1,3-Butadiene	ND	1.3	0.56	ND	0.58	0.25	
74-83-9	Bromomethane	ND	1.3	0.48	ND	0.33	0.12	
75-00-3	Chloroethane	ND	1.3	0.43	ND	0.48	0.16	
67-64-1	Acetone	**8.4**	13	2.0	**3.6**	5.4	0.83	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.1**	1.3	0.43	**0.20**	0.23	0.077	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**2.1**	13	1.1	**0.85**	5.2	0.44	**J**
75-35-4	1,1-Dichloroethene	ND	1.3	0.43	ND	0.32	0.11	
75-09-2	Methylene Chloride	ND	1.3	0.43	ND	0.37	0.12	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.45**	1.3	0.43	**0.058**	0.17	0.057	**J**
75-15-0	Carbon Disulfide	ND	13	0.38	ND	4.1	0.12	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.48	ND	0.32	0.12	
75-34-3	1,1-Dichloroethane	ND	1.3	0.41	ND	0.32	0.10	
1634-04-4	Methyl tert-Butyl Ether	ND	1.3	0.43	ND	0.35	0.12	
108-05-4	Vinyl Acetate	ND	13	1.7	ND	3.6	0.47	
78-93-3	2-Butanone (MEK)	**0.69**	13	0.54	**0.23**	4.3	0.18	**J**
156-59-2	cis-1,2-Dichloroethene	ND	1.3	0.41	ND	0.32	0.10	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-N-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-001

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS01137

Initial Pressure (psig): -7.52 Final Pressure (psig): 3.60

Canister Dilution Factor: 2.55

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	**3.9**	2.6	0.89	**1.1**	0.71	0.25	
110-54-3	n-Hexane	ND	1.3	0.38	ND	0.36	0.11	
67-66-3	Chloroform	ND	1.3	0.43	ND	0.26	0.089	
109-99-9	Tetrahydrofuran (THF)	ND	1.3	0.51	ND	0.43	0.17	
107-06-2	1,2-Dichloroethane	ND	1.3	0.41	ND	0.32	0.10	
71-55-6	1,1,1-Trichloroethane	ND	1.3	0.43	ND	0.23	0.079	
71-43-2	Benzene	ND	1.3	0.41	ND	0.40	0.13	
56-23-5	Carbon Tetrachloride	**0.39**	1.3	0.38	**0.062**	0.20	0.061	**J**
110-82-7	Cyclohexane	ND	2.6	0.74	ND	0.74	0.21	
78-87-5	1,2-Dichloropropane	ND	1.3	0.41	ND	0.28	0.088	
75-27-4	Bromodichloromethane	ND	1.3	0.38	ND	0.19	0.057	
79-01-6	Trichloroethene	**0.55**	1.3	0.36	**0.10**	0.24	0.066	**J**
123-91-1	1,4-Dioxane	ND	1.3	0.41	ND	0.35	0.11	
142-82-5	n-Heptane	ND	1.3	0.43	ND	0.31	0.11	
10061-01-5	cis-1,3-Dichloropropene	ND	1.3	0.36	ND	0.28	0.079	
108-10-1	4-Methyl-2-pentanone	ND	1.3	0.41	ND	0.31	0.10	
10061-02-6	trans-1,3-Dichloropropene	ND	1.3	0.41	ND	0.28	0.090	
79-00-5	1,1,2-Trichloroethane	ND	1.3	0.41	ND	0.23	0.075	
108-88-3	Toluene	**0.62**	1.3	0.43	**0.16**	0.34	0.12	**J**
591-78-6	2-Hexanone	ND	1.3	0.41	ND	0.31	0.10	
124-48-1	Dibromochloromethane	ND	1.3	0.41	ND	0.15	0.048	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-N-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-001

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS01137

Initial Pressure (psig): -7.52 Final Pressure (psig): 3.60

Canister Dilution Factor: 2.55

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
106-93-4	1,2-Dibromoethane	ND	1.3	0.41	ND	0.17	0.053	
127-18-4	Tetrachloroethene	ND	1.3	0.36	ND	0.19	0.053	
108-90-7	Chlorobenzene	ND	1.3	0.41	ND	0.28	0.089	
100-41-4	Ethylbenzene	ND	1.3	0.41	ND	0.29	0.094	
179601-23-1	m,p-Xylenes	ND	2.6	0.77	ND	0.59	0.18	
75-25-2	Bromoform	ND	1.3	0.38	ND	0.12	0.037	
100-42-5	Styrene	ND	1.3	0.38	ND	0.30	0.090	
95-47-6	o-Xylene	ND	1.3	0.38	ND	0.29	0.088	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.3	0.38	ND	0.19	0.056	
98-82-8	Cumene	ND	1.3	0.38	ND	0.26	0.078	
622-96-8	4-Ethyltoluene	ND	1.3	0.41	ND	0.26	0.083	
108-67-8	1,3,5-Trimethylbenzene	ND	1.3	0.41	ND	0.26	0.083	
95-63-6	1,2,4-Trimethylbenzene	ND	1.3	0.38	ND	0.26	0.078	
100-44-7	Benzyl Chloride	ND	1.3	0.28	ND	0.25	0.054	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.38	ND	0.21	0.064	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.36	ND	0.21	0.059	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.38	ND	0.21	0.064	
120-82-1	1,2,4-Trichlorobenzene	ND	1.3	0.41	ND	0.17	0.055	
91-20-3	Naphthalene	ND	1.3	0.46	ND	0.24	0.088	
87-68-3	Hexachlorobutadiene	ND	1.3	0.36	ND	0.12	0.033	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-S-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-002

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00435

Initial Pressure (psig): -5.02 Final Pressure (psig): 3.76

Canister Dilution Factor: 1.91

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**0.49**	0.96	0.27	**0.28**	0.56	0.16	**J**
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.3**	0.96	0.32	**0.47**	0.19	0.066	
74-87-3	Chloromethane	**0.33**	0.96	0.29	**0.16**	0.46	0.14	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.96	0.36	ND	0.14	0.052	
75-01-4	Vinyl Chloride	ND	0.96	0.32	ND	0.37	0.13	
106-99-0	1,3-Butadiene	ND	0.96	0.42	ND	0.43	0.19	
74-83-9	Bromomethane	ND	0.96	0.36	ND	0.25	0.093	
75-00-3	Chloroethane	ND	0.96	0.32	ND	0.36	0.12	
67-64-1	Acetone	**7.6**	9.6	1.5	**3.2**	4.0	0.62	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**2.7**	0.96	0.32	**0.48**	0.17	0.058	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	9.6	0.80	ND	3.9	0.33	
75-35-4	1,1-Dichloroethene	ND	0.96	0.32	ND	0.24	0.082	
75-09-2	Methylene Chloride	**0.32**	0.96	0.32	**0.094**	0.28	0.094	**J**
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.41**	0.96	0.32	**0.054**	0.12	0.042	**J**
75-15-0	Carbon Disulfide	ND	9.6	0.29	ND	3.1	0.092	
156-60-5	trans-1,2-Dichloroethene	ND	0.96	0.36	ND	0.24	0.092	
75-34-3	1,1-Dichloroethane	ND	0.96	0.31	ND	0.24	0.076	
1634-04-4	Methyl tert-Butyl Ether	ND	0.96	0.32	ND	0.26	0.090	
108-05-4	Vinyl Acetate	ND	9.6	1.2	ND	2.7	0.35	
78-93-3	2-Butanone (MEK)	**0.69**	9.6	0.40	**0.23**	3.2	0.14	**J**
156-59-2	cis-1,2-Dichloroethene	ND	0.96	0.31	ND	0.24	0.077	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-S-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-002

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00435

Initial Pressure (psig): -5.02 Final Pressure (psig): 3.76

Canister Dilution Factor: 1.91

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
141-78-6	Ethyl Acetate	**8.2**	1.9	0.67	**2.3**	0.53	0.19	
110-54-3	n-Hexane	**0.53**	0.96	0.29	**0.15**	0.27	0.081	**J**
67-66-3	Chloroform	ND	0.96	0.32	ND	0.20	0.067	
109-99-9	Tetrahydrofuran (THF)	**0.49**	0.96	0.38	**0.17**	0.32	0.13	**J**
107-06-2	1,2-Dichloroethane	ND	0.96	0.31	ND	0.24	0.076	
71-55-6	1,1,1-Trichloroethane	ND	0.96	0.32	ND	0.18	0.060	
71-43-2	Benzene	ND	0.96	0.31	ND	0.30	0.096	
56-23-5	Carbon Tetrachloride	**0.36**	0.96	0.29	**0.058**	0.15	0.046	**J**
110-82-7	Cyclohexane	ND	1.9	0.55	ND	0.56	0.16	
78-87-5	1,2-Dichloropropane	ND	0.96	0.31	ND	0.21	0.066	
75-27-4	Bromodichloromethane	ND	0.96	0.29	ND	0.14	0.043	
79-01-6	Trichloroethene	ND	0.96	0.27	ND	0.18	0.050	
123-91-1	1,4-Dioxane	ND	0.96	0.31	ND	0.27	0.085	
142-82-5	n-Heptane	ND	0.96	0.32	ND	0.23	0.079	
10061-01-5	cis-1,3-Dichloropropene	ND	0.96	0.27	ND	0.21	0.059	
108-10-1	4-Methyl-2-pentanone	ND	0.96	0.31	ND	0.23	0.075	
10061-02-6	trans-1,3-Dichloropropene	ND	0.96	0.31	ND	0.21	0.067	
79-00-5	1,1,2-Trichloroethane	ND	0.96	0.31	ND	0.18	0.056	
108-88-3	Toluene	**1.2**	0.96	0.32	**0.33**	0.25	0.086	
591-78-6	2-Hexanone	ND	0.96	0.31	ND	0.23	0.075	
124-48-1	Dibromochloromethane	ND	0.96	0.31	ND	0.11	0.036	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-S-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-002

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00435

Initial Pressure (psig): -5.02 Final Pressure (psig): 3.76

Canister Dilution Factor: 1.91

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
106-93-4	1,2-Dibromoethane	ND	0.96	0.31	ND	0.12	0.040	
127-18-4	Tetrachloroethene	ND	0.96	0.27	ND	0.14	0.039	
108-90-7	Chlorobenzene	ND	0.96	0.31	ND	0.21	0.066	
100-41-4	Ethylbenzene	ND	0.96	0.31	ND	0.22	0.070	
179601-23-1	m,p-Xylenes	ND	1.9	0.57	ND	0.44	0.13	
75-25-2	Bromoform	ND	0.96	0.29	ND	0.092	0.028	
100-42-5	Styrene	ND	0.96	0.29	ND	0.22	0.067	
95-47-6	o-Xylene	ND	0.96	0.29	ND	0.22	0.066	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.96	0.29	ND	0.14	0.042	
98-82-8	Cumene	ND	0.96	0.29	ND	0.19	0.058	
622-96-8	4-Ethyltoluene	ND	0.96	0.31	ND	0.19	0.062	
108-67-8	1,3,5-Trimethylbenzene	ND	0.96	0.31	ND	0.19	0.062	
95-63-6	1,2,4-Trimethylbenzene	ND	0.96	0.29	ND	0.19	0.058	
100-44-7	Benzyl Chloride	ND	0.96	0.21	ND	0.18	0.041	
541-73-1	1,3-Dichlorobenzene	ND	0.96	0.29	ND	0.16	0.048	
106-46-7	1,4-Dichlorobenzene	ND	0.96	0.27	ND	0.16	0.044	
95-50-1	1,2-Dichlorobenzene	ND	0.96	0.29	ND	0.16	0.048	
120-82-1	1,2,4-Trichlorobenzene	ND	0.96	0.31	ND	0.13	0.041	
91-20-3	Naphthalene	ND	0.96	0.34	ND	0.18	0.066	
87-68-3	Hexachlorobutadiene	ND	0.96	0.27	ND	0.090	0.025	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **Method Blank** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P170613-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/13/17
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/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data 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.

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

Client Sample ID: **Method Blank** ALS Project ID: P1702784

Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P170613-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA

Analyst: Wida Ang Date Analyzed: 6/13/17

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/m³	MRL µg/m³	MDL µg/m³	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	
124-48-1	Dibromochloromethane	ND	0.50	0.16	ND	0.059	0.019	

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.

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

Client Sample ID: **Method Blank** ALS Project ID: P1702784

Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P170613-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA

Analyst: Wida Ang Date Analyzed: 6/13/17

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/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
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

Client: **Waste Management-Stony Hollow Landfill**
Client Project ID: **Stony Hollow Landfill** ALS Project ID: P1702784

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date(s) Collected: 6/7/17
Analyst: Wida Ang Date(s) Received: 6/9/17
Sample Type: 6.0 L Silonite Canister(s) Date(s) Analyzed: 6/13/17
Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P170613-MB	**98**	**100**	**102**	70-130	
Lab Control Sample	P170613-LCS	**98**	**99**	**105**	70-130	
SHAA-N-08	P1702784-001	**100**	**99**	**103**	70-130	
SHAA-S-08	P1702784-002	**101**	**98**	**103**	70-130	
SHAA-S-08	P1702784-002DUP	**101**	**98**	**104**	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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P170613-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
115-07-1	Propene	210	**186**	**89**	52-127	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**183**	**87**	68-109	
74-87-3	Chloromethane	210	**182**	**87**	51-130	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	211	**171**	**81**	66-114	
75-01-4	Vinyl Chloride	210	**187**	**89**	61-125	
106-99-0	1,3-Butadiene	210	**242**	**115**	62-144	
74-83-9	Bromomethane	210	**264**	**126**	73-123	**L**
75-00-3	Chloroethane	210	**186**	**89**	69-122	
67-64-1	Acetone	1,060	**897**	**85**	57-117	
75-69-4	Trichlorofluoromethane (CFC 11)	210	**174**	**83**	63-98	
67-63-0	2-Propanol (Isopropyl Alcohol)	424	**373**	**88**	66-121	
75-35-4	1,1-Dichloroethene	213	**179**	**84**	76-118	
75-09-2	Methylene Chloride	212	**182**	**86**	60-118	
76-13-1	Trichlorotrifluoroethane (CFC 113)	212	**174**	**82**	73-114	
75-15-0	Carbon Disulfide	213	**182**	**85**	57-102	
156-60-5	trans-1,2-Dichloroethene	213	**178**	**84**	74-123	
75-34-3	1,1-Dichloroethane	212	**170**	**80**	69-111	
1634-04-4	Methyl tert-Butyl Ether	213	**173**	**81**	69-113	
108-05-4	Vinyl Acetate	1,060	**948**	**89**	76-128	
78-93-3	2-Butanone (MEK)	212	**181**	**85**	63-127	
156-59-2	cis-1,2-Dichloroethene	212	**173**	**82**	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.

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P170613-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
141-78-6	Ethyl Acetate	426	**378**	**89**	68-127	
110-54-3	n-Hexane	213	**170**	**80**	55-116	
67-66-3	Chloroform	212	**176**	**83**	70-109	
109-99-9	Tetrahydrofuran (THF)	213	**176**	**83**	72-113	
107-06-2	1,2-Dichloroethane	212	**170**	**80**	69-113	
71-55-6	1,1,1-Trichloroethane	212	**177**	**83**	72-115	
71-43-2	Benzene	212	**168**	**79**	65-107	
56-23-5	Carbon Tetrachloride	213	**187**	**88**	71-113	
110-82-7	Cyclohexane	425	**363**	**85**	71-115	
78-87-5	1,2-Dichloropropane	212	**172**	**81**	71-115	
75-27-4	Bromodichloromethane	214	**191**	**89**	75-118	
79-01-6	Trichloroethene	212	**178**	**84**	68-114	
123-91-1	1,4-Dioxane	213	**180**	**85**	81-131	
142-82-5	n-Heptane	213	**179**	**84**	68-116	
10061-01-5	cis-1,3-Dichloropropene	210	**199**	**95**	77-126	
108-10-1	4-Methyl-2-pentanone	213	**195**	**92**	69-126	
10061-02-6	trans-1,3-Dichloropropene	213	**212**	**100**	79-125	
79-00-5	1,1,2-Trichloroethane	212	**180**	**85**	75-119	
108-88-3	Toluene	212	**179**	**84**	59-118	
591-78-6	2-Hexanone	213	**187**	**88**	69-129	
124-48-1	Dibromochloromethane	213	**205**	**96**	74-136	

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

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P170613-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
106-93-4	1,2-Dibromoethane	212	**194**	**92**	73-131	
127-18-4	Tetrachloroethene	213	**175**	**82**	65-130	
108-90-7	Chlorobenzene	212	**167**	**79**	68-120	
100-41-4	Ethylbenzene	212	**184**	**87**	68-122	
179601-23-1	m,p-Xylenes	424	**346**	**82**	68-123	
75-25-2	Bromoform	212	**225**	**106**	69-130	
100-42-5	Styrene	212	**189**	**89**	71-133	
95-47-6	o-Xylene	212	**176**	**83**	68-122	
79-34-5	1,1,2,2-Tetrachloroethane	212	**184**	**87**	69-130	
98-82-8	Cumene	212	**184**	**87**	70-123	
622-96-8	4-Ethyltoluene	212	**185**	**87**	67-130	
108-67-8	1,3,5-Trimethylbenzene	212	**178**	**84**	67-124	
95-63-6	1,2,4-Trimethylbenzene	212	**181**	**85**	67-129	
100-44-7	Benzyl Chloride	212	**246**	**116**	79-138	
541-73-1	1,3-Dichlorobenzene	212	**187**	**88**	65-136	
106-46-7	1,4-Dichlorobenzene	213	**173**	**81**	66-141	
95-50-1	1,2-Dichlorobenzene	212	**185**	**87**	67-136	
120-82-1	1,2,4-Trichlorobenzene	212	**213**	**100**	64-134	
91-20-3	Naphthalene	214	**227**	**106**	62-136	
87-68-3	Hexachlorobutadiene	213	**187**	**88**	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.

ALS ENVIRONMENTAL

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-S-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-002DUP

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00435

Initial Pressure (psig): -5.02 Final Pressure (psig): 3.76

Canister Dilution Factor: 1.91

Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average µg/m³	% RPD	RPD Limit	Data Qualifier
Propene	0.489	0.284	0.508	0.295	0.4985	**4**	25	**J**
Dichlorodifluoromethane (CFC 12)	2.34	0.473	2.48	0.501	2.41	**6**	25	
Chloromethane	0.330	0.160	ND	ND	-	-	25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	ND	ND	ND	-	-	25	
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
1,3-Butadiene	ND	ND	ND	ND	-	-	25	
Bromomethane	ND	ND	ND	ND	-	-	25	
Chloroethane	ND	ND	ND	ND	-	-	25	
Acetone	7.64	3.22	7.97	3.36	7.805	**4**	25	**J**
Trichlorofluoromethane	2.68	0.477	2.80	0.499	2.74	**4**	25	
2-Propanol (Isopropyl Alcohol)	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
Methylene Chloride	0.325	0.0935	0.332	0.0957	0.3285	**2**	25	**J**
Trichlorotrifluoroethane	0.411	0.0536	0.453	0.0591	0.432	**10**	25	**J**
Carbon Disulfide	ND	ND	ND	ND	-	-	25	
trans-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
Methyl tert-Butyl Ether	ND	ND	ND	ND	-	-	25	
Vinyl Acetate	ND	ND	ND	ND	-	-	25	
2-Butanone (MEK)	0.686	0.233	0.739	0.251	0.7125	**7**	25	**J**
cis-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-S-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-002DUP

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00435

Initial Pressure (psig): -5.02 Final Pressure (psig): 3.76

Canister Dilution Factor: 1.91

Compound	Sample Result µg/m³	Sample Result ppbV	**Duplicate Sample Result µg/m³**	**Duplicate Sample Result ppbV**	Average µg/m³	**% RPD**	RPD Limit	**Data Qualifier**
Ethyl Acetate	8.17	2.27	8.48	2.35	8.325	**4**	25	
n-Hexane	0.533	0.151	0.560	0.159	0.5465	**5**	25	**J**
Chloroform	ND	ND	ND	ND	-	-	25	
Tetrahydrofuran (THF)	0.495	0.168	0.521	0.177	0.508	**5**	25	**J**
1,2-Dichloroethane	ND	ND	ND	ND	-	-	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	
Benzene	ND	ND	ND	ND	-	-	25	
Carbon Tetrachloride	0.363	0.0577	0.390	0.0620	0.3765	**7**	25	**J**
Cyclohexane	ND	ND	ND	ND	-	-	25	
1,2-Dichloropropane	ND	ND	ND	ND	-	-	25	
Bromodichloromethane	ND	ND	ND	ND	-	-	25	
Trichloroethene	ND	ND	0.279	0.0519	-	-	25	**J**
1,4-Dioxane	ND	ND	ND	ND	-	-	25	
n-Heptane	ND	ND	ND	ND	-	-	25	
cis-1,3-Dichloropropene	ND	ND	ND	ND	-	-	25	
4-Methyl-2-pentanone	ND	ND	ND	ND	-	-	25	
trans-1,3-Dichloropropene	ND	ND	ND	ND	-	-	25	
1,1,2-Trichloroethane	ND	ND	ND	ND	-	-	25	
Toluene	1.24	0.329	1.29	0.343	1.265	**4**	25	
2-Hexanone	ND	ND	ND	ND	-	-	25	
Dibromochloromethane	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **Waste Management-Stony Hollow Landfill**
Client Sample ID: **SHAA-S-08** ALS Project ID: P1702784
Client Project ID: **Stony Hollow Landfill** ALS Sample ID: P1702784-002DUP

Test Code: EPA TO-15 Date Collected: 6/7/17
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 6/9/17
Analyst: Wida Ang Date Analyzed: 6/13/17
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS00435

Initial Pressure (psig): -5.02 Final Pressure (psig): 3.76

Canister Dilution Factor: 1.91

Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average µg/m³	% RPD	RPD Limit	Data Qualifier
1,2-Dibromoethane	ND	ND	ND	ND	-	-	25	
Tetrachloroethene	ND	ND	ND	ND	-	-	25	
Chlorobenzene	ND	ND	ND	ND	-	-	25	
Ethylbenzene	ND	ND	ND	ND	-	-	25	
m,p-Xylenes	ND	ND	ND	ND	-	-	25	
Bromoform	ND	ND	ND	ND	-	-	25	
Styrene	ND	ND	ND	ND	-	-	25	
o-Xylene	ND	ND	ND	ND	-	-	25	
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	-	-	25	
Cumene	ND	ND	ND	ND	-	-	25	
4-Ethyltoluene	ND	ND	ND	ND	-	-	25	
1,3,5-Trimethylbenzene	ND	ND	ND	ND	-	-	25	
1,2,4-Trimethylbenzene	ND	ND	ND	ND	-	-	25	
Benzyl Chloride	ND	ND	ND	ND	-	-	25	
1,3-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
1,4-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
1,2-Dichlorobenzene	ND	ND	ND	ND	-	-	25	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	-	-	25	
Naphthalene	ND	ND	ND	ND	-	-	25	
Hexachlorobutadiene	ND	ND	ND	ND	-	-	25	

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

20-Jun-2017

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

Tel: (937) 356-6204
Fax:

Re: Stony Hollow Landfill Work Order: **1706218**

Dear Alex,

ALS Environmental received 2 samples on 07-Jun-2017 for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 7.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 20-Jun-17

Client: Waste Management
Project: Stony Hollow Landfill
Work Order: **1706218**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1706218-01	SHAA-N-08	Air		6/7/2017	6/7/2017	☐
1706218-02	SHAA-S-08	Air		6/7/2017	6/7/2017	☐

Client:	Waste Management
Project:	Stony Hollow Landfill
Work Order:	1706218

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."

This report was revised as follows: formaldehyde results were corrected due to false positive peak being present.

ALS Environmental

Date: *20-Jun-17*

Client: Waste Management
Project: Stony Hollow Landfill

Work Order: 1706218

Analytical Results

Lab ID: 1706218-01A
Client Sample ID: SHAA-N-08

Collection Date: 6/7/2017
Matrix: AIR

Analyses

ALDEHYDE(S) BY OSHA 1007 MOD.	Method: **O1007**	Time (Min): **1440**	Analyst: **JMB**
Date Analyzed: 6/8/2017 11:31		Reporting Limit	
	µg/sample	µg/sample	ppm
Acetaldehyde	**0.14**	**0.090**	**0.0024**
Benzaldehyde	ND	0.090	<0.0010
Butyraldehyde	ND	0.090	<0.0013
Crotonaldehyde	**0.15**	**0.090**	**0.0037**
Formaldehyde	**0.23**	**0.090**	**0.0046**
Hexanaldehyde	ND	0.090	<0.0016
Propionaldehyde	ND	0.090	<0.0019

Lab ID: 1706218-02A
Client Sample ID: SHAA-S-08

Collection Date: 6/7/2017
Matrix: AIR

Analyses

ALDEHYDE(S) BY OSHA 1007 MOD.	Method: **O1007**	Time (Min): **1440**	Analyst: **JMB**
Date Analyzed: 6/8/2017 11:31		Reporting Limit	
	µg/sample	µg/sample	ppm
Acetaldehyde	ND	0.090	<0.0015
Benzaldehyde	ND	0.090	<0.0010
Butyraldehyde	ND	0.090	<0.0013
Crotonaldehyde	**0.10**	**0.090**	**0.0025**
Formaldehyde	**0.12**	**0.090**	**0.0023**
Hexanaldehyde	ND	0.090	<0.0016
Propionaldehyde	ND	0.090	<0.0019

Note:

ALS Environmental

Date: 20-Jun-17

Client: Waste Management

Work Order: 1706218

Project: Stony Hollow Landfill

QC BATCH REPORT

Batch ID: **43631** Instrument ID: **HPLC2** Method: **O1007**

MBLK Sample ID: **MBLK-43631-43631** Units: **µg/sample** Analysis Date: **6/8/2017 11:31 AM**

Client ID: Run ID: **HPLC2_170608A** SeqNo: **1521166** Prep Date: **6/8/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetaldehyde	ND	0.045								
Benzaldehyde	ND	0.045								
Butyraldehyde	ND	0.045								
Crotonaldehyde	ND	0.045								
Formaldehyde	ND	0.045								
Hexanaldehyde	ND	0.045								
Propionaldehyde	ND	0.045								

LCS Sample ID: **LCS-43631-43631** Units: **µg/sample** Analysis Date: **6/8/2017 11:31 AM**

Client ID: Run ID: **HPLC2_170608A** SeqNo: **1521167** Prep Date: **6/8/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetaldehyde	1.463	0.045	1.5	0	97.5	70-130	0			
Benzaldehyde	1.404	0.045	1.5	0	93.6	70-130	0			
Butyraldehyde	1.39	0.045	1.5	0	92.7	70-130	0			
Crotonaldehyde	1.415	0.045	1.5	0	94.3	70-130	0			
Formaldehyde	1.427	0.045	1.5	0	95.2	70-130	0			
Hexanaldehyde	1.472	0.045	1.5	0	98.1	70-130	0			
Propionaldehyde	1.41	0.045	1.5	0	94	70-130	0			

LCSD Sample ID: **LCSD-43631-43631** Units: **µg/sample** Analysis Date: **6/8/2017 11:31 AM**

Client ID: Run ID: **HPLC2_170608A** SeqNo: **1521172** Prep Date: **6/8/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acetaldehyde	1.477	0.045	1.5	0	98.5	70-130	1.463	1	20	
Benzaldehyde	1.42	0.045	1.5	0	94.7	70-130	1.404	1.19	20	
Butyraldehyde	1.41	0.045	1.5	0	94	70-130	1.39	1.38	20	
Crotonaldehyde	1.433	0.045	1.5	0	95.5	70-130	1.415	1.27	20	
Formaldehyde	1.425	0.045	1.5	0	95	70-130	1.427	0.154	20	
Hexanaldehyde	1.438	0.045	1.5	0	95.9	70-130	1.472	2.34	20	
Propionaldehyde	1.43	0.045	1.5	0	95.3	70-130	1.41	1.38	20	

The following samples were analyzed in this batch: 1706218-01A 1706218-02A

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

ALS Environmental

Date: 20-Jun-17

Client: Waste Management
Project: Stony Hollow Landfill
WorkOrder: **1706218**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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

Acronym	Description
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 Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **STONYHOLLOWLANDFILL-DAY** Date/Time Received: **07-Jun-17 00:00**

Work Order: **1706218** Received by: **JNW**

Checklist completed by: Jan Wilcox 07-Jun-17 Reviewed by: Rob Nieman 08-Jun-17

eSignature | Date | 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:

1706218

ANALYTICAL SERVICES REQUEST AND CHAIN OF CUSTODY

Send to LJB: ☐ Invoice ☒ Results	Send to: ☒ Invoice ☒ Results
Contact: Alex Zelles	Contact: Peter Lucas
Address/Email: azelles@ljbinc.com + smueller@ljbinc.com 2500 Newmark Drive Miamisburg, OH 45342	Address/Email: plucas2@wm.com
Phone:937-259-5022 or 630-632-5859	Phone:
Fax:	Fax:

LJB job #:

P.O. #: Per Peter Lucas/WM

Sample site: Stony Hollow Landfill

Sampled by: Alex Zelles

Signature: Alex Zelles

☒ Rush
☐ Standard turnaround
Need by: 3-day turnaround

☐ Phone results
☐ Fax results
☒ Email results

Special instructions:

Sample ID	Date	Time	Matrix	Comp	Grab	# Btls	Analysis Requested: OSHA-1007		Remarks:
SHAA-N-08	6/6/17-6/7/17	0944-0944	Air		X	1	X	01	
SHAA-S-08	6/6/17-6/7/17	1041-1041	Air		X	1	X	02	

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: Alyssa M.	Date/time: 6/7/17 11:25 AM	Received by:	Date/time: 6/7/17
Relinquished by:	Date/time: 6/7/17 4:00	Received by:	Date/time: 6/7/17 17:0
Relinquished by:	Date/time:	Received at lab by:	Date/time: