SOIL VAPOR EXTRACTION SYSTEM
FIRST SEMIANNUAL REPORT 2020

KUHLMAN ELECTRIC CORPORATION
CRYSTAL SPRINGS, MISSISSIPPI

Prepared by:

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

P.O. Box 15369
Hattiesburg, Mississippi 39404

October 30, 2020

EMS Project No: KUH0-20-012

Table of Contents

List of Figures

List of Tables

List of Appendices

Executive Summary

This Soil Vapor Extraction (SVE) System Semiannual Report summarizes the performance of the SVE system installed by Environmental Management Services, Inc. (EMS) for Kuhlman Electric Company (KEC) located in Crystal Springs, Mississippi (the Site). This report includes a synopsis of the performance data for the first semiannual period of 2020.

The system initially began operations April 21, 2014 with normal operation attained on May 2, 2014. Routine monitoring has been performed according to the schedule described in the *SVE Final Design and Quality Assurance Project Plan* submitted to Mississippi Department of Environmental Quality (MDEQ) on September 13, 2013.

Historical Information Summary

The Site is located at 101 Kuhlman Drive in Crystal Springs, Mississippi, as shown in Figure 1, and has operated as an electrical transformer manufacturing plant since its construction in the 1950's. In April of 2000, Polychlorinated Biphenyl (PCB)-contaminated soil was discovered on-site during subsurface construction activities. This discovery initiated several phases of environmental assessments and remediation projects, some of which are currently ongoing. During these investigations and remediation projects it was discovered that the groundwater on and off KEC property was impacted with Volatile Organic Compounds (VOCs); principally, 1,1-dichloroethene (DCE) and the semi-volatile constituent 1,4-dioxane.

An investigation was performed to determine the source of the groundwater impacts and was documented in the April 30, 2009 *Groundwater Assessment Report, Kuhlman Electric Corporation, Crystal Springs, Mississippi* prepared by Martin & Slagle Geoenvironmental Associates, LLC (Martin & Slagle) for BorgWarner (hereafter referred to as the April 2009 *Groundwater Assessment Report*). These efforts included a soil vapor study, which detected VOCs in the soil vapors from 3 to 12 feet below the plant floor. Soil samples were also collected from beneath the building from 0 to 62 feet below ground surface (bgs) and analyzed for VOCs.

The analytical results indicated that VOCs were present in the subsurface soil under portions of the plant building. This area, near the western portion of the plant building beneath the Winding Department process area, the Break Room, and a former rail pit, was identified as the source area for the groundwater impacts. The source area was first published in the April 2009 Groundwater Assessment Report and is depicted on Figure 2 of this report.

These investigations beneath the building footprint confirmed that commingled plumes of DCE and 1,4-dioxane extend from upgradient of the source area, beneath the plant building, to the southwest and off-site. The DCE plume extends off-site approximately 2,200 feet to the south and approximately 2,500 feet to the west from the property boundary based on the most recent groundwater sampling data collected in March of 2020.

DCE and 1,4-dioxane have been identified as the primary Constituents of Concern (COC) at this site. The presence of 1,4-dioxane is presumed to be related to its use as a stabilizer in 1,1,1-trichloroethane (TCA), a solvent used in the past at the KEC site. DCE is a breakdown product of TCA.

In connection with the environmental assessments at the site and in accordance with MDEQ requirements, groundwater monitoring has been performed on and off the KEC facility property since 2004. Groundwater monitoring is currently performed on a semiannual schedule. A total of forty-six permanent groundwater monitoring wells are used to monitor the groundwater plume.

As a result of the discovery of the groundwater contamination and subsequent investigations of soil and groundwater, BorgWarner submitted the Corrective Action Plan (CAP) dated March 2011 (Arcadis) to MDEQ. The CAP was approved by MDEQ on March 1, 2012. The CAP targeted an area beneath the building as the source area contributing to the groundwater impact by the COC as shown in Figure 2. It presented three objectives to mitigate impacts to the COC contaminant plume. The three objectives are listed below:

1. Ensure COC concentrations in soil and groundwater in the contaminant source area beneath the KEC manufacturing building are at levels protective of site workers.
2. Reduce COC concentrations in soil in the contaminant source area beneath the KEC manufacturing building to the extent that remaining concentrations no longer contribute to, or exacerbate COC concentrations in off-site groundwater.
3. Reduce COC concentrations in off-site groundwater to levels protective of downgradient groundwater receptors.

A pilot study was performed at the site May 12-13, 2012, to confirm the viability of soil vapor extraction as a remedial strategy. The *Soil Vapor Extraction Pilot Study Report* (revised May 1, 2013) detailing the outcome of the study and proposing the use of Soil Vapor Extraction (SVE) to reduce COC concentrations was approved by MDEQ July 12, 2013. The *Soil Vapor Extraction Final Design and Quality Assurance Project Plan* was approved by MDEQ October 4, 2013. The system was installed as described in the *SVE Installation Report* submitted to MDEQ September 18, 2014.

SVE Operations and Maintenance

Site visits for this semiannual period were completed on the following dates: January 13, 22, 29; February 24; March 4 and 20; April 23 and 24; May 18; and June 19. Activities performed during site visits included visually inspecting the operating components, adjusting various operating parameters if warranted, collecting samples, and collecting operating data. The well vault containing SVE-OBS-06 (Figure 2) was damaged in December 2019. Due to the poor location of the well and the high likelihood of the well being damaged again in the future, SVE-OBS-06 was plugged and abandoned on February 24, 2020. There were no other significant maintenance activities preformed by EMS during the semiannual period.

Groundwater Results

Groundwater was sampled from the entire network of monitoring wells, which includes the SVE Performance Monitoring Wells MW-10A, MW-10B, MW-10C, MW-30, MW-31, and MW-35, as shown on Figure 1, on March 23, 2020, for the required semiannual sampling event. Analytical results for MW-10A, MW-10B, MW-30, and MW-35 showed concentrations of constituents greater than the MDEQ groundwater target remediation goals (TRG). The constituents with exceedances were 1,4-dioxane, DCE, and chloroform. The analytical results from the semiannual groundwater monitoring indicate that the concentrations of DCE and other analytes, have decreased since the start-up of the SVE unit (Figure 3). The contaminant concentrations, with the exception of 1,4-dioxane, in MW-35, which is located within the source area, have decreased since April 2014 when monitoring of the well began. Although it is unlikely that the SVE unit is actively remediating groundwater, it may be an indication of a reduction in the contaminant mass within the source area that is producing the groundwater plume migrating from the site. Additional data will continue to confirm this trend and will be collected during future monitoring events. The analytical results from the March 2020 sampling event for the wells listed are presented in Table 1.

Soil Vapor Results

The observation wells, as shown on Figure 2, are monitored quarterly for relative VOC concentration in the soil vapor. Tubing is placed in the well to a depth within the screened interval, and a photoionization detection (PID) meter and a flame ionization detection (FID) meter are used to purge the wells and measure the relative VOC concentration in the soil vapor within the well. The measured relative concentrations ranged from 0.8 to 10.3 parts per million (ppm) with the PID and from 0.0 to 23 ppm with the FID. The observation well soil vapor results from January through June 2020 are summarized in Table 2.

The observation well soil vapor was also sampled and analyzed for VOCs and 1,4-dioxane during the March and June sampling events using 1-liter SUMMA canisters. The vapor samples were collected by placing tubing within the middle of the screened interval depth and the well opening was covered. A PID meter and FID meter were then used to purge and measure the relative VOC concentration in the soil vapor. After obtaining the PID and FID measurements, the

SUMMA canister was connected to the tubing to collect the soil vapors within the screened interval. The observation well soil vapor analytical results are summarized in Table 3, and the laboratory results are included in Appendix A.

The SVE system exhaust and the vapor exiting each stage of carbon treatment were monitored quarterly utilizing both PID and FID meters to evaluate relative VOC concentrations. The relative VOC concentrations measured by the PID meter and the FID meter in the discharge from the SVE system prior to carbon treatment are included in Table 4.

The SVE unit exhaust and the vapor exiting each stage of carbon treatment were also sampled and analyzed for VOCs and 1,4-dioxane. Samples were collected during February and May. The results are summarized in Table 5. The concentrations of TCA, DCE, and 1,4-dioxane are used to calculate the cumulative mass removed. Since startup of the SVE unit, approximately 4.31 pounds of TCA, 17.61 pounds of DCE, and 267.42 pounds of 1,4-dioxane have been removed through the SVE system. Figures 4-6 show the cumulative mass removal of each constituent. Figure 7 shows the mass recovered per sampling events since the startup of the SVE unit. Laboratory results along with the cumulative mass removal calculations are included in Appendix B.

The flow rates from each individual well are also calculated and recorded during routine visits to the SVE system. The calculated flow rates from each well for the period from January to June are contained in Table 6.

Ambient Air Results

Ambient air sampling was performed quarterly utilizing 1-liter SUMMA canisters equipped with 8-hour flow valves. The air sampling locations are shown on Figure 3. The canisters are placed in the sampling location to collect samples to be analyzed for VOCs and 1,4-dioxane. Concentrations of all analytes detected were well below any published regulatory limit. The analytical results of the ambient air monitoring for the semiannual period are shown in Table 7. The analytical laboratory reports for the ambient air monitoring are contained in Appendix C.

Vacuum Measurements

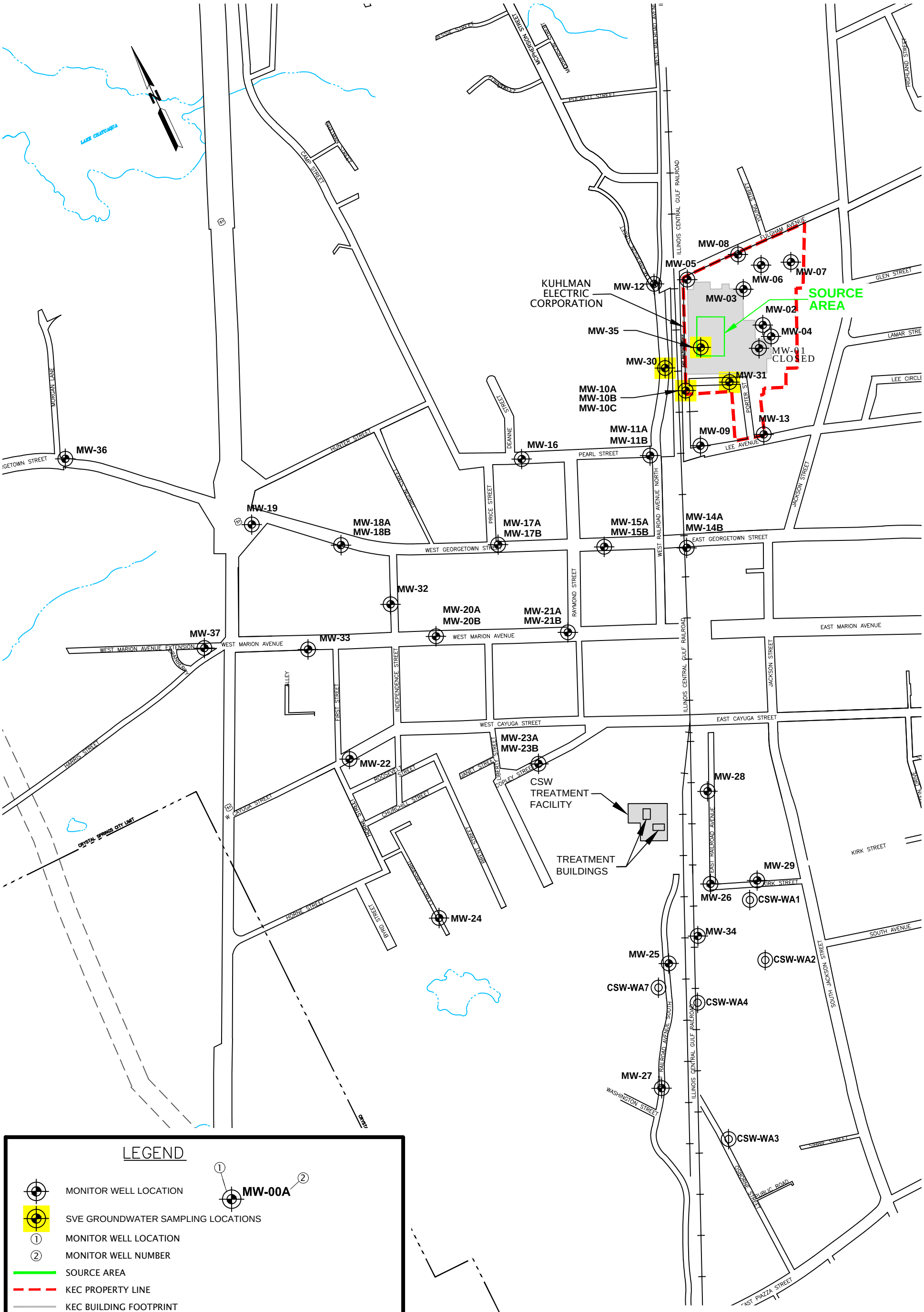
The vacuum response at each observation well is measured quarterly. At 80 feet from the nearest extraction well, the vacuum response averaged 2.7 inches of water. The vacuum response measurements for the first semiannual period in 2020 are shown in Table 8.

In addition, vacuum gauges were placed in the interstitial space on each dual-walled HDPE piping run near the extraction wells. The vacuum gauges are used to measure the vacuum or pressure of the interstitial space between the inner carrier pipe and the outer containment pipe during monthly site visits for leak detection. The gauges have shown no measureable vacuum or pressure within the interstitial space indicating no leaks within the carrier pipe.

Conclusion

The results from this monitoring period indicate that contaminants are being removed from the soil beneath the facility. The remediation activities will continue to remove contaminant mass from the soil through vapor extraction in order to remediate the defined source area. Monitoring as described in this report will continue, and monitoring events will be documented and reported semiannually.

FIGURES



LEGEND

- MONITOR WELL LOCATION (① MW-00A ②)
- SVE GROUNDWATER SAMPLING LOCATIONS
- ① MONITOR WELL LOCATION
- ② MONITOR WELL NUMBER
- SOURCE AREA
- KEC PROPERTY LINE
- KEC BUILDING FOOTPRINT
- GROUNDWATER ELEVATION CONTOUR
- MUNICIPAL WATER WELL

NOTE: SURVEY DATA SUPPLIED BY ARCADIS

0 500’ 1000’

GRAPHIC SCALE

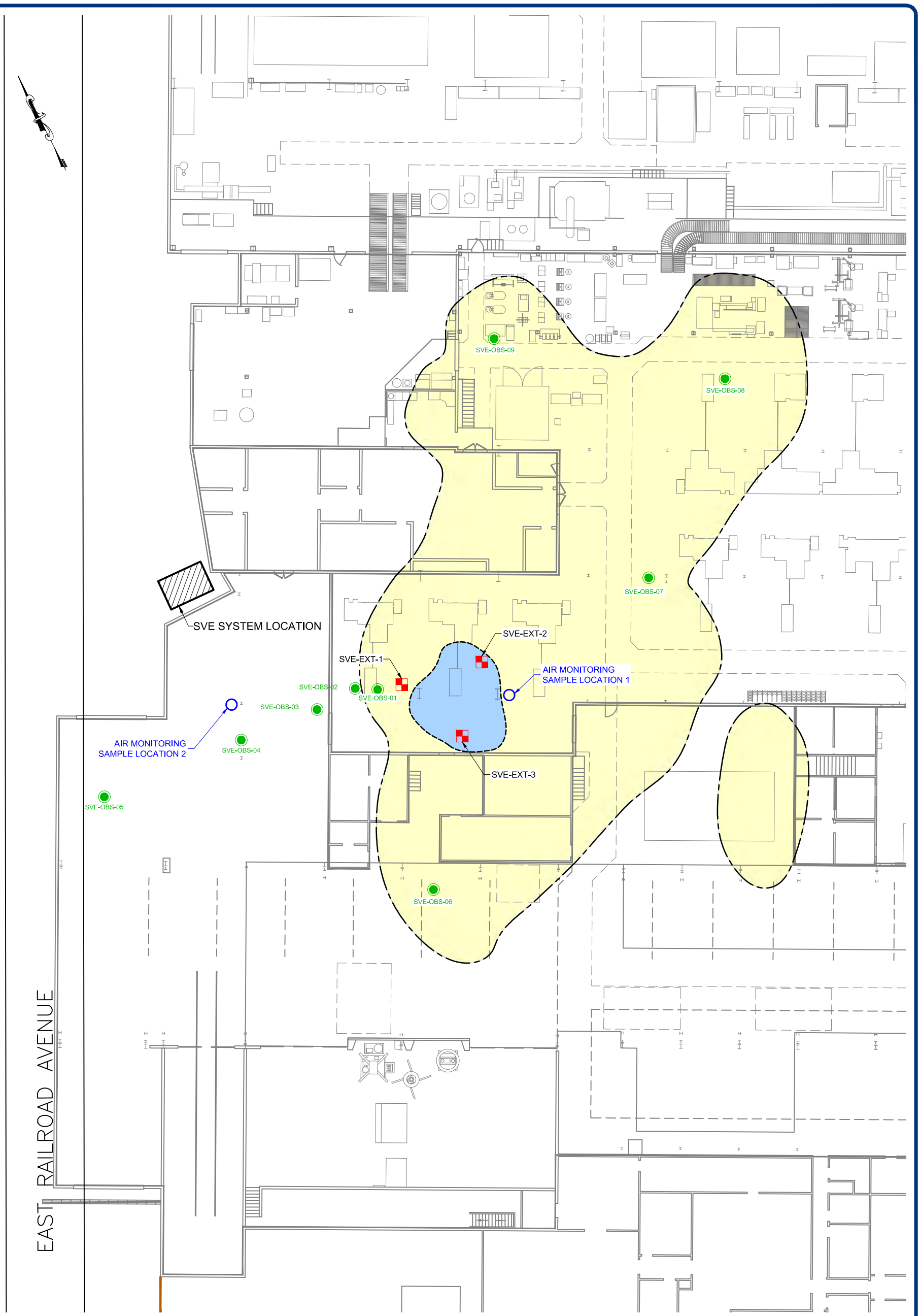
MONITOR WELL LOCATIONS
WELL LAYOUT

KUHLMAN ELECTRIC
KEC FACILITY
CRYSTAL SPRINGS, MS

DATE: 08/28//2020	APPROVED: BY: _____ DATE: _____	DRAWN BY: KRK
SCALE: AS SHOWN		PROJECT NO. KUH0-20-012

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

FIGURE 1



LEGEND

- KEC BUILDING FOOTPRINT
- SVE OBSERVATION WELLS
- SVE EXTRACTION WELLS
- AMBIENT AIR SAMPLE LOCATIONS
- 1,1-DICHLOROETHENE IN SOIL EXCEEDING UNRESTRICTED TIER 1 TRG (0.0772 mg/kg)
- 1,4-DIOXANE IN SOIL EXCEEDING UNRESTRICTED TIER 1 TRG (58.1 mg/kg)

SCALE 1 INCH = 25 FEET

5 10 25

0 5 10 15 20 25 50

NOTES:
1) SOIL CONCENTRATIONS ARE BASED ON EXTENT AS DEFINED IN CORRECTIVE ACTION PLAN, ARCADIS, MARCH 2010.
2) SVE-OBS-06 WAS PLUGGED AND ABANDONED ON FEBRUARY 24, 2020.

SVE SYSTEM LAYOUT

KUHLMAN ELECTRIC
KEC FACILITY
CRYSTAL SPRINGS, MS

DATE:	APPROVED:	DRAWN BY:
08/27/2020	BY: _____ DATE: _____	KRK/LMM
SCALE: AS SHOWN		CAD NO. KUH0-20-012

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

FIGURE 2

Figure 3
MW-35 Contaminant Concentrations
Through April 2020

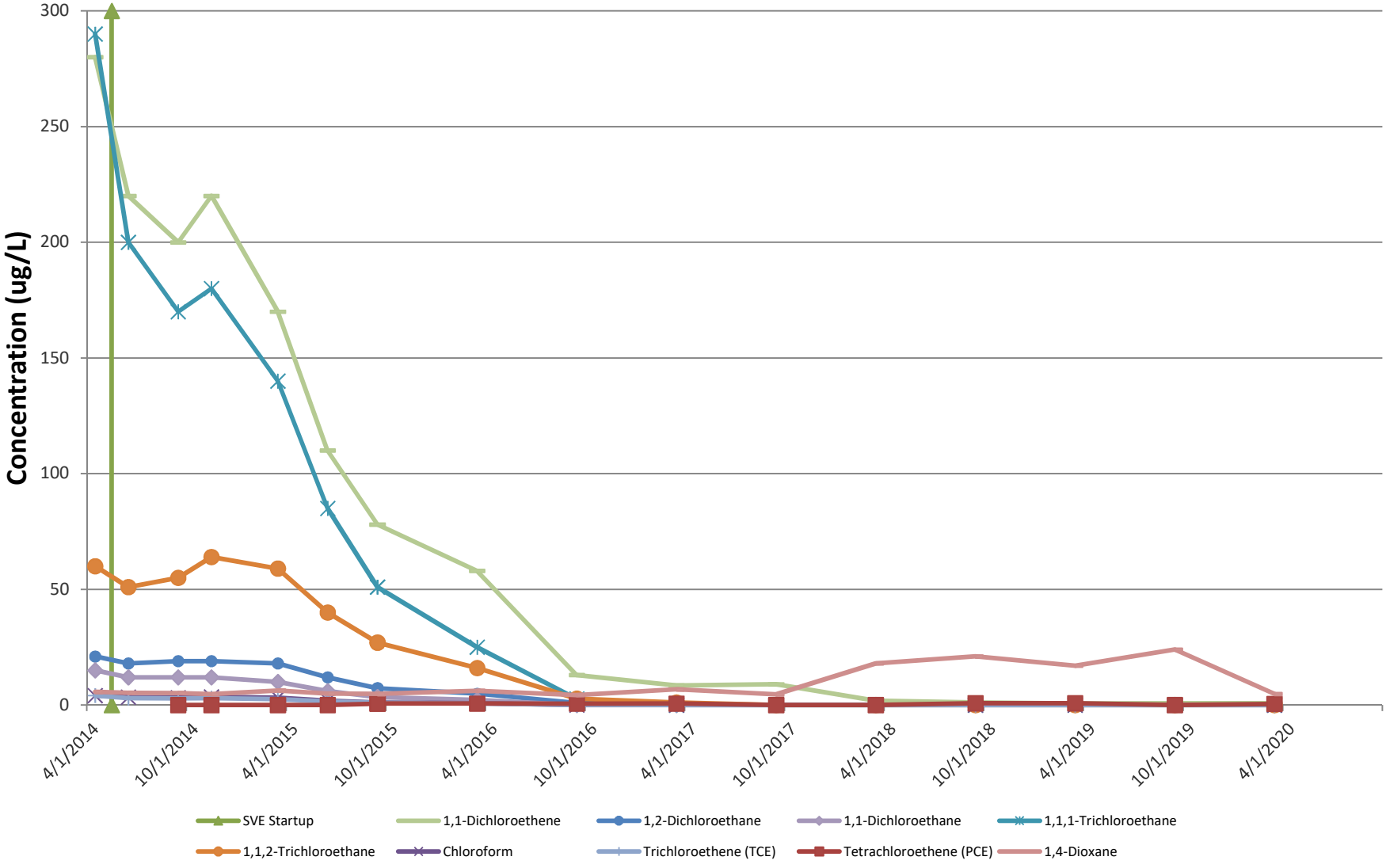


Figure 4
1,1,1-Trichloroethane Cumulative Mass Removal
Through June 2020

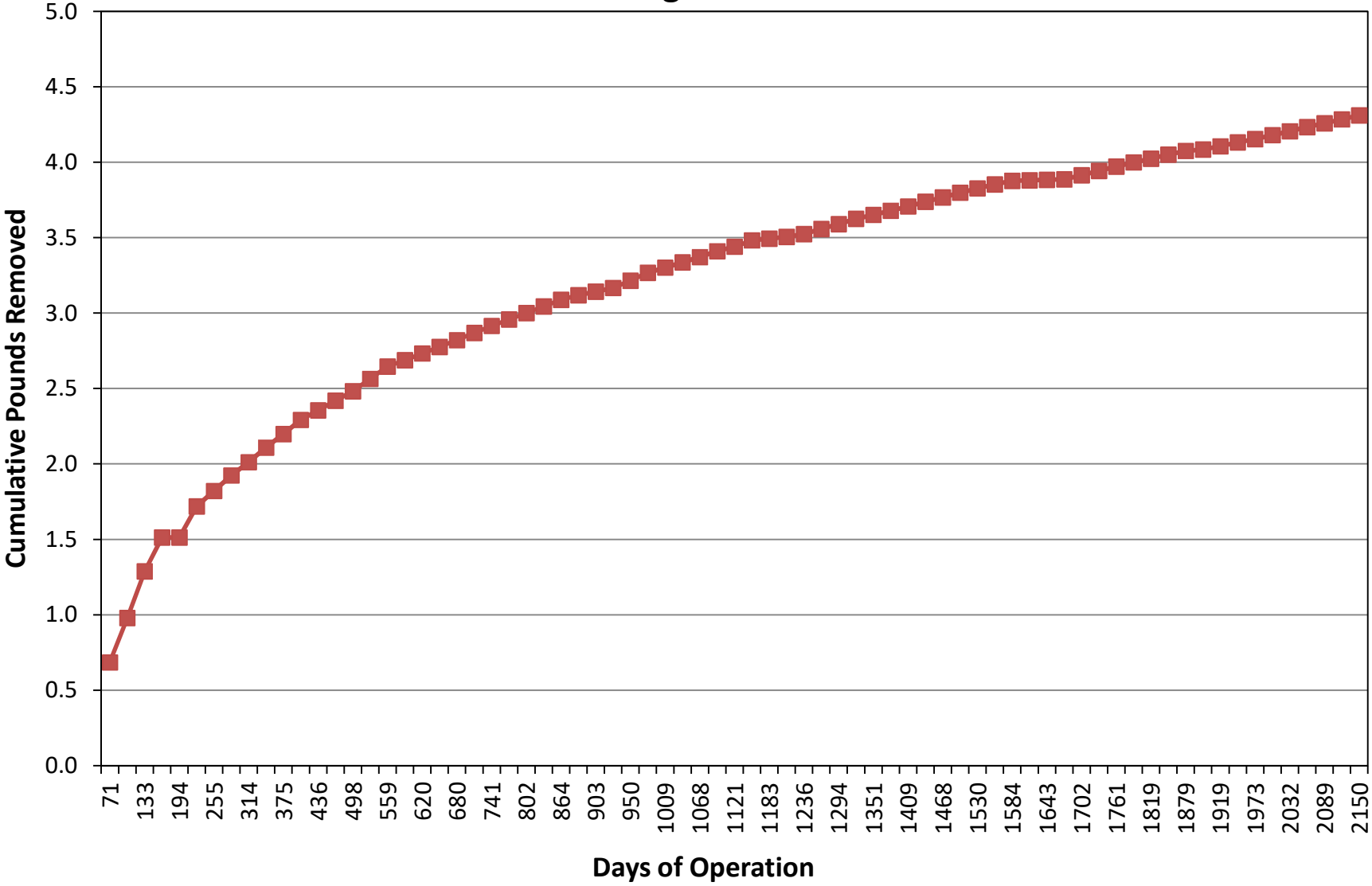


Figure 5
1,1-Dichloroethene Cumulative Mass Removal
Through June 2020

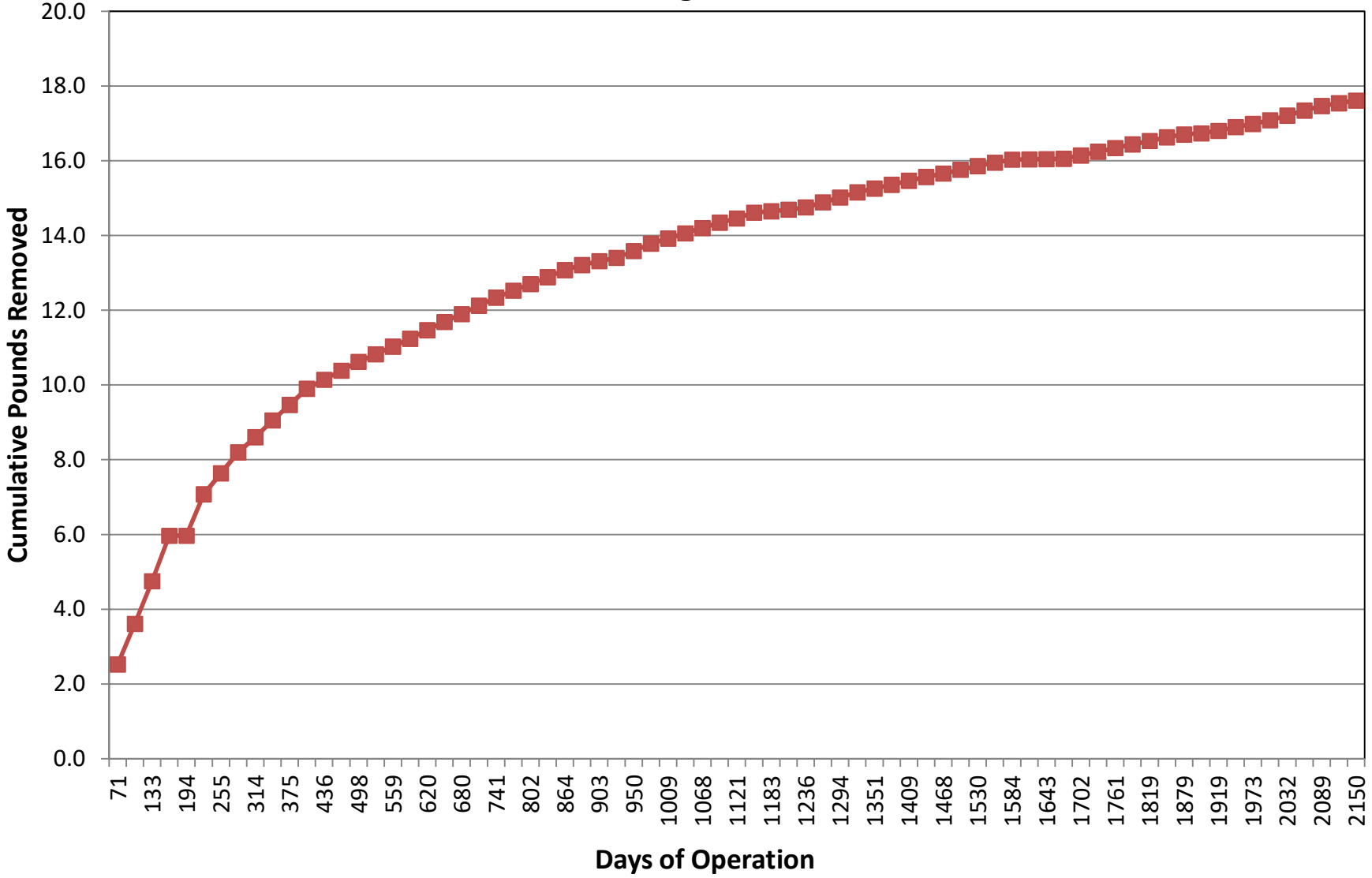


Figure 6
1,4-Dioxane Cumulative Mass Removal
Through June 2020

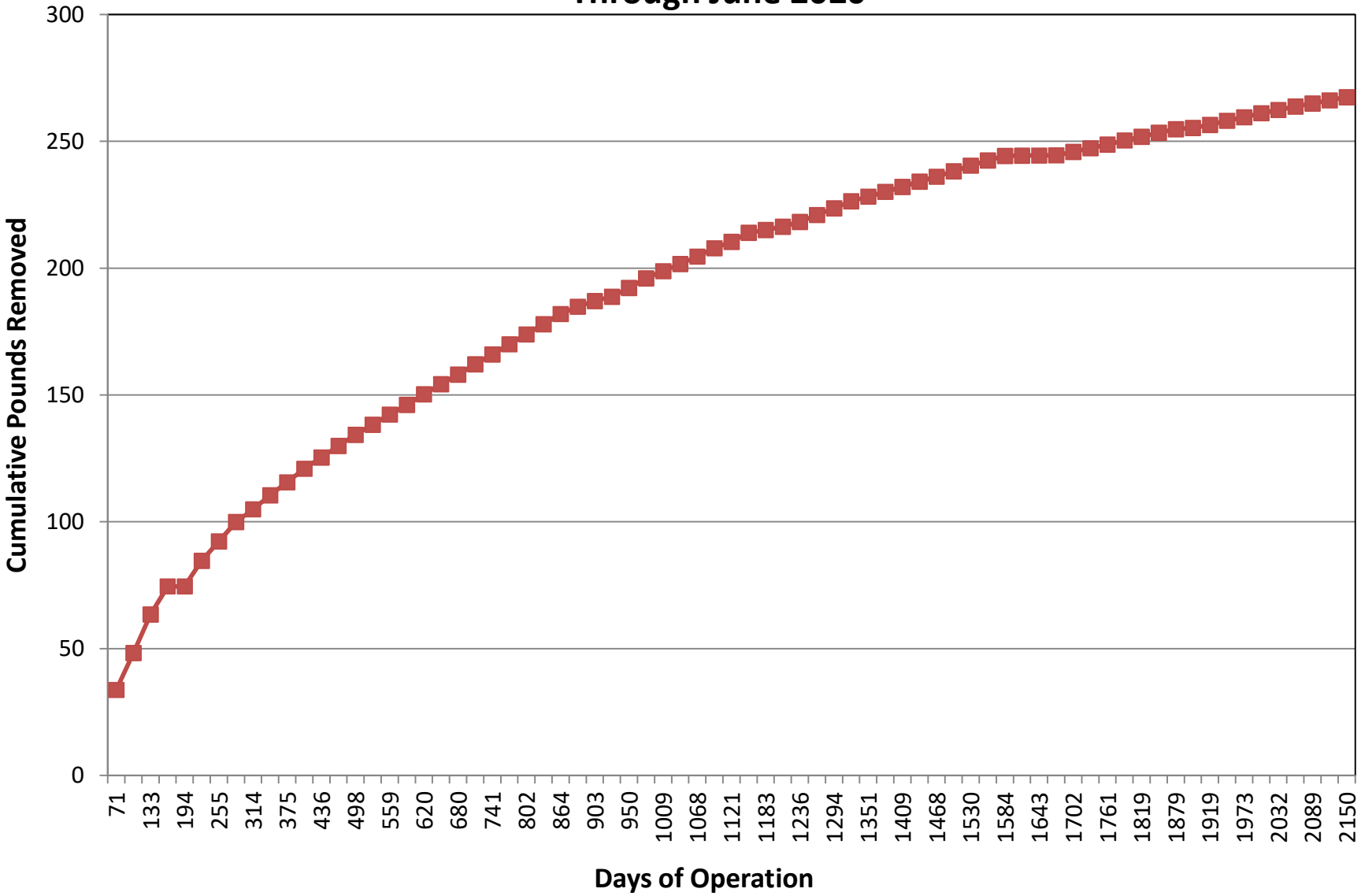
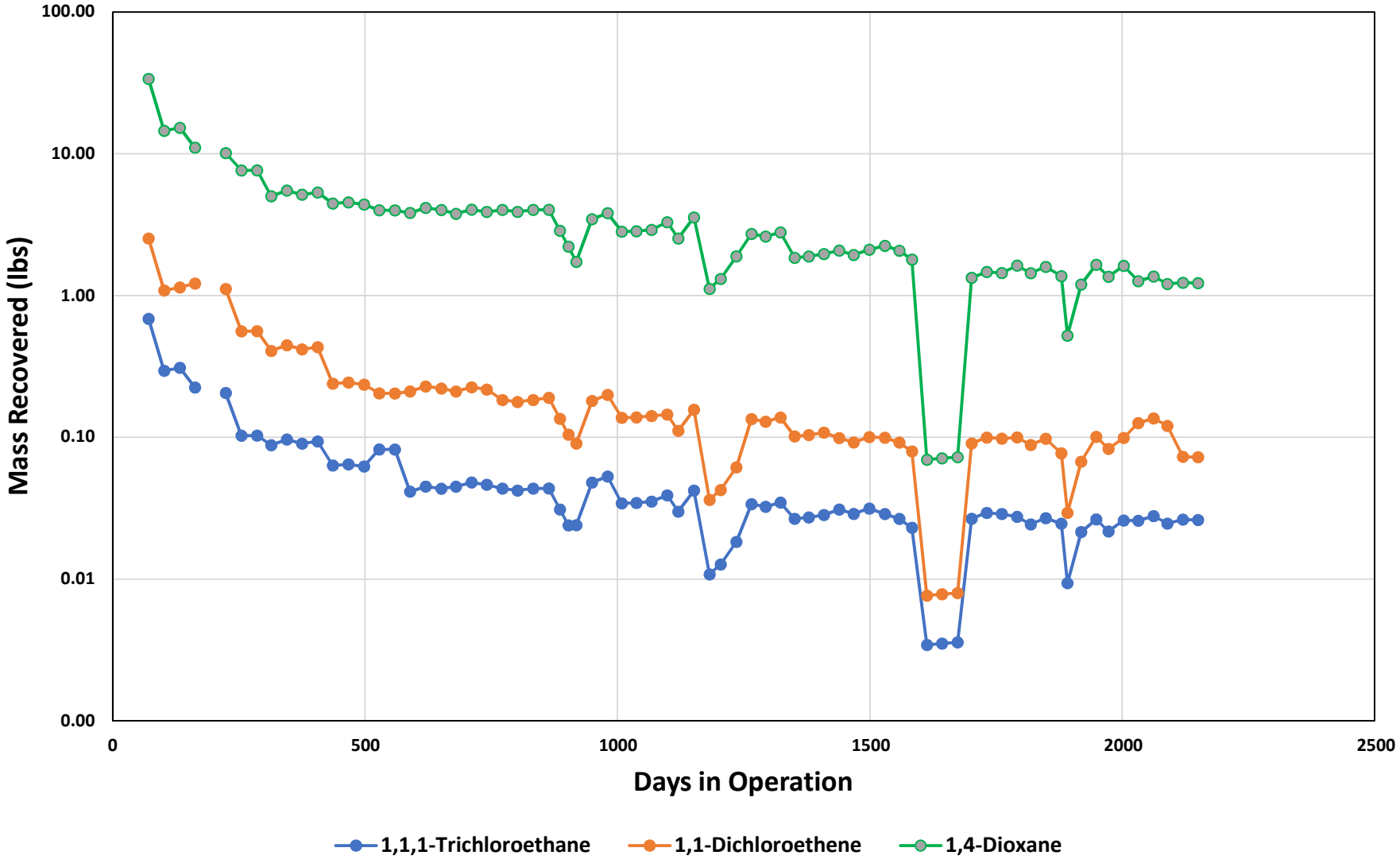


Figure 7
Mass Recovered Per Sampling Period
Through June 2020



TABLES

TABLE 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

		MW-35	MW-10A	MW-10B	MW-10C	MW-30	MW-31
Constituent	**MDEQ Tier I TRG ***	**KEP-GW-035-016**	**KEP-GW-010A-036**	**KEP-GW-010B-036**	**KEP-GW-010C-036**	**KEP-GW-030-022**	**KEP-GW-031-022**
Sample Date		3/25/2020	3/23/2020	3/23/2020	3/23/2020	3/23/2020	3/25/2020
1,1,1-Trichloroethane (TCA)	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	5.0	<0.5	1.2	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	798	<0.5	1.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (DCE)	7.0	0.74	**55**	**9.1**	<0.5	<0.5	1.0
1,2-Dichloroethane (EDC)	5.0	<0.5	1.2	<0.5	<0.5	<0.5	<0.5
1,4-Dioxane	6.09	4.8	**53**	3.0	<0.4	<0.4	<0.4
Chloroform**	0.155	<0.5	**0.71**	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (PCE)	5.0	0.51	<0.5	<0.5	0.76	<0.5	<0.5
Trichloroethene (TCE)	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

All results/standards in units of: µg/l - micrograms per liter

Bold indicates an exceedance

** MDEQ Target Remediation Goals (TRGs) for Groundwater*

*** Although the MDEQ risk based TRG for chloroform is 0.155 ug/L, the EPA Maximum Contamiant Level for Total Trihalomethanes is 80 ug/L with an individual MCL of 70 ug/L for chloroform.*

TABLE 2
OBSERVATION WELL RELATIVE VOC CONCENTRATIONS RESULTS SUMMARY

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

OBSERVATION WELL PID RESULTS SUMMARY

Sample Date	SVE-OBS-1	SVE-OBS-2	SVE-OBS-3	SVE-OBS-4	SVE-OBS-5	SVE-OBS-7	SVE-OBS-8	SVE-OBS-9
3/20/2020	1.7	7.7	9.3	4.6	8.1	6.6	6.0	10.3
6/19/2020	3.8	1.2	1.9	2.6	0.8	2.5	1.0	1.2

OBSERVATION WELL FID RESULTS SUMMARY

Sample Date	SVE-OBS-1	SVE-OBS-2	SVE-OBS-3	SVE-OBS-4	SVE-OBS-5	SVE-OBS-7	SVE-OBS-8	SVE-OBS-9
3/20/2020	0.0	23.0	15.0	0.0	0.0	3.0	3.0	10.0
6/19/2020	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0

Notes:
All results in units of ppm - parts per million
SVE-OBS-6 has been plugged and abandoned

TABLE 3
OBSERVATION WELL SOIL VAPOR ANALYTICAL RESULTS SUMMARY

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

Compound	SVE-OBS-1		SVE-OBS-2		SVE-OBS-3		SVE-OBS-4		SVE-OBS-5		SVE-OBS-7		SVE-OBS-8		SVE-OBS-9	
Sample Date	**3/20/2020**	**6/19/2020**	**3/20/2020**	**6/19/2020**	**3/20/2020**	**6/19/2020**	**3/20/2020**	**6/19/2020**	**3/20/2020**	**6/19/2020**	**3/20/2020**	**6/19/2020**	**3/20/2020**	**6/19/2020**	**3/20/2020**	**6/19/2020**
1,1,1-Trichloroethane	0.16 J	0.70	0.18 J	<0.34	0.31 J	0.9 J	<0.71	0.72	<1.4	0.22 J	0.45 J	4.7	1.1 J	7.8	0.59 J	1.9
1,1,2-Trichloroethane	<0.69	<0.35	<1.4	<0.34	<1.4	<1.4	<0.71	<0.68	<1.4	<0.49	<0.94	0.25 J	<1.4	<0.69	<1.4	<0.75
1,1-Dichloroethane	<0.94	<0.48	<1.9	<0.47	<1.9	<1.9	<0.98	0.17 J	<1.9	<0.67	<1.3	1.0 J	1.2 J	6.7	<1.9	<1.0
1,1-Dichloroethene	<0.95	0.48	<1.9	<0.47	0.86 J	1.7 J	<0.98	<0.93	<1.9	<0.67	0.62 J	13	15	140	<1.9	1.8
1,2-Dichloroethane	<0.93	<0.47	<1.9	<0.46	<1.9	<1.9	<0.96	<0.91	<1.9	<0.66	<1.3	<1.9	<1.9	<0.93	<1.8	<1.0
1,4-Dioxane	4.2	0.32 J	15	0.079 J	2.8	0.37 J	1.3	<1.0	1.3 J	<0.74	74	0.34 J	54	<1.0	26	0.3 J
Carbon Tetrachloride	<0.59	0.066 J	<1.2	0.06 J	<1.2	<1.2	<0.61	0.11 J	<1.2	<0.42	<0.8	0.25 J	<1.2	0.12 J	<1.2	0.12 J

Notes:
All results in units of ppb - parts per billion
SVE-OBS-6 has been plugged and abandoned

TABLE 4
SVE SYSTEM RELATIVE VOC CONCENTRATION MONITORING

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

Sample Date	Pre Carbon	Carbon Unit 1	Carbon Unit 2
	PID ppm		
2/24/2020	0.0	0.0	0.0
5/18/2020	0.3	0.8	0.3

Sample Date	Pre Carbon	Carbon Unit 1	Carbon Unit 2
	FID ppm		
2/24/2020	0.0	0.0	0.0
5/18/2020	0.0	0.0	0.0

Notes:
All results in units of ppm - parts per million

TABLE 5
SVE SYSTEM EXHAUST ANALYTICAL SUMMARY

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

Compound	Pre Carbon		Post Carbon 1		Post Carbon 2	
Sample Date	**2/24/2020**	**5/18/2020**	**2/24/2020**	**5/18/2020**	**2/24/2020**	**5/18/2020**
1,1,1-Trichloroethane	32	30	<1.8	3.2	<1.8	<2
1,1,2-Trichloroethane	<2.9	0.71 J	<1.8	<1.9	<1.8	<2
1,1-Dichloroethane	3.4	2.5 J	2.7	4.4	<1.9	<2
1,1-Dichloroethene	160	85	120	110	17	48
1,2-Dichloroethane	<2.9	<3.9	<1.8	<1.9	<1.8	<2
1,4-Dioxane	1500 D	1400 D	260	430 D	<1.8	16

Notes:

Results are in µg/m ^{3}

D = The reported result is from a dilution.

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

TABLE 6
SVE SYSTEM WELL FLOW RATE SUMMARY

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

	SVE-EXT-1	SVE-EXT-2	SVE-EXT-3
Date	**Flow Rate SCFM**		
1/13/2020	106.1	63.4	122.0
1/29/2020	109.8	63.4	126.8
3/4/2020	109.8	69.5	123.6
3/20/2020	109.8	72.3	126.8
4/23/2020	109.8	69.5	126.8
4/24/2020	109.8	69.5	125.2
5/18/2020	109.8	69.5	125.2
6/19/2020	111.6	72.3	126.8

TABLE 7
QUARTERLY AMBIENT AIR MONITORING

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

Contaminant	OCCUPATIONAL STANDARDS			Air Mon 01-36	Air Mon 02-36	Air Mon 01-37	Air Mon 02-37
Sample Date	OSHA	ACGIH	NIOSH	2/24/2020		5/20/2020	
1,1,1-Trichloroethane	1900000	1900000	1900000	<2.5	<2.2	<2.5	<2.5
1,1,2-Trichloroethane	45000	45000	45000	<2.5	<2.2	<2.5	<2.5
1,1-Dichloroethane	400000	400000	400000	<2.6	<2.3	<2.5	<2.5
1,1-Dichloroethene		19800		<2.5	<2.2	<2.5	<2.5
1,2-Dichloroethane	40450	40450	4000	<2.5	<2.2	<2.5	<2.5
1,4-Dioxane	360000	72000		<2.5	<2.2	0.78 J	<2.5
Carbon Tetrachloride	63000	31000	12600	<2.5	<2.2	0.39 J	0.43 J
1,2,4-Trichlorobenzene			40000	<2.5	<2.2	<2.5	<2.5
1,2,4-Trimethylbenzene		125000	125000	22	9	9.5	9.6
1,3,5-Trimethylbenzene		125000	125000	6.5	2.6	2.4 J	2.9
1,4-Dichlorobenzene	450000	60000		<2.5	<2.2	1.4 J	0.68 J
2-Butanone (MEK)	590000	590000	590000	65	49	91	230
2-Hexanone	410000	20480	4000	<2.5	<2.2	1.4 J	<2.5
2-Propanol (Isopropyl Alcohol)	980000	980000	980000	11	10	23	5.2 J
4-Ethyltoluene				7.2	2.7	2.1 J	2.7
4-Methyl-2-pentanone	410000	205000	205000	22	12	14	12
Acetone	2400000	1200000	590000	340	230	730	1800
Acetonitrile	70000	70000	34000	<2.5	<2.2	0.63 J	<2.4
Acrolein	250	0	250	<4.7	<4.1	2.9 J	1.1 J
alpha-Pinene	556000	111000	556000	4.6	3.5	5	5
Benzene	3200	1600	320	3.2	<2.2	0.59 J	<2.4
Carbon Disulfide	60000	30000	3000	<5.1	12	21	9.6
Chloroform	240000	48830	9780	<2.5	<2.2	<2.5	<2.5
Chloromethane	207000	103000		<2.5	<2.2	1 J, V	0.83 J, V
cis-1,2-Dichloroethene		792600	790000	<2.5	<2.2	<2.4	<2.4
Cumene	245000	245000	245000	<2.5	<2.2	0.64 J	0.88 J
Dichlorodifluoromethane (CFC 12)	4950000	4950000	4950000	2.5	2.3	2.6	2.5
d-Limonene				11	14	4.7	4.4
Ethanol	1900000	1900000	1900000	350	440	880	590
Ethyl Acetate	1400000	1400000	1400000	45	27	11	6.3
Ethylbenzene	435000	435000	435000	25	15	15	32
m,p-Xylenes	435000	435000	435000	110	59	71	160
Methylene Chloride	87000	174000		<2.5	<2.2	<2.4	<2.4
Naphthalene	50000	50000	50000	<2.4	<2.1	<2.4	<2.4
n-Butyl Acetate	710000	710000	710000	<2.6	<2.3	2.4 J	5.6
n-Heptane	2000000	1640000	350000	2.9	3.8	3.2	1.9 J
n-Hexane	1800000	180000	180000	5.5	5	4.4	2.1 J
n-Nonane		1050000	1050000	<2.5	2.3	2 J	2.1 J
n-Octane	2350000	1400000	350000	<2.5	4.3	1.8 J	1.6 J
n-Propylbenzene				4	<2.2	1.4 J	1.8 J
o-Xylene	435000	435000	435000	60	25	26	53

TABLE 7
QUARTERLY AMBIENT AIR MONITORING

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

Contaminant	OCCUPATIONAL STANDARDS			Air Mon 01-36	Air Mon 02-36	Air Mon 01-37	Air Mon 02-37
Sample Date	**OSHA**	**ACGIH**	**NIOSH**	**2/24/2020**		**5/20/2020**	
Propene				220	110	780 D	320
Styrene	425000	85200	215000	<2.5	<2.2	0.74 J	1.4 J
Tetrachloroethene	678000	169500		<2.4	<2.1	<2.4	<2.4
Tetrahydrofuran (THF)	590000	590000	590000	<2.6	<2.3	<2.5	<2.5
Toluene	750000	188000	375000	46	26	25	17
Trichloroethene	537000	268500		<2.5	<2.2	<2.5	<2.5
Trichlorofluoromethane (CFC 11)	5600000		5600000	<2.5	<2.2	1.3 J	1.3 J
Trichlorotrifluoroethane (CFC 113)	7600000	7600000	7600000	<2.5	<2.2	0.4 J	0.4 J

Notes:

All results/standards are in $\mu g/m^3$

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

D = The reported result is from a dilution.

V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

TABLE 8
OBSERVATION WELL VACUUM RESPONSE SUMMARY

SVE First Semiannual Sampling 2020
Kuhlman Electric Corporation
Crystal Springs, MS

Date	SVE-OBS-1	SVE-OBS-2	SVE-OBS-3	SVE-OBS-4	SVE-OBS-5	SVE-OBS-6	SVE-OBS-7	SVE-OBS-8	SVE-OBS-9
Distance* (feet)	**5**	**10**	**20**	**40**	**80**	**40**	**50**	**95**	**80**
1/22/2020	-17.2	-11.41	-8.83	-3.46	-1.66	-1.98	-6.05	-0.26	-2.7
4/24/2020	-17.93	-11.81	-9.86	-4.29	-3.15	NM**	-6.79	-0.35	-3.15

Notes:

** Distance to the nearest extraction well*

*** SVE-OBS-6 was plugged and abandoned on February 24, 2020.*

Vacuum readings are in inches of water.

NM - Not Measured

APPENDIX A

OBSERVATION WELL SOIL VAPOR LABORATORY ANALYTICAL RESULTS

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

April 13, 2020

Collin Creel
Environmental Management Services, Inc.
P.O. Box 15369
Hattiesburg, MS 39402

RE: SVE Performance Monitoring / KUH0-20-010

Dear Collin:

Enclosed are the results of the samples submitted to our laboratory on March 30, 2020. For your reference, these analyses have been assigned our service request number P2001751.

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

By Hayden Akers at 2:33 pm, Apr 13, 2020

For Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Environmental Management Services, Inc. Service Request No: P2001751
Project: SVE Performance Monitoring / KUH0-20-010

CASE NARRATIVE

The samples were received intact under chain of custody on March 30, 2020 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.

Volatile Organic Compound Analysis

The samples were 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 containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-007
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
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: Environmental Management Services, Inc. Service Request: P2001751

Project ID: SVE Performance Monitoring / KUH0-20-010

Date Received: 3/30/2020

Time Received: 12:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
EXT-01	P2001751-001	Air	3/20/2020	12:54	1SS00214	-0.33	5.75	X
EXT-02	P2001751-002	Air	3/20/2020	13:31	1SC01062	-0.54	5.74	X
EXT-03	P2001751-003	Air	3/20/2020	13:20	1SC00886	-0.17	3.87	X
SVE-OBS-1	P2001751-004	Air	3/20/2020	14:01	1SS01031	-0.30	5.37	X
SVE-OBS-2	P2001751-005	Air	3/20/2020	13:40	1SC01063	-0.29	5.39	X
SVE-OBS-3	P2001751-006	Air	3/20/2020	14:10	1SC00282	-0.29	5.36	X
SVE-OBS-4	P2001751-007	Air	3/20/2020	14:24	1SC01369	-0.08	6.30	X
SVE-OBS-5	P2001751-008	Air	3/20/2020	14:32	1SS00219	0.04	5.75	X
SVE-OBS-7	P2001751-009	Air	3/20/2020	15:03	1SS00011	-0.44	5.71	X
SVE-OBS-8	P2001751-010	Air	3/20/2020	15:12	1SC00114	-0.24	5.64	X
SVE-OBS-9	P2001751-011	Air	3/20/2020	15:20	1SC00615	-0.16	5.31	X

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

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

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. R2001751

Company Name & Address (Reporting Information)	Environmental Management Services PO Box 15369 Hattiesburg, MS 39404
Project Name	SVE Performance Monitoring
Project Number	KUHO-20-010
Project Manager	Collin Creel
P.O. # / Billing Information	KUHO-20-010/same as reporting
Phone	(601)544-3674
Fax	(601)544-0504
Email Address for Result Reporting	ccreel@env-mgt.com
Sampler (Print & Sign)	Collin Creel
ALS Contact:	

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	Analysis Method: TO-15		Comments e.g. Actual Preservative or specific instructions
EXT-01	1	3/20/20	12:54	1550214		-30	0	1L	X		
EXT-02	2	3/20/20	13:31	1SC01062		-30	0	1L	X		
EXT-03	3	3/20/20	13:20	1SC00886		-30	0	1L	X		
SVE-OBS-1	4	3/20/20	14:01	1550103I		-29	0	1L	X		
SVE-OBS-2	5	3/20/20	13:40	1SC01063		-28	0	1L	X		
SVE-OBS-3	6	3/20/20	14:10	1SC00282		-29	0	1L	X		
SVE-OBS-4	7	3/20/20	14:24	1SC01369		-30	0	1L	X		
SVE-OBS-5	8	3/20/20	14:32	1SC00219		-28	0	1L	X		
SVE-OBS-7	9	3/20/20	15:03	1SC00011		-30	0	1L	X		
SVE-OBS-8	10	3/20/20	15:12	1SC00114		-30	0	1L	X		
SVE-OBS-9	11	3/20/20	15:20	1SC00615		-30	0	1L	X		

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____ Tier III (Results + QC & Calibration Summaries) ____
Tier II (Results + QC Summaries) X 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: 3/23/20	Time: 13:30	Received by: (Signature) - Fed Ex -	Date:	Time:	
Relinquished by: (Signature) - Fed Ex -	Date:	Time:	Received by: (Signature)	Date: 3-30-20	Time: 1230	Cooler / Blank Temperature ____ °C

ALS Environmental

Sample Acceptance Check Form

Client: Environmental Management Services, Inc. Work order: P2001751

Project: SVE Performance Monitoring / KUH0-20-010

Sample(s) received on: 3/30/20 Date opened: 3/30/20 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)? Box sealing. 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
P2001751-001.01	1.0 L Source Silonite Canister					
P2001751-002.01	1.0 L Source Can					
P2001751-003.01	1.0 L Source Can					
P2001751-004.01	1.0 L Source Silonite Canister					
P2001751-005.01	1.0 L Source Can					
P2001751-006.01	1.0 L Source Can					
P2001751-007.01	1.0 L Source Can					
P2001751-008.01	1.0 L Source Silonite Canister					
P2001751-009.01	1.0 L Source Silonite Canister					
P2001751-010.01	1.0 L Source Can					
P2001751-011.01	1.0 L Source 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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-001

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00214

Initial Pressure (psig): -0.33 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**51**	7.5	1.8	**30**	4.4	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	7.5	1.2	**0.49**	1.5	0.25	**J**
74-87-3	Chloromethane	ND	7.5	1.2	ND	3.6	0.59	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.5	1.2	ND	1.1	0.17	
75-01-4	Vinyl Chloride	ND	7.7	0.81	ND	3.0	0.32	
106-99-0	1,3-Butadiene	ND	7.5	1.2	ND	3.4	0.57	
74-83-9	Bromomethane	ND	7.7	1.1	ND	2.0	0.27	
75-00-3	Chloroethane	ND	7.7	0.94	ND	2.9	0.36	
64-17-5	Ethanol	**20**	74	5.3	**11**	39	2.8	**J**
75-05-8	Acetonitrile	ND	7.5	1.8	ND	4.5	1.1	
107-02-8	Acrolein	ND	14	2.1	ND	6.2	0.93	
67-64-1	Acetone	**37**	75	17	**16**	32	7.2	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.2**	7.5	1.2	**0.21**	1.3	0.20	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**12**	30	3.1	**5.0**	12	1.3	**J**
107-13-1	Acrylonitrile	ND	7.5	1.6	ND	3.5	0.72	
75-35-4	1,1-Dichloroethene	**10**	7.7	1.1	**2.6**	1.9	0.27	
75-09-2	Methylene Chloride	ND	7.5	2.1	ND	2.2	0.61	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.7	1.0	ND	2.5	0.33	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	7.7	1.1	ND	1.0	0.14	
75-15-0	Carbon Disulfide	ND	16	2.3	ND	5.0	0.73	
156-60-5	trans-1,2-Dichloroethene	ND	7.7	1.1	ND	1.9	0.27	
75-34-3	1,1-Dichloroethane	ND	7.8	1.1	ND	1.9	0.27	
1634-04-4	Methyl tert-Butyl Ether	ND	7.7	0.89	ND	2.1	0.25	
108-05-4	Vinyl Acetate	ND	77	17	ND	22	4.8	
78-93-3	2-Butanone (MEK)	**7.8**	16	1.6	**2.6**	5.3	0.53	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-001

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00214

Initial Pressure (psig): -0.33 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	7.5	1.1	ND	1.9	0.27	
141-78-6	Ethyl Acetate	ND	16	4.0	ND	4.3	1.1	
110-54-3	n-Hexane	**1.6**	7.7	1.6	**0.44**	2.2	0.44	**J**
67-66-3	Chloroform	ND	7.7	1.0	ND	1.6	0.21	
109-99-9	Tetrahydrofuran (THF)	**1.9**	7.8	0.95	**0.63**	2.6	0.32	**J**
107-06-2	1,2-Dichloroethane	ND	7.7	0.84	ND	1.9	0.21	
71-55-6	1,1,1-Trichloroethane	**23**	7.7	0.94	**4.3**	1.4	0.17	
71-43-2	Benzene	ND	7.5	1.1	ND	2.4	0.34	
56-23-5	Carbon Tetrachloride	ND	7.5	1.1	ND	1.2	0.17	
110-82-7	Cyclohexane	ND	16	2.1	ND	4.5	0.62	
78-87-5	1,2-Dichloropropane	ND	7.7	0.94	ND	1.7	0.20	
75-27-4	Bromodichloromethane	ND	7.7	1.1	ND	1.1	0.16	
79-01-6	Trichloroethene	ND	7.7	1.0	ND	1.4	0.19	
123-91-1	1,4-Dioxane	**1,400**	7.7	0.89	**390**	2.1	0.25	
80-62-6	Methyl Methacrylate	ND	16	2.7	ND	3.8	0.66	
142-82-5	n-Heptane	**5.7**	7.7	1.2	**1.4**	1.9	0.29	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	7.4	1.2	ND	1.6	0.26	
108-10-1	4-Methyl-2-pentanone	**6.1**	7.5	1.0	**1.5**	1.8	0.25	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	7.5	1.6	ND	1.7	0.34	
79-00-5	1,1,2-Trichloroethane	ND	7.7	0.77	ND	1.4	0.14	
108-88-3	Toluene	**6.5**	7.7	0.92	**1.7**	2.0	0.25	**J**
591-78-6	2-Hexanone	ND	7.7	0.94	ND	1.9	0.23	
124-48-1	Dibromochloromethane	ND	7.7	0.99	ND	0.90	0.12	
106-93-4	1,2-Dibromoethane	ND	7.7	0.88	ND	1.0	0.11	
123-86-4	n-Butyl Acetate	ND	7.8	1.0	ND	1.6	0.22	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-001

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00214

Initial Pressure (psig): -0.33 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	**4.4**	7.7	1.7	**0.94**	1.6	0.36	**J**
127-18-4	Tetrachloroethene	**1.2**	7.4	0.98	**0.18**	1.1	0.14	**J**
108-90-7	Chlorobenzene	ND	7.7	1.0	ND	1.7	0.22	
100-41-4	Ethylbenzene	**2.7**	7.7	1.1	**0.61**	1.8	0.25	**J**
179601-23-1	m,p-Xylenes	**9.6**	16	2.0	**2.2**	3.6	0.46	**J**
75-25-2	Bromoform	ND	7.7	1.6	ND	0.74	0.15	
100-42-5	Styrene	ND	7.5	1.2	ND	1.8	0.29	
95-47-6	o-Xylene	**5.0**	7.7	1.1	**1.2**	1.8	0.25	**J**
111-84-2	n-Nonane	**1.9**	7.7	1.3	**0.35**	1.5	0.24	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.7	1.1	ND	1.1	0.15	
98-82-8	Cumene	ND	7.7	1.1	ND	1.6	0.22	
80-56-8	alpha-Pinene	**2.0**	7.7	1.2	**0.36**	1.4	0.21	**J**
103-65-1	n-Propylbenzene	ND	7.7	1.1	ND	1.6	0.22	
622-96-8	4-Ethyltoluene	ND	7.7	1.2	ND	1.6	0.25	
108-67-8	1,3,5-Trimethylbenzene	ND	7.5	1.1	ND	1.5	0.22	
95-63-6	1,2,4-Trimethylbenzene	**2.0**	7.7	1.1	**0.42**	1.6	0.21	**J**
100-44-7	Benzyl Chloride	ND	16	1.7	ND	3.0	0.33	
541-73-1	1,3-Dichlorobenzene	ND	7.7	1.1	ND	1.3	0.19	
106-46-7	1,4-Dichlorobenzene	ND	7.7	1.2	ND	1.3	0.19	
95-50-1	1,2-Dichlorobenzene	ND	7.7	1.1	ND	1.3	0.19	
5989-27-5	d-Limonene	**31**	7.7	1.6	**5.6**	1.4	0.28	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.5	1.4	ND	0.78	0.15	
120-82-1	1,2,4-Trichlorobenzene	ND	7.7	1.8	ND	1.0	0.25	
91-20-3	Naphthalene	ND	7.4	1.8	ND	1.4	0.35	
87-68-3	Hexachlorobutadiene	ND	7.5	1.6	ND	0.71	0.15	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-002

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.020 Liter(s)
Container ID: 1SC01062

Initial Pressure (psig): -0.54 Final Pressure (psig): 5.74

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**36**	15	3.7	**21**	8.9	2.2	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	15	2.5	ND	3.1	0.51	
74-87-3	Chloromethane	ND	15	2.5	ND	7.4	1.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	15	2.4	ND	2.2	0.35	
75-01-4	Vinyl Chloride	ND	16	1.6	ND	6.1	0.64	
106-99-0	1,3-Butadiene	ND	15	2.5	ND	6.9	1.1	
74-83-9	Bromomethane	ND	16	2.1	ND	4.0	0.55	
75-00-3	Chloroethane	ND	16	1.9	ND	5.9	0.72	
64-17-5	Ethanol	**15**	150	11	**7.9**	80	5.7	**J**
75-05-8	Acetonitrile	ND	15	3.7	ND	9.1	2.2	
107-02-8	Acrolein	ND	29	4.3	ND	13	1.9	
67-64-1	Acetone	**66**	150	35	**28**	64	15	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	ND	15	2.3	ND	2.7	0.42	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	60	6.3	ND	25	2.6	
107-13-1	Acrylonitrile	ND	15	3.2	ND	7.0	1.5	
75-35-4	1,1-Dichloroethene	**34**	16	2.1	**8.6**	3.9	0.54	
75-09-2	Methylene Chloride	ND	15	4.3	ND	4.4	1.2	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	16	2.1	ND	5.0	0.66	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	16	2.2	ND	2.0	0.29	
75-15-0	Carbon Disulfide	ND	32	4.6	ND	10	1.5	
156-60-5	trans-1,2-Dichloroethene	ND	16	2.1	ND	3.9	0.54	
75-34-3	1,1-Dichloroethane	ND	16	2.2	ND	3.9	0.56	
1634-04-4	Methyl tert-Butyl Ether	ND	16	1.8	ND	4.3	0.50	
108-05-4	Vinyl Acetate	ND	160	35	ND	44	9.8	
78-93-3	2-Butanone (MEK)	**16**	32	3.2	**5.6**	11	1.1	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-002

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.020 Liter(s)
Container ID: 1SC01062

Initial Pressure (psig): -0.54 Final Pressure (psig): 5.74

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	15	2.2	ND	3.9	0.55	
141-78-6	Ethyl Acetate	ND	32	8.1	ND	8.8	2.2	
110-54-3	n-Hexane	**4.6**	16	3.2	**1.3**	4.4	0.90	**J**
67-66-3	Chloroform	ND	16	2.0	ND	3.2	0.42	
109-99-9	Tetrahydrofuran (THF)	**5.7**	16	1.9	**1.9**	5.4	0.65	**J**
107-06-2	1,2-Dichloroethane	ND	16	1.7	ND	3.8	0.42	
71-55-6	1,1,1-Trichloroethane	**29**	16	1.9	**5.3**	2.9	0.35	
71-43-2	Benzene	ND	15	2.2	ND	4.8	0.69	
56-23-5	Carbon Tetrachloride	ND	15	2.1	ND	2.4	0.34	
110-82-7	Cyclohexane	ND	32	4.3	ND	9.2	1.3	
78-87-5	1,2-Dichloropropane	ND	16	1.9	ND	3.4	0.41	
75-27-4	Bromodichloromethane	ND	16	2.2	ND	2.3	0.33	
79-01-6	Trichloroethene	ND	16	2.1	ND	2.9	0.39	
123-91-1	1,4-Dioxane	**4,800**	39	4.5	**1,300**	11	1.3	**D**
80-62-6	Methyl Methacrylate	ND	32	5.5	ND	7.7	1.3	
142-82-5	n-Heptane	ND	16	2.4	ND	3.8	0.60	
10061-01-5	cis-1,3-Dichloropropene	ND	15	2.4	ND	3.3	0.53	
108-10-1	4-Methyl-2-pentanone	**3.5**	15	2.1	**0.86**	3.7	0.51	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	15	3.2	ND	3.4	0.70	
79-00-5	1,1,2-Trichloroethane	ND	16	1.6	ND	2.9	0.29	
108-88-3	Toluene	**4.8**	16	1.9	**1.3**	4.1	0.50	**J**
591-78-6	2-Hexanone	ND	16	1.9	ND	3.8	0.46	
124-48-1	Dibromochloromethane	ND	16	2.0	ND	1.8	0.24	
106-93-4	1,2-Dibromoethane	ND	16	1.8	ND	2.0	0.23	
123-86-4	n-Butyl Acetate	ND	16	2.1	ND	3.3	0.44	

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.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-002

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.020 Liter(s)
Container ID: 1SC01062

Initial Pressure (psig): -0.54 Final Pressure (psig): 5.74

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	**17**	16	3.5	**3.7**	3.3	0.74	
127-18-4	Tetrachloroethene	**3.4**	15	2.0	**0.51**	2.2	0.29	**J**
108-90-7	Chlorobenzene	ND	16	2.0	ND	3.4	0.44	
100-41-4	Ethylbenzene	**2.4**	16	2.2	**0.56**	3.6	0.50	**J**
179601-23-1	m,p-Xylenes	**11**	32	4.0	**2.4**	7.3	0.93	**J**
75-25-2	Bromoform	ND	16	3.2	ND	1.5	0.31	
100-42-5	Styrene	ND	15	2.5	ND	3.6	0.58	
95-47-6	o-Xylene	**5.8**	16	2.2	**1.3**	3.6	0.51	**J**
111-84-2	n-Nonane	ND	16	2.6	ND	3.0	0.49	
79-34-5	1,1,2,2-Tetrachloroethane	ND	16	2.1	ND	2.3	0.31	
98-82-8	Cumene	ND	16	2.2	ND	3.2	0.45	
80-56-8	alpha-Pinene	ND	16	2.4	ND	2.8	0.42	
103-65-1	n-Propylbenzene	ND	16	2.2	ND	3.2	0.45	
622-96-8	4-Ethyltoluene	ND	16	2.4	ND	3.2	0.50	
108-67-8	1,3,5-Trimethylbenzene	ND	15	2.2	ND	3.1	0.45	
95-63-6	1,2,4-Trimethylbenzene	**2.2**	16	2.1	**0.45**	3.2	0.43	**J**
100-44-7	Benzyl Chloride	ND	32	3.5	ND	6.1	0.67	
541-73-1	1,3-Dichlorobenzene	ND	16	2.3	ND	2.6	0.38	
106-46-7	1,4-Dichlorobenzene	ND	16	2.4	ND	2.6	0.39	
95-50-1	1,2-Dichlorobenzene	ND	16	2.3	ND	2.6	0.38	
5989-27-5	d-Limonene	**16**	16	3.2	**2.9**	2.8	0.57	
96-12-8	1,2-Dibromo-3-chloropropane	ND	15	2.9	ND	1.6	0.30	
120-82-1	1,2,4-Trichlorobenzene	ND	16	3.7	ND	2.1	0.50	
91-20-3	Naphthalene	ND	15	3.7	ND	2.9	0.71	
87-68-3	Hexachlorobutadiene	ND	15	3.2	ND	1.4	0.30	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-003

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.010 Liter(s)
Container ID: 1SC00886

Initial Pressure (psig): -0.17 Final Pressure (psig): 3.87

Canister Dilution Factor: 1.28

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**80**	14	3.3	**46**	7.9	1.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.5**	14	2.2	**0.51**	2.7	0.45	**J**
74-87-3	Chloromethane	ND	14	2.2	ND	6.6	1.1	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	14	2.2	ND	1.9	0.31	
75-01-4	Vinyl Chloride	ND	14	1.5	ND	5.4	0.57	
106-99-0	1,3-Butadiene	ND	14	2.3	ND	6.1	1.0	
74-83-9	Bromomethane	ND	14	1.9	ND	3.6	0.49	
75-00-3	Chloroethane	ND	14	1.7	ND	5.2	0.64	
64-17-5	Ethanol	**43**	130	9.5	**23**	71	5.0	**J**
75-05-8	Acetonitrile	ND	14	3.3	ND	8.1	2.0	
107-02-8	Acrolein	ND	26	3.8	ND	11	1.7	
67-64-1	Acetone	**49**	140	31	**21**	57	13	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	ND	14	2.1	ND	2.4	0.37	
67-63-0	2-Propanol (Isopropyl Alcohol)	**12**	54	5.6	**4.9**	22	2.3	**J**
107-13-1	Acrylonitrile	ND	14	2.8	ND	6.3	1.3	
75-35-4	1,1-Dichloroethene	**8.2**	14	1.9	**2.1**	3.5	0.48	**J**
75-09-2	Methylene Chloride	ND	14	3.8	ND	3.9	1.1	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	14	1.8	ND	4.4	0.59	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	14	1.9	ND	1.8	0.25	
75-15-0	Carbon Disulfide	**19**	28	4.1	**6.1**	9.0	1.3	**J**
156-60-5	trans-1,2-Dichloroethene	ND	14	1.9	ND	3.5	0.48	
75-34-3	1,1-Dichloroethane	ND	14	2.0	ND	3.5	0.49	
1634-04-4	Methyl tert-Butyl Ether	ND	14	1.6	ND	3.8	0.45	
108-05-4	Vinyl Acetate	ND	140	31	ND	39	8.7	
78-93-3	2-Butanone (MEK)	**5.7**	28	2.8	**1.9**	9.6	0.96	**J**

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-003

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.010 Liter(s)
Container ID: 1SC00886

Initial Pressure (psig): -0.17 Final Pressure (psig): 3.87

Canister Dilution Factor: 1.28

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	14	1.9	ND	3.4	0.48	
141-78-6	Ethyl Acetate	**14**	28	7.2	**3.8**	7.8	2.0	**J**
110-54-3	n-Hexane	ND	14	2.8	ND	3.9	0.80	
67-66-3	Chloroform	ND	14	1.8	ND	2.8	0.37	
109-99-9	Tetrahydrofuran (THF)	ND	14	1.7	ND	4.8	0.58	
107-06-2	1,2-Dichloroethane	ND	14	1.5	ND	3.4	0.37	
71-55-6	1,1,1-Trichloroethane	**6.7**	14	1.7	**1.2**	2.5	0.31	**J**
71-43-2	Benzene	ND	14	2.0	ND	4.2	0.62	
56-23-5	Carbon Tetrachloride	ND	14	1.9	ND	2.2	0.30	
110-82-7	Cyclohexane	ND	28	3.8	ND	8.2	1.1	
78-87-5	1,2-Dichloropropane	ND	14	1.7	ND	3.0	0.37	
75-27-4	Bromodichloromethane	ND	14	2.0	ND	2.1	0.29	
79-01-6	Trichloroethene	ND	14	1.8	ND	2.6	0.34	
123-91-1	1,4-Dioxane	**5,500**	69	8.1	**1,500**	19	2.2	**D**
80-62-6	Methyl Methacrylate	ND	28	4.9	ND	6.9	1.2	
142-82-5	n-Heptane	**4.2**	14	2.2	**1.0**	3.4	0.53	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	13	2.1	ND	2.9	0.47	
108-10-1	4-Methyl-2-pentanone	**7.2**	14	1.9	**1.7**	3.3	0.46	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	14	2.8	ND	3.0	0.62	
79-00-5	1,1,2-Trichloroethane	ND	14	1.4	ND	2.5	0.25	
108-88-3	Toluene	**10**	14	1.7	**2.8**	3.7	0.44	**J**
591-78-6	2-Hexanone	ND	14	1.7	ND	3.4	0.41	
124-48-1	Dibromochloromethane	ND	14	1.8	ND	1.6	0.21	
106-93-4	1,2-Dibromoethane	ND	14	1.6	ND	1.8	0.21	
123-86-4	n-Butyl Acetate	ND	14	1.9	ND	3.0	0.39	

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.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-003

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.010 Liter(s)
Container ID: 1SC00886

Initial Pressure (psig): -0.17 Final Pressure (psig): 3.87

Canister Dilution Factor: 1.28

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	**4.0**	14	3.1	**0.86**	3.0	0.66	**J**
127-18-4	Tetrachloroethene	ND	13	1.8	ND	2.0	0.26	
108-90-7	Chlorobenzene	ND	14	1.8	ND	3.0	0.39	
100-41-4	Ethylbenzene	**7.2**	14	1.9	**1.7**	3.2	0.44	**J**
179601-23-1	m,p-Xylenes	**30**	28	3.6	**6.9**	6.5	0.83	
75-25-2	Bromoform	ND	14	2.8	ND	1.3	0.27	
100-42-5	Styrene	ND	14	2.2	ND	3.2	0.52	
95-47-6	o-Xylene	**16**	14	2.0	**3.7**	3.2	0.45	
111-84-2	n-Nonane	ND	14	2.3	ND	2.6	0.43	
79-34-5	1,1,2,2-Tetrachloroethane	ND	14	1.9	ND	2.0	0.28	
98-82-8	Cumene	ND	14	2.0	ND	2.8	0.40	
80-56-8	alpha-Pinene	**2.4**	14	2.1	**0.43**	2.5	0.38	**J**
103-65-1	n-Propylbenzene	ND	14	2.0	ND	2.8	0.40	
622-96-8	4-Ethyltoluene	ND	14	2.2	ND	2.8	0.44	
108-67-8	1,3,5-Trimethylbenzene	**2.5**	14	2.0	**0.50**	2.8	0.40	**J**
95-63-6	1,2,4-Trimethylbenzene	**6.6**	14	1.9	**1.3**	2.8	0.39	**J**
100-44-7	Benzyl Chloride	ND	28	3.1	ND	5.4	0.59	
541-73-1	1,3-Dichlorobenzene	ND	14	2.0	ND	2.3	0.34	
106-46-7	1,4-Dichlorobenzene	ND	14	2.1	ND	2.3	0.35	
95-50-1	1,2-Dichlorobenzene	ND	14	2.0	ND	2.3	0.34	
5989-27-5	d-Limonene	**25**	14	2.8	**4.5**	2.5	0.51	
96-12-8	1,2-Dibromo-3-chloropropane	ND	14	2.6	ND	1.4	0.26	
120-82-1	1,2,4-Trichlorobenzene	ND	14	3.3	ND	1.9	0.45	
91-20-3	Naphthalene	ND	13	3.3	ND	2.5	0.64	
87-68-3	Hexachlorobutadiene	ND	14	2.8	ND	1.3	0.26	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-1** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-004

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SS01031

Initial Pressure (psig): -0.30 Final Pressure (psig): 5.37

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**200**	3.7	0.90	**110**	2.1	0.53	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.5**	3.7	0.60	**0.50**	0.75	0.12	**J**
74-87-3	Chloromethane	**0.81**	3.7	0.60	**0.39**	1.8	0.29	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	3.7	0.58	ND	0.53	0.084	
75-01-4	Vinyl Chloride	ND	3.8	0.40	ND	1.5	0.16	
106-99-0	1,3-Butadiene	ND	3.7	0.61	ND	1.7	0.28	
74-83-9	Bromomethane	ND	3.8	0.51	ND	0.97	0.13	
75-00-3	Chloroethane	ND	3.8	0.46	ND	1.4	0.17	
64-17-5	Ethanol	**72**	36	2.6	**38**	19	1.4	
75-05-8	Acetonitrile	ND	3.7	0.90	ND	2.2	0.54	
107-02-8	Acrolein	ND	7.0	1.0	ND	3.0	0.45	
67-64-1	Acetone	**68**	37	8.3	**29**	16	3.5	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	3.7	0.56	**0.23**	0.66	0.10	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**29**	15	1.5	**12**	5.9	0.62	
107-13-1	Acrylonitrile	ND	3.7	0.76	ND	1.7	0.35	
75-35-4	1,1-Dichloroethene	ND	3.8	0.51	ND	0.95	0.13	
75-09-2	Methylene Chloride	ND	3.7	1.0	ND	1.1	0.30	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	3.8	0.50	ND	1.2	0.16	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.58**	3.8	0.53	**0.076**	0.49	0.069	**J**
75-15-0	Carbon Disulfide	ND	7.6	1.1	ND	2.5	0.36	
156-60-5	trans-1,2-Dichloroethene	ND	3.8	0.51	ND	0.95	0.13	
75-34-3	1,1-Dichloroethane	ND	3.8	0.54	ND	0.94	0.13	
1634-04-4	Methyl tert-Butyl Ether	ND	3.8	0.44	ND	1.0	0.12	
108-05-4	Vinyl Acetate	ND	38	8.3	ND	11	2.4	
78-93-3	2-Butanone (MEK)	**11**	7.6	0.76	**3.8**	2.6	0.26	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-1** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-004

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SS01031

Initial Pressure (psig): -0.30 Final Pressure (psig): 5.37

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	3.7	0.52	ND	0.93	0.13	
141-78-6	Ethyl Acetate	**2.0**	7.6	1.9	**0.56**	2.1	0.54	**J**
110-54-3	n-Hexane	ND	3.8	0.76	ND	1.1	0.22	
67-66-3	Chloroform	**0.81**	3.8	0.49	**0.17**	0.77	0.10	**J**
109-99-9	Tetrahydrofuran (THF)	ND	3.8	0.47	ND	1.3	0.16	
107-06-2	1,2-Dichloroethane	ND	3.8	0.41	ND	0.93	0.10	
71-55-6	1,1,1-Trichloroethane	**0.85**	3.8	0.46	**0.16**	0.69	0.084	**J**
71-43-2	Benzene	**1.8**	3.7	0.54	**0.55**	1.2	0.17	**J**
56-23-5	Carbon Tetrachloride	ND	3.7	0.51	ND	0.59	0.082	
110-82-7	Cyclohexane	ND	7.6	1.0	ND	2.2	0.30	
78-87-5	1,2-Dichloropropane	ND	3.8	0.46	ND	0.81	0.099	
75-27-4	Bromodichloromethane	ND	3.8	0.54	ND	0.56	0.080	
79-01-6	Trichloroethene	ND	3.8	0.50	ND	0.70	0.093	
123-91-1	1,4-Dioxane	**15**	3.8	0.44	**4.2**	1.0	0.12	
80-62-6	Methyl Methacrylate	ND	7.6	1.3	ND	1.9	0.32	
142-82-5	n-Heptane	**0.88**	3.8	0.59	**0.21**	0.92	0.14	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	3.6	0.58	ND	0.80	0.13	
108-10-1	4-Methyl-2-pentanone	**6.9**	3.7	0.51	**1.7**	0.90	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	3.7	0.76	ND	0.81	0.17	
79-00-5	1,1,2-Trichloroethane	ND	3.8	0.38	ND	0.69	0.069	
108-88-3	Toluene	**15**	3.8	0.45	**3.9**	1.0	0.12	
591-78-6	2-Hexanone	ND	3.8	0.46	ND	0.92	0.11	
124-48-1	Dibromochloromethane	ND	3.8	0.49	ND	0.44	0.057	
106-93-4	1,2-Dibromoethane	ND	3.8	0.43	ND	0.49	0.056	
123-86-4	n-Butyl Acetate	**0.55**	3.8	0.51	**0.12**	0.80	0.11	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-1** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-004

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SS01031

Initial Pressure (psig): -0.30 Final Pressure (psig): 5.37

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	3.8	0.83	ND	0.80	0.18	
127-18-4	Tetrachloroethene	**1.6**	3.6	0.48	**0.24**	0.53	0.071	**J**
108-90-7	Chlorobenzene	ND	3.8	0.49	ND	0.82	0.11	
100-41-4	Ethylbenzene	**6.8**	3.8	0.52	**1.6**	0.86	0.12	
179601-23-1	m,p-Xylenes	**31**	7.6	0.97	**7.2**	1.8	0.22	
75-25-2	Bromoform	ND	3.8	0.76	ND	0.36	0.074	
100-42-5	Styrene	**0.63**	3.7	0.60	**0.15**	0.87	0.14	**J**
95-47-6	o-Xylene	**13**	3.8	0.54	**3.1**	0.86	0.12	
111-84-2	n-Nonane	**1.0**	3.8	0.62	**0.19**	0.72	0.12	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.8	0.51	ND	0.55	0.075	
98-82-8	Cumene	ND	3.8	0.54	ND	0.76	0.11	
80-56-8	alpha-Pinene	**2.6**	3.8	0.57	**0.47**	0.67	0.10	**J**
103-65-1	n-Propylbenzene	**1.0**	3.8	0.54	**0.21**	0.76	0.11	**J**
622-96-8	4-Ethyltoluene	**1.7**	3.8	0.59	**0.34**	0.76	0.12	**J**
108-67-8	1,3,5-Trimethylbenzene	**1.7**	3.7	0.54	**0.35**	0.75	0.11	**J**
95-63-6	1,2,4-Trimethylbenzene	**5.9**	3.8	0.51	**1.2**	0.76	0.10	
100-44-7	Benzyl Chloride	ND	7.6	0.83	ND	1.5	0.16	
541-73-1	1,3-Dichlorobenzene	ND	3.8	0.56	ND	0.62	0.093	
106-46-7	1,4-Dichlorobenzene	ND	3.8	0.57	ND	0.62	0.095	
95-50-1	1,2-Dichlorobenzene	ND	3.8	0.55	ND	0.62	0.091	
5989-27-5	d-Limonene	**32**	3.8	0.76	**5.8**	0.67	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.7	0.70	ND	0.38	0.072	
120-82-1	1,2,4-Trichlorobenzene	ND	3.8	0.90	ND	0.51	0.12	
91-20-3	Naphthalene	ND	3.6	0.90	ND	0.69	0.17	
87-68-3	Hexachlorobutadiene	ND	3.7	0.76	ND	0.35	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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-2** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-005

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC01063

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**63**	7.4	1.8	**37**	4.3	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.6**	7.4	1.2	**0.52**	1.5	0.24	**J**
74-87-3	Chloromethane	**1.3**	7.4	1.2	**0.65**	3.6	0.58	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.4	1.2	ND	1.1	0.17	
75-01-4	Vinyl Chloride	ND	7.5	0.79	ND	2.9	0.31	
106-99-0	1,3-Butadiene	ND	7.4	1.2	ND	3.3	0.55	
74-83-9	Bromomethane	ND	7.5	1.0	ND	1.9	0.27	
75-00-3	Chloroethane	ND	7.5	0.92	ND	2.8	0.35	
64-17-5	Ethanol	**28**	72	5.1	**15**	38	2.7	**J**
75-05-8	Acetonitrile	ND	7.4	1.8	ND	4.4	1.1	
107-02-8	Acrolein	**3.4**	14	2.1	**1.5**	6.1	0.91	**J**
67-64-1	Acetone	**57**	74	17	**24**	31	7.0	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	7.4	1.1	**0.23**	1.3	0.20	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**18**	29	3.1	**7.3**	12	1.2	**J**
107-13-1	Acrylonitrile	ND	7.4	1.5	ND	3.4	0.70	
75-35-4	1,1-Dichloroethene	ND	7.5	1.0	ND	1.9	0.26	
75-09-2	Methylene Chloride	ND	7.4	2.1	ND	2.1	0.60	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.5	1.0	ND	2.4	0.32	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	7.5	1.1	ND	0.98	0.14	
75-15-0	Carbon Disulfide	ND	15	2.2	ND	4.9	0.71	
156-60-5	trans-1,2-Dichloroethene	ND	7.5	1.0	ND	1.9	0.26	
75-34-3	1,1-Dichloroethane	ND	7.6	1.1	ND	1.9	0.27	
1634-04-4	Methyl tert-Butyl Ether	ND	7.5	0.88	ND	2.1	0.24	
108-05-4	Vinyl Acetate	ND	75	17	ND	21	4.7	
78-93-3	2-Butanone (MEK)	**8.2**	15	1.5	**2.8**	5.2	0.52	**J**

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-2** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-005

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC01063

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	**1.2**	7.4	1.0	**0.30**	1.9	0.26	**J**
141-78-6	Ethyl Acetate	ND	15	3.9	ND	4.2	1.1	
110-54-3	n-Hexane	ND	7.5	1.5	ND	2.1	0.43	
67-66-3	Chloroform	ND	7.5	0.99	ND	1.5	0.20	
109-99-9	Tetrahydrofuran (THF)	ND	7.6	0.93	ND	2.6	0.32	
107-06-2	1,2-Dichloroethane	ND	7.5	0.82	ND	1.9	0.20	
71-55-6	1,1,1-Trichloroethane	**0.97**	7.5	0.92	**0.18**	1.4	0.17	**J**
71-43-2	Benzene	ND	7.4	1.1	ND	2.3	0.34	
56-23-5	Carbon Tetrachloride	ND	7.4	1.0	ND	1.2	0.16	
110-82-7	Cyclohexane	ND	15	2.1	ND	4.4	0.61	
78-87-5	1,2-Dichloropropane	ND	7.5	0.92	ND	1.6	0.20	
75-27-4	Bromodichloromethane	ND	7.5	1.1	ND	1.1	0.16	
79-01-6	Trichloroethene	**1.1**	7.5	1.0	**0.21**	1.4	0.19	**J**
123-91-1	1,4-Dioxane	**55**	7.5	0.88	**15**	2.1	0.24	
80-62-6	Methyl Methacrylate	ND	15	2.6	ND	3.7	0.65	
142-82-5	n-Heptane	**1.8**	7.5	1.2	**0.43**	1.8	0.29	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	7.2	1.2	ND	1.6	0.25	
108-10-1	4-Methyl-2-pentanone	**2.5**	7.4	1.0	**0.61**	1.8	0.25	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	7.4	1.5	ND	1.6	0.34	
79-00-5	1,1,2-Trichloroethane	ND	7.5	0.75	ND	1.4	0.14	
108-88-3	Toluene	**8.6**	7.5	0.90	**2.3**	2.0	0.24	
591-78-6	2-Hexanone	ND	7.5	0.92	ND	1.8	0.22	
124-48-1	Dibromochloromethane	ND	7.5	0.97	ND	0.88	0.11	
106-93-4	1,2-Dibromoethane	ND	7.5	0.86	ND	0.98	0.11	
123-86-4	n-Butyl Acetate	ND	7.6	1.0	ND	1.6	0.21	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-2** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-005

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC01063

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	7.5	1.7	ND	1.6	0.36	
127-18-4	Tetrachloroethene	ND	7.2	0.96	ND	1.1	0.14	
108-90-7	Chlorobenzene	ND	7.5	0.99	ND	1.6	0.21	
100-41-4	Ethylbenzene	**5.7**	7.5	1.0	**1.3**	1.7	0.24	**J**
179601-23-1	m,p-Xylenes	**26**	15	1.9	**5.9**	3.5	0.45	
75-25-2	Bromoform	ND	7.5	1.5	ND	0.73	0.15	
100-42-5	Styrene	ND	7.4	1.2	ND	1.7	0.28	
95-47-6	o-Xylene	**9.9**	7.5	1.1	**2.3**	1.7	0.25	
111-84-2	n-Nonane	**1.6**	7.5	1.2	**0.30**	1.4	0.24	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.5	1.0	ND	1.1	0.15	
98-82-8	Cumene	ND	7.5	1.1	ND	1.5	0.22	
80-56-8	alpha-Pinene	**2.6**	7.5	1.1	**0.46**	1.3	0.20	**J**
103-65-1	n-Propylbenzene	ND	7.5	1.1	ND	1.5	0.22	
622-96-8	4-Ethyltoluene	**1.3**	7.5	1.2	**0.25**	1.5	0.24	**J**
108-67-8	1,3,5-Trimethylbenzene	**1.3**	7.4	1.1	**0.27**	1.5	0.22	**J**
95-63-6	1,2,4-Trimethylbenzene	**4.4**	7.5	1.0	**0.89**	1.5	0.21	**J**
100-44-7	Benzyl Chloride	ND	15	1.7	ND	3.0	0.32	
541-73-1	1,3-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.19	
106-46-7	1,4-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.19	
95-50-1	1,2-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.18	
5989-27-5	d-Limonene	**28**	7.5	1.5	**5.1**	1.3	0.27	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.4	1.4	ND	0.76	0.14	
120-82-1	1,2,4-Trichlorobenzene	ND	7.5	1.8	ND	1.0	0.24	
91-20-3	Naphthalene	ND	7.2	1.8	ND	1.4	0.34	
87-68-3	Hexachlorobutadiene	ND	7.4	1.5	ND	0.69	0.14	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-3** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-006

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00282

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.36

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**5.6**	7.4	1.8	**3.3**	4.3	1.1	**J**
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	7.4	1.2	ND	1.5	0.24	
74-87-3	Chloromethane	ND	7.4	1.2	ND	3.6	0.58	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.4	1.2	ND	1.1	0.17	
75-01-4	Vinyl Chloride	ND	7.5	0.79	ND	2.9	0.31	
106-99-0	1,3-Butadiene	ND	7.4	1.2	ND	3.3	0.55	
74-83-9	Bromomethane	ND	7.5	1.0	ND	1.9	0.27	
75-00-3	Chloroethane	ND	7.5	0.92	ND	2.8	0.35	
64-17-5	Ethanol	**23**	72	5.1	**12**	38	2.7	**J**
75-05-8	Acetonitrile	ND	7.4	1.8	ND	4.4	1.1	
107-02-8	Acrolein	ND	14	2.1	ND	6.1	0.91	
67-64-1	Acetone	**35**	74	17	**15**	31	7.0	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	7.4	1.1	**0.24**	1.3	0.20	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**3.7**	29	3.1	**1.5**	12	1.2	**J**
107-13-1	Acrylonitrile	ND	7.4	1.5	ND	3.4	0.70	
75-35-4	1,1-Dichloroethene	**3.4**	7.5	1.0	**0.86**	1.9	0.26	**J**
75-09-2	Methylene Chloride	**2.7**	7.4	2.1	**0.78**	2.1	0.60	**J**
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.5	1.0	ND	2.4	0.32	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**1.3**	7.5	1.1	**0.16**	0.98	0.14	**J**
75-15-0	Carbon Disulfide	**7.2**	15	2.2	**2.3**	4.9	0.71	**J**
156-60-5	trans-1,2-Dichloroethene	ND	7.5	1.0	ND	1.9	0.26	
75-34-3	1,1-Dichloroethane	ND	7.6	1.1	ND	1.9	0.27	
1634-04-4	Methyl tert-Butyl Ether	ND	7.5	0.88	ND	2.1	0.24	
108-05-4	Vinyl Acetate	ND	75	17	ND	21	4.7	
78-93-3	2-Butanone (MEK)	**4.9**	15	1.5	**1.7**	5.2	0.52	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-3** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-006

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00282

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.36

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	7.4	1.0	ND	1.9	0.26	
141-78-6	Ethyl Acetate	ND	15	3.9	ND	4.2	1.1	
110-54-3	n-Hexane	ND	7.5	1.5	ND	2.1	0.43	
67-66-3	Chloroform	ND	7.5	0.99	ND	1.5	0.20	
109-99-9	Tetrahydrofuran (THF)	ND	7.6	0.93	ND	2.6	0.32	
107-06-2	1,2-Dichloroethane	ND	7.5	0.82	ND	1.9	0.20	
71-55-6	1,1,1-Trichloroethane	**1.7**	7.5	0.92	**0.31**	1.4	0.17	**J**
71-43-2	Benzene	**1.7**	7.4	1.1	**0.54**	2.3	0.34	**J**
56-23-5	Carbon Tetrachloride	ND	7.4	1.0	ND	1.2	0.16	
110-82-7	Cyclohexane	**2.2**	15	2.1	**0.63**	4.4	0.61	**J**
78-87-5	1,2-Dichloropropane	ND	7.5	0.92	ND	1.6	0.20	
75-27-4	Bromodichloromethane	ND	7.5	1.1	ND	1.1	0.16	
79-01-6	Trichloroethene	ND	7.5	1.0	ND	1.4	0.19	
123-91-1	1,4-Dioxane	**10**	7.5	0.88	**2.8**	2.1	0.24	
80-62-6	Methyl Methacrylate	ND	15	2.6	ND	3.7	0.65	
142-82-5	n-Heptane	ND	7.5	1.2	ND	1.8	0.29	
10061-01-5	cis-1,3-Dichloropropene	ND	7.2	1.2	ND	1.6	0.25	
108-10-1	4-Methyl-2-pentanone	ND	7.4	1.0	ND	1.8	0.25	
10061-02-6	trans-1,3-Dichloropropene	ND	7.4	1.5	ND	1.6	0.34	
79-00-5	1,1,2-Trichloroethane	ND	7.5	0.75	ND	1.4	0.14	
108-88-3	Toluene	**8.6**	7.5	0.90	**2.3**	2.0	0.24	
591-78-6	2-Hexanone	ND	7.5	0.92	ND	1.8	0.22	
124-48-1	Dibromochloromethane	ND	7.5	0.97	ND	0.88	0.11	
106-93-4	1,2-Dibromoethane	ND	7.5	0.86	ND	0.98	0.11	
123-86-4	n-Butyl Acetate	ND	7.6	1.0	ND	1.6	0.21	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-3** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-006

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00282

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.36

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	7.5	1.7	ND	1.6	0.36	
127-18-4	Tetrachloroethene	ND	7.2	0.96	ND	1.1	0.14	
108-90-7	Chlorobenzene	ND	7.5	0.99	ND	1.6	0.21	
100-41-4	Ethylbenzene	**2.3**	7.5	1.0	**0.54**	1.7	0.24	**J**
179601-23-1	m,p-Xylenes	**10**	15	1.9	**2.4**	3.5	0.45	**J**
75-25-2	Bromoform	ND	7.5	1.5	ND	0.73	0.15	
100-42-5	Styrene	ND	7.4	1.2	ND	1.7	0.28	
95-47-6	o-Xylene	**4.6**	7.5	1.1	**1.1**	1.7	0.25	**J**
111-84-2	n-Nonane	**3.2**	7.5	1.2	**0.61**	1.4	0.24	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.5	1.0	ND	1.1	0.15	
98-82-8	Cumene	ND	7.5	1.1	ND	1.5	0.22	
80-56-8	alpha-Pinene	ND	7.5	1.1	ND	1.3	0.20	
103-65-1	n-Propylbenzene	ND	7.5	1.1	ND	1.5	0.22	
622-96-8	4-Ethyltoluene	ND	7.5	1.2	ND	1.5	0.24	
108-67-8	1,3,5-Trimethylbenzene	**1.7**	7.4	1.1	**0.35**	1.5	0.22	**J**
95-63-6	1,2,4-Trimethylbenzene	**6.2**	7.5	1.0	**1.3**	1.5	0.21	**J**
100-44-7	Benzyl Chloride	ND	15	1.7	ND	3.0	0.32	
541-73-1	1,3-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.19	
106-46-7	1,4-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.19	
95-50-1	1,2-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.18	
5989-27-5	d-Limonene	**13**	7.5	1.5	**2.4**	1.3	0.27	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.4	1.4	ND	0.76	0.14	
120-82-1	1,2,4-Trichlorobenzene	ND	7.5	1.8	ND	1.0	0.24	
91-20-3	Naphthalene	ND	7.2	1.8	ND	1.4	0.34	
87-68-3	Hexachlorobutadiene	ND	7.4	1.5	ND	0.69	0.14	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-4** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-007

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC01369

Initial Pressure (psig): -0.08 Final Pressure (psig): 6.30

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**58**	3.8	0.94	**34**	2.2	0.54	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	3.8	0.63	**0.48**	0.77	0.13	**J**
74-87-3	Chloromethane	**1.3**	3.8	0.62	**0.65**	1.8	0.30	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	3.8	0.60	ND	0.55	0.087	
75-01-4	Vinyl Chloride	ND	3.9	0.41	ND	1.5	0.16	
106-99-0	1,3-Butadiene	ND	3.8	0.63	ND	1.7	0.29	
74-83-9	Bromomethane	ND	3.9	0.53	ND	1.0	0.14	
75-00-3	Chloroethane	ND	3.9	0.48	ND	1.5	0.18	
64-17-5	Ethanol	**27**	37	2.7	**14**	20	1.4	**J**
75-05-8	Acetonitrile	ND	3.8	0.94	ND	2.3	0.56	
107-02-8	Acrolein	ND	7.2	1.1	ND	3.1	0.47	
67-64-1	Acetone	**48**	38	8.6	**20**	16	3.6	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	3.8	0.58	**0.23**	0.68	0.10	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**4.6**	15	1.6	**1.9**	6.2	0.64	**J**
107-13-1	Acrylonitrile	ND	3.8	0.79	ND	1.8	0.37	
75-35-4	1,1-Dichloroethene	ND	3.9	0.53	ND	0.98	0.13	
75-09-2	Methylene Chloride	ND	3.8	1.1	ND	1.1	0.31	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	3.9	0.52	ND	1.2	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.61**	3.9	0.55	**0.080**	0.51	0.071	**J**
75-15-0	Carbon Disulfide	**2.0**	7.9	1.2	**0.64**	2.5	0.37	**J**
156-60-5	trans-1,2-Dichloroethene	ND	3.9	0.53	ND	0.98	0.13	
75-34-3	1,1-Dichloroethane	ND	4.0	0.56	ND	0.98	0.14	
1634-04-4	Methyl tert-Butyl Ether	ND	3.9	0.45	ND	1.1	0.13	
108-05-4	Vinyl Acetate	ND	39	8.6	ND	11	2.5	
78-93-3	2-Butanone (MEK)	**8.8**	7.9	0.79	**3.0**	2.7	0.27	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-4** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-007

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC01369

Initial Pressure (psig): -0.08 Final Pressure (psig): 6.30

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	3.8	0.54	ND	0.96	0.14	
141-78-6	Ethyl Acetate	ND	7.9	2.0	ND	2.2	0.56	
110-54-3	n-Hexane	ND	3.9	0.79	ND	1.1	0.22	
67-66-3	Chloroform	ND	3.9	0.51	ND	0.80	0.10	
109-99-9	Tetrahydrofuran (THF)	**0.66**	4.0	0.48	**0.22**	1.3	0.16	**J**
107-06-2	1,2-Dichloroethane	ND	3.9	0.42	ND	0.96	0.10	
71-55-6	1,1,1-Trichloroethane	ND	3.9	0.48	ND	0.71	0.087	
71-43-2	Benzene	**1.1**	3.8	0.55	**0.34**	1.2	0.17	**J**
56-23-5	Carbon Tetrachloride	ND	3.8	0.53	ND	0.61	0.085	
110-82-7	Cyclohexane	ND	7.9	1.1	ND	2.3	0.31	
78-87-5	1,2-Dichloropropane	ND	3.9	0.48	ND	0.84	0.10	
75-27-4	Bromodichloromethane	ND	3.9	0.55	ND	0.58	0.083	
79-01-6	Trichloroethene	ND	3.9	0.52	ND	0.72	0.096	
123-91-1	1,4-Dioxane	**4.7**	3.9	0.45	**1.3**	1.1	0.13	
80-62-6	Methyl Methacrylate	ND	7.9	1.4	ND	1.9	0.33	
142-82-5	n-Heptane	**1.1**	3.9	0.61	**0.27**	0.95	0.15	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	3.7	0.60	ND	0.83	0.13	
108-10-1	4-Methyl-2-pentanone	**3.7**	3.8	0.53	**0.91**	0.93	0.13	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	3.8	0.79	ND	0.84	0.17	
79-00-5	1,1,2-Trichloroethane	ND	3.9	0.39	ND	0.71	0.071	
108-88-3	Toluene	**8.9**	3.9	0.47	**2.4**	1.0	0.12	
591-78-6	2-Hexanone	**0.53**	3.9	0.48	**0.13**	0.95	0.12	**J**
124-48-1	Dibromochloromethane	ND	3.9	0.50	ND	0.46	0.059	
106-93-4	1,2-Dibromoethane	ND	3.9	0.45	ND	0.51	0.058	
123-86-4	n-Butyl Acetate	**0.62**	4.0	0.53	**0.13**	0.83	0.11	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-4** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-007

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC01369

Initial Pressure (psig): -0.08 Final Pressure (psig): 6.30

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	3.9	0.86	ND	0.83	0.19	
127-18-4	Tetrachloroethene	ND	3.7	0.50	ND	0.55	0.073	
108-90-7	Chlorobenzene	ND	3.9	0.51	ND	0.84	0.11	
100-41-4	Ethylbenzene	**14**	3.9	0.54	**3.2**	0.90	0.12	
179601-23-1	m,p-Xylenes	**61**	7.9	1.0	**14**	1.8	0.23	
75-25-2	Bromoform	ND	3.9	0.79	ND	0.38	0.077	
100-42-5	Styrene	**0.69**	3.8	0.62	**0.16**	0.90	0.15	**J**
95-47-6	o-Xylene	**23**	3.9	0.55	**5.3**	0.90	0.13	
111-84-2	n-Nonane	**1.3**	3.9	0.64	**0.24**	0.74	0.12	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.9	0.53	ND	0.57	0.078	
98-82-8	Cumene	**0.66**	3.9	0.55	**0.13**	0.79	0.11	**J**
80-56-8	alpha-Pinene	**3.1**	3.9	0.59	**0.55**	0.70	0.11	**J**
103-65-1	n-Propylbenzene	**1.3**	3.9	0.55	**0.27**	0.79	0.11	**J**
622-96-8	4-Ethyltoluene	**2.4**	3.9	0.61	**0.48**	0.79	0.12	**J**
108-67-8	1,3,5-Trimethylbenzene	**2.8**	3.8	0.55	**0.57**	0.78	0.11	**J**
95-63-6	1,2,4-Trimethylbenzene	**7.9**	3.9	0.53	**1.6**	0.79	0.11	
100-44-7	Benzyl Chloride	ND	7.9	0.86	ND	1.5	0.17	
541-73-1	1,3-Dichlorobenzene	ND	3.9	0.58	ND	0.65	0.096	
106-46-7	1,4-Dichlorobenzene	ND	3.9	0.59	ND	0.65	0.098	
95-50-1	1,2-Dichlorobenzene	ND	3.9	0.57	ND	0.65	0.095	
5989-27-5	d-Limonene	**20**	3.9	0.79	**3.6**	0.70	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.8	0.72	ND	0.39	0.075	
120-82-1	1,2,4-Trichlorobenzene	ND	3.9	0.94	ND	0.52	0.13	
91-20-3	Naphthalene	ND	3.7	0.94	ND	0.71	0.18	
87-68-3	Hexachlorobutadiene	ND	3.8	0.79	ND	0.36	0.074	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-5** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-008

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00219

Initial Pressure (psig): 0.04 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**35**	7.4	1.8	**20**	4.3	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.6**	7.4	1.2	**0.52**	1.5	0.24	**J**
74-87-3	Chloromethane	ND	7.4	1.2	ND	3.6	0.58	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.4	1.2	ND	1.1	0.17	
75-01-4	Vinyl Chloride	ND	7.5	0.79	ND	2.9	0.31	
106-99-0	1,3-Butadiene	ND	7.4	1.2	ND	3.3	0.55	
74-83-9	Bromomethane	ND	7.5	1.0	ND	1.9	0.27	
75-00-3	Chloroethane	ND	7.5	0.92	ND	2.8	0.35	
64-17-5	Ethanol	**27**	72	5.1	**15**	38	2.7	**J**
75-05-8	Acetonitrile	ND	7.4	1.8	ND	4.4	1.1	
107-02-8	Acrolein	ND	14	2.1	ND	6.1	0.91	
67-64-1	Acetone	**18**	74	17	**7.6**	31	7.0	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	7.4	1.1	**0.23**	1.3	0.20	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**6.0**	29	3.1	**2.5**	12	1.2	**J**
107-13-1	Acrylonitrile	ND	7.4	1.5	ND	3.4	0.70	
75-35-4	1,1-Dichloroethene	ND	7.5	1.0	ND	1.9	0.26	
75-09-2	Methylene Chloride	ND	7.4	2.1	ND	2.1	0.60	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.5	1.0	ND	2.4	0.32	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	7.5	1.1	ND	0.98	0.14	
75-15-0	Carbon Disulfide	**110**	15	2.2	**36**	4.9	0.71	
156-60-5	trans-1,2-Dichloroethene	ND	7.5	1.0	ND	1.9	0.26	
75-34-3	1,1-Dichloroethane	ND	7.6	1.1	ND	1.9	0.27	
1634-04-4	Methyl tert-Butyl Ether	ND	7.5	0.88	ND	2.1	0.24	
108-05-4	Vinyl Acetate	ND	75	17	ND	21	4.7	
78-93-3	2-Butanone (MEK)	**4.2**	15	1.5	**1.4**	5.2	0.52	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-5** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-008

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00219

Initial Pressure (psig): 0.04 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	7.4	1.0	ND	1.9	0.26	
141-78-6	Ethyl Acetate	ND	15	3.9	ND	4.2	1.1	
110-54-3	n-Hexane	ND	7.5	1.5	ND	2.1	0.43	
67-66-3	Chloroform	ND	7.5	0.99	ND	1.5	0.20	
109-99-9	Tetrahydrofuran (THF)	ND	7.6	0.93	ND	2.6	0.32	
107-06-2	1,2-Dichloroethane	ND	7.5	0.82	ND	1.9	0.20	
71-55-6	1,1,1-Trichloroethane	ND	7.5	0.92	ND	1.4	0.17	
71-43-2	Benzene	ND	7.4	1.1	ND	2.3	0.34	
56-23-5	Carbon Tetrachloride	ND	7.4	1.0	ND	1.2	0.16	
110-82-7	Cyclohexane	ND	15	2.1	ND	4.4	0.61	
78-87-5	1,2-Dichloropropane	ND	7.5	0.92	ND	1.6	0.20	
75-27-4	Bromodichloromethane	ND	7.5	1.1	ND	1.1	0.16	
79-01-6	Trichloroethene	ND	7.5	1.0	ND	1.4	0.19	
123-91-1	1,4-Dioxane	**4.7**	7.5	0.88	**1.3**	2.1	0.24	**J**
80-62-6	Methyl Methacrylate	ND	15	2.6	ND	3.7	0.65	
142-82-5	n-Heptane	ND	7.5	1.2	ND	1.8	0.29	
10061-01-5	cis-1,3-Dichloropropene	ND	7.2	1.2	ND	1.6	0.25	
108-10-1	4-Methyl-2-pentanone	ND	7.4	1.0	ND	1.8	0.25	
10061-02-6	trans-1,3-Dichloropropene	ND	7.4	1.5	ND	1.6	0.34	
79-00-5	1,1,2-Trichloroethane	ND	7.5	0.75	ND	1.4	0.14	
108-88-3	Toluene	**5.0**	7.5	0.90	**1.3**	2.0	0.24	**J**
591-78-6	2-Hexanone	ND	7.5	0.92	ND	1.8	0.22	
124-48-1	Dibromochloromethane	ND	7.5	0.97	ND	0.88	0.11	
106-93-4	1,2-Dibromoethane	ND	7.5	0.86	ND	0.98	0.11	
123-86-4	n-Butyl Acetate	ND	7.6	1.0	ND	1.6	0.21	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-5** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-008

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00219

Initial Pressure (psig): 0.04 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	7.5	1.7	ND	1.6	0.36	
127-18-4	Tetrachloroethene	ND	7.2	0.96	ND	1.1	0.14	
108-90-7	Chlorobenzene	ND	7.5	0.99	ND	1.6	0.21	
100-41-4	Ethylbenzene	**7.6**	7.5	1.0	**1.7**	1.7	0.24	
179601-23-1	m,p-Xylenes	**32**	15	1.9	**7.4**	3.5	0.45	
75-25-2	Bromoform	ND	7.5	1.5	ND	0.73	0.15	
100-42-5	Styrene	ND	7.4	1.2	ND	1.7	0.28	
95-47-6	o-Xylene	**13**	7.5	1.1	**2.9**	1.7	0.25	
111-84-2	n-Nonane	**2.3**	7.5	1.2	**0.45**	1.4	0.24	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.5	1.0	ND	1.1	0.15	
98-82-8	Cumene	ND	7.5	1.1	ND	1.5	0.22	
80-56-8	alpha-Pinene	**2.3**	7.5	1.1	**0.42**	1.3	0.20	**J**
103-65-1	n-Propylbenzene	ND	7.5	1.1	ND	1.5	0.22	
622-96-8	4-Ethyltoluene	**1.5**	7.5	1.2	**0.31**	1.5	0.24	**J**
108-67-8	1,3,5-Trimethylbenzene	**2.6**	7.4	1.1	**0.53**	1.5	0.22	**J**
95-63-6	1,2,4-Trimethylbenzene	**5.4**	7.5	1.0	**1.1**	1.5	0.21	**J**
100-44-7	Benzyl Chloride	ND	15	1.7	ND	3.0	0.32	
541-73-1	1,3-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.19	
106-46-7	1,4-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.19	
95-50-1	1,2-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.18	
5989-27-5	d-Limonene	**11**	7.5	1.5	**2.1**	1.3	0.27	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.4	1.4	ND	0.76	0.14	
120-82-1	1,2,4-Trichlorobenzene	ND	7.5	1.8	ND	1.0	0.24	
91-20-3	Naphthalene	ND	7.2	1.8	ND	1.4	0.34	
87-68-3	Hexachlorobutadiene	ND	7.4	1.5	ND	0.69	0.14	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-7** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-009

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.15 Liter(s)
Test Notes:
Container ID: 1SS00011

Initial Pressure (psig): -0.44 Final Pressure (psig): 5.71

Canister Dilution Factor: 1.43

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**430**	5.1	1.2	**250**	2.9	0.72	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.3**	5.1	0.83	**0.47**	1.0	0.17	**J**
74-87-3	Chloromethane	**1.3**	5.1	0.82	**0.61**	2.4	0.40	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.1	0.80	ND	0.72	0.11	
75-01-4	Vinyl Chloride	ND	5.1	0.54	ND	2.0	0.21	
106-99-0	1,3-Butadiene	ND	5.1	0.84	ND	2.3	0.38	
74-83-9	Bromomethane	ND	5.1	0.71	ND	1.3	0.18	
75-00-3	Chloroethane	ND	5.1	0.63	ND	2.0	0.24	
64-17-5	Ethanol	**410**	50	3.5	**220**	26	1.9	
75-05-8	Acetonitrile	ND	5.1	1.2	ND	3.0	0.74	
107-02-8	Acrolein	ND	9.5	1.4	ND	4.2	0.62	
67-64-1	Acetone	**57**	51	11	**24**	21	4.8	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	5.1	0.77	**0.24**	0.90	0.14	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**37**	20	2.1	**15**	8.1	0.85	
107-13-1	Acrylonitrile	ND	5.1	1.0	ND	2.3	0.48	
75-35-4	1,1-Dichloroethene	**2.5**	5.1	0.71	**0.62**	1.3	0.18	**J**
75-09-2	Methylene Chloride	ND	5.1	1.4	ND	1.5	0.41	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.1	0.69	ND	1.6	0.22	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	5.1	0.72	ND	0.67	0.095	
75-15-0	Carbon Disulfide	ND	10	1.5	ND	3.4	0.49	
156-60-5	trans-1,2-Dichloroethene	ND	5.1	0.71	ND	1.3	0.18	
75-34-3	1,1-Dichloroethane	ND	5.2	0.74	ND	1.3	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	5.1	0.60	ND	1.4	0.17	
108-05-4	Vinyl Acetate	ND	51	11	ND	15	3.3	
78-93-3	2-Butanone (MEK)	**9.1**	10	1.0	**3.1**	3.6	0.36	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-7** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-009

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.15 Liter(s)
Test Notes:
Container ID: 1SS00011

Initial Pressure (psig): -0.44 Final Pressure (psig): 5.71

Canister Dilution Factor: 1.43

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.1	0.72	ND	1.3	0.18	
141-78-6	Ethyl Acetate	**7.5**	10	2.7	**2.1**	2.9	0.74	**J**
110-54-3	n-Hexane	ND	5.1	1.0	ND	1.5	0.30	
67-66-3	Chloroform	ND	5.1	0.68	ND	1.1	0.14	
109-99-9	Tetrahydrofuran (THF)	ND	5.2	0.64	ND	1.8	0.22	
107-06-2	1,2-Dichloroethane	ND	5.1	0.56	ND	1.3	0.14	
71-55-6	1,1,1-Trichloroethane	**2.5**	5.1	0.63	**0.45**	0.94	0.12	**J**
71-43-2	Benzene	ND	5.1	0.73	ND	1.6	0.23	
56-23-5	Carbon Tetrachloride	ND	5.1	0.71	ND	0.80	0.11	
110-82-7	Cyclohexane	ND	10	1.4	ND	3.0	0.42	
78-87-5	1,2-Dichloropropane	ND	5.1	0.63	ND	1.1	0.14	
75-27-4	Bromodichloromethane	ND	5.1	0.73	ND	0.77	0.11	
79-01-6	Trichloroethene	ND	5.1	0.69	ND	0.96	0.13	
123-91-1	1,4-Dioxane	**270**	5.1	0.60	**74**	1.4	0.17	
80-62-6	Methyl Methacrylate	ND	10	1.8	ND	2.6	0.44	
142-82-5	n-Heptane	**2.2**	5.1	0.81	**0.54**	1.3	0.20	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	0.79	ND	1.1	0.17	
108-10-1	4-Methyl-2-pentanone	**14**	5.1	0.70	**3.3**	1.2	0.17	
10061-02-6	trans-1,3-Dichloropropene	ND	5.1	1.0	ND	1.1	0.23	
79-00-5	1,1,2-Trichloroethane	ND	5.1	0.51	ND	0.94	0.094	
108-88-3	Toluene	**52**	5.1	0.62	**14**	1.4	0.16	
591-78-6	2-Hexanone	ND	5.1	0.63	ND	1.3	0.15	
124-48-1	Dibromochloromethane	ND	5.1	0.67	ND	0.60	0.078	
106-93-4	1,2-Dibromoethane	ND	5.1	0.59	ND	0.67	0.077	
123-86-4	n-Butyl Acetate	ND	5.2	0.70	ND	1.1	0.15	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-7** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-009

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.15 Liter(s)
Test Notes:
Container ID: 1SS00011

Initial Pressure (psig): -0.44 Final Pressure (psig): 5.71

Canister Dilution Factor: 1.43

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	5.1	1.1	ND	1.1	0.24	
127-18-4	Tetrachloroethene	ND	5.0	0.66	ND	0.73	0.097	
108-90-7	Chlorobenzene	ND	5.1	0.68	ND	1.1	0.15	
100-41-4	Ethylbenzene	**8.0**	5.1	0.72	**1.8**	1.2	0.16	
179601-23-1	m,p-Xylenes	**37**	10	1.3	**8.5**	2.4	0.31	
75-25-2	Bromoform	ND	5.1	1.0	ND	0.50	0.10	
100-42-5	Styrene	**1.6**	5.1	0.82	**0.39**	1.2	0.19	**J**
95-47-6	o-Xylene	**28**	5.1	0.73	**6.4**	1.2	0.17	
111-84-2	n-Nonane	**1.8**	5.1	0.85	**0.34**	0.98	0.16	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.1	0.71	ND	0.75	0.10	
98-82-8	Cumene	**0.79**	5.1	0.73	**0.16**	1.0	0.15	**J**
80-56-8	alpha-Pinene	**6.2**	5.1	0.78	**1.1**	0.92	0.14	
103-65-1	n-Propylbenzene	**2.0**	5.1	0.73	**0.40**	1.0	0.15	**J**
622-96-8	4-Ethyltoluene	**3.0**	5.1	0.81	**0.61**	1.0	0.16	**J**
108-67-8	1,3,5-Trimethylbenzene	**4.2**	5.1	0.73	**0.86**	1.0	0.15	**J**
95-63-6	1,2,4-Trimethylbenzene	**11**	5.1	0.71	**2.3**	1.0	0.14	
100-44-7	Benzyl Chloride	ND	10	1.1	ND	2.0	0.22	
541-73-1	1,3-Dichlorobenzene	ND	5.1	0.76	ND	0.86	0.13	
106-46-7	1,4-Dichlorobenzene	ND	5.1	0.78	ND	0.86	0.13	
95-50-1	1,2-Dichlorobenzene	ND	5.1	0.75	ND	0.86	0.13	
5989-27-5	d-Limonene	**19**	5.1	1.0	**3.5**	0.92	0.19	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.1	0.95	ND	0.52	0.099	
120-82-1	1,2,4-Trichlorobenzene	ND	5.1	1.2	ND	0.69	0.17	
91-20-3	Naphthalene	ND	5.0	1.2	ND	0.95	0.24	
87-68-3	Hexachlorobutadiene	ND	5.1	1.0	ND	0.47	0.098	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-8** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-010

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00114

Initial Pressure (psig): -0.24 Final Pressure (psig): 5.64

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**270**	7.5	1.8	**160**	4.3	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.3**	7.5	1.2	**0.46**	1.5	0.25	**J**
74-87-3	Chloromethane	**1.5**	7.5	1.2	**0.70**	3.6	0.59	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.5	1.2	ND	1.1	0.17	
75-01-4	Vinyl Chloride	ND	7.6	0.80	ND	3.0	0.31	
106-99-0	1,3-Butadiene	ND	7.5	1.2	ND	3.4	0.56	
74-83-9	Bromomethane	ND	7.6	1.0	ND	2.0	0.27	
75-00-3	Chloroethane	ND	7.6	0.93	ND	2.9	0.35	
64-17-5	Ethanol	**92**	73	5.2	**49**	39	2.8	
75-05-8	Acetonitrile	ND	7.5	1.8	ND	4.5	1.1	
107-02-8	Acrolein	**2.2**	14	2.1	**0.97**	6.2	0.92	**J**
67-64-1	Acetone	**52**	75	17	**22**	31	7.1	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	7.5	1.1	**0.23**	1.3	0.20	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**8.4**	30	3.1	**3.4**	12	1.3	**J**
107-13-1	Acrylonitrile	ND	7.5	1.6	ND	3.4	0.71	
75-35-4	1,1-Dichloroethene	**61**	7.6	1.0	**15**	1.9	0.26	
75-09-2	Methylene Chloride	**2.3**	7.5	2.1	**0.67**	2.2	0.61	**J**
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.6	1.0	ND	2.4	0.32	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	7.6	1.1	ND	0.99	0.14	
75-15-0	Carbon Disulfide	**6.0**	16	2.3	**1.9**	5.0	0.72	**J**
156-60-5	trans-1,2-Dichloroethene	ND	7.6	1.0	ND	1.9	0.26	
75-34-3	1,1-Dichloroethane	**4.9**	7.8	1.1	**1.2**	1.9	0.27	**J**
1634-04-4	Methyl tert-Butyl Ether	ND	7.6	0.89	ND	2.1	0.25	
108-05-4	Vinyl Acetate	ND	76	17	ND	22	4.8	
78-93-3	2-Butanone (MEK)	**7.3**	16	1.6	**2.5**	5.3	0.53	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-8** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-010

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00114

Initial Pressure (psig): -0.24 Final Pressure (psig): 5.64

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	7.5	1.1	ND	1.9	0.27	
141-78-6	Ethyl Acetate	**14**	16	3.9	**3.9**	4.3	1.1	**J**
110-54-3	n-Hexane	ND	7.6	1.6	ND	2.2	0.44	
67-66-3	Chloroform	ND	7.6	1.0	ND	1.6	0.21	
109-99-9	Tetrahydrofuran (THF)	ND	7.8	0.94	ND	2.6	0.32	
107-06-2	1,2-Dichloroethane	ND	7.6	0.83	ND	1.9	0.21	
71-55-6	1,1,1-Trichloroethane	**5.8**	7.6	0.93	**1.1**	1.4	0.17	**J**
71-43-2	Benzene	ND	7.5	1.1	ND	2.3	0.34	
56-23-5	Carbon Tetrachloride	ND	7.5	1.0	ND	1.2	0.17	
110-82-7	Cyclohexane	ND	16	2.1	ND	4.5	0.61	
78-87-5	1,2-Dichloropropane	ND	7.6	0.93	ND	1.6	0.20	
75-27-4	Bromodichloromethane	ND	7.6	1.1	ND	1.1	0.16	
79-01-6	Trichloroethene	**1.6**	7.6	1.0	**0.29**	1.4	0.19	**J**
123-91-1	1,4-Dioxane	**190**	7.6	0.89	**54**	2.1	0.25	
80-62-6	Methyl Methacrylate	ND	16	2.7	ND	3.8	0.65	
142-82-5	n-Heptane	**1.9**	7.6	1.2	**0.46**	1.9	0.29	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	7.3	1.2	ND	1.6	0.26	
108-10-1	4-Methyl-2-pentanone	**8.2**	7.5	1.0	**2.0**	1.8	0.25	
10061-02-6	trans-1,3-Dichloropropene	ND	7.5	1.6	ND	1.6	0.34	
79-00-5	1,1,2-Trichloroethane	ND	7.6	0.76	ND	1.4	0.14	
108-88-3	Toluene	**25**	7.6	0.92	**6.7**	2.0	0.24	
591-78-6	2-Hexanone	ND	7.6	0.93	ND	1.9	0.23	
124-48-1	Dibromochloromethane	ND	7.6	0.99	ND	0.89	0.12	
106-93-4	1,2-Dibromoethane	ND	7.6	0.87	ND	0.99	0.11	
123-86-4	n-Butyl Acetate	ND	7.8	1.0	ND	1.6	0.22	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **SVE-OBS-8** ALS Project ID: P2001751

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-010

Test Code: EPA TO-15 Date Collected: 3/20/20

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20

Analyst: Simon Cao Date Analyzed: 4/9/20

Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)

Test Notes:

Container ID: 1SC00114

Initial Pressure (psig): -0.24 Final Pressure (psig): 5.64

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	7.6	1.7	ND	1.6	0.36	
127-18-4	Tetrachloroethene	**6.1**	7.3	0.97	**0.90**	1.1	0.14	**J**
108-90-7	Chlorobenzene	ND	7.6	1.0	ND	1.7	0.22	
100-41-4	Ethylbenzene	**4.3**	7.6	1.1	**0.99**	1.8	0.24	**J**
179601-23-1	m,p-Xylenes	**20**	16	2.0	**4.6**	3.6	0.45	
75-25-2	Bromoform	ND	7.6	1.6	ND	0.74	0.15	
100-42-5	Styrene	**1.4**	7.5	1.2	**0.33**	1.8	0.28	**J**
95-47-6	o-Xylene	**14**	7.6	1.1	**3.3**	1.8	0.25	
111-84-2	n-Nonane	**2.9**	7.6	1.3	**0.55**	1.5	0.24	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.6	1.0	ND	1.1	0.15	
98-82-8	Cumene	ND	7.6	1.1	ND	1.5	0.22	
80-56-8	alpha-Pinene	**5.4**	7.6	1.2	**0.97**	1.4	0.21	**J**
103-65-1	n-Propylbenzene	ND	7.6	1.1	ND	1.5	0.22	
622-96-8	4-Ethyltoluene	**1.7**	7.6	1.2	**0.35**	1.5	0.24	**J**
108-67-8	1,3,5-Trimethylbenzene	**1.9**	7.5	1.1	**0.39**	1.5	0.22	**J**
95-63-6	1,2,4-Trimethylbenzene	**6.0**	7.6	1.0	**1.2**	1.5	0.21	**J**
100-44-7	Benzyl Chloride	ND	16	1.7	ND	3.0	0.33	
541-73-1	1,3-Dichlorobenzene	ND	7.6	1.1	ND	1.3	0.19	
106-46-7	1,4-Dichlorobenzene	ND	7.6	1.2	ND	1.3	0.19	
95-50-1	1,2-Dichlorobenzene	ND	7.6	1.1	ND	1.3	0.19	
5989-27-5	d-Limonene	**12**	7.6	1.6	**2.2**	1.4	0.28	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.5	1.4	ND	0.77	0.15	
120-82-1	1,2,4-Trichlorobenzene	ND	7.6	1.8	ND	1.0	0.25	
91-20-3	Naphthalene	ND	7.3	1.8	ND	1.4	0.35	
87-68-3	Hexachlorobutadiene	ND	7.5	1.6	ND	0.70	0.15	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-9** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-011

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00615

Initial Pressure (psig): -0.16 Final Pressure (psig): 5.31

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**410**	7.3	1.8	**240**	4.3	1.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	7.3	1.2	**0.49**	1.5	0.24	**J**
74-87-3	Chloromethane	**3.7**	7.3	1.2	**1.8**	3.5	0.57	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.3	1.2	ND	1.0	0.17	
75-01-4	Vinyl Chloride	ND	7.5	0.79	ND	2.9	0.31	
106-99-0	1,3-Butadiene	ND	7.3	1.2	ND	3.3	0.55	
74-83-9	Bromomethane	ND	7.5	1.0	ND	1.9	0.26	
75-00-3	Chloroethane	ND	7.5	0.91	ND	2.8	0.35	
64-17-5	Ethanol	**310**	72	5.1	**160**	38	2.7	
75-05-8	Acetonitrile	ND	7.3	1.8	ND	4.4	1.1	
107-02-8	Acrolein	**4.3**	14	2.1	**1.9**	6.0	0.90	**J**
67-64-1	Acetone	**130**	73	17	**54**	31	7.0	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	7.3	1.1	**0.23**	1.3	0.20	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**22**	29	3.0	**8.9**	12	1.2	**J**
107-13-1	Acrylonitrile	ND	7.3	1.5	ND	3.4	0.70	
75-35-4	1,1-Dichloroethene	ND	7.5	1.0	ND	1.9	0.26	
75-09-2	Methylene Chloride	ND	7.3	2.1	ND	2.1	0.60	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.5	0.99	ND	2.4	0.32	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	7.5	1.0	ND	0.97	0.14	
75-15-0	Carbon Disulfide	**4.1**	15	2.2	**1.3**	4.9	0.71	**J**
156-60-5	trans-1,2-Dichloroethene	ND	7.5	1.0	ND	1.9	0.26	
75-34-3	1,1-Dichloroethane	ND	7.6	1.1	ND	1.9	0.27	
1634-04-4	Methyl tert-Butyl Ether	ND	7.5	0.87	ND	2.1	0.24	
108-05-4	Vinyl Acetate	**27**	75	17	**7.6**	21	4.7	**J**
78-93-3	2-Butanone (MEK)	**21**	15	1.5	**7.2**	5.1	0.51	

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-9** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-011

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00615

Initial Pressure (psig): -0.16 Final Pressure (psig): 5.31

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	**4.6**	7.3	1.0	**1.2**	1.8	0.26	**J**
141-78-6	Ethyl Acetate	**5.0**	15	3.9	**1.4**	4.2	1.1	**J**
110-54-3	n-Hexane	ND	7.5	1.5	ND	2.1	0.43	
67-66-3	Chloroform	ND	7.5	0.98	ND	1.5	0.20	
109-99-9	Tetrahydrofuran (THF)	ND	7.6	0.92	ND	2.6	0.31	
107-06-2	1,2-Dichloroethane	ND	7.5	0.81	ND	1.8	0.20	
71-55-6	1,1,1-Trichloroethane	**3.2**	7.5	0.91	**0.59**	1.4	0.17	**J**
71-43-2	Benzene	ND	7.3	1.1	ND	2.3	0.33	
56-23-5	Carbon Tetrachloride	ND	7.3	1.0	ND	1.2	0.16	
110-82-7	Cyclohexane	ND	15	2.1	ND	4.4	0.60	
78-87-5	1,2-Dichloropropane	ND	7.5	0.91	ND	1.6	0.20	
75-27-4	Bromodichloromethane	ND	7.5	1.1	ND	1.1	0.16	
79-01-6	Trichloroethene	**4.0**	7.5	0.99	**0.74**	1.4	0.18	**J**
123-91-1	1,4-Dioxane	**92**	7.5	0.87	**26**	2.1	0.24	
80-62-6	Methyl Methacrylate	ND	15	2.6	ND	3.7	0.64	
142-82-5	n-Heptane	**1.9**	7.5	1.2	**0.46**	1.8	0.29	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	7.2	1.1	ND	1.6	0.25	
108-10-1	4-Methyl-2-pentanone	**16**	7.3	1.0	**3.9**	1.8	0.25	
10061-02-6	trans-1,3-Dichloropropene	ND	7.3	1.5	ND	1.6	0.33	
79-00-5	1,1,2-Trichloroethane	ND	7.5	0.75	ND	1.4	0.14	
108-88-3	Toluene	**36**	7.5	0.90	**9.6**	2.0	0.24	
591-78-6	2-Hexanone	**3.2**	7.5	0.91	**0.78**	1.8	0.22	**J**
124-48-1	Dibromochloromethane	ND	7.5	0.97	ND	0.88	0.11	
106-93-4	1,2-Dibromoethane	ND	7.5	0.86	ND	0.97	0.11	
123-86-4	n-Butyl Acetate	ND	7.6	1.0	ND	1.6	0.21	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-9** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001751-011

Test Code: EPA TO-15 Date Collected: 3/20/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/30/20
Analyst: Simon Cao Date Analyzed: 4/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00615

Initial Pressure (psig): -0.16 Final Pressure (psig): 5.31

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	7.5	1.7	ND	1.6	0.35	
127-18-4	Tetrachloroethene	**12**	7.2	0.95	**1.7**	1.1	0.14	
108-90-7	Chlorobenzene	ND	7.5	0.98	ND	1.6	0.21	
100-41-4	Ethylbenzene	**8.8**	7.5	1.0	**2.0**	1.7	0.24	
179601-23-1	m,p-Xylenes	**43**	15	1.9	**9.8**	3.5	0.44	
75-25-2	Bromoform	ND	7.5	1.5	ND	0.72	0.15	
100-42-5	Styrene	**1.4**	7.3	1.2	**0.34**	1.7	0.28	**J**
95-47-6	o-Xylene	**41**	7.5	1.1	**9.4**	1.7	0.24	
111-84-2	n-Nonane	**2.6**	7.5	1.2	**0.50**	1.4	0.23	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.5	1.0	ND	1.1	0.15	
98-82-8	Cumene	ND	7.5	1.1	ND	1.5	0.22	
80-56-8	alpha-Pinene	**6.5**	7.5	1.1	**1.2**	1.3	0.20	**J**
103-65-1	n-Propylbenzene	**2.9**	7.5	1.1	**0.59**	1.5	0.22	**J**
622-96-8	4-Ethyltoluene	**5.1**	7.5	1.2	**1.0**	1.5	0.24	**J**
108-67-8	1,3,5-Trimethylbenzene	**6.0**	7.3	1.1	**1.2**	1.5	0.22	**J**
95-63-6	1,2,4-Trimethylbenzene	**15**	7.5	1.0	**3.1**	1.5	0.21	
100-44-7	Benzyl Chloride	ND	15	1.7	ND	2.9	0.32	
541-73-1	1,3-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.18	
106-46-7	1,4-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.19	
95-50-1	1,2-Dichlorobenzene	ND	7.5	1.1	ND	1.2	0.18	
5989-27-5	d-Limonene	**19**	7.5	1.5	**3.4**	1.3	0.27	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.3	1.4	ND	0.76	0.14	
120-82-1	1,2,4-Trichlorobenzene	ND	7.5	1.8	ND	1.0	0.24	
91-20-3	Naphthalene	ND	7.2	1.8	ND	1.4	0.34	
87-68-3	Hexachlorobutadiene	ND	7.3	1.5	ND	0.69	0.14	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200409-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: 4/9/20
Sample Type: 1.0 L Silonite Summa 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	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.53	0.086	ND	0.26	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	0.084	ND	0.076	0.012	
75-01-4	Vinyl Chloride	ND	0.54	0.057	ND	0.21	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.54	0.074	ND	0.14	0.019	
75-00-3	Chloroethane	ND	0.54	0.066	ND	0.20	0.025	
64-17-5	Ethanol	ND	5.2	0.37	ND	2.8	0.20	
75-05-8	Acetonitrile	ND	0.53	0.13	ND	0.32	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	0.081	ND	0.094	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	0.22	ND	0.85	0.090	
107-13-1	Acrylonitrile	ND	0.53	0.11	ND	0.24	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.35	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.55	0.078	ND	0.14	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	
108-05-4	Vinyl Acetate	ND	5.4	1.2	ND	1.5	0.34	
78-93-3	2-Butanone (MEK)	ND	1.1	0.11	ND	0.37	0.037	

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: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2001751

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200409-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: 4/9/20

Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	
141-78-6	Ethyl Acetate	ND	1.1	0.28	ND	0.31	0.078	
110-54-3	n-Hexane	ND	0.54	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.54	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	0.067	ND	0.19	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.54	0.066	ND	0.099	0.012	
71-43-2	Benzene	ND	0.53	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.53	0.074	ND	0.084	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.32	0.044	
78-87-5	1,2-Dichloropropane	ND	0.54	0.066	ND	0.12	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.54	0.072	ND	0.10	0.013	
123-91-1	1,4-Dioxane	ND	0.54	0.063	ND	0.15	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.54	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	0.083	ND	0.11	0.018	
108-10-1	4-Methyl-2-pentanone	ND	0.53	0.073	ND	0.13	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	0.11	ND	0.12	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.54	0.054	ND	0.099	0.0099	
108-88-3	Toluene	ND	0.54	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	0.54	0.066	ND	0.13	0.016	
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.54	0.062	ND	0.070	0.0081	
123-86-4	n-Butyl Acetate	ND	0.55	0.073	ND	0.12	0.015	

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: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2001751

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200409-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: 4/9/20

Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.52	0.069	ND	0.077	0.010	
108-90-7	Chlorobenzene	ND	0.54	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.54	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.54	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.54	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	0.074	ND	0.079	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	0.54	0.082	ND	0.097	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.54	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	1.1	0.12	ND	0.21	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.54	0.080	ND	0.090	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.54	0.082	ND	0.090	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	0.54	0.11	ND	0.097	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	0.10	ND	0.055	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	0.13	ND	0.073	0.018	
91-20-3	Naphthalene	ND	0.52	0.13	ND	0.099	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

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: **Environmental Management Services, Inc.**
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Project ID: P2001751

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date(s) Collected: 3/20/20
Analyst: Simon Cao Date(s) Received: 3/30/20
Sample Type: 1.0 L Silonite Summa Canister(s) / 1.0 L Summa Canister(s) Date(s) Analyzed: 4/9/20
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	P200409-MB	**101**	**101**	**109**	70-130	
Lab Control Sample	P200409-LCS	**102**	**100**	**110**	70-130	
EXT-01	P2001751-001	**103**	**100**	**111**	70-130	
EXT-02	P2001751-002	**101**	**101**	**110**	70-130	
EXT-03	P2001751-003	**101**	**101**	**109**	70-130	
SVE-OBS-1	P2001751-004	**102**	**101**	**112**	70-130	
SVE-OBS-2	P2001751-005	**101**	**100**	**111**	70-130	
SVE-OBS-3	P2001751-006	**101**	**100**	**110**	70-130	
SVE-OBS-4	P2001751-007	**101**	**101**	**110**	70-130	
SVE-OBS-5	P2001751-008	**100**	**101**	**111**	70-130	
SVE-OBS-7	P2001751-009	**101**	**100**	**110**	70-130	
SVE-OBS-8	P2001751-010	**101**	**100**	**110**	70-130	
SVE-OBS-9	P2001751-011	**100**	**101**	**111**	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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200409-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: 4/9/20
Sample Type: 1.0 L Silonite Summa 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	**159**	**76**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**199**	**95**	64-115	
74-87-3	Chloromethane	212	**174**	**82**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**208**	**101**	65-114	
75-01-4	Vinyl Chloride	212	**203**	**96**	61-129	
106-99-0	1,3-Butadiene	212	**219**	**103**	54-140	
74-83-9	Bromomethane	212	**192**	**91**	68-120	
75-00-3	Chloroethane	214	**174**	**81**	63-123	
64-17-5	Ethanol	1,060	**790**	**75**	49-134	
75-05-8	Acetonitrile	214	**161**	**75**	50-137	
107-02-8	Acrolein	206	**176**	**85**	62-128	
67-64-1	Acetone	1,070	**860**	**80**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**208**	**98**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**364**	**86**	57-133	
107-13-1	Acrylonitrile	212	**177**	**83**	64-136	
75-35-4	1,1-Dichloroethene	214	**201**	**94**	67-115	
75-09-2	Methylene Chloride	210	**189**	**90**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**170**	**79**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**214**	**99**	65-115	
75-15-0	Carbon Disulfide	212	**188**	**89**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**208**	**97**	65-122	
75-34-3	1,1-Dichloroethane	212	**183**	**86**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**211**	**99**	57-131	
108-05-4	Vinyl Acetate	1,070	**1030**	**96**	71-128	
78-93-3	2-Butanone (MEK)	212	**192**	**91**	67-123	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200409-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: 4/9/20
Sample Type: 1.0 L Silonite Summa 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**
156-59-2	cis-1,2-Dichloroethene	212	**197**	**93**	64-120	
141-78-6	Ethyl Acetate	432	**383**	**89**	64-131	
110-54-3	n-Hexane	216	**181**	**84**	58-125	
67-66-3	Chloroform	214	**204**	**95**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**197**	**90**	65-115	
107-06-2	1,2-Dichloroethane	214	**213**	**100**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**226**	**106**	66-115	
71-43-2	Benzene	210	**186**	**89**	66-109	
56-23-5	Carbon Tetrachloride	208	**220**	**106**	66-119	
110-82-7	Cyclohexane	422	**385**	**91**	67-117	
78-87-5	1,2-Dichloropropane	214	**188**	**88**	66-119	
75-27-4	Bromodichloromethane	218	**213**	**98**	71-119	
79-01-6	Trichloroethene	216	**213**	**99**	70-114	
123-91-1	1,4-Dioxane	216	**214**	**99**	71-117	
80-62-6	Methyl Methacrylate	430	**440**	**102**	76-121	
142-82-5	n-Heptane	214	**195**	**91**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**229**	**107**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**195**	**92**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**224**	**106**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**207**	**97**	70-117	
108-88-3	Toluene	212	**199**	**94**	67-113	
591-78-6	2-Hexanone	216	**197**	**91**	62-135	
124-48-1	Dibromochloromethane	214	**234**	**109**	73-126	
106-93-4	1,2-Dibromoethane	214	**227**	**106**	71-122	
123-86-4	n-Butyl Acetate	218	**203**	**93**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001751
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200409-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: 4/9/20
Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	216	**190**	**88**	63-120	
127-18-4	Tetrachloroethene	208	**215**	**103**	64-120	
108-90-7	Chlorobenzene	214	**204**	**95**	65-116	
100-41-4	Ethylbenzene	212	**213**	**100**	65-117	
179601-23-1	m,p-Xylenes	426	**434**	**102**	64-121	
75-25-2	Bromoform	214	**251**	**117**	72-130	
100-42-5	Styrene	212	**237**	**112**	72-126	
95-47-6	o-Xylene	214	**213**	**100**	64-120	
111-84-2	n-Nonane	214	**181**	**85**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**200**	**93**	66-122	
98-82-8	Cumene	214	**213**	**100**	64-121	
80-56-8	alpha-Pinene	212	**208**	**98**	62-136	
103-65-1	n-Propylbenzene	214	**213**	**100**	65-123	
622-96-8	4-Ethyltoluene	210	**217**	**103**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**216**	**102**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**228**	**108**	63-129	
100-44-7	Benzyl Chloride	214	**252**	**118**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**250**	**117**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**251**	**117**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**241**	**113**	67-128	
5989-27-5	d-Limonene	212	**201**	**95**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**233**	**109**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**255**	**118**	62-140	
91-20-3	Naphthalene	212	**237**	**112**	57-149	
87-68-3	Hexachlorobutadiene	214	**239**	**112**	57-129	

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.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

July 13, 2020

Collin Creel
Environmental Management Services, Inc.
P.O. Box
Hattiesburg, MS 39402

RE: SVE Performance Monitoring / KUH0-20-010

Dear Collin:

Enclosed are the results of the samples submitted to our laboratory on June 29, 2020. For your reference, these analyses have been assigned our service request number P2003610.

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

By Sue Anderson at 9:09 am, Jul 14, 2020

Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Environmental Management Services, Inc. Service Request No: P2003610
Project: SVE Performance Monitoring / KUH0-20-010

CASE NARRATIVE

The samples were received intact under chain of custody on June 29, 2020 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.

Volatile Organic Compound Analysis

The samples were 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 benzene for the Laboratory Control Sample (LCS) was outside the laboratory generated control criterion. The recovery error equates to a potential high bias. However, the spike recovery of the analyte 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. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-007
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
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: Environmental Management Services, Inc. Service Request: P2003610

Project ID: SVE Performance Monitoring / KUH0-20-010

Date Received: 6/29/2020

Time Received: 10:00

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
SVE-EXT-01	P2003610-001	Air	6/19/2020	12:18	1SS01000	-0.01	5.72	X
SVE-EXT-02	P2003610-002	Air	6/19/2020	12:32	1SS00871	0.14	5.55	X
SVE-EXT-03	P2003610-003	Air	6/19/2020	12:08	1SC00442	-0.13	5.53	X

Air - Chain of Custody Record & Analytical Service Request

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

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. P1003610

Company Name & Address (Reporting Information)	Project Name	ALS Contact:	Comments e.g. Actual Preservative or specific instructions
Environmental Management Services, Inc. PO Box 15369 Hattiesburg, MS 39404	SVE Performance Monitoring	**Analysis Method**	
Project Manager: Collin Creel	Project Number: KUHO-20-010		
Phone: (601) 544-3674 / Fax: (601) 544-0504	P.O. # / Billing Information: KUHO-20-010 / Same as Reporting	TO 15	
Email Address for Result Reporting: ccreel@env-mgt.com	Sampler (Print & Sign): Collin Creel		

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			
SVE-EXT-01		6/19/20	12:18	1SC01000		-30	0	1L	X		
SVE-EXT-02		6/19/20	12:32	1SC00671		-30	0	1L	X		
SVE-EXT-03		6/19/20	12:08	1SC00442		-30	0	1L	X		

5 of 22

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____ Tier III (Results + QC & Calibration Summaries) ____
Tier II (Results + QC 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:
Collin Creel	6/24/20	12:00	- Fed Ex -		
Relinquished by: (Signature) - Fed Ex -	Date:	Time:	Received by: (Signature)	Date: 6/29/20	Time: 1000

Cooler / Blank Temperature ____ °C

ALS Environmental

Sample Acceptance Check Form

Client: Environmental Management Services, Inc. Work order: P2003610

Project: SVE Performance Monitoring / KUH0-20-010

Sample(s) received on: 6/29/20 Date opened: 6/29/20 by: DENISE.POSADA

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
P2003610-001.01	1.0 L Source Silonite Canister					
P2003610-002.01	1.0 L Source Silonite Canister					
P2003610-003.01	1.0 L Source 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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-EXT-01** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-001

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.045 Liter(s)
Test Notes:
Container ID: 1SS01000

Initial Pressure (psig): -0.01 Final Pressure (psig): 5.72

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**21**	16	**12**	9.5	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	16	ND	3.3	
74-87-3	Chloromethane	ND	16	ND	7.9	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	16	ND	2.3	
75-01-4	Vinyl Chloride	ND	17	ND	6.5	
106-99-0	1,3-Butadiene	ND	16	ND	7.4	
74-83-9	Bromomethane	ND	17	ND	4.3	
75-00-3	Chloroethane	ND	17	ND	6.3	
64-17-5	Ethanol	ND	160	ND	85	
75-05-8	Acetonitrile	ND	16	ND	9.8	
107-02-8	Acrolein	ND	31	ND	13	
67-64-1	Acetone	ND	160	ND	69	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	16	ND	2.9	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	65	ND	26	
107-13-1	Acrylonitrile	ND	16	ND	7.5	
75-35-4	1,1-Dichloroethene	ND	17	ND	4.2	
75-09-2	Methylene Chloride	ND	16	ND	4.7	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	17	ND	5.3	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	17	ND	2.2	
75-15-0	Carbon Disulfide	ND	34	ND	11	
156-60-5	trans-1,2-Dichloroethene	ND	17	ND	4.2	
75-34-3	1,1-Dichloroethane	ND	17	ND	4.2	
1634-04-4	Methyl tert-Butyl Ether	ND	17	ND	4.6	
108-05-4	Vinyl Acetate	ND	170	ND	47	
78-93-3	2-Butanone (MEK)	ND	34	ND	12	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-EXT-01** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-001

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.045 Liter(s)
Test Notes:
Container ID: 1SS01000

Initial Pressure (psig): -0.01 Final Pressure (psig): 5.72

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	16	ND	4.1	
141-78-6	Ethyl Acetate	ND	34	ND	9.4	
110-54-3	n-Hexane	ND	17	ND	4.7	
67-66-3	Chloroform	ND	17	ND	3.4	
109-99-9	Tetrahydrofuran (THF)	ND	17	ND	5.8	
107-06-2	1,2-Dichloroethane	ND	17	ND	4.1	
71-55-6	1,1,1-Trichloroethane	ND	17	ND	3.1	
71-43-2	Benzene	ND	16	ND	5.1	
56-23-5	Carbon Tetrachloride	ND	16	ND	2.6	
110-82-7	Cyclohexane	ND	34	ND	9.9	
78-87-5	1,2-Dichloropropane	ND	17	ND	3.6	
75-27-4	Bromodichloromethane	ND	17	ND	2.5	
79-01-6	Trichloroethene	ND	17	ND	3.1	
123-91-1	1,4-Dioxane	**2,300**	17	**640**	4.6	
80-62-6	Methyl Methacrylate	ND	34	ND	8.3	
142-82-5	n-Heptane	ND	17	ND	4.1	
10061-01-5	cis-1,3-Dichloropropene	ND	16	ND	3.5	
108-10-1	4-Methyl-2-pentanone	ND	16	ND	4.0	
10061-02-6	trans-1,3-Dichloropropene	ND	16	ND	3.6	
79-00-5	1,1,2-Trichloroethane	ND	17	ND	3.1	
108-88-3	Toluene	ND	17	ND	4.4	
591-78-6	2-Hexanone	ND	17	ND	4.1	
124-48-1	Dibromochloromethane	ND	17	ND	2.0	
106-93-4	1,2-Dibromoethane	ND	17	ND	2.2	
123-86-4	n-Butyl Acetate	ND	17	ND	3.6	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **SVE-EXT-01** ALS Project ID: P2003610

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-001

Test Code:	EPA TO-15	Date Collected:	6/19/20
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	6/29/20
Analyst:	Wida Ang	Date Analyzed:	7/10/20
Sample Type:	1.0 L Silonite Summa Canister	Volume(s) Analyzed:	0.045 Liter(s)
Test Notes:			
Container ID:	1SS01000		

Initial Pressure (psig): -0.01 Final Pressure (psig): 5.72

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	17	ND	3.6	
127-18-4	Tetrachloroethene	ND	16	ND	2.4	
108-90-7	Chlorobenzene	ND	17	ND	3.6	
100-41-4	Ethylbenzene	ND	17	ND	3.8	
179601-23-1	m,p-Xylenes	ND	34	ND	7.8	
75-25-2	Bromoform	ND	17	ND	1.6	
100-42-5	Styrene	ND	16	ND	3.8	
95-47-6	o-Xylene	ND	17	ND	3.8	
111-84-2	n-Nonane	ND	17	ND	3.2	
79-34-5	1,1,2,2-Tetrachloroethane	ND	17	ND	2.4	
98-82-8	Cumene	ND	17	ND	3.4	
80-56-8	alpha-Pinene	ND	17	ND	3.0	
103-65-1	n-Propylbenzene	ND	17	ND	3.4	
622-96-8	4-Ethyltoluene	ND	17	ND	3.4	
108-67-8	1,3,5-Trimethylbenzene	ND	16	ND	3.3	
95-63-6	1,2,4-Trimethylbenzene	ND	17	ND	3.4	
100-44-7	Benzyl Chloride	ND	34	ND	6.6	
541-73-1	1,3-Dichlorobenzene	ND	17	ND	2.8	
106-46-7	1,4-Dichlorobenzene	ND	17	ND	2.8	
95-50-1	1,2-Dichlorobenzene	ND	17	ND	2.8	
5989-27-5	d-Limonene	ND	17	ND	3.0	
96-12-8	1,2-Dibromo-3-chloropropane	ND	16	ND	1.7	
120-82-1	1,2,4-Trichlorobenzene	ND	17	ND	2.2	
91-20-3	Naphthalene	ND	16	ND	3.1	
87-68-3	Hexachlorobutadiene	ND	16	ND	1.5	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-EXT-02** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-002

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.035 Liter(s)
Test Notes:
Container ID: 1SS00871

Initial Pressure (psig): 0.14 Final Pressure (psig): 5.55

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**22**	21	**13**	12	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	21	ND	4.2	
74-87-3	Chloromethane	ND	21	ND	10	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	21	ND	2.9	
75-01-4	Vinyl Chloride	ND	21	ND	8.2	
106-99-0	1,3-Butadiene	ND	21	ND	9.3	
74-83-9	Bromomethane	ND	21	ND	5.4	
75-00-3	Chloroethane	ND	21	ND	8.0	
64-17-5	Ethanol	ND	200	ND	110	
75-05-8	Acetonitrile	ND	21	ND	12	
107-02-8	Acrolein	ND	39	ND	17	
67-64-1	Acetone	ND	210	ND	87	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	21	ND	3.7	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	82	ND	33	
107-13-1	Acrylonitrile	ND	21	ND	9.5	
75-35-4	1,1-Dichloroethene	ND	21	ND	5.3	
75-09-2	Methylene Chloride	ND	21	ND	5.9	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	21	ND	6.7	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	21	ND	2.7	
75-15-0	Carbon Disulfide	ND	43	ND	14	
156-60-5	trans-1,2-Dichloroethene	ND	21	ND	5.3	
75-34-3	1,1-Dichloroethane	ND	21	ND	5.3	
1634-04-4	Methyl tert-Butyl Ether	ND	21	ND	5.8	
108-05-4	Vinyl Acetate	ND	210	ND	60	
78-93-3	2-Butanone (MEK)	ND	43	ND	14	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-EXT-02** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-002

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.035 Liter(s)
Test Notes:
Container ID: 1SS00871

Initial Pressure (psig): 0.14 Final Pressure (psig): 5.55

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	21	ND	5.2	
141-78-6	Ethyl Acetate	ND	43	ND	12	
110-54-3	n-Hexane	ND	21	ND	6.0	
67-66-3	Chloroform	ND	21	ND	4.3	
109-99-9	Tetrahydrofuran (THF)	ND	21	ND	7.2	
107-06-2	1,2-Dichloroethane	ND	21	ND	5.2	
71-55-6	1,1,1-Trichloroethane	ND	21	ND	3.8	
71-43-2	Benzene	ND	21	ND	6.4	
56-23-5	Carbon Tetrachloride	ND	21	ND	3.3	
110-82-7	Cyclohexane	ND	43	ND	12	
78-87-5	1,2-Dichloropropane	ND	21	ND	4.5	
75-27-4	Bromodichloromethane	ND	21	ND	3.1	
79-01-6	Trichloroethene	ND	21	ND	3.9	
123-91-1	1,4-Dioxane	**4,100**	21	**1,100**	5.8	
80-62-6	Methyl Methacrylate	ND	43	ND	10	
142-82-5	n-Heptane	ND	21	ND	5.1	
10061-01-5	cis-1,3-Dichloropropene	ND	20	ND	4.5	
108-10-1	4-Methyl-2-pentanone	ND	21	ND	5.0	
10061-02-6	trans-1,3-Dichloropropene	ND	21	ND	4.5	
79-00-5	1,1,2-Trichloroethane	ND	21	ND	3.8	
108-88-3	Toluene	ND	21	ND	5.6	
591-78-6	2-Hexanone	ND	21	ND	5.1	
124-48-1	Dibromochloromethane	ND	21	ND	2.5	
106-93-4	1,2-Dibromoethane	ND	21	ND	2.7	
123-86-4	n-Butyl Acetate	ND	21	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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-EXT-02** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-002

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.035 Liter(s)
Test Notes:
Container ID: 1SS00871

Initial Pressure (psig): 0.14 Final Pressure (psig): 5.55

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**31**	21	**6.7**	4.5	
127-18-4	Tetrachloroethene	ND	20	ND	3.0	
108-90-7	Chlorobenzene	ND	21	ND	4.6	
100-41-4	Ethylbenzene	ND	21	ND	4.8	
179601-23-1	m,p-Xylenes	ND	43	ND	9.8	
75-25-2	Bromoform	ND	21	ND	2.0	
100-42-5	Styrene	ND	21	ND	4.8	
95-47-6	o-Xylene	ND	21	ND	4.8	
111-84-2	n-Nonane	ND	21	ND	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	21	ND	3.1	
98-82-8	Cumene	ND	21	ND	4.3	
80-56-8	alpha-Pinene	ND	21	ND	3.8	
103-65-1	n-Propylbenzene	ND	21	ND	4.3	
622-96-8	4-Ethyltoluene	ND	21	ND	4.3	
108-67-8	1,3,5-Trimethylbenzene	ND	21	ND	4.2	
95-63-6	1,2,4-Trimethylbenzene	ND	21	ND	4.3	
100-44-7	Benzyl Chloride	ND	43	ND	8.3	
541-73-1	1,3-Dichlorobenzene	ND	21	ND	3.5	
106-46-7	1,4-Dichlorobenzene	ND	21	ND	3.5	
95-50-1	1,2-Dichlorobenzene	ND	21	ND	3.5	
5989-27-5	d-Limonene	ND	21	ND	3.8	
96-12-8	1,2-Dibromo-3-chloropropane	ND	21	ND	2.1	
120-82-1	1,2,4-Trichlorobenzene	ND	21	ND	2.8	
91-20-3	Naphthalene	ND	20	ND	3.9	
87-68-3	Hexachlorobutadiene	ND	21	ND	1.9	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-EXT-03** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-003

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00442

Initial Pressure (psig): -0.13 Final Pressure (psig): 5.53

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**38**	7.4	**22**	4.3	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	7.4	ND	1.5	
74-87-3	Chloromethane	ND	7.4	ND	3.6	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.4	ND	1.1	
75-01-4	Vinyl Chloride	ND	7.5	ND	2.9	
106-99-0	1,3-Butadiene	ND	7.4	ND	3.3	
74-83-9	Bromomethane	ND	7.5	ND	1.9	
75-00-3	Chloroethane	ND	7.5	ND	2.8	
64-17-5	Ethanol	ND	72	ND	38	
75-05-8	Acetonitrile	ND	7.4	ND	4.4	
107-02-8	Acrolein	ND	14	ND	6.1	
67-64-1	Acetone	ND	74	ND	31	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	7.4	ND	1.3	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	29	ND	12	
107-13-1	Acrylonitrile	ND	7.4	ND	3.4	
75-35-4	1,1-Dichloroethene	**9.2**	7.5	**2.3**	1.9	
75-09-2	Methylene Chloride	ND	7.4	ND	2.1	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.5	ND	2.4	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	7.5	ND	0.98	
75-15-0	Carbon Disulfide	ND	15	ND	4.9	
156-60-5	trans-1,2-Dichloroethene	ND	7.5	ND	1.9	
75-34-3	1,1-Dichloroethane	ND	7.6	ND	1.9	
1634-04-4	Methyl tert-Butyl Ether	ND	7.5	ND	2.1	
108-05-4	Vinyl Acetate	ND	75	ND	21	
78-93-3	2-Butanone (MEK)	ND	15	ND	5.2	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-EXT-03** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-003

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00442

Initial Pressure (psig): -0.13 Final Pressure (psig): 5.53

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	7.4	ND	1.9	
141-78-6	Ethyl Acetate	**72**	15	**20**	4.2	
110-54-3	n-Hexane	ND	7.5	ND	2.1	
67-66-3	Chloroform	ND	7.5	ND	1.5	
109-99-9	Tetrahydrofuran (THF)	ND	7.6	ND	2.6	
107-06-2	1,2-Dichloroethane	ND	7.5	ND	1.9	
71-55-6	1,1,1-Trichloroethane	ND	7.5	ND	1.4	
71-43-2	Benzene	ND	7.4	ND	2.3	
56-23-5	Carbon Tetrachloride	ND	7.4	ND	1.2	
110-82-7	Cyclohexane	ND	15	ND	4.4	
78-87-5	1,2-Dichloropropane	ND	7.5	ND	1.6	
75-27-4	Bromodichloromethane	ND	7.5	ND	1.1	
79-01-6	Trichloroethene	ND	7.5	ND	1.4	
123-91-1	1,4-Dioxane	**1,500**	7.5	**420**	2.1	
80-62-6	Methyl Methacrylate	ND	15	ND	3.7	
142-82-5	n-Heptane	ND	7.5	ND	1.8	
10061-01-5	cis-1,3-Dichloropropene	ND	7.2	ND	1.6	
108-10-1	4-Methyl-2-pentanone	ND	7.4	ND	1.8	
10061-02-6	trans-1,3-Dichloropropene	ND	7.4	ND	1.6	
79-00-5	1,1,2-Trichloroethane	ND	7.5	ND	1.4	
108-88-3	Toluene	**8.5**	7.5	**2.2**	2.0	
591-78-6	2-Hexanone	ND	7.5	ND	1.8	
124-48-1	Dibromochloromethane	ND	7.5	ND	0.88	
106-93-4	1,2-Dibromoethane	ND	7.5	ND	0.98	
123-86-4	n-Butyl Acetate	ND	7.6	ND	1.6	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-EXT-03** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003610-003

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SC00442

Initial Pressure (psig): -0.13 Final Pressure (psig): 5.53

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**9.3**	7.5	**2.0**	1.6	
127-18-4	Tetrachloroethene	ND	7.2	ND	1.1	
108-90-7	Chlorobenzene	ND	7.5	ND	1.6	
100-41-4	Ethylbenzene	ND	7.5	ND	1.7	
179601-23-1	m,p-Xylenes	**22**	15	**5.0**	3.5	
75-25-2	Bromoform	ND	7.5	ND	0.73	
100-42-5	Styrene	ND	7.4	ND	1.7	
95-47-6	o-Xylene	**10**	7.5	**2.3**	1.7	
111-84-2	n-Nonane	ND	7.5	ND	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.5	ND	1.1	
98-82-8	Cumene	ND	7.5	ND	1.5	
80-56-8	alpha-Pinene	ND	7.5	ND	1.3	
103-65-1	n-Propylbenzene	ND	7.5	ND	1.5	
622-96-8	4-Ethyltoluene	ND	7.5	ND	1.5	
108-67-8	1,3,5-Trimethylbenzene	ND	7.4	ND	1.5	
95-63-6	1,2,4-Trimethylbenzene	ND	7.5	ND	1.5	
100-44-7	Benzyl Chloride	ND	15	ND	3.0	
541-73-1	1,3-Dichlorobenzene	ND	7.5	ND	1.2	
106-46-7	1,4-Dichlorobenzene	ND	7.5	ND	1.2	
95-50-1	1,2-Dichlorobenzene	ND	7.5	ND	1.2	
5989-27-5	d-Limonene	ND	7.5	ND	1.3	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.4	ND	0.76	
120-82-1	1,2,4-Trichlorobenzene	ND	7.5	ND	1.0	
91-20-3	Naphthalene	ND	7.2	ND	1.4	
87-68-3	Hexachlorobutadiene	ND	7.4	ND	0.69	

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	ND	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	ND	0.11	
74-87-3	Chloromethane	ND	0.53	ND	0.26	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	ND	0.076	
75-01-4	Vinyl Chloride	ND	0.54	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.53	ND	0.24	
74-83-9	Bromomethane	ND	0.54	ND	0.14	
75-00-3	Chloroethane	ND	0.54	ND	0.20	
64-17-5	Ethanol	ND	5.2	ND	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.3	ND	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	ND	0.094	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	ND	0.85	
107-13-1	Acrylonitrile	ND	0.53	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.54	ND	0.14	
75-09-2	Methylene Chloride	ND	0.53	ND	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	ND	0.070	
75-15-0	Carbon Disulfide	ND	1.1	ND	0.35	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	ND	0.14	
75-34-3	1,1-Dichloroethane	ND	0.55	ND	0.14	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	ND	0.15	
108-05-4	Vinyl Acetate	ND	5.4	ND	1.5	
78-93-3	2-Butanone (MEK)	ND	1.1	ND	0.37	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2003610

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 7/10/20

Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.53	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.1	ND	0.31	
110-54-3	n-Hexane	ND	0.54	ND	0.15	
67-66-3	Chloroform	ND	0.54	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	ND	0.19	
107-06-2	1,2-Dichloroethane	ND	0.54	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.54	ND	0.099	
71-43-2	Benzene	ND	0.53	ND	0.17	
56-23-5	Carbon Tetrachloride	ND	0.53	ND	0.084	
110-82-7	Cyclohexane	ND	1.1	ND	0.32	
78-87-5	1,2-Dichloropropane	ND	0.54	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.54	ND	0.081	
79-01-6	Trichloroethene	ND	0.54	ND	0.10	
123-91-1	1,4-Dioxane	ND	0.54	ND	0.15	
80-62-6	Methyl Methacrylate	ND	1.1	ND	0.27	
142-82-5	n-Heptane	ND	0.54	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.53	ND	0.13	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	ND	0.12	
79-00-5	1,1,2-Trichloroethane	ND	0.54	ND	0.099	
108-88-3	Toluene	ND	0.54	ND	0.14	
591-78-6	2-Hexanone	ND	0.54	ND	0.13	
124-48-1	Dibromochloromethane	ND	0.54	ND	0.063	
106-93-4	1,2-Dibromoethane	ND	0.54	ND	0.070	
123-86-4	n-Butyl Acetate	ND	0.55	ND	0.12	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2003610

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 7/10/20

Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.54	ND	0.12	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.54	ND	0.12	
100-41-4	Ethylbenzene	ND	0.54	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.1	ND	0.25	
75-25-2	Bromoform	ND	0.54	ND	0.052	
100-42-5	Styrene	ND	0.53	ND	0.12	
95-47-6	o-Xylene	ND	0.54	ND	0.12	
111-84-2	n-Nonane	ND	0.54	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	ND	0.079	
98-82-8	Cumene	ND	0.54	ND	0.11	
80-56-8	alpha-Pinene	ND	0.54	ND	0.097	
103-65-1	n-Propylbenzene	ND	0.54	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.54	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.21	
541-73-1	1,3-Dichlorobenzene	ND	0.54	ND	0.090	
106-46-7	1,4-Dichlorobenzene	ND	0.54	ND	0.090	
95-50-1	1,2-Dichlorobenzene	ND	0.54	ND	0.090	
5989-27-5	d-Limonene	ND	0.54	ND	0.097	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	ND	0.055	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	ND	0.073	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.53	ND	0.050	

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

SURROGATE SPIKE RECOVERY RESULTS

Client: **Environmental Management Services, Inc.**
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Project ID: P2003610

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date(s) Collected: 6/19/20
Analyst: Wida Ang Date(s) Received: 6/29/20
Sample Type: 1.0 L Silonite Summa Canister(s) / 1.0 L Summa Canister(s) Date(s) Analyzed: 7/10/20
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	P200710-MB	**106**	**99**	**85**	70-130	
Lab Control Sample	P200710-LCS	**102**	**98**	**89**	70-130	
SVE-EXT-01	P2003610-001	**106**	**99**	**82**	70-130	
SVE-EXT-02	P2003610-002	**107**	**99**	**83**	70-130	
SVE-EXT-03	P2003610-003	**107**	**98**	**82**	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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa 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	**213**	**101**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**208**	**99**	64-115	
74-87-3	Chloromethane	212	**236**	**111**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**179**	**87**	65-114	
75-01-4	Vinyl Chloride	212	**233**	**110**	61-129	
106-99-0	1,3-Butadiene	212	**220**	**104**	54-140	
74-83-9	Bromomethane	212	**210**	**99**	68-120	
75-00-3	Chloroethane	214	**233**	**109**	63-123	
64-17-5	Ethanol	1,060	**1100**	**104**	49-134	
75-05-8	Acetonitrile	214	**229**	**107**	50-137	
107-02-8	Acrolein	206	**237**	**115**	62-128	
67-64-1	Acetone	1,070	**1280**	**120**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**206**	**97**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**476**	**113**	57-133	
107-13-1	Acrylonitrile	212	**262**	**124**	64-136	
75-35-4	1,1-Dichloroethene	214	**218**	**102**	67-115	
75-09-2	Methylene Chloride	210	**220**	**105**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**214**	**100**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**197**	**91**	65-115	
75-15-0	Carbon Disulfide	212	**209**	**99**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**235**	**110**	65-122	
75-34-3	1,1-Dichloroethane	212	**227**	**107**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**231**	**108**	57-131	
108-05-4	Vinyl Acetate	1,070	**1220**	**114**	71-128	
78-93-3	2-Butanone (MEK)	212	**231**	**109**	67-123	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	212	**230**	**108**	64-120	
141-78-6	Ethyl Acetate	432	**527**	**122**	64-131	
110-54-3	n-Hexane	216	**270**	**125**	58-125	
67-66-3	Chloroform	214	**228**	**107**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**236**	**107**	65-115	
107-06-2	1,2-Dichloroethane	214	**212**	**99**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**214**	**100**	66-115	
71-43-2	Benzene	210	**234**	**111**	66-109	**L**
56-23-5	Carbon Tetrachloride	208	**201**	**97**	66-119	
110-82-7	Cyclohexane	422	**470**	**111**	67-117	
78-87-5	1,2-Dichloropropane	214	**240**	**112**	66-119	
75-27-4	Bromodichloromethane	218	**223**	**102**	71-119	
79-01-6	Trichloroethene	216	**202**	**94**	70-114	
123-91-1	1,4-Dioxane	216	**225**	**104**	71-117	
80-62-6	Methyl Methacrylate	430	**471**	**110**	76-121	
142-82-5	n-Heptane	214	**240**	**112**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**244**	**114**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**239**	**113**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**235**	**111**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**219**	**102**	70-117	
108-88-3	Toluene	212	**213**	**100**	67-113	
591-78-6	2-Hexanone	216	**208**	**96**	62-135	
124-48-1	Dibromochloromethane	214	**200**	**93**	73-126	
106-93-4	1,2-Dibromoethane	214	**208**	**97**	71-122	
123-86-4	n-Butyl Acetate	218	**208**	**95**	65-134	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003610
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	216	**217**	**100**	63-120	
127-18-4	Tetrachloroethene	208	**170**	**82**	64-120	
108-90-7	Chlorobenzene	214	**200**	**93**	65-116	
100-41-4	Ethylbenzene	212	**216**	**102**	65-117	
179601-23-1	m,p-Xylenes	426	**455**	**107**	64-121	
75-25-2	Bromoform	214	**192**	**90**	72-130	
100-42-5	Styrene	212	**224**	**106**	72-126	
95-47-6	o-Xylene	214	**222**	**104**	64-120	
111-84-2	n-Nonane	214	**223**	**104**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**235**	**110**	66-122	
98-82-8	Cumene	214	**220**	**103**	64-121	
80-56-8	alpha-Pinene	212	**191**	**90**	62-136	
103-65-1	n-Propylbenzene	214	**229**	**107**	65-123	
622-96-8	4-Ethyltoluene	210	**212**	**101**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**223**	**105**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**242**	**114**	63-129	
100-44-7	Benzyl Chloride	214	**224**	**105**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**218**	**102**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**218**	**102**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**230**	**107**	67-128	
5989-27-5	d-Limonene	212	**239**	**113**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**197**	**92**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**180**	**83**	62-140	
91-20-3	Naphthalene	212	**218**	**103**	57-149	
87-68-3	Hexachlorobutadiene	214	**169**	**79**	57-129	

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.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

July 14, 2020

Collin Creel
Environmental Management Services, Inc.
P.O. Box 15369
Hattiesburg, MS 39402

RE: SVE Performance Monitoring / KUH0-20-010

Dear Collin:

Enclosed are the results of the sample submitted to our laboratory on June 29, 2020. For your reference, these analyses have been assigned our service request number P2003611.

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

By Sue Anderson at 11:03 am, Jul 14, 2020

Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Environmental Management Services, Inc. Service Request No: P2003611
Project: SVE Performance Monitoring / KUH0-20-010

CASE NARRATIVE

The samples were received intact under chain of custody on June 29, 2020 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.

Volatile Organic Compound Analysis

The samples were 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 benzene for the Laboratory Control Sample (LCS) was outside the laboratory generated control criterion. The recovery error equates to a potential high bias. However, the spike recovery of the analyte 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. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-007
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
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: Environmental Management Services, Inc. Service Request: P2003611

Project ID: SVE Performance Monitoring / KUH0-20-010

Date Received: 6/29/2020

Time Received: 10:00

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
SVE-OBS-01	P2003611-001	Air	6/19/2020	09:25	1SC00597	-0.08	5.72	X
SVE-OBS-02	P2003611-002	Air	6/19/2020	09:21	1SS01003	-0.22	5.49	X
SVE-OBS-03	P2003611-003	Air	6/19/2020	09:31	1SS00163	-0.29	5.75	X
SVE-OBS-04	P2003611-004	Air	6/19/2020	09:40	1SS00965	-0.13	5.23	X
SVE-OBS-05	P2003611-005	Air	6/19/2020	09:49	1SC01196	-0.23	6.74	X
SVE-OBS-07	P2003611-006	Air	6/19/2020	09:58	1SS00103	-0.27	6.15	X
SVE-OBS-08	P2003611-007	Air	6/19/2020	11:23	1SC00845	-0.03	5.88	X
SVE-OBS-09	P2003611-008	Air	6/19/2020	11:32	1SC00733	-0.13	7.41	X

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

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

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. P1003611

ALS Contact:

Company Name & Address (Reporting Information)	Project Name	Analysis Method
Environmental Management Services, Inc. PO Box 15369 Hattiesburg, MS 39404	SVE Performance Monitoring Project Number: KUHO-20-010	TO-15
Project Manager: Collin Creel	P.O. # / Billing Information: KUHO-20-010/Same as Reporting	
Phone: (601) 544-3674 Fax: (601) 544-0504		
Email Address for Result Reporting: ccreel@env-mgt.com	Sampler (Print & Sign): Collin Creel	

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	Analysis Method		Comments e.g. Actual Preservative or specific instructions
SVE-OBS-01		6/19/20	09:25	1SC00597		-30	0	1L	X		
SVE-OBS-02		6/19/20	09:21	1SC01003		-30	0	1L	X		
SVE-OBS-03		6/19/20	09:31	1SC00163		-30	0	1L	X		
SVE-OBS-04		6/19/20	09:40	1SC00965		-30	0	1L	X		
SVE-OBS-05		6/19/20	09:49	1SC01196		-29	0	1L	X		
SVE-OBS-07		6/19/20	09:58	1SC00103		-30	0	1L	X		
SVE-OBS-08		6/19/20	11:23	1SC00845		-30	0	1L	X		
SVE-OBS-09		6/19/20	11:32	1SC00733		-30	0	1L	X		

5 of 37

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____
Tier II (Results + QC Summaries) ✓
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:
Collin Creel	6/24/20	12:00	- Fed Ex -		
Relinquished by: (Signature) - Fed Ex -	Date:	Time:	Received by: (Signature)	Date: 6/24/20	Time: 1000

Cooler / Blank Temperature ____°C

ALS Environmental

Sample Acceptance Check Form

Client: Environmental Management Services, Inc. Work order: P2003611

Project: SVE Performance Monitoring / KUH0-20-010

Sample(s) received on: 6/29/20 Date opened: 6/29/20 by: DENISE.POSADA

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
P2003611-001.01	1.0 L Source Can					
P2003611-002.01	1.0 L Source Silonite Canister					
P2003611-003.01	1.0 L Source Silonite Canister					
P2003611-004.01	1.0 L Source Silonite Canister					
P2003611-005.01	1.0 L Source Can					
P2003611-006.01	1.0 L Source Silonite Canister					
P2003611-007.01	1.0 L Source Can					
P2003611-008.01	1.0 L Source 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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-01** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-001

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00597

Initial Pressure (psig): -0.08 Final Pressure (psig): 5.72

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**8.2**	1.9	0.46	**4.7**	1.1	0.26	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.6**	1.9	0.30	**0.52**	0.38	0.062	
74-87-3	Chloromethane	ND	1.9	0.30	ND	0.90	0.15	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.9	0.29	ND	0.27	0.042	
75-01-4	Vinyl Chloride	ND	1.9	0.20	ND	0.74	0.078	
106-99-0	1,3-Butadiene	ND	1.9	0.31	ND	0.84	0.14	
74-83-9	Bromomethane	**0.32**	1.9	0.26	**0.082**	0.49	0.067	**J**
75-00-3	Chloroethane	ND	1.9	0.23	ND	0.72	0.088	
64-17-5	Ethanol	**13**	18	1.3	**7.1**	9.7	0.69	**J**
75-05-8	Acetonitrile	**1.6**	1.9	0.46	**0.94**	1.1	0.27	**J**
107-02-8	Acrolein	**0.64**	3.5	0.53	**0.28**	1.5	0.23	**J**
67-64-1	Acetone	**44**	19	4.2	**19**	7.8	1.8	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.2**	1.9	0.28	**0.22**	0.33	0.050	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**1.5**	7.4	0.77	**0.62**	3.0	0.31	**J**
107-13-1	Acrylonitrile	ND	1.9	0.39	ND	0.86	0.18	
75-35-4	1,1-Dichloroethene	**1.9**	1.9	0.26	**0.48**	0.48	0.065	
75-09-2	Methylene Chloride	ND	1.9	0.53	ND	0.53	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.9	0.25	ND	0.60	0.081	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.52**	1.9	0.27	**0.068**	0.25	0.035	**J**
75-15-0	Carbon Disulfide	**10**	3.9	0.56	**3.2**	1.2	0.18	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.26	ND	0.48	0.065	
75-34-3	1,1-Dichloroethane	ND	1.9	0.27	ND	0.48	0.067	
1634-04-4	Methyl tert-Butyl Ether	ND	1.9	0.22	ND	0.52	0.061	
108-05-4	Vinyl Acetate	**5.7**	19	4.2	**1.6**	5.4	1.2	**J**
78-93-3	2-Butanone (MEK)	**6.9**	3.9	0.39	**2.3**	1.3	0.13	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-01** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-001

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00597

Initial Pressure (psig): -0.08 Final Pressure (psig): 5.72

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.26	ND	0.47	0.066	
141-78-6	Ethyl Acetate	**8.0**	3.9	0.98	**2.2**	1.1	0.27	
110-54-3	n-Hexane	ND	1.9	0.39	ND	0.54	0.11	
67-66-3	Chloroform	ND	1.9	0.25	ND	0.39	0.051	
109-99-9	Tetrahydrofuran (THF)	**0.60**	1.9	0.23	**0.20**	0.65	0.080	**J**
107-06-2	1,2-Dichloroethane	ND	1.9	0.21	ND	0.47	0.051	
71-55-6	1,1,1-Trichloroethane	**3.8**	1.9	0.23	**0.70**	0.35	0.042	
71-43-2	Benzene	**0.49**	1.9	0.27	**0.15**	0.58	0.084	**J**
56-23-5	Carbon Tetrachloride	**0.41**	1.9	0.26	**0.066**	0.30	0.041	**J**
110-82-7	Cyclohexane	ND	3.9	0.53	ND	1.1	0.15	
78-87-5	1,2-Dichloropropane	ND	1.9	0.23	ND	0.41	0.050	
75-27-4	Bromodichloromethane	ND	1.9	0.27	ND	0.28	0.040	
79-01-6	Trichloroethene	ND	1.9	0.25	ND	0.35	0.047	
123-91-1	1,4-Dioxane	**1.1**	1.9	0.22	**0.32**	0.52	0.061	**J**
80-62-6	Methyl Methacrylate	ND	3.9	0.67	ND	0.94	0.16	
142-82-5	n-Heptane	**0.34**	1.9	0.30	**0.084**	0.46	0.073	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.29	ND	0.40	0.064	
108-10-1	4-Methyl-2-pentanone	**0.53**	1.9	0.26	**0.13**	0.45	0.062	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.39	ND	0.41	0.085	
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.19	ND	0.35	0.035	
108-88-3	Toluene	**4.8**	1.9	0.23	**1.3**	0.50	0.060	
591-78-6	2-Hexanone	**1.2**	1.9	0.23	**0.28**	0.46	0.056	**J**
124-48-1	Dibromochloromethane	ND	1.9	0.25	ND	0.22	0.029	
106-93-4	1,2-Dibromoethane	ND	1.9	0.22	ND	0.25	0.028	
123-86-4	n-Butyl Acetate	ND	1.9	0.26	ND	0.41	0.054	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **SVE-OBS-01** ALS Project ID: P2003611

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-001

Test Code:	EPA TO-15	Date Collected:	6/19/20
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	6/29/20
Analyst:	Wida Ang	Date Analyzed:	7/10/20
Sample Type:	1.0 L Summa Canister	Volume(s) Analyzed:	0.40 Liter(s)
Test Notes:			
Container ID:	1SC00597		

Initial Pressure (psig): -0.08 Final Pressure (psig): 5.72

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	1.9	0.42	ND	0.40	0.090	
127-18-4	Tetrachloroethene	ND	1.8	0.24	ND	0.27	0.036	
108-90-7	Chlorobenzene	ND	1.9	0.25	ND	0.41	0.054	
100-41-4	Ethylbenzene	**0.72**	1.9	0.26	**0.17**	0.44	0.060	**J**
179601-23-1	m,p-Xylenes	**2.9**	3.9	0.49	**0.66**	0.89	0.11	**J**
75-25-2	Bromoform	ND	1.9	0.39	ND	0.18	0.037	
100-42-5	Styrene	**0.38**	1.9	0.30	**0.089**	0.44	0.071	**J**
95-47-6	o-Xylene	**1.2**	1.9	0.27	**0.27**	0.44	0.062	**J**
111-84-2	n-Nonane	**0.77**	1.9	0.31	**0.15**	0.36	0.059	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.26	ND	0.28	0.038	
98-82-8	Cumene	ND	1.9	0.27	ND	0.38	0.055	
80-56-8	alpha-Pinene	**0.72**	1.9	0.29	**0.13**	0.34	0.052	**J**
103-65-1	n-Propylbenzene	ND	1.9	0.27	ND	0.38	0.055	
622-96-8	4-Ethyltoluene	**0.37**	1.9	0.30	**0.075**	0.38	0.061	**J**
108-67-8	1,3,5-Trimethylbenzene	**0.53**	1.9	0.27	**0.11**	0.38	0.055	**J**
95-63-6	1,2,4-Trimethylbenzene	**1.9**	1.9	0.26	**0.39**	0.38	0.053	
100-44-7	Benzyl Chloride	ND	3.9	0.42	ND	0.74	0.081	
541-73-1	1,3-Dichlorobenzene	ND	1.9	0.28	ND	0.31	0.047	
106-46-7	1,4-Dichlorobenzene	ND	1.9	0.29	ND	0.31	0.048	
95-50-1	1,2-Dichlorobenzene	ND	1.9	0.28	ND	0.31	0.046	
5989-27-5	d-Limonene	ND	1.9	0.39	ND	0.34	0.069	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.9	0.35	ND	0.19	0.036	
120-82-1	1,2,4-Trichlorobenzene	ND	1.9	0.46	ND	0.25	0.061	
91-20-3	Naphthalene	ND	1.8	0.46	ND	0.35	0.087	
87-68-3	Hexachlorobutadiene	ND	1.9	0.39	ND	0.17	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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-02** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-002

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS01003

Initial Pressure (psig): -0.22 Final Pressure (psig): 5.49

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**89**	1.8	0.45	**52**	1.1	0.26	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.6**	1.8	0.30	**0.53**	0.37	0.061	
74-87-3	Chloromethane	**0.64**	1.8	0.30	**0.31**	0.89	0.14	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.8	0.29	ND	0.26	0.042	
75-01-4	Vinyl Chloride	ND	1.9	0.20	ND	0.73	0.078	
106-99-0	1,3-Butadiene	ND	1.8	0.31	ND	0.83	0.14	
74-83-9	Bromomethane	ND	1.9	0.26	ND	0.48	0.066	
75-00-3	Chloroethane	ND	1.9	0.23	ND	0.71	0.087	
64-17-5	Ethanol	**6.6**	18	1.3	**3.5**	9.6	0.68	**J**
75-05-8	Acetonitrile	**3.7**	1.8	0.45	**2.2**	1.1	0.27	
107-02-8	Acrolein	**0.77**	3.5	0.52	**0.34**	1.5	0.23	**J**
67-64-1	Acetone	**79**	18	4.2	**33**	7.8	1.8	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.2**	1.8	0.28	**0.22**	0.33	0.050	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**1.0**	7.3	0.76	**0.42**	3.0	0.31	**J**
107-13-1	Acrylonitrile	**1.8**	1.8	0.38	**0.83**	0.85	0.18	**J**
75-35-4	1,1-Dichloroethene	ND	1.9	0.26	ND	0.47	0.065	
75-09-2	Methylene Chloride	ND	1.8	0.52	ND	0.53	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.9	0.25	ND	0.60	0.080	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.49**	1.9	0.26	**0.064**	0.24	0.034	**J**
75-15-0	Carbon Disulfide	**17**	3.8	0.56	**5.5**	1.2	0.18	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.26	ND	0.47	0.065	
75-34-3	1,1-Dichloroethane	ND	1.9	0.27	ND	0.47	0.067	
1634-04-4	Methyl tert-Butyl Ether	ND	1.9	0.22	ND	0.52	0.061	
108-05-4	Vinyl Acetate	**4.8**	19	4.2	**1.4**	5.3	1.2	**J**
78-93-3	2-Butanone (MEK)	**8.7**	3.8	0.38	**2.9**	1.3	0.13	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-02** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-002

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS01003

Initial Pressure (psig): -0.22 Final Pressure (psig): 5.49

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.26	ND	0.46	0.066	
141-78-6	Ethyl Acetate	**4.5**	3.8	0.97	**1.3**	1.1	0.27	
110-54-3	n-Hexane	**0.47**	1.9	0.38	**0.13**	0.53	0.11	**J**
67-66-3	Chloroform	ND	1.9	0.25	ND	0.38	0.051	
109-99-9	Tetrahydrofuran (THF)	**0.33**	1.9	0.23	**0.11**	0.65	0.079	**J**
107-06-2	1,2-Dichloroethane	ND	1.9	0.21	ND	0.46	0.051	
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.23	ND	0.34	0.042	
71-43-2	Benzene	**7.7**	1.8	0.27	**2.4**	0.58	0.084	
56-23-5	Carbon Tetrachloride	**0.38**	1.8	0.26	**0.060**	0.29	0.041	**J**
110-82-7	Cyclohexane	ND	3.8	0.52	ND	1.1	0.15	
78-87-5	1,2-Dichloropropane	ND	1.9	0.23	ND	0.41	0.050	
75-27-4	Bromodichloromethane	ND	1.9	0.27	ND	0.28	0.040	
79-01-6	Trichloroethene	ND	1.9	0.25	ND	0.35	0.047	
123-91-1	1,4-Dioxane	**0.28**	1.9	0.22	**0.079**	0.52	0.061	**J**
80-62-6	Methyl Methacrylate	ND	3.8	0.66	ND	0.93	0.16	
142-82-5	n-Heptane	**0.52**	1.9	0.30	**0.13**	0.46	0.072	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.29	ND	0.40	0.064	
108-10-1	4-Methyl-2-pentanone	**1.4**	1.8	0.25	**0.34**	0.45	0.062	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.38	ND	0.41	0.084	
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.19	ND	0.34	0.034	
108-88-3	Toluene	**40**	1.9	0.23	**10**	0.50	0.060	
591-78-6	2-Hexanone	ND	1.9	0.23	ND	0.46	0.056	
124-48-1	Dibromochloromethane	ND	1.9	0.24	ND	0.22	0.029	
106-93-4	1,2-Dibromoethane	ND	1.9	0.22	ND	0.24	0.028	
123-86-4	n-Butyl Acetate	**0.66**	1.9	0.25	**0.14**	0.40	0.053	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-02** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-002

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS01003

Initial Pressure (psig): -0.22 Final Pressure (psig): 5.49

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	1.9	0.42	ND	0.40	0.089	
127-18-4	Tetrachloroethene	ND	1.8	0.24	ND	0.27	0.035	
108-90-7	Chlorobenzene	ND	1.9	0.25	ND	0.41	0.054	
100-41-4	Ethylbenzene	**2.6**	1.9	0.26	**0.60**	0.43	0.060	
179601-23-1	m,p-Xylenes	**12**	3.8	0.49	**2.9**	0.88	0.11	
75-25-2	Bromoform	ND	1.9	0.38	ND	0.18	0.037	
100-42-5	Styrene	**0.73**	1.8	0.30	**0.17**	0.43	0.070	**J**
95-47-6	o-Xylene	**4.8**	1.9	0.27	**1.1**	0.43	0.062	
111-84-2	n-Nonane	**0.62**	1.9	0.31	**0.12**	0.36	0.059	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.26	ND	0.27	0.037	
98-82-8	Cumene	ND	1.9	0.27	ND	0.38	0.054	
80-56-8	alpha-Pinene	**1.7**	1.9	0.28	**0.30**	0.34	0.051	**J**
103-65-1	n-Propylbenzene	**0.39**	1.9	0.27	**0.079**	0.38	0.054	**J**
622-96-8	4-Ethyltoluene	**0.70**	1.9	0.30	**0.14**	0.38	0.060	**J**
108-67-8	1,3,5-Trimethylbenzene	**1.0**	1.8	0.27	**0.21**	0.37	0.054	**J**
95-63-6	1,2,4-Trimethylbenzene	**3.2**	1.9	0.26	**0.64**	0.38	0.052	
100-44-7	Benzyl Chloride	ND	3.8	0.42	ND	0.74	0.081	
541-73-1	1,3-Dichlorobenzene	ND	1.9	0.28	ND	0.31	0.046	
106-46-7	1,4-Dichlorobenzene	**0.34**	1.9	0.28	**0.057**	0.31	0.047	**J**
95-50-1	1,2-Dichlorobenzene	ND	1.9	0.27	ND	0.31	0.046	
5989-27-5	d-Limonene	**3.7**	1.9	0.38	**0.67**	0.34	0.069	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.8	0.35	ND	0.19	0.036	
120-82-1	1,2,4-Trichlorobenzene	ND	1.9	0.45	ND	0.25	0.061	
91-20-3	Naphthalene	**0.71**	1.8	0.45	**0.14**	0.34	0.086	**J**
87-68-3	Hexachlorobutadiene	ND	1.8	0.38	ND	0.17	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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-03** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-003

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00163

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**14**	7.5	1.8	**8.0**	4.4	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	**5.3**	7.5	1.2	**1.1**	1.5	0.25	**J**
74-87-3	Chloromethane	ND	7.5	1.2	ND	3.6	0.59	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.5	1.2	ND	1.1	0.17	
75-01-4	Vinyl Chloride	ND	7.7	0.81	ND	3.0	0.32	
106-99-0	1,3-Butadiene	ND	7.5	1.2	ND	3.4	0.57	
74-83-9	Bromomethane	ND	7.7	1.1	ND	2.0	0.27	
75-00-3	Chloroethane	ND	7.7	0.94	ND	2.9	0.36	
64-17-5	Ethanol	**8.5**	74	5.3	**4.5**	39	2.8	**J**
75-05-8	Acetonitrile	ND	7.5	1.8	ND	4.5	1.1	
107-02-8	Acrolein	ND	14	2.1	ND	6.2	0.93	
67-64-1	Acetone	ND	75	17	ND	32	7.2	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.4**	7.5	1.2	**0.43**	1.3	0.20	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	30	3.1	ND	12	1.3	
107-13-1	Acrylonitrile	ND	7.5	1.6	ND	3.5	0.72	
75-35-4	1,1-Dichloroethene	**6.6**	7.7	1.1	**1.7**	1.9	0.27	**J**
75-09-2	Methylene Chloride	ND	7.5	2.1	ND	2.2	0.61	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.7	1.0	ND	2.5	0.33	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**1.8**	7.7	1.1	**0.24**	1.0	0.14	**J**
75-15-0	Carbon Disulfide	**17**	16	2.3	**5.6**	5.0	0.73	
156-60-5	trans-1,2-Dichloroethene	ND	7.7	1.1	ND	1.9	0.27	
75-34-3	1,1-Dichloroethane	ND	7.8	1.1	ND	1.9	0.27	
1634-04-4	Methyl tert-Butyl Ether	ND	7.7	0.89	ND	2.1	0.25	
108-05-4	Vinyl Acetate	ND	77	17	ND	22	4.8	
78-93-3	2-Butanone (MEK)	**3.6**	16	1.6	**1.2**	5.3	0.53	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-03** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-003

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00163

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	7.5	1.1	ND	1.9	0.27	
141-78-6	Ethyl Acetate	ND	16	4.0	ND	4.3	1.1	
110-54-3	n-Hexane	ND	7.7	1.6	ND	2.2	0.44	
67-66-3	Chloroform	ND	7.7	1.0	ND	1.6	0.21	
109-99-9	Tetrahydrofuran (THF)	ND	7.8	0.95	ND	2.6	0.32	
107-06-2	1,2-Dichloroethane	ND	7.7	0.84	ND	1.9	0.21	
71-55-6	1,1,1-Trichloroethane	**4.9**	7.7	0.94	**0.90**	1.4	0.17	**J**
71-43-2	Benzene	**1.5**	7.5	1.1	**0.48**	2.4	0.34	**J**
56-23-5	Carbon Tetrachloride	ND	7.5	1.1	ND	1.2	0.17	
110-82-7	Cyclohexane	ND	16	2.1	ND	4.5	0.62	
78-87-5	1,2-Dichloropropane	ND	7.7	0.94	ND	1.7	0.20	
75-27-4	Bromodichloromethane	ND	7.7	1.1	ND	1.1	0.16	
79-01-6	Trichloroethene	ND	7.7	1.0	ND	1.4	0.19	
123-91-1	1,4-Dioxane	**1.3**	7.7	0.89	**0.37**	2.1	0.25	**J**
80-62-6	Methyl Methacrylate	ND	16	2.7	ND	3.8	0.66	
142-82-5	n-Heptane	ND	7.7	1.2	ND	1.9	0.29	
10061-01-5	cis-1,3-Dichloropropene	ND	7.4	1.2	ND	1.6	0.26	
108-10-1	4-Methyl-2-pentanone	ND	7.5	1.0	ND	1.8	0.25	
10061-02-6	trans-1,3-Dichloropropene	ND	7.5	1.6	ND	1.7	0.34	
79-00-5	1,1,2-Trichloroethane	ND	7.7	0.77	ND	1.4	0.14	
108-88-3	Toluene	**5.9**	7.7	0.92	**1.6**	2.0	0.25	**J**
591-78-6	2-Hexanone	ND	7.7	0.94	ND	1.9	0.23	
124-48-1	Dibromochloromethane	ND	7.7	0.99	ND	0.90	0.12	
106-93-4	1,2-Dibromoethane	ND	7.7	0.88	ND	1.0	0.11	
123-86-4	n-Butyl Acetate	ND	7.8	1.0	ND	1.6	0.22	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-03** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-003

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00163

Initial Pressure (psig): -0.29 Final Pressure (psig): 5.75

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	7.7	1.7	ND	1.6	0.36	
127-18-4	Tetrachloroethene	ND	7.4	0.98	ND	1.1	0.14	
108-90-7	Chlorobenzene	ND	7.7	1.0	ND	1.7	0.22	
100-41-4	Ethylbenzene	ND	7.7	1.1	ND	1.8	0.25	
179601-23-1	m,p-Xylenes	**3.0**	16	2.0	**0.70**	3.6	0.46	**J**
75-25-2	Bromoform	ND	7.7	1.6	ND	0.74	0.15	
100-42-5	Styrene	ND	7.5	1.2	ND	1.8	0.29	
95-47-6	o-Xylene	**1.3**	7.7	1.1	**0.30**	1.8	0.25	**J**
111-84-2	n-Nonane	**1.3**	7.7	1.3	**0.25**	1.5	0.24	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.7	1.1	ND	1.1	0.15	
98-82-8	Cumene	ND	7.7	1.1	ND	1.6	0.22	
80-56-8	alpha-Pinene	ND	7.7	1.2	ND	1.4	0.21	
103-65-1	n-Propylbenzene	ND	7.7	1.1	ND	1.6	0.22	
622-96-8	4-Ethyltoluene	ND	7.7	1.2	ND	1.6	0.25	
108-67-8	1,3,5-Trimethylbenzene	ND	7.5	1.1	ND	1.5	0.22	
95-63-6	1,2,4-Trimethylbenzene	**3.5**	7.7	1.1	**0.72**	1.6	0.21	**J**
100-44-7	Benzyl Chloride	ND	16	1.7	ND	3.0	0.33	
541-73-1	1,3-Dichlorobenzene	ND	7.7	1.1	ND	1.3	0.19	
106-46-7	1,4-Dichlorobenzene	ND	7.7	1.2	ND	1.3	0.19	
95-50-1	1,2-Dichlorobenzene	ND	7.7	1.1	ND	1.3	0.19	
5989-27-5	d-Limonene	**5.8**	7.7	1.6	**1.0**	1.4	0.28	**J**
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.5	1.4	ND	0.78	0.15	
120-82-1	1,2,4-Trichlorobenzene	ND	7.7	1.8	ND	1.0	0.25	
91-20-3	Naphthalene	ND	7.4	1.8	ND	1.4	0.35	
87-68-3	Hexachlorobutadiene	ND	7.5	1.6	ND	0.71	0.15	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-04** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-004

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SS00965

Initial Pressure (psig): -0.13 Final Pressure (psig): 5.23

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**68**	3.6	0.89	**40**	2.1	0.52	
75-71-8	Dichlorodifluoromethane (CFC 12)	**4.9**	3.6	0.60	**1.0**	0.73	0.12	
74-87-3	Chloromethane	**0.65**	3.6	0.59	**0.32**	1.8	0.29	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	3.6	0.58	ND	0.52	0.082	
75-01-4	Vinyl Chloride	ND	3.7	0.39	ND	1.4	0.15	
106-99-0	1,3-Butadiene	ND	3.6	0.60	ND	1.6	0.27	
74-83-9	Bromomethane	ND	3.7	0.51	ND	0.95	0.13	
75-00-3	Chloroethane	ND	3.7	0.45	ND	1.4	0.17	
64-17-5	Ethanol	**15**	36	2.5	**7.7**	19	1.3	**J**
75-05-8	Acetonitrile	**7.3**	3.6	0.89	**4.3**	2.2	0.53	
107-02-8	Acrolein	**2.5**	6.9	1.0	**1.1**	3.0	0.45	**J**
67-64-1	Acetone	**54**	36	8.2	**23**	15	3.5	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.5**	3.6	0.55	**0.44**	0.65	0.099	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	14	1.5	ND	5.9	0.61	
107-13-1	Acrylonitrile	**4.0**	3.6	0.75	**1.9**	1.7	0.35	
75-35-4	1,1-Dichloroethene	ND	3.7	0.51	ND	0.93	0.13	
75-09-2	Methylene Chloride	ND	3.6	1.0	ND	1.0	0.30	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	3.7	0.49	ND	1.2	0.16	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**1.7**	3.7	0.52	**0.22**	0.48	0.068	**J**
75-15-0	Carbon Disulfide	**4.9**	7.5	1.1	**1.6**	2.4	0.35	**J**
156-60-5	trans-1,2-Dichloroethene	ND	3.7	0.51	ND	0.93	0.13	
75-34-3	1,1-Dichloroethane	**0.68**	3.8	0.53	**0.17**	0.93	0.13	**J**
1634-04-4	Methyl tert-Butyl Ether	ND	3.7	0.43	ND	1.0	0.12	
108-05-4	Vinyl Acetate	ND	37	8.2	ND	11	2.3	
78-93-3	2-Butanone (MEK)	**15**	7.5	0.75	**5.0**	2.6	0.26	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-04** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-004

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SS00965

Initial Pressure (psig): -0.13 Final Pressure (psig): 5.23

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	3.6	0.51	ND	0.92	0.13	
141-78-6	Ethyl Acetate	**4.9**	7.5	1.9	**1.4**	2.1	0.53	**J**
110-54-3	n-Hexane	ND	3.7	0.75	ND	1.0	0.21	
67-66-3	Chloroform	ND	3.7	0.49	ND	0.76	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	3.8	0.46	ND	1.3	0.16	
107-06-2	1,2-Dichloroethane	ND	3.7	0.40	ND	0.91	0.10	
71-55-6	1,1,1-Trichloroethane	**3.9**	3.7	0.45	**0.72**	0.68	0.083	
71-43-2	Benzene	**15**	3.6	0.53	**4.7**	1.1	0.17	
56-23-5	Carbon Tetrachloride	**0.69**	3.6	0.51	**0.11**	0.58	0.081	**J**
110-82-7	Cyclohexane	ND	7.5	1.0	ND	2.2	0.30	
78-87-5	1,2-Dichloropropane	ND	3.7	0.45	ND	0.80	0.098	
75-27-4	Bromodichloromethane	ND	3.7	0.53	ND	0.55	0.079	
79-01-6	Trichloroethene	ND	3.7	0.49	ND	0.69	0.092	
123-91-1	1,4-Dioxane	ND	3.7	0.43	ND	1.0	0.12	
80-62-6	Methyl Methacrylate	ND	7.5	1.3	ND	1.8	0.32	
142-82-5	n-Heptane	ND	3.7	0.58	ND	0.90	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	3.6	0.57	ND	0.78	0.13	
108-10-1	4-Methyl-2-pentanone	**2.3**	3.6	0.50	**0.55**	0.89	0.12	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	3.6	0.75	ND	0.80	0.17	
79-00-5	1,1,2-Trichloroethane	ND	3.7	0.37	ND	0.68	0.068	
108-88-3	Toluene	**67**	3.7	0.45	**18**	0.98	0.12	
591-78-6	2-Hexanone	**2.0**	3.7	0.45	**0.48**	0.90	0.11	**J**
124-48-1	Dibromochloromethane	ND	3.7	0.48	ND	0.43	0.056	
106-93-4	1,2-Dibromoethane	ND	3.7	0.42	ND	0.48	0.055	
123-86-4	n-Butyl Acetate	**0.72**	3.8	0.50	**0.15**	0.79	0.11	**J**

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-04** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-004

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SS00965

Initial Pressure (psig): -0.13 Final Pressure (psig): 5.23

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	3.7	0.82	ND	0.79	0.18	
127-18-4	Tetrachloroethene	**0.50**	3.6	0.47	**0.074**	0.53	0.070	**J**
108-90-7	Chlorobenzene	ND	3.7	0.49	ND	0.80	0.11	
100-41-4	Ethylbenzene	**17**	3.7	0.51	**4.0**	0.85	0.12	
179601-23-1	m,p-Xylenes	**20**	7.5	0.96	**4.6**	1.7	0.22	
75-25-2	Bromoform	ND	3.7	0.75	ND	0.36	0.073	
100-42-5	Styrene	**55**	3.6	0.59	**13**	0.85	0.14	
95-47-6	o-Xylene	**12**	3.7	0.53	**2.8**	0.85	0.12	
111-84-2	n-Nonane	**1.2**	3.7	0.61	**0.23**	0.71	0.12	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.7	0.51	ND	0.54	0.074	
98-82-8	Cumene	**0.60**	3.7	0.53	**0.12**	0.75	0.11	**J**
80-56-8	alpha-Pinene	**1.9**	3.7	0.56	**0.35**	0.66	0.10	**J**
103-65-1	n-Propylbenzene	**0.99**	3.7	0.53	**0.20**	0.75	0.11	**J**
622-96-8	4-Ethyltoluene	**1.5**	3.7	0.58	**0.31**	0.75	0.12	**J**
108-67-8	1,3,5-Trimethylbenzene	**4.0**	3.6	0.53	**0.82**	0.74	0.11	
95-63-6	1,2,4-Trimethylbenzene	**6.7**	3.7	0.51	**1.4**	0.75	0.10	
100-44-7	Benzyl Chloride	ND	7.5	0.82	ND	1.5	0.16	
541-73-1	1,3-Dichlorobenzene	ND	3.7	0.55	ND	0.62	0.091	
106-46-7	1,4-Dichlorobenzene	ND	3.7	0.56	ND	0.62	0.093	
95-50-1	1,2-Dichlorobenzene	ND	3.7	0.54	ND	0.62	0.090	
5989-27-5	d-Limonene	**5.6**	3.7	0.75	**1.0**	0.66	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.6	0.69	ND	0.38	0.071	
120-82-1	1,2,4-Trichlorobenzene	ND	3.7	0.89	ND	0.50	0.12	
91-20-3	Naphthalene	ND	3.6	0.89	ND	0.68	0.17	
87-68-3	Hexachlorobutadiene	ND	3.6	0.75	ND	0.34	0.071	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-05** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-005

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: 1SC01196

Initial Pressure (psig): -0.23 Final Pressure (psig): 6.74

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**8.3**	2.6	0.64	**4.8**	1.5	0.37	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	2.6	0.43	**0.48**	0.53	0.087	**J**
74-87-3	Chloromethane	**0.46**	2.6	0.42	**0.22**	1.3	0.21	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.6	0.41	ND	0.37	0.059	
75-01-4	Vinyl Chloride	ND	2.7	0.28	ND	1.0	0.11	
106-99-0	1,3-Butadiene	ND	2.6	0.43	ND	1.2	0.20	
74-83-9	Bromomethane	ND	2.7	0.37	ND	0.69	0.094	
75-00-3	Chloroethane	ND	2.7	0.33	ND	1.0	0.12	
64-17-5	Ethanol	**7.8**	26	1.8	**4.1**	14	0.97	**J**
75-05-8	Acetonitrile	ND	2.6	0.64	ND	1.6	0.38	
107-02-8	Acrolein	**1.0**	4.9	0.74	**0.46**	2.2	0.32	**J**
67-64-1	Acetone	**23**	26	5.9	**9.9**	11	2.5	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.1**	2.6	0.40	**0.20**	0.47	0.071	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	10	1.1	ND	4.2	0.44	
107-13-1	Acrylonitrile	ND	2.6	0.54	ND	1.2	0.25	
75-35-4	1,1-Dichloroethene	ND	2.7	0.37	ND	0.67	0.092	
75-09-2	Methylene Chloride	ND	2.6	0.74	ND	0.75	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.7	0.36	ND	0.85	0.11	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.41**	2.7	0.37	**0.053**	0.35	0.049	**J**
75-15-0	Carbon Disulfide	**1.3**	5.4	0.79	**0.42**	1.7	0.25	**J**
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.37	ND	0.67	0.092	
75-34-3	1,1-Dichloroethane	ND	2.7	0.38	ND	0.67	0.095	
1634-04-4	Methyl tert-Butyl Ether	ND	2.7	0.31	ND	0.74	0.086	
108-05-4	Vinyl Acetate	ND	27	5.9	ND	7.6	1.7	
78-93-3	2-Butanone (MEK)	**2.4**	5.4	0.54	**0.83**	1.8	0.18	**J**

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **SVE-OBS-05** ALS Project ID: P2003611

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-005

Test Code:	EPA TO-15	Date Collected:	6/19/20
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	6/29/20
Analyst:	Wida Ang	Date Analyzed:	7/10/20
Sample Type:	1.0 L Summa Canister	Volume(s) Analyzed:	0.30 Liter(s)
Test Notes:			
Container ID:	1SC01196		

Initial Pressure (psig): -0.23 Final Pressure (psig): 6.74

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.6	0.37	ND	0.66	0.093	
141-78-6	Ethyl Acetate	ND	5.4	1.4	ND	1.5	0.38	
110-54-3	n-Hexane	**6.0**	2.7	0.54	**1.7**	0.76	0.15	
67-66-3	Chloroform	ND	2.7	0.35	ND	0.55	0.072	
109-99-9	Tetrahydrofuran (THF)	ND	2.7	0.33	ND	0.92	0.11	
107-06-2	1,2-Dichloroethane	ND	2.7	0.29	ND	0.66	0.072	
71-55-6	1,1,1-Trichloroethane	**1.2**	2.7	0.33	**0.22**	0.49	0.060	**J**
71-43-2	Benzene	**7.5**	2.6	0.38	**2.3**	0.82	0.12	
56-23-5	Carbon Tetrachloride	ND	2.6	0.37	ND	0.42	0.058	
110-82-7	Cyclohexane	**4.5**	5.4	0.74	**1.3**	1.6	0.22	**J**
78-87-5	1,2-Dichloropropane	ND	2.7	0.33	ND	0.58	0.070	
75-27-4	Bromodichloromethane	ND	2.7	0.38	ND	0.40	0.057	
79-01-6	Trichloroethene	ND	2.7	0.36	ND	0.50	0.066	
123-91-1	1,4-Dioxane	ND	2.7	0.31	ND	0.74	0.086	
80-62-6	Methyl Methacrylate	ND	5.4	0.94	ND	1.3	0.23	
142-82-5	n-Heptane	**1.1**	2.7	0.42	**0.26**	0.65	0.10	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.41	ND	0.57	0.090	
108-10-1	4-Methyl-2-pentanone	**2.7**	2.6	0.36	**0.65**	0.64	0.088	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.54	ND	0.58	0.12	
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.27	ND	0.49	0.049	
108-88-3	Toluene	**12**	2.7	0.32	**3.1**	0.71	0.085	
591-78-6	2-Hexanone	**1.8**	2.7	0.33	**0.44**	0.65	0.080	**J**
124-48-1	Dibromochloromethane	ND	2.7	0.35	ND	0.31	0.041	
106-93-4	1,2-Dibromoethane	ND	2.7	0.31	ND	0.35	0.040	
123-86-4	n-Butyl Acetate	ND	2.7	0.36	ND	0.57	0.076	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-05** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-005

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: 1SC01196

Initial Pressure (psig): -0.23 Final Pressure (psig): 6.74

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.7	0.59	ND	0.57	0.13	
127-18-4	Tetrachloroethene	**0.73**	2.6	0.34	**0.11**	0.38	0.050	**J**
108-90-7	Chlorobenzene	ND	2.7	0.35	ND	0.58	0.076	
100-41-4	Ethylbenzene	**2.1**	2.7	0.37	**0.49**	0.61	0.085	**J**
179601-23-1	m,p-Xylenes	**11**	5.4	0.69	**2.4**	1.2	0.16	
75-25-2	Bromoform	ND	2.7	0.54	ND	0.26	0.053	
100-42-5	Styrene	ND	2.6	0.42	ND	0.61	0.10	
95-47-6	o-Xylene	**5.3**	2.7	0.38	**1.2**	0.61	0.087	
111-84-2	n-Nonane	**0.69**	2.7	0.44	**0.13**	0.51	0.084	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.37	ND	0.39	0.053	
98-82-8	Cumene	ND	2.7	0.38	ND	0.54	0.077	
80-56-8	alpha-Pinene	**0.75**	2.7	0.40	**0.14**	0.48	0.073	**J**
103-65-1	n-Propylbenzene	**0.43**	2.7	0.38	**0.087**	0.54	0.077	**J**
622-96-8	4-Ethyltoluene	**0.68**	2.7	0.42	**0.14**	0.54	0.085	**J**
108-67-8	1,3,5-Trimethylbenzene	**1.2**	2.6	0.38	**0.25**	0.53	0.077	**J**
95-63-6	1,2,4-Trimethylbenzene	**2.7**	2.7	0.37	**0.55**	0.54	0.074	
100-44-7	Benzyl Chloride	ND	5.4	0.59	ND	1.0	0.11	
541-73-1	1,3-Dichlorobenzene	ND	2.7	0.39	ND	0.44	0.066	
106-46-7	1,4-Dichlorobenzene	ND	2.7	0.40	ND	0.44	0.067	
95-50-1	1,2-Dichlorobenzene	ND	2.7	0.39	ND	0.44	0.065	
5989-27-5	d-Limonene	**2.2**	2.7	0.54	**0.39**	0.48	0.097	**J**
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.6	0.49	ND	0.27	0.051	
120-82-1	1,2,4-Trichlorobenzene	ND	2.7	0.64	ND	0.36	0.086	
91-20-3	Naphthalene	ND	2.6	0.64	ND	0.49	0.12	
87-68-3	Hexachlorobutadiene	ND	2.6	0.54	ND	0.25	0.051	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-07** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-006

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00103

Initial Pressure (psig): -0.27 Final Pressure (psig): 6.15

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**340**	7.6	1.9	**200**	4.4	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	**11**	7.6	1.3	**2.1**	1.5	0.25	
74-87-3	Chloromethane	ND	7.6	1.2	ND	3.7	0.60	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	7.6	1.2	ND	1.1	0.17	
75-01-4	Vinyl Chloride	ND	7.8	0.82	ND	3.0	0.32	
106-99-0	1,3-Butadiene	ND	7.6	1.3	ND	3.5	0.57	
74-83-9	Bromomethane	ND	7.8	1.1	ND	2.0	0.27	
75-00-3	Chloroethane	ND	7.8	0.95	ND	2.9	0.36	
64-17-5	Ethanol	**41**	75	5.3	**22**	40	2.8	**J**
75-05-8	Acetonitrile	ND	7.6	1.9	ND	4.5	1.1	
107-02-8	Acrolein	**3.4**	14	2.2	**1.5**	6.3	0.94	**J**
67-64-1	Acetone	**98**	76	17	**41**	32	7.3	
75-69-4	Trichlorofluoromethane (CFC 11)	**5.0**	7.6	1.2	**0.90**	1.4	0.21	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**3.7**	30	3.2	**1.5**	12	1.3	**J**
107-13-1	Acrylonitrile	ND	7.6	1.6	ND	3.5	0.73	
75-35-4	1,1-Dichloroethene	**52**	7.8	1.1	**13**	2.0	0.27	
75-09-2	Methylene Chloride	ND	7.6	2.2	ND	2.2	0.62	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	7.8	1.0	ND	2.5	0.33	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**1.9**	7.8	1.1	**0.24**	1.0	0.14	**J**
75-15-0	Carbon Disulfide	**66**	16	2.3	**21**	5.1	0.74	
156-60-5	trans-1,2-Dichloroethene	ND	7.8	1.1	ND	2.0	0.27	
75-34-3	1,1-Dichloroethane	**4.2**	7.9	1.1	**1.0**	2.0	0.28	**J**
1634-04-4	Methyl tert-Butyl Ether	ND	7.8	0.91	ND	2.2	0.25	
108-05-4	Vinyl Acetate	ND	78	17	ND	22	4.9	
78-93-3	2-Butanone (MEK)	**11**	16	1.6	**3.8**	5.4	0.54	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-07** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-006

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00103

Initial Pressure (psig): -0.27 Final Pressure (psig): 6.15

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	7.6	1.1	ND	1.9	0.27	
141-78-6	Ethyl Acetate	ND	16	4.0	ND	4.4	1.1	
110-54-3	n-Hexane	**1.9**	7.8	1.6	**0.54**	2.2	0.45	**J**
67-66-3	Chloroform	**1.3**	7.8	1.0	**0.26**	1.6	0.21	**J**
109-99-9	Tetrahydrofuran (THF)	**1.4**	7.9	0.96	**0.46**	2.7	0.33	**J**
107-06-2	1,2-Dichloroethane	ND	7.8	0.85	ND	1.9	0.21	
71-55-6	1,1,1-Trichloroethane	**26**	7.8	0.95	**4.7**	1.4	0.17	
71-43-2	Benzene	ND	7.6	1.1	ND	2.4	0.35	
56-23-5	Carbon Tetrachloride	**1.6**	7.6	1.1	**0.25**	1.2	0.17	**J**
110-82-7	Cyclohexane	ND	16	2.2	ND	4.6	0.63	
78-87-5	1,2-Dichloropropane	ND	7.8	0.95	ND	1.7	0.21	
75-27-4	Bromodichloromethane	ND	7.8	1.1	ND	1.2	0.17	
79-01-6	Trichloroethene	**2.7**	7.8	1.0	**0.50**	1.4	0.19	**J**
123-91-1	1,4-Dioxane	**1.2**	7.8	0.91	**0.34**	2.2	0.25	**J**
80-62-6	Methyl Methacrylate	ND	16	2.7	ND	3.9	0.67	
142-82-5	n-Heptane	ND	7.8	1.2	ND	1.9	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	7.5	1.2	ND	1.7	0.26	
108-10-1	4-Methyl-2-pentanone	**1.7**	7.6	1.1	**0.41**	1.9	0.26	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	7.6	1.6	ND	1.7	0.35	
79-00-5	1,1,2-Trichloroethane	**1.3**	7.8	0.78	**0.25**	1.4	0.14	**J**
108-88-3	Toluene	**12**	7.8	0.94	**3.3**	2.1	0.25	
591-78-6	2-Hexanone	**2.5**	7.8	0.95	**0.60**	1.9	0.23	**J**
124-48-1	Dibromochloromethane	ND	7.8	1.0	ND	0.91	0.12	
106-93-4	1,2-Dibromoethane	ND	7.8	0.89	ND	1.0	0.12	
123-86-4	n-Butyl Acetate	ND	7.9	1.1	ND	1.7	0.22	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-07** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-006

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes:
Container ID: 1SS00103

Initial Pressure (psig): -0.27 Final Pressure (psig): 6.15

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	7.8	1.7	ND	1.7	0.37	
127-18-4	Tetrachloroethene	**1.5**	7.5	0.99	**0.23**	1.1	0.15	**J**
108-90-7	Chlorobenzene	ND	7.8	1.0	ND	1.7	0.22	
100-41-4	Ethylbenzene	**16**	7.8	1.1	**3.6**	1.8	0.25	
179601-23-1	m,p-Xylenes	**75**	16	2.0	**17**	3.6	0.46	
75-25-2	Bromoform	ND	7.8	1.6	ND	0.75	0.15	
100-42-5	Styrene	**1.8**	7.6	1.2	**0.42**	1.8	0.29	**J**
95-47-6	o-Xylene	**91**	7.8	1.1	**21**	1.8	0.26	
111-84-2	n-Nonane	**2.2**	7.8	1.3	**0.42**	1.5	0.24	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.8	1.1	ND	1.1	0.16	
98-82-8	Cumene	**1.6**	7.8	1.1	**0.33**	1.6	0.23	**J**
80-56-8	alpha-Pinene	**2.5**	7.8	1.2	**0.44**	1.4	0.21	**J**
103-65-1	n-Propylbenzene	**4.1**	7.8	1.1	**0.83**	1.6	0.23	**J**
622-96-8	4-Ethyltoluene	**4.3**	7.8	1.2	**0.87**	1.6	0.25	**J**
108-67-8	1,3,5-Trimethylbenzene	**19**	7.6	1.1	**3.8**	1.6	0.23	
95-63-6	1,2,4-Trimethylbenzene	**26**	7.8	1.1	**5.4**	1.6	0.22	
100-44-7	Benzyl Chloride	ND	16	1.7	ND	3.1	0.33	
541-73-1	1,3-Dichlorobenzene	ND	7.8	1.2	ND	1.3	0.19	
106-46-7	1,4-Dichlorobenzene	**1.4**	7.8	1.2	**0.23**	1.3	0.20	**J**
95-50-1	1,2-Dichlorobenzene	ND	7.8	1.1	ND	1.3	0.19	
5989-27-5	d-Limonene	**10**	7.8	1.6	**1.8**	1.4	0.28	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.6	1.4	ND	0.79	0.15	
120-82-1	1,2,4-Trichlorobenzene	ND	7.8	1.9	ND	1.0	0.25	
91-20-3	Naphthalene	**4.8**	7.5	1.9	**0.92**	1.4	0.36	**J**
87-68-3	Hexachlorobutadiene	ND	7.6	1.6	ND	0.72	0.15	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-08** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-007

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC00845

Initial Pressure (psig): -0.03 Final Pressure (psig): 5.88

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**13**	3.7	0.91	**7.3**	2.2	0.53	
75-71-8	Dichlorodifluoromethane (CFC 12)	**5.3**	3.7	0.61	**1.1**	0.75	0.12	
74-87-3	Chloromethane	ND	3.7	0.60	ND	1.8	0.29	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	3.7	0.59	ND	0.53	0.084	
75-01-4	Vinyl Chloride	ND	3.8	0.40	ND	1.5	0.16	
106-99-0	1,3-Butadiene	ND	3.7	0.62	ND	1.7	0.28	
74-83-9	Bromomethane	ND	3.8	0.52	ND	0.97	0.13	
75-00-3	Chloroethane	ND	3.8	0.46	ND	1.4	0.18	
64-17-5	Ethanol	**13**	36	2.6	**6.8**	19	1.4	**J**
75-05-8	Acetonitrile	**1.1**	3.7	0.91	**0.66**	2.2	0.54	**J**
107-02-8	Acrolein	**5.3**	7.0	1.1	**2.3**	3.1	0.46	**J**
67-64-1	Acetone	**67**	37	8.4	**28**	16	3.5	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.6**	3.7	0.57	**0.46**	0.66	0.10	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**2.0**	15	1.5	**0.83**	6.0	0.63	**J**
107-13-1	Acrylonitrile	ND	3.7	0.77	ND	1.7	0.35	
75-35-4	1,1-Dichloroethene	**560**	3.8	0.52	**140**	0.95	0.13	
75-09-2	Methylene Chloride	ND	3.7	1.1	ND	1.1	0.30	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	3.8	0.50	ND	1.2	0.16	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.87**	3.8	0.53	**0.11**	0.49	0.069	**J**
75-15-0	Carbon Disulfide	**11**	7.7	1.1	**3.6**	2.5	0.36	
156-60-5	trans-1,2-Dichloroethene	ND	3.8	0.52	ND	0.95	0.13	
75-34-3	1,1-Dichloroethane	**27**	3.9	0.55	**6.7**	0.95	0.13	
1634-04-4	Methyl tert-Butyl Ether	ND	3.8	0.44	ND	1.0	0.12	
108-05-4	Vinyl Acetate	**12**	38	8.4	**3.4**	11	2.4	**J**
78-93-3	2-Butanone (MEK)	**9.1**	7.7	0.77	**3.1**	2.6	0.26	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-08** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-007

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC00845

Initial Pressure (psig): -0.03 Final Pressure (psig): 5.88

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	3.7	0.53	ND	0.94	0.13	
141-78-6	Ethyl Acetate	ND	7.7	2.0	ND	2.1	0.54	
110-54-3	n-Hexane	ND	3.8	0.77	ND	1.1	0.22	
67-66-3	Chloroform	**1.3**	3.8	0.50	**0.26**	0.77	0.10	**J**
109-99-9	Tetrahydrofuran (THF)	ND	3.9	0.47	ND	1.3	0.16	
107-06-2	1,2-Dichloroethane	ND	3.8	0.41	ND	0.93	0.10	
71-55-6	1,1,1-Trichloroethane	**42**	3.8	0.46	**7.8**	0.69	0.085	
71-43-2	Benzene	**0.76**	3.7	0.54	**0.24**	1.2	0.17	**J**
56-23-5	Carbon Tetrachloride	**0.74**	3.7	0.52	**0.12**	0.59	0.082	**J**
110-82-7	Cyclohexane	ND	7.7	1.1	ND	2.2	0.31	
78-87-5	1,2-Dichloropropane	ND	3.8	0.46	ND	0.82	0.10	
75-27-4	Bromodichloromethane	ND	3.8	0.54	ND	0.56	0.080	
79-01-6	Trichloroethene	**1.1**	3.8	0.50	**0.21**	0.70	0.094	**J**
123-91-1	1,4-Dioxane	ND	3.8	0.44	ND	1.0	0.12	
80-62-6	Methyl Methacrylate	ND	7.7	1.3	ND	1.9	0.32	
142-82-5	n-Heptane	ND	3.8	0.60	ND	0.92	0.15	
10061-01-5	cis-1,3-Dichloropropene	ND	3.6	0.58	ND	0.80	0.13	
108-10-1	4-Methyl-2-pentanone	ND	3.7	0.51	ND	0.91	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	3.7	0.77	ND	0.82	0.17	
79-00-5	1,1,2-Trichloroethane	ND	3.8	0.38	ND	0.69	0.069	
108-88-3	Toluene	**3.3**	3.8	0.46	**0.87**	1.0	0.12	**J**
591-78-6	2-Hexanone	**1.9**	3.8	0.46	**0.47**	0.92	0.11	**J**
124-48-1	Dibromochloromethane	ND	3.8	0.49	ND	0.44	0.058	
106-93-4	1,2-Dibromoethane	ND	3.8	0.43	ND	0.49	0.056	
123-86-4	n-Butyl Acetate	ND	3.9	0.51	ND	0.81	0.11	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-08** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-007

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC00845

Initial Pressure (psig): -0.03 Final Pressure (psig): 5.88

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	3.8	0.84	ND	0.81	0.18	
127-18-4	Tetrachloroethene	**3.4**	3.6	0.48	**0.50**	0.54	0.071	**J**
108-90-7	Chlorobenzene	ND	3.8	0.50	ND	0.82	0.11	
100-41-4	Ethylbenzene	**1.3**	3.8	0.53	**0.30**	0.87	0.12	**J**
179601-23-1	m,p-Xylenes	**3.3**	7.7	0.98	**0.77**	1.8	0.23	**J**
75-25-2	Bromoform	ND	3.8	0.77	ND	0.37	0.075	
100-42-5	Styrene	**0.76**	3.7	0.60	**0.18**	0.87	0.14	**J**
95-47-6	o-Xylene	**1.6**	3.8	0.54	**0.37**	0.87	0.12	**J**
111-84-2	n-Nonane	**0.85**	3.8	0.62	**0.16**	0.72	0.12	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.8	0.52	ND	0.55	0.075	
98-82-8	Cumene	ND	3.8	0.54	ND	0.77	0.11	
80-56-8	alpha-Pinene	**0.78**	3.8	0.57	**0.14**	0.68	0.10	**J**
103-65-1	n-Propylbenzene	ND	3.8	0.54	ND	0.77	0.11	
622-96-8	4-Ethyltoluene	ND	3.8	0.60	ND	0.77	0.12	
108-67-8	1,3,5-Trimethylbenzene	**0.82**	3.7	0.54	**0.17**	0.75	0.11	**J**
95-63-6	1,2,4-Trimethylbenzene	**3.0**	3.8	0.52	**0.61**	0.77	0.11	**J**
100-44-7	Benzyl Chloride	ND	7.7	0.84	ND	1.5	0.16	
541-73-1	1,3-Dichlorobenzene	ND	3.8	0.56	ND	0.63	0.093	
106-46-7	1,4-Dichlorobenzene	ND	3.8	0.57	ND	0.63	0.096	
95-50-1	1,2-Dichlorobenzene	ND	3.8	0.55	ND	0.63	0.092	
5989-27-5	d-Limonene	**5.3**	3.8	0.77	**0.96**	0.68	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.7	0.70	ND	0.38	0.072	
120-82-1	1,2,4-Trichlorobenzene	ND	3.8	0.91	ND	0.51	0.12	
91-20-3	Naphthalene	**1.9**	3.6	0.91	**0.36**	0.69	0.17	**J**
87-68-3	Hexachlorobutadiene	ND	3.7	0.77	ND	0.35	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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-09** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-008

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC00733

Initial Pressure (psig): -0.13 Final Pressure (psig): 7.41

Canister Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**63**	4.0	0.99	**36**	2.3	0.57	
75-71-8	Dichlorodifluoromethane (CFC 12)	**5.2**	4.0	0.66	**1.1**	0.81	0.13	
74-87-3	Chloromethane	**1.9**	4.0	0.65	**0.94**	2.0	0.32	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	4.0	0.64	ND	0.58	0.091	
75-01-4	Vinyl Chloride	ND	4.1	0.43	ND	1.6	0.17	
106-99-0	1,3-Butadiene	ND	4.0	0.67	ND	1.8	0.30	
74-83-9	Bromomethane	ND	4.1	0.56	ND	1.1	0.14	
75-00-3	Chloroethane	ND	4.1	0.50	ND	1.6	0.19	
64-17-5	Ethanol	**40**	40	2.8	**21**	21	1.5	
75-05-8	Acetonitrile	**2.7**	4.0	0.99	**1.6**	2.4	0.59	**J**
107-02-8	Acrolein	**9.9**	7.6	1.1	**4.3**	3.3	0.50	
67-64-1	Acetone	**84**	40	9.1	**35**	17	3.8	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.5**	4.0	0.62	**0.44**	0.72	0.11	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**3.8**	16	1.7	**1.5**	6.5	0.68	**J**
107-13-1	Acrylonitrile	ND	4.0	0.84	ND	1.9	0.39	
75-35-4	1,1-Dichloroethene	**7.3**	4.1	0.56	**1.8**	1.0	0.14	
75-09-2	Methylene Chloride	ND	4.0	1.1	ND	1.2	0.33	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	4.1	0.55	ND	1.3	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.85**	4.1	0.58	**0.11**	0.54	0.075	**J**
75-15-0	Carbon Disulfide	**13**	8.4	1.2	**4.0**	2.7	0.39	
156-60-5	trans-1,2-Dichloroethene	ND	4.1	0.56	ND	1.0	0.14	
75-34-3	1,1-Dichloroethane	ND	4.2	0.59	ND	1.0	0.15	
1634-04-4	Methyl tert-Butyl Ether	ND	4.1	0.48	ND	1.1	0.13	
108-05-4	Vinyl Acetate	**26**	41	9.1	**7.3**	12	2.6	**J**
78-93-3	2-Butanone (MEK)	**16**	8.4	0.84	**5.5**	2.8	0.28	

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: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-09** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-008

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC00733

Initial Pressure (psig): -0.13 Final Pressure (psig): 7.41

Canister Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	4.0	0.57	ND	1.0	0.14	
141-78-6	Ethyl Acetate	**370**	8.4	2.1	**100**	2.3	0.59	
110-54-3	n-Hexane	**2.1**	4.1	0.84	**0.60**	1.2	0.24	**J**
67-66-3	Chloroform	ND	4.1	0.54	ND	0.84	0.11	
109-99-9	Tetrahydrofuran (THF)	**1.1**	4.2	0.51	**0.37**	1.4	0.17	**J**
107-06-2	1,2-Dichloroethane	ND	4.1	0.45	ND	1.0	0.11	
71-55-6	1,1,1-Trichloroethane	**11**	4.1	0.50	**1.9**	0.75	0.092	
71-43-2	Benzene	**2.4**	4.0	0.59	**0.75**	1.3	0.18	**J**
56-23-5	Carbon Tetrachloride	**0.73**	4.0	0.56	**0.12**	0.64	0.089	**J**
110-82-7	Cyclohexane	**1.4**	8.4	1.1	**0.40**	2.4	0.33	**J**
78-87-5	1,2-Dichloropropane	**0.59**	4.1	0.50	**0.13**	0.89	0.11	**J**
75-27-4	Bromodichloromethane	ND	4.1	0.59	ND	0.61	0.087	
79-01-6	Trichloroethene	**14**	4.1	0.55	**2.6**	0.76	0.10	
123-91-1	1,4-Dioxane	**1.1**	4.1	0.48	**0.30**	1.1	0.13	**J**
80-62-6	Methyl Methacrylate	ND	8.4	1.4	ND	2.0	0.35	
142-82-5	n-Heptane	ND	4.1	0.65	ND	1.0	0.16	
10061-01-5	cis-1,3-Dichloropropene	ND	4.0	0.63	ND	0.87	0.14	
108-10-1	4-Methyl-2-pentanone	**1.1**	4.0	0.55	**0.27**	0.98	0.14	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	4.0	0.84	ND	0.89	0.18	
79-00-5	1,1,2-Trichloroethane	ND	4.1	0.41	ND	0.75	0.075	
108-88-3	Toluene	**19**	4.1	0.49	**5.0**	1.1	0.13	
591-78-6	2-Hexanone	**2.0**	4.1	0.50	**0.48**	1.0	0.12	**J**
124-48-1	Dibromochloromethane	ND	4.1	0.53	ND	0.48	0.062	
106-93-4	1,2-Dibromoethane	ND	4.1	0.47	ND	0.53	0.061	
123-86-4	n-Butyl Acetate	ND	4.2	0.55	ND	0.88	0.12	

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **SVE-OBS-09** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003611-008

Test Code: EPA TO-15 Date Collected: 6/19/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/29/20
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: 1SC00733

Initial Pressure (psig): -0.13 Final Pressure (psig): 7.41

Canister Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	4.1	0.91	ND	0.88	0.20	
127-18-4	Tetrachloroethene	**3.5**	4.0	0.52	**0.52**	0.58	0.077	**J**
108-90-7	Chlorobenzene	ND	4.1	0.54	ND	0.89	0.12	
100-41-4	Ethylbenzene	**0.95**	4.1	0.57	**0.22**	0.95	0.13	**J**
179601-23-1	m,p-Xylenes	**4.5**	8.4	1.1	**1.0**	1.9	0.25	**J**
75-25-2	Bromoform	ND	4.1	0.84	ND	0.40	0.081	
100-42-5	Styrene	ND	4.0	0.65	ND	0.95	0.15	
95-47-6	o-Xylene	**3.3**	4.1	0.59	**0.76**	0.95	0.13	**J**
111-84-2	n-Nonane	**0.84**	4.1	0.68	**0.16**	0.78	0.13	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.1	0.56	ND	0.60	0.082	
98-82-8	Cumene	ND	4.1	0.59	ND	0.84	0.12	
80-56-8	alpha-Pinene	**2.9**	4.1	0.62	**0.52**	0.74	0.11	**J**
103-65-1	n-Propylbenzene	ND	4.1	0.59	ND	0.84	0.12	
622-96-8	4-Ethyltoluene	**0.67**	4.1	0.65	**0.14**	0.84	0.13	**J**
108-67-8	1,3,5-Trimethylbenzene	**1.8**	4.0	0.59	**0.36**	0.82	0.12	**J**
95-63-6	1,2,4-Trimethylbenzene	**4.0**	4.1	0.56	**0.82**	0.84	0.11	**J**
100-44-7	Benzyl Chloride	ND	8.4	0.91	ND	1.6	0.18	
541-73-1	1,3-Dichlorobenzene	ND	4.1	0.61	ND	0.68	0.10	
106-46-7	1,4-Dichlorobenzene	ND	4.1	0.62	ND	0.68	0.10	
95-50-1	1,2-Dichlorobenzene	ND	4.1	0.60	ND	0.68	0.10	
5989-27-5	d-Limonene	**4.9**	4.1	0.84	**0.89**	0.74	0.15	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	0.76	ND	0.42	0.079	
120-82-1	1,2,4-Trichlorobenzene	ND	4.1	0.99	ND	0.55	0.13	
91-20-3	Naphthalene	ND	4.0	0.99	ND	0.75	0.19	
87-68-3	Hexachlorobutadiene	ND	4.0	0.84	ND	0.38	0.078	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa 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	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.53	0.086	ND	0.26	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	0.084	ND	0.076	0.012	
75-01-4	Vinyl Chloride	ND	0.54	0.057	ND	0.21	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.54	0.074	ND	0.14	0.019	
75-00-3	Chloroethane	ND	0.54	0.066	ND	0.20	0.025	
64-17-5	Ethanol	ND	5.2	0.37	ND	2.8	0.20	
75-05-8	Acetonitrile	ND	0.53	0.13	ND	0.32	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	0.081	ND	0.094	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	0.22	ND	0.85	0.090	
107-13-1	Acrylonitrile	ND	0.53	0.11	ND	0.24	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.35	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.55	0.078	ND	0.14	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	
108-05-4	Vinyl Acetate	ND	5.4	1.2	ND	1.5	0.34	
78-93-3	2-Butanone (MEK)	ND	1.1	0.11	ND	0.37	0.037	

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: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2003611

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 7/10/20

Sample Type: 1.0 L Summa 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
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	
141-78-6	Ethyl Acetate	ND	1.1	0.28	ND	0.31	0.078	
110-54-3	n-Hexane	ND	0.54	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.54	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	0.067	ND	0.19	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.54	0.066	ND	0.099	0.012	
71-43-2	Benzene	ND	0.53	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.53	0.074	ND	0.084	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.32	0.044	
78-87-5	1,2-Dichloropropane	ND	0.54	0.066	ND	0.12	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.54	0.072	ND	0.10	0.013	
123-91-1	1,4-Dioxane	ND	0.54	0.063	ND	0.15	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.54	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	0.083	ND	0.11	0.018	
108-10-1	4-Methyl-2-pentanone	ND	0.53	0.073	ND	0.13	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	0.11	ND	0.12	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.54	0.054	ND	0.099	0.0099	
108-88-3	Toluene	ND	0.54	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	0.54	0.066	ND	0.13	0.016	
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.54	0.062	ND	0.070	0.0081	
123-86-4	n-Butyl Acetate	ND	0.55	0.073	ND	0.12	0.015	

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: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2003611

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 7/10/20

Sample Type: 1.0 L Summa 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
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.52	0.069	ND	0.077	0.010	
108-90-7	Chlorobenzene	ND	0.54	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.54	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.54	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.54	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	0.074	ND	0.079	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	0.54	0.082	ND	0.097	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.54	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	1.1	0.12	ND	0.21	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.54	0.080	ND	0.090	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.54	0.082	ND	0.090	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	0.54	0.11	ND	0.097	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	0.10	ND	0.055	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	0.13	ND	0.073	0.018	
91-20-3	Naphthalene	ND	0.52	0.13	ND	0.099	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

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: **Environmental Management Services, Inc.**
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Project ID: P2003611

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date(s) Collected: 6/19/20
Analyst: Wida Ang Date(s) Received: 6/29/20
Sample Type: 1.0 L Summa Canister(s) / 1.0 L Silonite Summa Canister(s) Date(s) Analyzed: 7/10/20
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	P200710-MB	**106**	**99**	**85**	70-130	
Lab Control Sample	P200710-LCS	**102**	**98**	**89**	70-130	
SVE-OBS-01	P2003611-001	**107**	**94**	**81**	70-130	
SVE-OBS-02	P2003611-002	**107**	**97**	**85**	70-130	
SVE-OBS-03	P2003611-003	**106**	**98**	**83**	70-130	
SVE-OBS-04	P2003611-004	**106**	**97**	**86**	70-130	
SVE-OBS-05	P2003611-005	**106**	**99**	**85**	70-130	
SVE-OBS-07	P2003611-006	**106**	**97**	**84**	70-130	
SVE-OBS-08	P2003611-007	**105**	**95**	**83**	70-130	
SVE-OBS-09	P2003611-008	**106**	**96**	**82**	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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa 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	**213**	**101**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**208**	**99**	64-115	
74-87-3	Chloromethane	212	**236**	**111**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**179**	**87**	65-114	
75-01-4	Vinyl Chloride	212	**233**	**110**	61-129	
106-99-0	1,3-Butadiene	212	**220**	**104**	54-140	
74-83-9	Bromomethane	212	**210**	**99**	68-120	
75-00-3	Chloroethane	214	**233**	**109**	63-123	
64-17-5	Ethanol	1,060	**1100**	**104**	49-134	
75-05-8	Acetonitrile	214	**229**	**107**	50-137	
107-02-8	Acrolein	206	**237**	**115**	62-128	
67-64-1	Acetone	1,070	**1280**	**120**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**206**	**97**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**476**	**113**	57-133	
107-13-1	Acrylonitrile	212	**262**	**124**	64-136	
75-35-4	1,1-Dichloroethene	214	**218**	**102**	67-115	
75-09-2	Methylene Chloride	210	**220**	**105**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**214**	**100**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**197**	**91**	65-115	
75-15-0	Carbon Disulfide	212	**209**	**99**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**235**	**110**	65-122	
75-34-3	1,1-Dichloroethane	212	**227**	**107**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**231**	**108**	57-131	
108-05-4	Vinyl Acetate	1,070	**1220**	**114**	71-128	
78-93-3	2-Butanone (MEK)	212	**231**	**109**	67-123	

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa 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
156-59-2	cis-1,2-Dichloroethene	212	**230**	**108**	64-120	
141-78-6	Ethyl Acetate	432	**527**	**122**	64-131	
110-54-3	n-Hexane	216	**270**	**125**	58-125	
67-66-3	Chloroform	214	**228**	**107**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**236**	**107**	65-115	
107-06-2	1,2-Dichloroethane	214	**212**	**99**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**214**	**100**	66-115	
71-43-2	Benzene	210	**234**	**111**	66-109	**L**
56-23-5	Carbon Tetrachloride	208	**201**	**97**	66-119	
110-82-7	Cyclohexane	422	**470**	**111**	67-117	
78-87-5	1,2-Dichloropropane	214	**240**	**112**	66-119	
75-27-4	Bromodichloromethane	218	**223**	**102**	71-119	
79-01-6	Trichloroethene	216	**202**	**94**	70-114	
123-91-1	1,4-Dioxane	216	**225**	**104**	71-117	
80-62-6	Methyl Methacrylate	430	**471**	**110**	76-121	
142-82-5	n-Heptane	214	**240**	**112**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**244**	**114**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**239**	**113**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**235**	**111**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**219**	**102**	70-117	
108-88-3	Toluene	212	**213**	**100**	67-113	
591-78-6	2-Hexanone	216	**208**	**96**	62-135	
124-48-1	Dibromochloromethane	214	**200**	**93**	73-126	
106-93-4	1,2-Dibromoethane	214	**208**	**97**	71-122	
123-86-4	n-Butyl Acetate	218	**208**	**95**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003611
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200710-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/10/20
Sample Type: 1.0 L Summa 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
111-65-9	n-Octane	216	**217**	**100**	63-120	
127-18-4	Tetrachloroethene	208	**170**	**82**	64-120	
108-90-7	Chlorobenzene	214	**200**	**93**	65-116	
100-41-4	Ethylbenzene	212	**216**	**102**	65-117	
179601-23-1	m,p-Xylenes	426	**455**	**107**	64-121	
75-25-2	Bromoform	214	**192**	**90**	72-130	
100-42-5	Styrene	212	**224**	**106**	72-126	
95-47-6	o-Xylene	214	**222**	**104**	64-120	
111-84-2	n-Nonane	214	**223**	**104**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**235**	**110**	66-122	
98-82-8	Cumene	214	**220**	**103**	64-121	
80-56-8	alpha-Pinene	212	**191**	**90**	62-136	
103-65-1	n-Propylbenzene	214	**229**	**107**	65-123	
622-96-8	4-Ethyltoluene	210	**212**	**101**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**223**	**105**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**242**	**114**	63-129	
100-44-7	Benzyl Chloride	214	**224**	**105**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**218**	**102**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**218**	**102**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**230**	**107**	67-128	
5989-27-5	d-Limonene	212	**239**	**113**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**197**	**92**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**180**	**83**	62-140	
91-20-3	Naphthalene	212	**218**	**103**	57-149	
87-68-3	Hexachlorobutadiene	214	**169**	**79**	57-129	

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.

APPENDIX B

SVE LABORATORY ANALYTICAL RESULTS AND MASS REMOVAL CALCULATIONS

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

March 18, 2020

Collin Creel
Environmental Management Services, Inc.
P.O. Box 15369
Hattiesburg, MS 39402

RE: SVE Performance Monitoring / KUH0-20-010

Dear Collin:

Enclosed are the results of the samples submitted to our laboratory on March 5, 2020. For your reference, these analyses have been assigned our service request number P2001271.

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

By Sue Anderson at 4:14 pm, Mar 18, 2020

Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Environmental Management Services, Inc. Service Request No: P2001271
Project: SVE Performance Monitoring / KUH0-20-010

CASE NARRATIVE

The samples were received intact under chain of custody on March 5, 2020 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.

Volatile Organic Compound Analysis

The samples were 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 lower control criterion was exceeded for methyl tert-butyl ether in the laboratory Control Sample (LCS) analyzed on March 17, 2020. However, the reported sample result associated with the LCS in question was for dilutions of other compounds; therefore, the results have not been affected. No corrective action was necessary.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-007
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
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: Environmental Management Services, Inc. Service Request: P2001271

Project ID: SVE Performance Monitoring / KUH0-20-010

Date Received: 3/5/2020

Time Received: 09:15

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
Pre Carbon	P2001271-001	Air	2/24/2020	10:39	1SC00316	0.44	5.21	X
Post Carbon 1	P2001271-002	Air	2/24/2020	10:36	1SS01045	0.22	5.60	X
Post Carbon 2	P2001271-003	Air	2/24/2020	10:33	1SS00533	0.07	5.39	X
EXT-01@Manifold	P2001271-004	Air	2/24/2020	10:52	1SC00867	-3.53	6.27	X
EXT-02@Manifold	P2001271-005	Air	2/24/2020	10:56	1SS00762	-3.74	5.36	X
EXT-03@Manifold	P2001271-006	Air	2/24/2020	10:57	1SC00218	-3.53	5.79	X

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

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

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. P2001271

Company Name & Address (Reporting Information)	Environmental Management Services PO Box 15369 Hattiesburg, MS 39404
Project Name	SVE Performance Monitoring
Project Number	KUHO-20-010
Project Manager	Collin Creel
P.O. # / Billing Information	KUHO-20-010/Same as Reporting
Phone	(601) 544-3674
Fax	(601) 544-0504
Email Address for Result Reporting	ccreel@env-mgt.com
Sampler (Print & Sign)	Collin Creel
ALS Contact:	

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	Analysis Method: TO-15		Comments e.g. Actual Preservative or specific instructions
Pre Carbon	1	2/24/20	10:39	ISC00316		-28.0	0	1L	X		
Post Carbon 1	2	2/24/20	10:36	15501045		-29.0	0	1L	X		
Post Carbon 2	3	2/24/20	10:33	15500533		-28.5	0	1L	X		
EXT-01@Manifold	4	2/24/20	10:52	ISC00867		-30.0	-9	1L	X		
EXT-02@Manifold	5	2/24/20	10:56	15500762		-28.0	-8	1L	X		
EXT-03@Manifold	6	2/24/20	10:57	ISC00218		-27.0	-9	1L	X		

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____ Tier III (Results + QC & Calibration Summaries) ____
Tier II (Results + QC Summaries) X 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: 2/28/20	Time: 16:00	Received by: (Signature) - FedEx -	Date:	Time:	
Relinquished by: (Signature) - FedEx -	Date:	Time:	Received by: (Signature)	Date: 3/5/20	Time: 915	Cooler / Blank Temperature ____ °C

5 of 37

ALS Environmental

Sample Acceptance Check Form

Client: Environmental Management Services, Inc. Work order: P2001271

Project: SVE Performance Monitoring / KUH0-20-010

Sample(s) received on: 3/5/2020 Date opened: 3/5/2020 by: DENISE.POSADA

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
P2001271-001.01	1.0 L Source Can					
P2001271-002.01	1.0 L Source Silonite Canister					
P2001271-003.01	1.0 L Source Silonite Canister					
P2001271-004.01	1.0 L Source Can					
P2001271-005.01	1.0 L Source Silonite Canister					
P2001271-006.01	1.0 L Source 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: **Environmental Management Services, Inc.**
Client Sample ID: **Pre Carbon** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-001

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.25 Liter(s)
Test Notes: 0.050 Liter(s)
Container ID: 1SC00316

Initial Pressure (psig): 0.44 Final Pressure (psig): 5.21

Canister Dilution Factor: 1.32

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**31**	2.8	**18**	1.6	
75-71-8	Dichlorodifluoromethane (CFC 12)	**4.7**	2.8	**0.95**	0.57	
74-87-3	Chloromethane	ND	2.8	ND	1.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.8	ND	0.40	
75-01-4	Vinyl Chloride	ND	2.9	ND	1.1	
106-99-0	1,3-Butadiene	ND	2.8	ND	1.3	
74-83-9	Bromomethane	ND	2.9	ND	0.73	
75-00-3	Chloroethane	ND	2.9	ND	1.1	
64-17-5	Ethanol	ND	27	ND	15	
75-05-8	Acetonitrile	ND	2.8	ND	1.7	
107-02-8	Acrolein	ND	5.3	ND	2.3	
67-64-1	Acetone	**120**	28	**51**	12	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	2.8	ND	0.50	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	11	ND	4.5	
107-13-1	Acrylonitrile	ND	2.8	ND	1.3	
75-35-4	1,1-Dichloroethene	**160**	2.9	**39**	0.72	
75-09-2	Methylene Chloride	ND	2.8	ND	0.81	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.9	ND	0.91	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**3.8**	2.9	**0.49**	0.37	
75-15-0	Carbon Disulfide	ND	5.8	ND	1.9	
156-60-5	trans-1,2-Dichloroethene	ND	2.9	ND	0.72	
75-34-3	1,1-Dichloroethane	**3.4**	2.9	**0.83**	0.72	
1634-04-4	Methyl tert-Butyl Ether	ND	2.9	ND	0.79	**L**
108-05-4	Vinyl Acetate	**30**	29	**8.4**	8.1	
78-93-3	2-Butanone (MEK)	**21**	5.8	**7.3**	2.0	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Pre Carbon** ALS Project ID: P2001271

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-001

Test Code:	EPA TO-15	Date Collected:	2/24/20
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	3/5/20
Analyst:	Topacio De Leon	Date Analyzed:	3/14/20
Sample Type:	1.0 L Summa Canister	Volume(s) Analyzed:	0.25 Liter(s)
Test Notes:			0.050 Liter(s)
Container ID:	1SC00316		

Initial Pressure (psig): 0.44 Final Pressure (psig): 5.21

Canister Dilution Factor: 1.32

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.8	ND	0.71	
141-78-6	Ethyl Acetate	ND	5.8	ND	1.6	
110-54-3	n-Hexane	ND	2.9	ND	0.81	
67-66-3	Chloroform	ND	2.9	ND	0.58	
109-99-9	Tetrahydrofuran (THF)	ND	2.9	ND	0.99	
107-06-2	1,2-Dichloroethane	ND	2.9	ND	0.70	
71-55-6	1,1,1-Trichloroethane	**32**	2.9	**5.8**	0.52	
71-43-2	Benzene	ND	2.8	ND	0.88	
56-23-5	Carbon Tetrachloride	ND	2.8	ND	0.45	
110-82-7	Cyclohexane	ND	5.8	ND	1.7	
78-87-5	1,2-Dichloropropane	ND	2.9	ND	0.62	
75-27-4	Bromodichloromethane	ND	2.9	ND	0.43	
79-01-6	Trichloroethene	ND	2.9	ND	0.53	
123-91-1	1,4-Dioxane	**1,500**	14	**430**	4.0	**D**
80-62-6	Methyl Methacrylate	ND	5.8	ND	1.4	
142-82-5	n-Heptane	ND	2.9	ND	0.70	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	ND	0.61	
108-10-1	4-Methyl-2-pentanone	**25**	2.8	**6.0**	0.68	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	ND	0.62	
79-00-5	1,1,2-Trichloroethane	ND	2.9	ND	0.52	
108-88-3	Toluene	**5.3**	2.9	**1.4**	0.76	
591-78-6	2-Hexanone	ND	2.9	ND	0.70	
124-48-1	Dibromochloromethane	ND	2.9	ND	0.33	
106-93-4	1,2-Dibromoethane	ND	2.9	ND	0.37	
123-86-4	n-Butyl Acetate	ND	2.9	ND	0.61	

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.
D = The reported result is from a dilution.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Pre Carbon** ALS Project ID: P2001271

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-001

Test Code:	EPA TO-15	Date Collected:	2/24/20
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	3/5/20
Analyst:	Topacio De Leon	Date Analyzed:	3/14/20
Sample Type:	1.0 L Summa Canister	Volume(s) Analyzed:	0.25 Liter(s)
Test Notes:			0.050 Liter(s)
Container ID:	1SC00316		

Initial Pressure (psig): 0.44 Final Pressure (psig): 5.21

Canister Dilution Factor: 1.32

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.9	ND	0.61	
127-18-4	Tetrachloroethene	**17**	2.7	**2.4**	0.41	
108-90-7	Chlorobenzene	ND	2.9	ND	0.62	
100-41-4	Ethylbenzene	**17**	2.9	**4.0**	0.66	
179601-23-1	m,p-Xylenes	**78**	5.8	**18**	1.3	
75-25-2	Bromoform	ND	2.9	ND	0.28	
100-42-5	Styrene	ND	2.8	ND	0.66	
95-47-6	o-Xylene	**56**	2.9	**13**	0.66	
111-84-2	n-Nonane	ND	2.9	ND	0.54	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	ND	0.42	
98-82-8	Cumene	ND	2.9	ND	0.58	
80-56-8	alpha-Pinene	ND	2.9	ND	0.51	
103-65-1	n-Propylbenzene	**3.2**	2.9	**0.66**	0.58	
622-96-8	4-Ethyltoluene	**6.0**	2.9	**1.2**	0.58	
108-67-8	1,3,5-Trimethylbenzene	**6.9**	2.8	**1.4**	0.57	
95-63-6	1,2,4-Trimethylbenzene	**20**	2.9	**4.1**	0.58	
100-44-7	Benzyl Chloride	ND	5.8	ND	1.1	
541-73-1	1,3-Dichlorobenzene	ND	2.9	ND	0.47	
106-46-7	1,4-Dichlorobenzene	ND	2.9	ND	0.47	
95-50-1	1,2-Dichlorobenzene	ND	2.9	ND	0.47	
5989-27-5	d-Limonene	**4.3**	2.9	**0.78**	0.51	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.8	ND	0.29	
120-82-1	1,2,4-Trichlorobenzene	ND	2.9	ND	0.38	
91-20-3	Naphthalene	ND	2.7	ND	0.52	
87-68-3	Hexachlorobutadiene	ND	2.8	ND	0.26	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 1** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-002

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS01045

Initial Pressure (psig): 0.22 Final Pressure (psig): 5.60

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**120**	1.8	**67**	1.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	**4.3**	1.8	**0.87**	0.36	
74-87-3	Chloromethane	ND	1.8	ND	0.87	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.8	ND	0.26	
75-01-4	Vinyl Chloride	ND	1.8	ND	0.72	
106-99-0	1,3-Butadiene	ND	1.8	ND	0.81	
74-83-9	Bromomethane	ND	1.8	ND	0.47	
75-00-3	Chloroethane	ND	1.8	ND	0.70	
64-17-5	Ethanol	**38**	18	**20**	9.4	
75-05-8	Acetonitrile	ND	1.8	ND	1.1	
107-02-8	Acrolein	ND	3.4	ND	1.5	
67-64-1	Acetone	**83**	18	**35**	7.6	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.1**	1.8	**0.37**	0.32	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	7.1	ND	2.9	
107-13-1	Acrylonitrile	ND	1.8	ND	0.83	
75-35-4	1,1-Dichloroethene	**120**	1.8	**31**	0.46	
75-09-2	Methylene Chloride	**18**	1.8	**5.1**	0.52	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.8	ND	0.59	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	1.8	ND	0.24	
75-15-0	Carbon Disulfide	**18**	3.7	**5.9**	1.2	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	ND	0.46	
75-34-3	1,1-Dichloroethane	**2.7**	1.9	**0.67**	0.46	
1634-04-4	Methyl tert-Butyl Ether	ND	1.8	ND	0.51	
108-05-4	Vinyl Acetate	ND	18	ND	5.2	
78-93-3	2-Butanone (MEK)	ND	3.7	ND	1.3	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 1** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-002

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS01045

Initial Pressure (psig): 0.22 Final Pressure (psig): 5.60

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	1.8	ND	0.45	
141-78-6	Ethyl Acetate	ND	3.7	ND	1.0	
110-54-3	n-Hexane	ND	1.8	ND	0.52	
67-66-3	Chloroform	ND	1.8	ND	0.38	
109-99-9	Tetrahydrofuran (THF)	ND	1.9	ND	0.63	
107-06-2	1,2-Dichloroethane	ND	1.8	ND	0.45	
71-55-6	1,1,1-Trichloroethane	ND	1.8	ND	0.34	
71-43-2	Benzene	**2.6**	1.8	**0.83**	0.56	
56-23-5	Carbon Tetrachloride	ND	1.8	ND	0.29	
110-82-7	Cyclohexane	ND	3.7	ND	1.1	
78-87-5	1,2-Dichloropropane	ND	1.8	ND	0.40	
75-27-4	Bromodichloromethane	ND	1.8	ND	0.27	
79-01-6	Trichloroethene	ND	1.8	ND	0.34	
123-91-1	1,4-Dioxane	**260**	1.8	**71**	0.51	
80-62-6	Methyl Methacrylate	ND	3.7	ND	0.91	
142-82-5	n-Heptane	**2.0**	1.8	**0.48**	0.45	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	ND	0.39	
108-10-1	4-Methyl-2-pentanone	ND	1.8	ND	0.44	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	ND	0.40	
79-00-5	1,1,2-Trichloroethane	ND	1.8	ND	0.34	
108-88-3	Toluene	**2.8**	1.8	**0.74**	0.49	
591-78-6	2-Hexanone	ND	1.8	ND	0.45	
124-48-1	Dibromochloromethane	ND	1.8	ND	0.22	
106-93-4	1,2-Dibromoethane	ND	1.8	ND	0.24	
123-86-4	n-Butyl Acetate	ND	1.9	ND	0.39	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 1** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-002

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS01045

Initial Pressure (psig): 0.22 Final Pressure (psig): 5.60

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	1.8	ND	0.39	
127-18-4	Tetrachloroethene	ND	1.8	ND	0.26	
108-90-7	Chlorobenzene	ND	1.8	ND	0.40	
100-41-4	Ethylbenzene	ND	1.8	ND	0.42	
179601-23-1	m,p-Xylenes	ND	3.7	ND	0.86	
75-25-2	Bromoform	ND	1.8	ND	0.18	
100-42-5	Styrene	ND	1.8	ND	0.42	
95-47-6	o-Xylene	ND	1.8	ND	0.42	
111-84-2	n-Nonane	ND	1.8	ND	0.35	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	ND	0.27	
98-82-8	Cumene	ND	1.8	ND	0.37	
80-56-8	alpha-Pinene	ND	1.8	ND	0.33	
103-65-1	n-Propylbenzene	ND	1.8	ND	0.37	
622-96-8	4-Ethyltoluene	ND	1.8	ND	0.37	
108-67-8	1,3,5-Trimethylbenzene	ND	1.8	ND	0.37	
95-63-6	1,2,4-Trimethylbenzene	ND	1.8	ND	0.37	
100-44-7	Benzyl Chloride	ND	3.7	ND	0.72	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ND	0.31	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ND	0.31	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ND	0.31	
5989-27-5	d-Limonene	**2.5**	1.8	**0.44**	0.33	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.8	ND	0.19	
120-82-1	1,2,4-Trichlorobenzene	ND	1.8	ND	0.25	
91-20-3	Naphthalene	ND	1.8	ND	0.34	
87-68-3	Hexachlorobutadiene	ND	1.8	ND	0.17	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 2** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-003

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00533

Initial Pressure (psig): 0.07 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**82**	1.8	**48**	1.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	**4.1**	1.8	**0.82**	0.36	
74-87-3	Chloromethane	ND	1.8	ND	0.87	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.8	ND	0.26	
75-01-4	Vinyl Chloride	ND	1.8	ND	0.72	
106-99-0	1,3-Butadiene	ND	1.8	ND	0.81	
74-83-9	Bromomethane	ND	1.8	ND	0.47	
75-00-3	Chloroethane	ND	1.8	ND	0.70	
64-17-5	Ethanol	**18**	18	**9.5**	9.4	
75-05-8	Acetonitrile	ND	1.8	ND	1.1	
107-02-8	Acrolein	ND	3.4	ND	1.5	
67-64-1	Acetone	**99**	18	**42**	7.6	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	1.8	ND	0.32	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	7.1	ND	2.9	
107-13-1	Acrylonitrile	ND	1.8	ND	0.83	
75-35-4	1,1-Dichloroethene	**17**	1.8	**4.2**	0.46	
75-09-2	Methylene Chloride	**6.0**	1.8	**1.7**	0.52	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.8	ND	0.59	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	1.8	ND	0.24	
75-15-0	Carbon Disulfide	**4.4**	3.7	**1.4**	1.2	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	ND	0.46	
75-34-3	1,1-Dichloroethane	ND	1.9	ND	0.46	
1634-04-4	Methyl tert-Butyl Ether	ND	1.8	ND	0.51	
108-05-4	Vinyl Acetate	ND	18	ND	5.2	
78-93-3	2-Butanone (MEK)	**4.0**	3.7	**1.4**	1.3	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Post Carbon 2** ALS Project ID: P2001271

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-003

Test Code:	EPA TO-15	Date Collected:	2/24/20
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	3/5/20
Analyst:	Topacio De Leon	Date Analyzed:	3/14/20
Sample Type:	1.0 L Silonite Summa Canister	Volume(s) Analyzed:	0.40 Liter(s)
Test Notes:			
Container ID:	1SS00533		

Initial Pressure (psig): 0.07 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	1.8	ND	0.45	
141-78-6	Ethyl Acetate	**46**	3.7	**13**	1.0	
110-54-3	n-Hexane	ND	1.8	ND	0.52	
67-66-3	Chloroform	ND	1.8	ND	0.38	
109-99-9	Tetrahydrofuran (THF)	ND	1.9	ND	0.63	
107-06-2	1,2-Dichloroethane	ND	1.8	ND	0.45	
71-55-6	1,1,1-Trichloroethane	ND	1.8	ND	0.34	
71-43-2	Benzene	**2.4**	1.8	**0.75**	0.56	
56-23-5	Carbon Tetrachloride	ND	1.8	ND	0.29	
110-82-7	Cyclohexane	ND	3.7	ND	1.1	
78-87-5	1,2-Dichloropropane	ND	1.8	ND	0.40	
75-27-4	Bromodichloromethane	ND	1.8	ND	0.27	
79-01-6	Trichloroethene	ND	1.8	ND	0.34	
123-91-1	1,4-Dioxane	ND	1.8	ND	0.51	
80-62-6	Methyl Methacrylate	ND	3.7	ND	0.91	
142-82-5	n-Heptane	**2.2**	1.8	**0.53**	0.45	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	ND	0.39	
108-10-1	4-Methyl-2-pentanone	ND	1.8	ND	0.44	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	ND	0.40	
79-00-5	1,1,2-Trichloroethane	ND	1.8	ND	0.34	
108-88-3	Toluene	**7.0**	1.8	**1.9**	0.49	
591-78-6	2-Hexanone	ND	1.8	ND	0.45	
124-48-1	Dibromochloromethane	ND	1.8	ND	0.22	
106-93-4	1,2-Dibromoethane	ND	1.8	ND	0.24	
123-86-4	n-Butyl Acetate	ND	1.9	ND	0.39	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 2** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-003

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00533

Initial Pressure (psig): 0.07 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	1.8	ND	0.39	
127-18-4	Tetrachloroethene	ND	1.8	ND	0.26	
108-90-7	Chlorobenzene	ND	1.8	ND	0.40	
100-41-4	Ethylbenzene	ND	1.8	ND	0.42	
179601-23-1	m,p-Xylenes	ND	3.7	ND	0.86	
75-25-2	Bromoform	ND	1.8	ND	0.18	
100-42-5	Styrene	ND	1.8	ND	0.42	
95-47-6	o-Xylene	ND	1.8	ND	0.42	
111-84-2	n-Nonane	ND	1.8	ND	0.35	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	ND	0.27	
98-82-8	Cumene	ND	1.8	ND	0.37	
80-56-8	alpha-Pinene	ND	1.8	ND	0.33	
103-65-1	n-Propylbenzene	ND	1.8	ND	0.37	
622-96-8	4-Ethyltoluene	ND	1.8	ND	0.37	
108-67-8	1,3,5-Trimethylbenzene	ND	1.8	ND	0.37	
95-63-6	1,2,4-Trimethylbenzene	ND	1.8	ND	0.37	
100-44-7	Benzyl Chloride	ND	3.7	ND	0.72	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ND	0.31	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ND	0.31	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ND	0.31	
5989-27-5	d-Limonene	**2.1**	1.8	**0.37**	0.33	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.8	ND	0.19	
120-82-1	1,2,4-Trichlorobenzene	ND	1.8	ND	0.25	
91-20-3	Naphthalene	ND	1.8	ND	0.34	
87-68-3	Hexachlorobutadiene	ND	1.8	ND	0.17	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-004

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00867

Initial Pressure (psig): -3.53 Final Pressure (psig): 6.27

Canister Dilution Factor: 1.88

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**28**	2.5	**16**	1.4	
75-71-8	Dichlorodifluoromethane (CFC 12)	**4.3**	2.5	**0.86**	0.50	
74-87-3	Chloromethane	ND	2.5	ND	1.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.5	ND	0.36	
75-01-4	Vinyl Chloride	ND	2.5	ND	0.99	
106-99-0	1,3-Butadiene	ND	2.5	ND	1.1	
74-83-9	Bromomethane	ND	2.5	ND	0.65	
75-00-3	Chloroethane	ND	2.5	ND	0.96	
64-17-5	Ethanol	ND	24	ND	13	
75-05-8	Acetonitrile	ND	2.5	ND	1.5	
107-02-8	Acrolein	**6.0**	4.7	**2.6**	2.1	
67-64-1	Acetone	**58**	25	**25**	10	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	2.5	ND	0.44	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	9.9	ND	4.0	
107-13-1	Acrylonitrile	ND	2.5	ND	1.1	
75-35-4	1,1-Dichloroethene	**84**	2.5	**21**	0.64	
75-09-2	Methylene Chloride	ND	2.5	ND	0.72	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.5	ND	0.81	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**4.7**	2.5	**0.61**	0.33	
75-15-0	Carbon Disulfide	**13**	5.2	**4.2**	1.7	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	ND	0.64	
75-34-3	1,1-Dichloroethane	ND	2.6	ND	0.64	
1634-04-4	Methyl tert-Butyl Ether	ND	2.5	ND	0.70	
108-05-4	Vinyl Acetate	ND	25	ND	7.2	
78-93-3	2-Butanone (MEK)	**9.8**	5.2	**3.3**	1.8	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-004

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00867

Initial Pressure (psig): -3.53 Final Pressure (psig): 6.27

Canister Dilution Factor: 1.88

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.5	ND	0.63	
141-78-6	Ethyl Acetate	**7.4**	5.2	**2.1**	1.4	
110-54-3	n-Hexane	ND	2.5	ND	0.72	
67-66-3	Chloroform	ND	2.5	ND	0.52	
109-99-9	Tetrahydrofuran (THF)	ND	2.6	ND	0.88	
107-06-2	1,2-Dichloroethane	ND	2.5	ND	0.63	
71-55-6	1,1,1-Trichloroethane	**28**	2.5	**5.1**	0.47	
71-43-2	Benzene	ND	2.5	ND	0.78	
56-23-5	Carbon Tetrachloride	ND	2.5	ND	0.40	
110-82-7	Cyclohexane	ND	5.2	ND	1.5	
78-87-5	1,2-Dichloropropane	ND	2.5	ND	0.55	
75-27-4	Bromodichloromethane	ND	2.5	ND	0.38	
79-01-6	Trichloroethene	ND	2.5	ND	0.47	
123-91-1	1,4-Dioxane	**400**	2.5	**110**	0.70	
80-62-6	Methyl Methacrylate	ND	5.2	ND	1.3	
142-82-5	n-Heptane	ND	2.5	ND	0.62	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	ND	0.54	
108-10-1	4-Methyl-2-pentanone	**18**	2.5	**4.5**	0.61	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ND	0.55	
79-00-5	1,1,2-Trichloroethane	ND	2.5	ND	0.47	
108-88-3	Toluene	**7.2**	2.5	**1.9**	0.67	
591-78-6	2-Hexanone	ND	2.5	ND	0.62	
124-48-1	Dibromochloromethane	ND	2.5	ND	0.30	
106-93-4	1,2-Dibromoethane	ND	2.5	ND	0.33	
123-86-4	n-Butyl Acetate	ND	2.6	ND	0.54	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-004

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00867

Initial Pressure (psig): -3.53 Final Pressure (psig): 6.27

Canister Dilution Factor: 1.88

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.5	ND	0.54	
127-18-4	Tetrachloroethene	**8.8**	2.4	**1.3**	0.36	
108-90-7	Chlorobenzene	ND	2.5	ND	0.55	
100-41-4	Ethylbenzene	**14**	2.5	**3.3**	0.58	
179601-23-1	m,p-Xylenes	**61**	5.2	**14**	1.2	
75-25-2	Bromoform	ND	2.5	ND	0.25	
100-42-5	Styrene	ND	2.5	ND	0.59	
95-47-6	o-Xylene	**46**	2.5	**11**	0.58	
111-84-2	n-Nonane	ND	2.5	ND	0.48	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ND	0.37	
98-82-8	Cumene	ND	2.5	ND	0.52	
80-56-8	alpha-Pinene	ND	2.5	ND	0.46	
103-65-1	n-Propylbenzene	**2.9**	2.5	**0.58**	0.52	
622-96-8	4-Ethyltoluene	**5.1**	2.5	**1.0**	0.52	
108-67-8	1,3,5-Trimethylbenzene	**6.1**	2.5	**1.2**	0.51	
95-63-6	1,2,4-Trimethylbenzene	**16**	2.5	**3.2**	0.52	
100-44-7	Benzyl Chloride	ND	5.2	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	2.5	ND	0.42	
106-46-7	1,4-Dichlorobenzene	ND	2.5	ND	0.42	
95-50-1	1,2-Dichlorobenzene	ND	2.5	ND	0.42	
5989-27-5	d-Limonene	**14**	2.5	**2.4**	0.46	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	ND	0.26	
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	ND	0.34	
91-20-3	Naphthalene	ND	2.4	ND	0.47	
87-68-3	Hexachlorobutadiene	ND	2.5	ND	0.23	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-005

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes: 0.025 Liter(s)
Container ID: 1SS00762

Initial Pressure (psig): -3.74 Final Pressure (psig): 5.36

Canister Dilution Factor: 1.83

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	9.7	ND	5.6	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	9.7	ND	2.0	
74-87-3	Chloromethane	ND	9.7	ND	4.7	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	9.7	ND	1.4	
75-01-4	Vinyl Chloride	ND	9.9	ND	3.9	
106-99-0	1,3-Butadiene	ND	9.7	ND	4.4	
74-83-9	Bromomethane	ND	9.9	ND	2.5	
75-00-3	Chloroethane	ND	9.9	ND	3.7	
64-17-5	Ethanol	ND	95	ND	51	
75-05-8	Acetonitrile	ND	9.7	ND	5.8	
107-02-8	Acrolein	ND	18	ND	8.0	
67-64-1	Acetone	ND	97	ND	41	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	9.7	ND	1.7	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	38	ND	16	
107-13-1	Acrylonitrile	ND	9.7	ND	4.5	
75-35-4	1,1-Dichloroethene	**300**	9.9	**77**	2.5	
75-09-2	Methylene Chloride	ND	9.7	ND	2.8	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	9.9	ND	3.2	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	9.9	ND	1.3	
75-15-0	Carbon Disulfide	ND	20	ND	6.5	
156-60-5	trans-1,2-Dichloroethene	ND	9.9	ND	2.5	
75-34-3	1,1-Dichloroethane	ND	10	ND	2.5	
1634-04-4	Methyl tert-Butyl Ether	ND	9.9	ND	2.7	
108-05-4	Vinyl Acetate	ND	99	ND	28	
78-93-3	2-Butanone (MEK)	ND	20	ND	6.8	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-005

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes: 0.025 Liter(s)
Container ID: 1SS00762

Initial Pressure (psig): -3.74 Final Pressure (psig): 5.36

Canister Dilution Factor: 1.83

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	9.7	ND	2.4	
141-78-6	Ethyl Acetate	ND	20	ND	5.6	
110-54-3	n-Hexane	ND	9.9	ND	2.8	
67-66-3	Chloroform	ND	9.9	ND	2.0	
109-99-9	Tetrahydrofuran (THF)	ND	10	ND	3.4	
107-06-2	1,2-Dichloroethane	ND	9.9	ND	2.4	
71-55-6	1,1,1-Trichloroethane	**48**	9.9	**8.8**	1.8	
71-43-2	Benzene	ND	9.7	ND	3.0	
56-23-5	Carbon Tetrachloride	ND	9.7	ND	1.5	
110-82-7	Cyclohexane	ND	20	ND	5.9	
78-87-5	1,2-Dichloropropane	ND	9.9	ND	2.1	
75-27-4	Bromodichloromethane	ND	9.9	ND	1.5	
79-01-6	Trichloroethene	ND	9.9	ND	1.8	
123-91-1	1,4-Dioxane	**3,700**	40	**1,000**	11	**D**
80-62-6	Methyl Methacrylate	ND	20	ND	4.9	
142-82-5	n-Heptane	ND	9.9	ND	2.4	
10061-01-5	cis-1,3-Dichloropropene	ND	9.5	ND	2.1	
108-10-1	4-Methyl-2-pentanone	ND	9.7	ND	2.4	
10061-02-6	trans-1,3-Dichloropropene	ND	9.7	ND	2.1	
79-00-5	1,1,2-Trichloroethane	ND	9.9	ND	1.8	
108-88-3	Toluene	ND	9.9	ND	2.6	
591-78-6	2-Hexanone	ND	9.9	ND	2.4	
124-48-1	Dibromochloromethane	ND	9.9	ND	1.2	
106-93-4	1,2-Dibromoethane	ND	9.9	ND	1.3	
123-86-4	n-Butyl Acetate	ND	10	ND	2.1	

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.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-005

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes: 0.025 Liter(s)
Container ID: 1SS00762

Initial Pressure (psig): -3.74 Final Pressure (psig): 5.36

Canister Dilution Factor: 1.83

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	9.9	ND	2.1	
127-18-4	Tetrachloroethene	**14**	9.5	**2.1**	1.4	
108-90-7	Chlorobenzene	ND	9.9	ND	2.1	
100-41-4	Ethylbenzene	ND	9.9	ND	2.3	
179601-23-1	m,p-Xylenes	ND	20	ND	4.6	
75-25-2	Bromoform	ND	9.9	ND	0.96	
100-42-5	Styrene	ND	9.7	ND	2.3	
95-47-6	o-Xylene	ND	9.9	ND	2.3	
111-84-2	n-Nonane	ND	9.9	ND	1.9	
79-34-5	1,1,2,2-Tetrachloroethane	ND	9.9	ND	1.4	
98-82-8	Cumene	ND	9.9	ND	2.0	
80-56-8	alpha-Pinene	ND	9.9	ND	1.8	
103-65-1	n-Propylbenzene	ND	9.9	ND	2.0	
622-96-8	4-Ethyltoluene	ND	9.9	ND	2.0	
108-67-8	1,3,5-Trimethylbenzene	ND	9.7	ND	2.0	
95-63-6	1,2,4-Trimethylbenzene	ND	9.9	ND	2.0	
100-44-7	Benzyl Chloride	ND	20	ND	3.9	
541-73-1	1,3-Dichlorobenzene	ND	9.9	ND	1.6	
106-46-7	1,4-Dichlorobenzene	ND	9.9	ND	1.6	
95-50-1	1,2-Dichlorobenzene	ND	9.9	ND	1.6	
5989-27-5	d-Limonene	ND	9.9	ND	1.8	
96-12-8	1,2-Dibromo-3-chloropropane	ND	9.7	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	9.9	ND	1.3	
91-20-3	Naphthalene	ND	9.5	ND	1.8	
87-68-3	Hexachlorobutadiene	ND	9.7	ND	0.91	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-006

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon/Wida Ang Date Analyzed: 3/14/20 & 3/17/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SC00218

Initial Pressure (psig): -3.53 Final Pressure (psig): 5.79

Canister Dilution Factor: 1.83

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**36**	2.4	**21**	1.4	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.7**	2.4	**0.55**	0.49	
74-87-3	Chloromethane	ND	2.4	ND	1.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.4	ND	0.35	
75-01-4	Vinyl Chloride	ND	2.5	ND	0.97	
106-99-0	1,3-Butadiene	ND	2.4	ND	1.1	
74-83-9	Bromomethane	ND	2.5	ND	0.64	
75-00-3	Chloroethane	ND	2.5	ND	0.94	
64-17-5	Ethanol	**140**	24	**72**	13	
75-05-8	Acetonitrile	ND	2.4	ND	1.4	
107-02-8	Acrolein	ND	4.6	ND	2.0	
67-64-1	Acetone	**89**	24	**38**	10	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	2.4	ND	0.43	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	9.6	ND	3.9	
107-13-1	Acrylonitrile	ND	2.4	ND	1.1	
75-35-4	1,1-Dichloroethene	**26**	2.5	**6.5**	0.62	
75-09-2	Methylene Chloride	ND	2.4	ND	0.70	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.5	ND	0.79	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	2.5	ND	0.32	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	ND	0.62	
75-34-3	1,1-Dichloroethane	ND	2.5	ND	0.62	
1634-04-4	Methyl tert-Butyl Ether	ND	2.5	ND	0.69	
108-05-4	Vinyl Acetate	ND	25	ND	7.0	
78-93-3	2-Butanone (MEK)	**17**	5.0	**5.8**	1.7	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-006

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon/Wida Ang Date Analyzed: 3/14/20 & 3/17/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SC00218

Initial Pressure (psig): -3.53 Final Pressure (psig): 5.79

Canister Dilution Factor: 1.83

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.4	ND	0.61	
141-78-6	Ethyl Acetate	ND	5.0	ND	1.4	
110-54-3	n-Hexane	ND	2.5	ND	0.70	
67-66-3	Chloroform	ND	2.5	ND	0.51	
109-99-9	Tetrahydrofuran (THF)	ND	2.5	ND	0.85	
107-06-2	1,2-Dichloroethane	ND	2.5	ND	0.61	
71-55-6	1,1,1-Trichloroethane	**5.1**	2.5	**0.93**	0.45	
71-43-2	Benzene	ND	2.4	ND	0.76	
56-23-5	Carbon Tetrachloride	ND	2.4	ND	0.39	
110-82-7	Cyclohexane	ND	5.0	ND	1.5	
78-87-5	1,2-Dichloropropane	ND	2.5	ND	0.53	
75-27-4	Bromodichloromethane	ND	2.5	ND	0.37	
79-01-6	Trichloroethene	ND	2.5	ND	0.46	
123-91-1	1,4-Dioxane	**470**	25	**130**	6.9	**D**
80-62-6	Methyl Methacrylate	ND	5.0	ND	1.2	
142-82-5	n-Heptane	ND	2.5	ND	0.60	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	ND	0.52	
108-10-1	4-Methyl-2-pentanone	**32**	2.4	**7.8**	0.59	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	ND	0.53	
79-00-5	1,1,2-Trichloroethane	ND	2.5	ND	0.45	
108-88-3	Toluene	**7.0**	2.5	**1.9**	0.66	
591-78-6	2-Hexanone	ND	2.5	ND	0.60	
124-48-1	Dibromochloromethane	ND	2.5	ND	0.29	
106-93-4	1,2-Dibromoethane	ND	2.5	ND	0.32	
123-86-4	n-Butyl Acetate	ND	2.5	ND	0.53	

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.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03@Manifold** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2001271-006

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Topacio De Leon/Wida Ang Date Analyzed: 3/14/20 & 3/17/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SC00218

Initial Pressure (psig): -3.53 Final Pressure (psig): 5.79

Canister Dilution Factor: 1.83

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.5	ND	0.53	
127-18-4	Tetrachloroethene	**6.4**	2.4	**0.94**	0.35	
108-90-7	Chlorobenzene	ND	2.5	ND	0.54	
100-41-4	Ethylbenzene	**23**	2.5	**5.2**	0.57	
179601-23-1	m,p-Xylenes	**100**	5.0	**23**	1.2	
75-25-2	Bromoform	ND	2.5	ND	0.24	
100-42-5	Styrene	ND	2.4	ND	0.57	
95-47-6	o-Xylene	**70**	2.5	**16**	0.57	
111-84-2	n-Nonane	ND	2.5	ND	0.47	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ND	0.36	
98-82-8	Cumene	ND	2.5	ND	0.50	
80-56-8	alpha-Pinene	ND	2.5	ND	0.44	
103-65-1	n-Propylbenzene	**4.4**	2.5	**0.89**	0.50	
622-96-8	4-Ethyltoluene	**8.0**	2.5	**1.6**	0.50	
108-67-8	1,3,5-Trimethylbenzene	**9.2**	2.4	**1.9**	0.49	
95-63-6	1,2,4-Trimethylbenzene	**27**	2.5	**5.4**	0.50	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	2.5	ND	0.41	
106-46-7	1,4-Dichlorobenzene	ND	2.5	ND	0.41	
95-50-1	1,2-Dichlorobenzene	ND	2.5	ND	0.41	
5989-27-5	d-Limonene	**2.7**	2.5	**0.49**	0.44	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.4	ND	0.25	
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	ND	0.33	
91-20-3	Naphthalene	ND	2.4	ND	0.45	
87-68-3	Hexachlorobutadiene	ND	2.4	ND	0.23	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200314-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	ND	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	ND	0.11	
74-87-3	Chloromethane	ND	0.53	ND	0.26	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	ND	0.076	
75-01-4	Vinyl Chloride	ND	0.54	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.53	ND	0.24	
74-83-9	Bromomethane	ND	0.54	ND	0.14	
75-00-3	Chloroethane	ND	0.54	ND	0.20	
64-17-5	Ethanol	ND	5.2	ND	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.3	ND	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	ND	0.094	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	ND	0.85	
107-13-1	Acrylonitrile	ND	0.53	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.54	ND	0.14	
75-09-2	Methylene Chloride	ND	0.53	ND	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	ND	0.070	
75-15-0	Carbon Disulfide	ND	1.1	ND	0.35	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	ND	0.14	
75-34-3	1,1-Dichloroethane	ND	0.55	ND	0.14	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	ND	0.15	
108-05-4	Vinyl Acetate	ND	5.4	ND	1.5	
78-93-3	2-Butanone (MEK)	ND	1.1	ND	0.37	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2001271

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200314-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 3/14/20

Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.53	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.1	ND	0.31	
110-54-3	n-Hexane	ND	0.54	ND	0.15	
67-66-3	Chloroform	ND	0.54	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	ND	0.19	
107-06-2	1,2-Dichloroethane	ND	0.54	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.54	ND	0.099	
71-43-2	Benzene	ND	0.53	ND	0.17	
56-23-5	Carbon Tetrachloride	ND	0.53	ND	0.084	
110-82-7	Cyclohexane	ND	1.1	ND	0.32	
78-87-5	1,2-Dichloropropane	ND	0.54	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.54	ND	0.081	
79-01-6	Trichloroethene	ND	0.54	ND	0.10	
123-91-1	1,4-Dioxane	ND	0.54	ND	0.15	
80-62-6	Methyl Methacrylate	ND	1.1	ND	0.27	
142-82-5	n-Heptane	ND	0.54	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.53	ND	0.13	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	ND	0.12	
79-00-5	1,1,2-Trichloroethane	ND	0.54	ND	0.099	
108-88-3	Toluene	ND	0.54	ND	0.14	
591-78-6	2-Hexanone	ND	0.54	ND	0.13	
124-48-1	Dibromochloromethane	ND	0.54	ND	0.063	
106-93-4	1,2-Dibromoethane	ND	0.54	ND	0.070	
123-86-4	n-Butyl Acetate	ND	0.55	ND	0.12	

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200314-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.54	ND	0.12	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.54	ND	0.12	
100-41-4	Ethylbenzene	ND	0.54	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.1	ND	0.25	
75-25-2	Bromoform	ND	0.54	ND	0.052	
100-42-5	Styrene	ND	0.53	ND	0.12	
95-47-6	o-Xylene	ND	0.54	ND	0.12	
111-84-2	n-Nonane	ND	0.54	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	ND	0.079	
98-82-8	Cumene	ND	0.54	ND	0.11	
80-56-8	alpha-Pinene	ND	0.54	ND	0.097	
103-65-1	n-Propylbenzene	ND	0.54	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.54	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.21	
541-73-1	1,3-Dichlorobenzene	ND	0.54	ND	0.090	
106-46-7	1,4-Dichlorobenzene	ND	0.54	ND	0.090	
95-50-1	1,2-Dichlorobenzene	ND	0.54	ND	0.090	
5989-27-5	d-Limonene	ND	0.54	ND	0.097	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	ND	0.055	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	ND	0.073	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.53	ND	0.050	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200317-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/17/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	ND	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	ND	0.11	
74-87-3	Chloromethane	ND	0.53	ND	0.26	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	ND	0.076	
75-01-4	Vinyl Chloride	ND	0.54	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.53	ND	0.24	
74-83-9	Bromomethane	ND	0.54	ND	0.14	
75-00-3	Chloroethane	ND	0.54	ND	0.20	
64-17-5	Ethanol	ND	5.2	ND	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.3	ND	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	ND	0.094	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	ND	0.85	
107-13-1	Acrylonitrile	ND	0.53	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.54	ND	0.14	
75-09-2	Methylene Chloride	ND	0.53	ND	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	ND	0.070	
75-15-0	Carbon Disulfide	ND	1.1	ND	0.35	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	ND	0.14	
75-34-3	1,1-Dichloroethane	ND	0.55	ND	0.14	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	ND	0.15	**L**
108-05-4	Vinyl Acetate	ND	5.4	ND	1.5	
78-93-3	2-Butanone (MEK)	ND	1.1	ND	0.37	

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

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2001271

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200317-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 3/17/20

Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.53	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.1	ND	0.31	
110-54-3	n-Hexane	ND	0.54	ND	0.15	
67-66-3	Chloroform	ND	0.54	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	ND	0.19	
107-06-2	1,2-Dichloroethane	ND	0.54	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.54	ND	0.099	
71-43-2	Benzene	ND	0.53	ND	0.17	
56-23-5	Carbon Tetrachloride	ND	0.53	ND	0.084	
110-82-7	Cyclohexane	ND	1.1	ND	0.32	
78-87-5	1,2-Dichloropropane	ND	0.54	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.54	ND	0.081	
79-01-6	Trichloroethene	ND	0.54	ND	0.10	
123-91-1	1,4-Dioxane	ND	0.54	ND	0.15	
80-62-6	Methyl Methacrylate	ND	1.1	ND	0.27	
142-82-5	n-Heptane	ND	0.54	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.53	ND	0.13	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	ND	0.12	
79-00-5	1,1,2-Trichloroethane	ND	0.54	ND	0.099	
108-88-3	Toluene	ND	0.54	ND	0.14	
591-78-6	2-Hexanone	ND	0.54	ND	0.13	
124-48-1	Dibromochloromethane	ND	0.54	ND	0.063	
106-93-4	1,2-Dibromoethane	ND	0.54	ND	0.070	
123-86-4	n-Butyl Acetate	ND	0.55	ND	0.12	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2001271

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200317-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 3/17/20

Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.54	ND	0.12	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.54	ND	0.12	
100-41-4	Ethylbenzene	ND	0.54	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.1	ND	0.25	
75-25-2	Bromoform	ND	0.54	ND	0.052	
100-42-5	Styrene	ND	0.53	ND	0.12	
95-47-6	o-Xylene	ND	0.54	ND	0.12	
111-84-2	n-Nonane	ND	0.54	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	ND	0.079	
98-82-8	Cumene	ND	0.54	ND	0.11	
80-56-8	alpha-Pinene	ND	0.54	ND	0.097	
103-65-1	n-Propylbenzene	ND	0.54	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.54	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.21	
541-73-1	1,3-Dichlorobenzene	ND	0.54	ND	0.090	
106-46-7	1,4-Dichlorobenzene	ND	0.54	ND	0.090	
95-50-1	1,2-Dichlorobenzene	ND	0.54	ND	0.090	
5989-27-5	d-Limonene	ND	0.54	ND	0.097	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	ND	0.055	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	ND	0.073	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.53	ND	0.050	

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

SURROGATE SPIKE RECOVERY RESULTS

Client: **Environmental Management Services, Inc.**
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Project ID: P2001271

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date(s) Collected: 2/24/20
Analyst: Topacio De Leon/Wida Ang Date(s) Received: 3/5/20
Sample Type: 1.0 L Summa Canister(s) / 1.0 L Silonite Summa Canister(s) Date(s) Analyzed: 3/14 - 3/17/20
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	P200314-MB	**101**	**104**	**99**	70-130	
Method Blank	P200317-MB	**100**	**102**	**98**	70-130	
Lab Control Sample	P200314-LCS	**98**	**102**	**100**	70-130	
Lab Control Sample	P200317-LCS	**94**	**102**	**100**	70-130	
Pre Carbon	P2001271-001	**103**	**100**	**98**	70-130	
Post Carbon 1	P2001271-002	**103**	**100**	**98**	70-130	
Post Carbon 2	P2001271-003	**104**	**101**	**97**	70-130	
EXT-01@Manifold	P2001271-004	**103**	**100**	**97**	70-130	
EXT-02@Manifold	P2001271-005	**101**	**101**	**97**	70-130	
EXT-03@Manifold	P2001271-006	**101**	**100**	**97**	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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200314-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa 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	**203**	**97**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**201**	**96**	64-115	
74-87-3	Chloromethane	212	**182**	**86**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**195**	**95**	65-114	
75-01-4	Vinyl Chloride	212	**214**	**101**	61-129	
106-99-0	1,3-Butadiene	212	**234**	**110**	54-140	
74-83-9	Bromomethane	212	**215**	**101**	68-120	
75-00-3	Chloroethane	214	**210**	**98**	63-123	
64-17-5	Ethanol	1,060	**1030**	**97**	49-134	
75-05-8	Acetonitrile	214	**212**	**99**	50-137	
107-02-8	Acrolein	206	**238**	**116**	62-128	
67-64-1	Acetone	1,070	**1010**	**94**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**201**	**95**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**452**	**107**	57-133	
107-13-1	Acrylonitrile	212	**238**	**112**	64-136	
75-35-4	1,1-Dichloroethene	214	**219**	**102**	67-115	
75-09-2	Methylene Chloride	210	**210**	**100**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**220**	**103**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**211**	**98**	65-115	
75-15-0	Carbon Disulfide	212	**195**	**92**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**231**	**108**	65-122	
75-34-3	1,1-Dichloroethane	212	**211**	**100**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**125**	**58**	57-131	
108-05-4	Vinyl Acetate	1,070	**1350**	**126**	71-128	
78-93-3	2-Butanone (MEK)	212	**233**	**110**	67-123	

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200314-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa 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**
156-59-2	cis-1,2-Dichloroethene	212	**218**	**103**	64-120	
141-78-6	Ethyl Acetate	432	**452**	**105**	64-131	
110-54-3	n-Hexane	216	**215**	**100**	58-125	
67-66-3	Chloroform	214	**211**	**99**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**222**	**101**	65-115	
107-06-2	1,2-Dichloroethane	214	**212**	**99**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**211**	**99**	66-115	
71-43-2	Benzene	210	**196**	**93**	66-109	
56-23-5	Carbon Tetrachloride	208	**205**	**99**	66-119	
110-82-7	Cyclohexane	422	**418**	**99**	67-117	
78-87-5	1,2-Dichloropropane	214	**216**	**101**	66-119	
75-27-4	Bromodichloromethane	218	**217**	**100**	71-119	
79-01-6	Trichloroethene	216	**214**	**99**	70-114	
123-91-1	1,4-Dioxane	216	**243**	**113**	71-117	
80-62-6	Methyl Methacrylate	430	**451**	**105**	76-121	
142-82-5	n-Heptane	214	**218**	**102**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**227**	**106**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**223**	**105**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**226**	**107**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**217**	**101**	70-117	
108-88-3	Toluene	212	**212**	**100**	67-113	
591-78-6	2-Hexanone	216	**227**	**105**	62-135	
124-48-1	Dibromochloromethane	214	**227**	**106**	73-126	
106-93-4	1,2-Dibromoethane	214	**234**	**109**	71-122	
123-86-4	n-Butyl Acetate	218	**247**	**113**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200314-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa 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**
111-65-9	n-Octane	216	**227**	**105**	63-120	
127-18-4	Tetrachloroethene	208	**209**	**100**	64-120	
108-90-7	Chlorobenzene	214	**210**	**98**	65-116	
100-41-4	Ethylbenzene	212	**222**	**105**	65-117	
179601-23-1	m,p-Xylenes	426	**435**	**102**	64-121	
75-25-2	Bromoform	214	**238**	**111**	72-130	
100-42-5	Styrene	212	**242**	**114**	72-126	
95-47-6	o-Xylene	214	**219**	**102**	64-120	
111-84-2	n-Nonane	214	**222**	**104**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**224**	**105**	66-122	
98-82-8	Cumene	214	**218**	**102**	64-121	
80-56-8	alpha-Pinene	212	**231**	**109**	62-136	
103-65-1	n-Propylbenzene	214	**222**	**104**	65-123	
622-96-8	4-Ethyltoluene	210	**210**	**100**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**213**	**100**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**222**	**105**	63-129	
100-44-7	Benzyl Chloride	214	**257**	**120**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**223**	**104**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**223**	**104**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**222**	**104**	67-128	
5989-27-5	d-Limonene	212	**242**	**114**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**228**	**107**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**247**	**114**	62-140	
91-20-3	Naphthalene	212	**248**	**117**	57-149	
87-68-3	Hexachlorobutadiene	214	**211**	**99**	57-129	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200317-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/17/20
Sample Type: 1.0 L Summa 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	**195**	**93**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**192**	**91**	64-115	
74-87-3	Chloromethane	212	**168**	**79**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**184**	**89**	65-114	
75-01-4	Vinyl Chloride	212	**201**	**95**	61-129	
106-99-0	1,3-Butadiene	212	**216**	**102**	54-140	
74-83-9	Bromomethane	212	**204**	**96**	68-120	
75-00-3	Chloroethane	214	**199**	**93**	63-123	
64-17-5	Ethanol	1,060	**953**	**90**	49-134	
75-05-8	Acetonitrile	214	**198**	**93**	50-137	
107-02-8	Acrolein	206	**221**	**107**	62-128	
67-64-1	Acetone	1,070	**949**	**89**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**193**	**91**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**421**	**100**	57-133	
107-13-1	Acrylonitrile	212	**225**	**106**	64-136	
75-35-4	1,1-Dichloroethene	214	**209**	**98**	67-115	
75-09-2	Methylene Chloride	210	**198**	**94**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**205**	**96**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**197**	**91**	65-115	
75-15-0	Carbon Disulfide	212	**183**	**86**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**219**	**102**	65-122	
75-34-3	1,1-Dichloroethane	212	**200**	**94**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**108**	**50**	57-131	**L**
108-05-4	Vinyl Acetate	1,070	**1280**	**120**	71-128	
78-93-3	2-Butanone (MEK)	212	**220**	**104**	67-123	

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 low.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200317-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/17/20
Sample Type: 1.0 L Summa 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**
156-59-2	cis-1,2-Dichloroethene	212	**207**	**98**	64-120	
141-78-6	Ethyl Acetate	432	**423**	**98**	64-131	
110-54-3	n-Hexane	216	**203**	**94**	58-125	
67-66-3	Chloroform	214	**200**	**93**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**209**	**95**	65-115	
107-06-2	1,2-Dichloroethane	214	**197**	**92**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**198**	**93**	66-115	
71-43-2	Benzene	210	**184**	**88**	66-109	
56-23-5	Carbon Tetrachloride	208	**194**	**93**	66-119	
110-82-7	Cyclohexane	422	**392**	**93**	67-117	
78-87-5	1,2-Dichloropropane	214	**205**	**96**	66-119	
75-27-4	Bromodichloromethane	218	**209**	**96**	71-119	
79-01-6	Trichloroethene	216	**206**	**95**	70-114	
123-91-1	1,4-Dioxane	216	**233**	**108**	71-117	
80-62-6	Methyl Methacrylate	430	**433**	**101**	76-121	
142-82-5	n-Heptane	214	**210**	**98**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**217**	**101**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**212**	**100**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**221**	**104**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**211**	**99**	70-117	
108-88-3	Toluene	212	**205**	**97**	67-113	
591-78-6	2-Hexanone	216	**219**	**101**	62-135	
124-48-1	Dibromochloromethane	214	**222**	**104**	73-126	
106-93-4	1,2-Dibromoethane	214	**227**	**106**	71-122	
123-86-4	n-Butyl Acetate	218	**233**	**107**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001271
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200317-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/17/20
Sample Type: 1.0 L Summa 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
111-65-9	n-Octane	216	**215**	**100**	63-120	
127-18-4	Tetrachloroethene	208	**203**	**98**	64-120	
108-90-7	Chlorobenzene	214	**202**	**94**	65-116	
100-41-4	Ethylbenzene	212	**214**	**101**	65-117	
179601-23-1	m,p-Xylenes	426	**419**	**98**	64-121	
75-25-2	Bromoform	214	**231**	**108**	72-130	
100-42-5	Styrene	212	**233**	**110**	72-126	
95-47-6	o-Xylene	214	**211**	**99**	64-120	
111-84-2	n-Nonane	214	**210**	**98**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**213**	**100**	66-122	
98-82-8	Cumene	214	**209**	**98**	64-121	
80-56-8	alpha-Pinene	212	**223**	**105**	62-136	
103-65-1	n-Propylbenzene	214	**217**	**101**	65-123	
622-96-8	4-Ethyltoluene	210	**205**	**98**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**209**	**99**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**215**	**101**	63-129	
100-44-7	Benzyl Chloride	214	**249**	**116**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**218**	**102**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**219**	**102**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**216**	**101**	67-128	
5989-27-5	d-Limonene	212	**229**	**108**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**221**	**103**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**240**	**111**	62-140	
91-20-3	Naphthalene	212	**238**	**112**	57-149	
87-68-3	Hexachlorobutadiene	214	**204**	**95**	57-129	

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.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

June 15, 2020

Collin Creel
Environmental Management Services, Inc.
P.O. Box 15369
Hattiesburg, MS 39402

RE: SVE Performance Monitoring / KUH0-20-010

Dear Collin:

Enclosed are the results of the samples submitted to our laboratory on June 1, 2020. For your reference, these analyses have been assigned our service request number P2002999.

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

Kate Kaneko
Jun 15, 2020, 11:17 am

For Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Environmental Management Services, Inc. Service Request No: P2002999
Project: SVE Performance Monitoring / KUH0-20-010

CASE NARRATIVE

The samples were received intact under chain of custody on June 1, 2020 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.

Volatile Organic Compound Analysis

The samples were 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 minimum criterion for Ethanol and Allyl Chloride was not met in the Continuing Calibration Verification (CCV) analyzed on June 8, 2020. In accordance with ALS Environmental standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analytes of concern was analyzed each day of analysis. The MRL check standard verified that instrument sensitivity was adequate to detect the analytes at the MRL on the day of analysis. No further corrective action was necessary.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-007
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
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: Environmental Management Services, Inc. Service Request: P2002999

Project ID: SVE Performance Monitoring / KUH0-20-010

Date Received: 6/1/2020

Time Received: 10:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
EXT-01@Manifold	P2002999-001	Air	5/18/2020	13:13	1SS00861	-3.70	5.94	X
EXT-02@Manifold	P2002999-002	Air	5/18/2020	13:17	1SS00171	-3.72	6.43	X
EXT-03@Manifold	P2002999-003	Air	5/18/2020	13:20	1SC00167	-3.06	5.67	X

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

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

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. P 2002999

ALS Contact:

Company Name & Address (Reporting Information)	Environmental Management Services, Inc. PO Box 15369 Hattiesburg, MS 39404
Project Name	SVE Performance Monitoring
Project Number	KUHO-20-010
Project Manager	Collin Creel
P.O. # / Billing Information	KUHO-20-010 / Same As Reporting
Phone	(985) 516-0142
Fax	(601) 544-0504
Email Address for Result Reporting	ccreel@env-mgt.com
Sampler (Print & Sign)	Collin Creel

Analysis Method: TO15

Comments e.g. Actual Preservative or specific instructions

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	Analysis Method		Comments
EXT-01@Manifold	1	5/18/20	~~09:13~~ 13:13	15C00861		~~-29.5~~ -28.5	~~-5~~ -4	1L	✓		
EXT-02@Manifold	2	5/18/20	13:17	15C00171		-30	-8	1L	✓		
EXT-03@Manifold	3	5/18/20	13:20	15C00167		-28.5	-9	1L	✓		

5 of 22

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____
Tier II (Results + QC Summaries) ✓
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: 5/28/20	Time: 16:30	Received by: (Signature) - Fed Ex -	Date:	Time:	
Relinquished by: (Signature) - Fed Ex -	Date:	Time:	Received by: (Signature)	Date: 6-1-20	Time: 1030	Cooler / Blank Temperature ____ °C

ALS Environmental

Sample Acceptance Check Form

Client: Environmental Management Services, Inc. Work order: P2002999

Project: SVE Performance Monitoring / KUH0-20-010

Sample(s) received on: 6/1/20 Date opened: 6/1/20 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
P2002999-001.01	1.0 L Source Silonite Canister					
P2002999-002.01	1.0 L Source Silonite Canister					
P2002999-003.01	1.0 L Source 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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00861

Initial Pressure (psig): -3.70 Final Pressure (psig): 5.94

Canister Dilution Factor: 1.88

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**13**	2.5	0.61	**7.4**	1.4	0.36	
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.9**	2.5	0.41	**0.80**	0.50	0.083	
74-87-3	Chloromethane	ND	2.5	0.40	ND	1.2	0.20	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	**0.85**	2.5	0.39	**0.12**	0.36	0.057	**J**
75-01-4	Vinyl Chloride	ND	2.5	0.27	ND	0.99	0.10	
106-99-0	1,3-Butadiene	ND	2.5	0.41	ND	1.1	0.19	
74-83-9	Bromomethane	ND	2.5	0.35	ND	0.65	0.090	
75-00-3	Chloroethane	ND	2.5	0.31	ND	0.96	0.12	
64-17-5	Ethanol	**5.1**	24	1.7	**2.7**	13	0.92	**J, B, V**
75-05-8	Acetonitrile	ND	2.5	0.61	ND	1.5	0.36	
107-02-8	Acrolein	ND	4.7	0.71	ND	2.1	0.31	
67-64-1	Acetone	**18**	25	5.6	**7.7**	10	2.4	**J**
75-69-4	Trichlorofluoromethane (CFC 11)	**1.5**	2.5	0.38	**0.26**	0.44	0.068	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	9.9	1.0	ND	4.0	0.42	
107-13-1	Acrylonitrile	ND	2.5	0.52	ND	1.1	0.24	
75-35-4	1,1-Dichloroethene	**52**	2.5	0.35	**13**	0.64	0.088	
75-09-2	Methylene Chloride	ND	2.5	0.71	ND	0.72	0.20	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.5	0.34	ND	0.81	0.11	**V**
76-13-1	Trichlorotrifluoroethane (CFC 113)	**3.0**	2.5	0.36	**0.39**	0.33	0.047	
75-15-0	Carbon Disulfide	**5.5**	5.2	0.75	**1.8**	1.7	0.24	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.35	ND	0.64	0.088	
75-34-3	1,1-Dichloroethane	**1.4**	2.6	0.37	**0.36**	0.64	0.091	**J**
1634-04-4	Methyl tert-Butyl Ether	ND	2.5	0.30	ND	0.70	0.082	
108-05-4	Vinyl Acetate	ND	25	5.6	ND	7.2	1.6	
78-93-3	2-Butanone (MEK)	**1.8**	5.2	0.52	**0.61**	1.8	0.18	**J**

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.
B = Analyte detected in both the sample and associated method blank.
V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00861

Initial Pressure (psig): -3.70 Final Pressure (psig): 5.94

Canister Dilution Factor: 1.88

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.35	ND	0.63	0.089	
141-78-6	Ethyl Acetate	ND	5.2	1.3	ND	1.4	0.37	
110-54-3	n-Hexane	ND	2.5	0.52	ND	0.72	0.15	
67-66-3	Chloroform	**0.62**	2.5	0.33	**0.13**	0.52	0.068	**J**
109-99-9	Tetrahydrofuran (THF)	**4.4**	2.6	0.31	**1.5**	0.88	0.11	
107-06-2	1,2-Dichloroethane	**0.29**	2.5	0.28	**0.072**	0.63	0.069	**J**
71-55-6	1,1,1-Trichloroethane	**34**	2.5	0.31	**6.2**	0.47	0.057	
71-43-2	Benzene	ND	2.5	0.36	ND	0.78	0.11	
56-23-5	Carbon Tetrachloride	**0.35**	2.5	0.35	**0.056**	0.40	0.055	**J**
110-82-7	Cyclohexane	ND	5.2	0.71	ND	1.5	0.20	
78-87-5	1,2-Dichloropropane	ND	2.5	0.31	ND	0.55	0.067	
75-27-4	Bromodichloromethane	ND	2.5	0.36	ND	0.38	0.054	
79-01-6	Trichloroethene	**0.56**	2.5	0.34	**0.10**	0.47	0.063	**J**
123-91-1	1,4-Dioxane	**470**	2.5	0.30	**130**	0.70	0.082	
80-62-6	Methyl Methacrylate	ND	5.2	0.89	ND	1.3	0.22	
142-82-5	n-Heptane	**0.45**	2.5	0.40	**0.11**	0.62	0.098	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.39	ND	0.54	0.086	
108-10-1	4-Methyl-2-pentanone	**1.1**	2.5	0.34	**0.27**	0.61	0.084	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.52	ND	0.55	0.11	
79-00-5	1,1,2-Trichloroethane	**0.43**	2.5	0.25	**0.078**	0.47	0.047	**J**
108-88-3	Toluene	**3.8**	2.5	0.31	**1.0**	0.67	0.081	
591-78-6	2-Hexanone	ND	2.5	0.31	ND	0.62	0.076	
124-48-1	Dibromochloromethane	ND	2.5	0.33	ND	0.30	0.039	
106-93-4	1,2-Dibromoethane	ND	2.5	0.29	ND	0.33	0.038	
123-86-4	n-Butyl Acetate	ND	2.6	0.34	ND	0.54	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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-01@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00861

Initial Pressure (psig): -3.70 Final Pressure (psig): 5.94

Canister Dilution Factor: 1.88

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.5	0.56	ND	0.54	0.12	
127-18-4	Tetrachloroethene	**7.6**	2.4	0.32	**1.1**	0.36	0.048	
108-90-7	Chlorobenzene	ND	2.5	0.33	ND	0.55	0.072	
100-41-4	Ethylbenzene	**1.2**	2.5	0.35	**0.27**	0.58	0.081	**J**
179601-23-1	m,p-Xylenes	**4.5**	5.2	0.66	**1.0**	1.2	0.15	**J**
75-25-2	Bromoform	ND	2.5	0.52	ND	0.25	0.050	
100-42-5	Styrene	ND	2.5	0.40	ND	0.59	0.095	
95-47-6	o-Xylene	**1.9**	2.5	0.36	**0.44**	0.58	0.083	**J**
111-84-2	n-Nonane	ND	2.5	0.42	ND	0.48	0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.35	ND	0.37	0.051	
98-82-8	Cumene	**1.3**	2.5	0.36	**0.26**	0.52	0.074	**J**
80-56-8	alpha-Pinene	**0.49**	2.5	0.39	**0.088**	0.46	0.069	**J**
103-65-1	n-Propylbenzene	ND	2.5	0.36	ND	0.52	0.074	
622-96-8	4-Ethyltoluene	ND	2.5	0.40	ND	0.52	0.081	
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.36	ND	0.51	0.074	
95-63-6	1,2,4-Trimethylbenzene	**1.1**	2.5	0.35	**0.22**	0.52	0.071	**J**
100-44-7	Benzyl Chloride	ND	5.2	0.56	ND	1.0	0.11	
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.38	ND	0.42	0.063	
106-46-7	1,4-Dichlorobenzene	**0.57**	2.5	0.39	**0.095**	0.42	0.064	**J**
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.37	ND	0.42	0.062	
5989-27-5	d-Limonene	**0.85**	2.5	0.52	**0.15**	0.46	0.093	**J, B**
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.47	ND	0.26	0.049	
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.61	ND	0.34	0.082	
91-20-3	Naphthalene	ND	2.4	0.61	ND	0.47	0.12	
87-68-3	Hexachlorobutadiene	ND	2.5	0.52	ND	0.23	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.
B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.030 Liter(s)
Test Notes:
Container ID: 1SS00171

Initial Pressure (psig): -3.72 Final Pressure (psig): 6.43

Canister Dilution Factor: 1.92

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	ND	34	8.3	ND	20	4.8	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	34	5.6	ND	6.9	1.1	
74-87-3	Chloromethane	ND	34	5.5	ND	16	2.7	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	34	5.4	ND	4.9	0.77	
75-01-4	Vinyl Chloride	ND	35	3.6	ND	14	1.4	
106-99-0	1,3-Butadiene	ND	34	5.6	ND	15	2.5	
74-83-9	Bromomethane	ND	35	4.7	ND	8.9	1.2	
75-00-3	Chloroethane	ND	35	4.2	ND	13	1.6	
64-17-5	Ethanol	ND	330	24	ND	180	13	**V**
75-05-8	Acetonitrile	ND	34	8.3	ND	20	5.0	
107-02-8	Acrolein	ND	64	9.6	ND	28	4.2	
67-64-1	Acetone	ND	340	77	ND	140	32	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	34	5.2	ND	6.0	0.92	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	130	14	ND	55	5.7	
107-13-1	Acrylonitrile	ND	34	7.0	ND	16	3.2	
75-35-4	1,1-Dichloroethene	**160**	35	4.7	**41**	8.7	1.2	
75-09-2	Methylene Chloride	ND	34	9.6	ND	9.8	2.8	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	35	4.6	ND	11	1.5	**V**
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	35	4.9	ND	4.5	0.63	
75-15-0	Carbon Disulfide	ND	70	10	ND	23	3.3	
156-60-5	trans-1,2-Dichloroethene	ND	35	4.7	ND	8.7	1.2	
75-34-3	1,1-Dichloroethane	ND	35	5.0	ND	8.7	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	35	4.0	ND	9.6	1.1	
108-05-4	Vinyl Acetate	ND	350	77	ND	98	22	
78-93-3	2-Butanone (MEK)	ND	70	7.0	ND	24	2.4	

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.
V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.030 Liter(s)
Test Notes:
Container ID: 1SS00171

Initial Pressure (psig): -3.72 Final Pressure (psig): 6.43

Canister Dilution Factor: 1.92

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	34	4.8	ND	8.6	1.2	
141-78-6	Ethyl Acetate	ND	70	18	ND	20	5.0	
110-54-3	n-Hexane	ND	35	7.0	ND	9.8	2.0	
67-66-3	Chloroform	ND	35	4.5	ND	7.1	0.93	
109-99-9	Tetrahydrofuran (THF)	ND	35	4.3	ND	12	1.5	
107-06-2	1,2-Dichloroethane	ND	35	3.8	ND	8.5	0.93	
71-55-6	1,1,1-Trichloroethane	**42**	35	4.2	**7.8**	6.3	0.77	
71-43-2	Benzene	ND	34	4.9	ND	11	1.5	
56-23-5	Carbon Tetrachloride	ND	34	4.7	ND	5.4	0.75	
110-82-7	Cyclohexane	ND	70	9.6	ND	20	2.8	
78-87-5	1,2-Dichloropropane	ND	35	4.2	ND	7.5	0.91	
75-27-4	Bromodichloromethane	ND	35	4.9	ND	5.2	0.74	
79-01-6	Trichloroethene	ND	35	4.6	ND	6.4	0.86	
123-91-1	1,4-Dioxane	**3,900**	35	4.0	**1,100**	9.6	1.1	
80-62-6	Methyl Methacrylate	ND	70	12	ND	17	3.0	
142-82-5	n-Heptane	ND	35	5.4	ND	8.4	1.3	
10061-01-5	cis-1,3-Dichloropropene	ND	33	5.3	ND	7.3	1.2	
108-10-1	4-Methyl-2-pentanone	ND	34	4.7	ND	8.3	1.1	
10061-02-6	trans-1,3-Dichloropropene	ND	34	7.0	ND	7.5	1.6	
79-00-5	1,1,2-Trichloroethane	ND	35	3.5	ND	6.3	0.63	
108-88-3	Toluene	ND	35	4.2	ND	9.2	1.1	
591-78-6	2-Hexanone	ND	35	4.2	ND	8.4	1.0	
124-48-1	Dibromochloromethane	ND	35	4.5	ND	4.1	0.53	
106-93-4	1,2-Dibromoethane	ND	35	4.0	ND	4.5	0.52	
123-86-4	n-Butyl Acetate	ND	35	4.7	ND	7.4	0.98	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-02@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.030 Liter(s)
Test Notes:
Container ID: 1SS00171

Initial Pressure (psig): -3.72 Final Pressure (psig): 6.43

Canister Dilution Factor: 1.92

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	35	7.7	ND	7.4	1.6	
127-18-4	Tetrachloroethene	**9.0**	33	4.4	**1.3**	4.9	0.65	**J**
108-90-7	Chlorobenzene	ND	35	4.5	ND	7.5	0.99	
100-41-4	Ethylbenzene	ND	35	4.8	ND	8.0	1.1	
179601-23-1	m,p-Xylenes	ND	70	9.0	ND	16	2.1	
75-25-2	Bromoform	ND	35	7.0	ND	3.3	0.68	
100-42-5	Styrene	ND	34	5.5	ND	8.0	1.3	
95-47-6	o-Xylene	ND	35	4.9	ND	8.0	1.1	
111-84-2	n-Nonane	ND	35	5.7	ND	6.6	1.1	
79-34-5	1,1,2,2-Tetrachloroethane	ND	35	4.7	ND	5.0	0.69	
98-82-8	Cumene	**6.8**	35	4.9	**1.4**	7.0	1.0	**J**
80-56-8	alpha-Pinene	ND	35	5.2	ND	6.2	0.94	
103-65-1	n-Propylbenzene	ND	35	4.9	ND	7.0	1.0	
622-96-8	4-Ethyltoluene	ND	35	5.4	ND	7.0	1.1	
108-67-8	1,3,5-Trimethylbenzene	ND	34	4.9	ND	6.9	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	35	4.7	ND	7.0	0.96	
100-44-7	Benzyl Chloride	ND	70	7.7	ND	14	1.5	
541-73-1	1,3-Dichlorobenzene	ND	35	5.1	ND	5.8	0.85	
106-46-7	1,4-Dichlorobenzene	ND	35	5.2	ND	5.8	0.87	
95-50-1	1,2-Dichlorobenzene	ND	35	5.1	ND	5.8	0.84	
5989-27-5	d-Limonene	ND	35	7.0	ND	6.2	1.3	
96-12-8	1,2-Dibromo-3-chloropropane	ND	34	6.4	ND	3.5	0.66	
120-82-1	1,2,4-Trichlorobenzene	ND	35	8.3	ND	4.7	1.1	
91-20-3	Naphthalene	ND	33	8.3	ND	6.4	1.6	
87-68-3	Hexachlorobutadiene	ND	34	7.0	ND	3.2	0.66	

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00167

Initial Pressure (psig): -3.06 Final Pressure (psig): 5.67

Canister Dilution Factor: 1.75

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**34**	2.3	0.57	**20**	1.3	0.33	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.0**	2.3	0.38	**0.41**	0.47	0.077	**J**
74-87-3	Chloromethane	**2.7**	2.3	0.38	**1.3**	1.1	0.18	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.3	0.37	ND	0.33	0.053	
75-01-4	Vinyl Chloride	ND	2.4	0.25	ND	0.92	0.098	
106-99-0	1,3-Butadiene	ND	2.3	0.39	ND	1.0	0.17	
74-83-9	Bromomethane	**3.6**	2.4	0.32	**0.94**	0.61	0.083	
75-00-3	Chloroethane	**0.49**	2.4	0.29	**0.18**	0.90	0.11	**J**
64-17-5	Ethanol	**320**	23	1.6	**170**	12	0.86	**B, V**
75-05-8	Acetonitrile	**0.98**	2.3	0.57	**0.58**	1.4	0.34	**J**
107-02-8	Acrolein	**3.2**	4.4	0.66	**1.4**	1.9	0.29	**J**
67-64-1	Acetone	**65**	23	5.3	**27**	9.8	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.3**	2.3	0.35	**0.22**	0.41	0.063	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**13**	9.2	0.96	**5.1**	3.7	0.39	
107-13-1	Acrylonitrile	ND	2.3	0.48	ND	1.1	0.22	
75-35-4	1,1-Dichloroethene	**12**	2.4	0.32	**3.1**	0.60	0.082	
75-09-2	Methylene Chloride	ND	2.3	0.66	ND	0.67	0.19	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.4	0.32	ND	0.76	0.10	**V**
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.42**	2.4	0.33	**0.055**	0.31	0.043	**J**
75-15-0	Carbon Disulfide	**1.5**	4.8	0.70	**0.50**	1.5	0.22	**J**
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.32	ND	0.60	0.082	
75-34-3	1,1-Dichloroethane	ND	2.4	0.34	ND	0.59	0.084	
1634-04-4	Methyl tert-Butyl Ether	ND	2.4	0.28	ND	0.66	0.076	
108-05-4	Vinyl Acetate	**11**	24	5.3	**3.1**	6.7	1.5	**J**
78-93-3	2-Butanone (MEK)	**10**	4.8	0.48	**3.4**	1.6	0.16	

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.
V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
B = Analyte detected in both the sample and associated method blank.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00167

Initial Pressure (psig): -3.06 Final Pressure (psig): 5.67

Canister Dilution Factor: 1.75

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.33	ND	0.59	0.083	
141-78-6	Ethyl Acetate	**190**	4.8	1.2	**53**	1.3	0.34	
110-54-3	n-Hexane	**1.3**	2.4	0.48	**0.37**	0.67	0.14	**J**
67-66-3	Chloroform	**0.54**	2.4	0.31	**0.11**	0.48	0.064	**J**
109-99-9	Tetrahydrofuran (THF)	**4.0**	2.4	0.29	**1.3**	0.82	0.099	
107-06-2	1,2-Dichloroethane	ND	2.4	0.26	ND	0.58	0.064	
71-55-6	1,1,1-Trichloroethane	**3.5**	2.4	0.29	**0.64**	0.43	0.053	
71-43-2	Benzene	**1.6**	2.3	0.34	**0.50**	0.73	0.11	**J**
56-23-5	Carbon Tetrachloride	ND	2.3	0.32	ND	0.37	0.051	
110-82-7	Cyclohexane	**0.88**	4.8	0.66	**0.26**	1.4	0.19	**J**
78-87-5	1,2-Dichloropropane	ND	2.4	0.29	ND	0.51	0.063	
75-27-4	Bromodichloromethane	ND	2.4	0.34	ND	0.35	0.050	
79-01-6	Trichloroethene	ND	2.4	0.32	ND	0.44	0.059	
123-91-1	1,4-Dioxane	**310**	2.4	0.28	**87**	0.66	0.077	
80-62-6	Methyl Methacrylate	ND	4.8	0.83	ND	1.2	0.20	
142-82-5	n-Heptane	**2.5**	2.4	0.37	**0.61**	0.58	0.091	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.36	ND	0.50	0.080	
108-10-1	4-Methyl-2-pentanone	**2.9**	2.3	0.32	**0.71**	0.57	0.078	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.48	ND	0.51	0.11	
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.24	ND	0.43	0.043	
108-88-3	Toluene	**12**	2.4	0.28	**3.2**	0.63	0.075	
591-78-6	2-Hexanone	**1.0**	2.4	0.29	**0.25**	0.58	0.071	**J**
124-48-1	Dibromochloromethane	**0.58**	2.4	0.31	**0.068**	0.28	0.036	**J**
106-93-4	1,2-Dibromoethane	ND	2.4	0.27	ND	0.31	0.035	
123-86-4	n-Butyl Acetate	**0.61**	2.4	0.32	**0.13**	0.51	0.067	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **EXT-03@Manifold** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2002999-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 6/1/20
Analyst: Simon Cao Date Analyzed: 6/8/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00167

Initial Pressure (psig): -3.06 Final Pressure (psig): 5.67

Canister Dilution Factor: 1.75

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	**0.56**	2.4	0.53	**0.12**	0.51	0.11	**J**
127-18-4	Tetrachloroethene	**4.7**	2.3	0.30	**0.70**	0.34	0.045	
108-90-7	Chlorobenzene	ND	2.4	0.31	ND	0.51	0.067	
100-41-4	Ethylbenzene	**1.7**	2.4	0.33	**0.39**	0.54	0.076	**J**
179601-23-1	m,p-Xylenes	**6.6**	4.8	0.61	**1.5**	1.1	0.14	
75-25-2	Bromoform	**1.8**	2.4	0.48	**0.18**	0.23	0.047	**J**
100-42-5	Styrene	**0.84**	2.3	0.38	**0.20**	0.54	0.088	**J**
95-47-6	o-Xylene	**3.0**	2.4	0.34	**0.69**	0.54	0.078	
111-84-2	n-Nonane	**0.47**	2.4	0.39	**0.089**	0.45	0.074	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.32	ND	0.34	0.047	
98-82-8	Cumene	**16**	2.4	0.34	**3.3**	0.48	0.069	
80-56-8	alpha-Pinene	**1.7**	2.4	0.36	**0.31**	0.42	0.064	**J**
103-65-1	n-Propylbenzene	**0.38**	2.4	0.34	**0.077**	0.48	0.069	**J**
622-96-8	4-Ethyltoluene	**0.54**	2.4	0.37	**0.11**	0.48	0.076	**J**
108-67-8	1,3,5-Trimethylbenzene	**0.68**	2.3	0.34	**0.14**	0.47	0.069	**J**
95-63-6	1,2,4-Trimethylbenzene	**2.2**	2.4	0.32	**0.46**	0.48	0.066	**J**
100-44-7	Benzyl Chloride	ND	4.8	0.53	ND	0.93	0.10	
541-73-1	1,3-Dichlorobenzene	ND	2.4	0.35	ND	0.39	0.058	
106-46-7	1,4-Dichlorobenzene	**1.9**	2.4	0.36	**0.31**	0.39	0.060	**J**
95-50-1	1,2-Dichlorobenzene	ND	2.4	0.35	ND	0.39	0.058	
5989-27-5	d-Limonene	**3.4**	2.4	0.48	**0.60**	0.42	0.086	**B**
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.3	0.44	ND	0.24	0.045	
120-82-1	1,2,4-Trichlorobenzene	ND	2.4	0.57	ND	0.32	0.077	
91-20-3	Naphthalene	ND	2.3	0.57	ND	0.43	0.11	
87-68-3	Hexachlorobutadiene	ND	2.3	0.48	ND	0.22	0.045	

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.
B = Analyte detected in both the sample and associated method blank.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200608-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: 6/8/20
Sample Type: 1.0 L Silonite Summa 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	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.53	0.086	ND	0.26	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	0.084	ND	0.076	0.012	
75-01-4	Vinyl Chloride	ND	0.54	0.057	ND	0.21	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.54	0.074	ND	0.14	0.019	
75-00-3	Chloroethane	ND	0.54	0.066	ND	0.20	0.025	
64-17-5	Ethanol	**0.48**	5.2	0.37	**0.25**	2.8	0.20	**J, V**
75-05-8	Acetonitrile	ND	0.53	0.13	ND	0.32	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	0.081	ND	0.094	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	0.22	ND	0.85	0.090	
107-13-1	Acrylonitrile	ND	0.53	0.11	ND	0.24	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	0.072	ND	0.17	0.023	**V**
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.35	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.55	0.078	ND	0.14	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	
108-05-4	Vinyl Acetate	ND	5.4	1.2	ND	1.5	0.34	
78-93-3	2-Butanone (MEK)	ND	1.1	0.11	ND	0.37	0.037	

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.
V = The continuing calibration verification standard was outside (biased low) the specified limits for this compound.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2002999

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200608-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: 6/8/20

Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	
141-78-6	Ethyl Acetate	ND	1.1	0.28	ND	0.31	0.078	
110-54-3	n-Hexane	ND	0.54	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.54	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	0.067	ND	0.19	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.54	0.066	ND	0.099	0.012	
71-43-2	Benzene	ND	0.53	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.53	0.074	ND	0.084	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.32	0.044	
78-87-5	1,2-Dichloropropane	ND	0.54	0.066	ND	0.12	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.54	0.072	ND	0.10	0.013	
123-91-1	1,4-Dioxane	ND	0.54	0.063	ND	0.15	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.54	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	0.083	ND	0.11	0.018	
108-10-1	4-Methyl-2-pentanone	ND	0.53	0.073	ND	0.13	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	0.11	ND	0.12	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.54	0.054	ND	0.099	0.0099	
108-88-3	Toluene	ND	0.54	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	0.54	0.066	ND	0.13	0.016	
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.54	0.062	ND	0.070	0.0081	
123-86-4	n-Butyl Acetate	ND	0.55	0.073	ND	0.12	0.015	

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: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2002999

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200608-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: 6/8/20

Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.52	0.069	ND	0.077	0.010	
108-90-7	Chlorobenzene	ND	0.54	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.54	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.54	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.54	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	0.074	ND	0.079	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	0.54	0.082	ND	0.097	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.54	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	1.1	0.12	ND	0.21	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.54	0.080	ND	0.090	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.54	0.082	ND	0.090	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	**0.20**	0.54	0.11	**0.036**	0.097	0.020	**J**
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	0.10	ND	0.055	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	0.13	ND	0.073	0.018	
91-20-3	Naphthalene	ND	0.52	0.13	ND	0.099	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

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

SURROGATE SPIKE RECOVERY RESULTS

Client: **Environmental Management Services, Inc.**
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Project ID: P2002999

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date(s) Collected: 5/18/20
Analyst: Simon Cao Date(s) Received: 6/1/20
Sample Type: 1.0 L Silonite Summa Canister(s) Date(s) Analyzed: 6/8/20
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	P200608-MB	**95**	**102**	**101**	70-130	
Lab Control Sample	P200608-LCS	**96**	**101**	**102**	70-130	
EXT-01@Manifold	P2002999-001	**93**	**102**	**105**	70-130	
EXT-02@Manifold	P2002999-002	**94**	**102**	**104**	70-130	
EXT-03@Manifold	P2002999-003	**93**	**101**	**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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200608-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: 6/8/20
Sample Type: 1.0 L Silonite Summa 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	**167**	**80**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**177**	**84**	64-115	
74-87-3	Chloromethane	212	**156**	**74**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**169**	**82**	65-114	
75-01-4	Vinyl Chloride	212	**180**	**85**	61-129	
106-99-0	1,3-Butadiene	212	**171**	**81**	54-140	
74-83-9	Bromomethane	212	**180**	**85**	68-120	
75-00-3	Chloroethane	214	**177**	**83**	63-123	
64-17-5	Ethanol	1,060	**719**	**68**	49-134	
75-05-8	Acetonitrile	214	**159**	**74**	50-137	
107-02-8	Acrolein	206	**161**	**78**	62-128	
67-64-1	Acetone	1,070	**826**	**77**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**179**	**84**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**321**	**76**	57-133	
107-13-1	Acrylonitrile	212	**185**	**87**	64-136	
75-35-4	1,1-Dichloroethene	214	**181**	**85**	67-115	
75-09-2	Methylene Chloride	210	**181**	**86**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**147**	**69**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**184**	**85**	65-115	
75-15-0	Carbon Disulfide	212	**182**	**86**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**197**	**92**	65-122	
75-34-3	1,1-Dichloroethane	212	**175**	**83**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**184**	**86**	57-131	
108-05-4	Vinyl Acetate	1,070	**984**	**92**	71-128	
78-93-3	2-Butanone (MEK)	212	**193**	**91**	67-123	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200608-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: 6/8/20
Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	212	**182**	**86**	64-120	
141-78-6	Ethyl Acetate	432	**394**	**91**	64-131	
110-54-3	n-Hexane	216	**174**	**81**	58-125	
67-66-3	Chloroform	214	**179**	**84**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**187**	**85**	65-115	
107-06-2	1,2-Dichloroethane	214	**181**	**85**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**185**	**86**	66-115	
71-43-2	Benzene	210	**177**	**84**	66-109	
56-23-5	Carbon Tetrachloride	208	**178**	**86**	66-119	
110-82-7	Cyclohexane	422	**356**	**84**	67-117	
78-87-5	1,2-Dichloropropane	214	**184**	**86**	66-119	
75-27-4	Bromodichloromethane	218	**183**	**84**	71-119	
79-01-6	Trichloroethene	216	**184**	**85**	70-114	
123-91-1	1,4-Dioxane	216	**189**	**88**	71-117	
80-62-6	Methyl Methacrylate	430	**397**	**92**	76-121	
142-82-5	n-Heptane	214	**184**	**86**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**198**	**93**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**192**	**91**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**203**	**96**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**186**	**87**	70-117	
108-88-3	Toluene	212	**181**	**85**	67-113	
591-78-6	2-Hexanone	216	**188**	**87**	62-135	
124-48-1	Dibromochloromethane	214	**192**	**90**	73-126	
106-93-4	1,2-Dibromoethane	214	**201**	**94**	71-122	
123-86-4	n-Butyl Acetate	218	**215**	**99**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002999
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200608-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: 6/8/20
Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	216	**177**	**82**	63-120	
127-18-4	Tetrachloroethene	208	**181**	**87**	64-120	
108-90-7	Chlorobenzene	214	**182**	**85**	65-116	
100-41-4	Ethylbenzene	212	**184**	**87**	65-117	
179601-23-1	m,p-Xylenes	426	**363**	**85**	64-121	
75-25-2	Bromoform	214	**196**	**92**	72-130	
100-42-5	Styrene	212	**197**	**93**	72-126	
95-47-6	o-Xylene	214	**181**	**85**	64-120	
111-84-2	n-Nonane	214	**172**	**80**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**188**	**88**	66-122	
98-82-8	Cumene	214	**182**	**85**	64-121	
80-56-8	alpha-Pinene	212	**184**	**87**	62-136	
103-65-1	n-Propylbenzene	214	**186**	**87**	65-123	
622-96-8	4-Ethyltoluene	210	**177**	**84**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**177**	**83**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**186**	**88**	63-129	
100-44-7	Benzyl Chloride	214	**199**	**93**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**194**	**91**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**189**	**88**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**191**	**89**	67-128	
5989-27-5	d-Limonene	212	**181**	**85**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**191**	**89**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**213**	**99**	62-140	
91-20-3	Naphthalene	212	**211**	**100**	57-149	
87-68-3	Hexachlorobutadiene	214	**183**	**86**	57-129	

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.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

June 15, 2020

Collin Creel
Environmental Management Services, Inc.
P.O. Box 15369
Hattiesburg, MS 39402

RE: SVE Performance Monitoring / KUH0-20-010

Dear Collin:

Enclosed are the results of the samples submitted to our laboratory on June 1, 2020. For your reference, these analyses have been assigned our service request number P2003000.

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

Kate Kaneko
Jun 15, 2020, 11:16 am

For Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Environmental Management Services, Inc. Service Request No: P2003000
Project: SVE Performance Monitoring / KUH0-20-010

CASE NARRATIVE

The samples were received intact under chain of custody on June 1, 2020 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.

Volatile Organic Compound Analysis

The samples were 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 for methyl tert.-butylether (MTBE) in the Laboratory Control Sample (LCS) analyzed on June 9, 2020 was outside the upper control criterion. The error associated with elevated recovery equates to a potential high bias; The analyte in question was not detected in the associated field samples. The data has been flagged accordingly. No corrective action was required.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-007
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
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: Environmental Management Services, Inc. Service Request: P2003000

Project ID: SVE Performance Monitoring / KUH0-20-010

Date Received: 6/1/2020

Time Received: 10:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
Pre Carbon	P2003000-001	Air	5/18/2020	13:03	1SC00698	0.04	6.71	X
Post Carbon 1	P2003000-002	Air	5/18/2020	13:06	1SC00446	-0.24	5.81	X
Post Carbon 2	P2003000-003	Air	5/18/2020	13:09	1SC00276	-0.48	6.20	X

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

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

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. P200 3006

ALS Contact:

Company Name & Address (Reporting Information)	Environmental Management Services, Inc PO Box 15369 Hattiesburg, MS 39404
Project Name	SVE Performance Monitoring
Project Number	KUHO-20-010
Project Manager	Collin Creel
P.O. # / Billing Information	KUHO-20-010 / Same as reporting
Phone	(985)516-0142
Fax	(601) 544-0504
Email Address for Result Reporting	ccreel@env-mgt.com
Sampler (Print & Sign)	Collin Creel

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		Comments e.g. Actual Preservative or specific instructions
Pre Carbon	1	5/18/20	13:03	ISC00698		-30	0	1L	✓		
Post Carbon 1	2	5/18/20	13:06	ISC00446		-30	0	1L	✓		
Post Carbon 2	3	5/18/20	13:09	ISC00276		-28.5	0	1L	✓		

5 of 22

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____
Tier II (Results + QC Summaries) ✓
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: 5/28/20	Time: 16:30	Received by: (Signature) - Fed Ex -	Date:	Time:	
Relinquished by: (Signature) - Fed Ex -	Date:	Time:	Received by: (Signature)	Date: 6-1-20	Time: 1030	Cooler / Blank Temperature ____ °C

ALS Environmental

Sample Acceptance Check Form

Client: Environmental Management Services, Inc. Work order: P2003000

Project: SVE Performance Monitoring / KUH0-20-010

Sample(s) received on: 6/1/20 Date opened: 6/1/20 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
P2003000-001.01	1.0 L Source Can					
P2003000-002.01	1.0 L Source Can					
P2003000-003.01	1.0 L Source 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: **Environmental Management Services, Inc.**
Client Sample ID: **Pre Carbon** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: 0.025 Liter(s)
Container ID: 1SC00698

Initial Pressure (psig): 0.04 Final Pressure (psig): 6.71

Canister Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**46**	3.8	0.94	**27**	2.2	0.55	
75-71-8	Dichlorodifluoromethane (CFC 12)	**4.6**	3.8	0.63	**0.93**	0.78	0.13	
74-87-3	Chloromethane	**0.99**	3.8	0.62	**0.48**	1.9	0.30	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	**0.71**	3.8	0.61	**0.10**	0.55	0.087	**J**
75-01-4	Vinyl Chloride	ND	3.9	0.41	ND	1.5	0.16	
106-99-0	1,3-Butadiene	ND	3.8	0.64	ND	1.7	0.29	
74-83-9	Bromomethane	ND	3.9	0.54	ND	1.0	0.14	
75-00-3	Chloroethane	ND	3.9	0.48	ND	1.5	0.18	
64-17-5	Ethanol	**93**	38	2.7	**49**	20	1.4	
75-05-8	Acetonitrile	ND	3.8	0.94	ND	2.3	0.56	
107-02-8	Acrolein	**1.8**	7.3	1.1	**0.78**	3.2	0.47	**J**
67-64-1	Acetone	**75**	38	8.7	**32**	16	3.7	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.8**	3.8	0.59	**0.33**	0.68	0.10	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**3.5**	15	1.6	**1.4**	6.2	0.65	**J**
107-13-1	Acrylonitrile	ND	3.8	0.80	ND	1.8	0.37	
75-35-4	1,1-Dichloroethene	**85**	3.9	0.54	**21**	0.99	0.14	
75-09-2	Methylene Chloride	**1.3**	3.8	1.1	**0.39**	1.1	0.31	**J**
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	3.9	0.52	ND	1.3	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**1.8**	3.9	0.55	**0.23**	0.51	0.072	**J**
75-15-0	Carbon Disulfide	**3.9**	8.0	1.2	**1.3**	2.6	0.37	**J**
156-60-5	trans-1,2-Dichloroethene	ND	3.9	0.54	ND	0.99	0.14	
75-34-3	1,1-Dichloroethane	**2.5**	4.0	0.57	**0.61**	0.99	0.14	**J**
1634-04-4	Methyl tert-Butyl Ether	ND	3.9	0.46	ND	1.1	0.13	**L**
108-05-4	Vinyl Acetate	**11**	39	8.7	**3.0**	11	2.5	**J**
78-93-3	2-Butanone (MEK)	**8.4**	8.0	0.80	**2.8**	2.7	0.27	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Pre Carbon** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: 0.025 Liter(s)
Container ID: 1SC00698

Initial Pressure (psig): 0.04 Final Pressure (psig): 6.71

Canister Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	3.8	0.54	ND	0.97	0.14	
141-78-6	Ethyl Acetate	ND	8.0	2.0	ND	2.2	0.56	
110-54-3	n-Hexane	ND	3.9	0.80	ND	1.1	0.23	
67-66-3	Chloroform	**1.0**	3.9	0.51	**0.21**	0.80	0.11	**J**
109-99-9	Tetrahydrofuran (THF)	**4.2**	4.0	0.49	**1.4**	1.4	0.16	
107-06-2	1,2-Dichloroethane	ND	3.9	0.43	ND	0.97	0.11	
71-55-6	1,1,1-Trichloroethane	**30**	3.9	0.48	**5.5**	0.72	0.088	
71-43-2	Benzene	ND	3.8	0.56	ND	1.2	0.17	
56-23-5	Carbon Tetrachloride	ND	3.8	0.54	ND	0.61	0.085	
110-82-7	Cyclohexane	ND	8.0	1.1	ND	2.3	0.32	
78-87-5	1,2-Dichloropropane	ND	3.9	0.48	ND	0.85	0.10	
75-27-4	Bromodichloromethane	ND	3.9	0.56	ND	0.58	0.083	
79-01-6	Trichloroethene	**0.70**	3.9	0.52	**0.13**	0.73	0.097	**J**
123-91-1	1,4-Dioxane	**1,400**	31	3.7	**390**	8.7	1.0	**D**
80-62-6	Methyl Methacrylate	ND	8.0	1.4	ND	1.9	0.34	
142-82-5	n-Heptane	**1.3**	3.9	0.62	**0.33**	0.96	0.15	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	3.8	0.60	ND	0.83	0.13	
108-10-1	4-Methyl-2-pentanone	**2.3**	3.8	0.53	**0.57**	0.94	0.13	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	3.8	0.80	ND	0.85	0.18	
79-00-5	1,1,2-Trichloroethane	**0.71**	3.9	0.39	**0.13**	0.72	0.072	**J**
108-88-3	Toluene	**5.9**	3.9	0.47	**1.6**	1.0	0.13	
591-78-6	2-Hexanone	**0.98**	3.9	0.48	**0.24**	0.96	0.12	**J**
124-48-1	Dibromochloromethane	ND	3.9	0.51	ND	0.46	0.060	
106-93-4	1,2-Dibromoethane	ND	3.9	0.45	ND	0.51	0.059	
123-86-4	n-Butyl Acetate	ND	4.0	0.53	ND	0.84	0.11	

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.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Pre Carbon** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: 0.025 Liter(s)
Container ID: 1SC00698

Initial Pressure (psig): 0.04 Final Pressure (psig): 6.71

Canister Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	3.9	0.87	ND	0.84	0.19	
127-18-4	Tetrachloroethene	**5.7**	3.8	0.50	**0.84**	0.56	0.074	
108-90-7	Chlorobenzene	ND	3.9	0.51	ND	0.85	0.11	
100-41-4	Ethylbenzene	**1.1**	3.9	0.54	**0.25**	0.90	0.13	**J**
179601-23-1	m,p-Xylenes	**4.3**	8.0	1.0	**0.99**	1.8	0.23	**J**
75-25-2	Bromoform	ND	3.9	0.80	ND	0.38	0.077	
100-42-5	Styrene	ND	3.8	0.62	ND	0.90	0.15	
95-47-6	o-Xylene	**2.1**	3.9	0.56	**0.49**	0.90	0.13	**J**
111-84-2	n-Nonane	ND	3.9	0.65	ND	0.75	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.9	0.54	ND	0.57	0.078	
98-82-8	Cumene	ND	3.9	0.56	ND	0.80	0.11	
80-56-8	alpha-Pinene	**1.0**	3.9	0.59	**0.18**	0.70	0.11	**J**
103-65-1	n-Propylbenzene	ND	3.9	0.56	ND	0.80	0.11	
622-96-8	4-Ethyltoluene	ND	3.9	0.62	ND	0.80	0.13	
108-67-8	1,3,5-Trimethylbenzene	ND	3.8	0.56	ND	0.78	0.11	
95-63-6	1,2,4-Trimethylbenzene	**1.6**	3.9	0.54	**0.33**	0.80	0.11	**J**
100-44-7	Benzyl Chloride	ND	8.0	0.87	ND	1.5	0.17	
541-73-1	1,3-Dichlorobenzene	ND	3.9	0.58	ND	0.65	0.097	
106-46-7	1,4-Dichlorobenzene	**0.91**	3.9	0.59	**0.15**	0.65	0.099	**J**
95-50-1	1,2-Dichlorobenzene	ND	3.9	0.57	ND	0.65	0.095	
5989-27-5	d-Limonene	**3.1**	3.9	0.80	**0.55**	0.70	0.14	**J**
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.8	0.73	ND	0.40	0.075	
120-82-1	1,2,4-Trichlorobenzene	ND	3.9	0.94	ND	0.53	0.13	
91-20-3	Naphthalene	ND	3.8	0.94	ND	0.72	0.18	
87-68-3	Hexachlorobutadiene	ND	3.8	0.80	ND	0.36	0.075	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 1** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SC00446

Initial Pressure (psig): -0.24 Final Pressure (psig): 5.81

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**530**	19	4.6	**310**	11	2.7	**D**
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.9**	1.9	0.31	**0.79**	0.38	0.062	
74-87-3	Chloromethane	**4.4**	1.9	0.31	**2.1**	0.91	0.15	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	**0.73**	1.9	0.30	**0.10**	0.27	0.043	**J**
75-01-4	Vinyl Chloride	ND	1.9	0.20	ND	0.75	0.079	
106-99-0	1,3-Butadiene	ND	1.9	0.31	ND	0.85	0.14	
74-83-9	Bromomethane	**4.1**	1.9	0.26	**1.1**	0.49	0.068	
75-00-3	Chloroethane	**0.65**	1.9	0.23	**0.25**	0.73	0.089	**J**
64-17-5	Ethanol	**82**	18	1.3	**43**	9.8	0.70	
75-05-8	Acetonitrile	**1.8**	1.9	0.46	**1.1**	1.1	0.27	**J**
107-02-8	Acrolein	**8.9**	3.6	0.53	**3.9**	1.5	0.23	
67-64-1	Acetone	**190**	19	4.3	**80**	7.9	1.8	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.8**	1.9	0.29	**0.32**	0.33	0.051	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**4.4**	7.5	0.78	**1.8**	3.0	0.32	**J**
107-13-1	Acrylonitrile	ND	1.9	0.39	ND	0.87	0.18	
75-35-4	1,1-Dichloroethene	**110**	1.9	0.26	**28**	0.48	0.066	
75-09-2	Methylene Chloride	**1.7**	1.9	0.53	**0.48**	0.54	0.15	**J**
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.9	0.26	ND	0.61	0.082	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**3.3**	1.9	0.27	**0.43**	0.25	0.035	
75-15-0	Carbon Disulfide	**15**	3.9	0.57	**4.8**	1.3	0.18	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.26	ND	0.48	0.066	
75-34-3	1,1-Dichloroethane	**4.4**	2.0	0.28	**1.1**	0.48	0.068	
1634-04-4	Methyl tert-Butyl Ether	ND	1.9	0.22	ND	0.53	0.062	**L**
108-05-4	Vinyl Acetate	**25**	19	4.3	**7.0**	5.4	1.2	
78-93-3	2-Butanone (MEK)	**17**	3.9	0.39	**5.9**	1.3	0.13	

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.
D = The reported result is from a dilution.
L = Laboratory control sample recovery outside the specified limits, results may be biased high.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 1** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SC00446

Initial Pressure (psig): -0.24 Final Pressure (psig): 5.81

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.27	ND	0.47	0.067	
141-78-6	Ethyl Acetate	ND	3.9	0.99	ND	1.1	0.28	
110-54-3	n-Hexane	**0.42**	1.9	0.39	**0.12**	0.54	0.11	**J**
67-66-3	Chloroform	**1.9**	1.9	0.25	**0.39**	0.39	0.052	**J**
109-99-9	Tetrahydrofuran (THF)	**2.7**	2.0	0.24	**0.90**	0.66	0.081	
107-06-2	1,2-Dichloroethane	ND	1.9	0.21	ND	0.47	0.052	
71-55-6	1,1,1-Trichloroethane	**3.2**	1.9	0.23	**0.58**	0.35	0.043	
71-43-2	Benzene	**2.3**	1.9	0.27	**0.72**	0.59	0.086	
56-23-5	Carbon Tetrachloride	ND	1.9	0.26	ND	0.30	0.042	
110-82-7	Cyclohexane	ND	3.9	0.53	ND	1.1	0.15	
78-87-5	1,2-Dichloropropane	ND	1.9	0.23	ND	0.41	0.051	
75-27-4	Bromodichloromethane	ND	1.9	0.27	ND	0.29	0.041	
79-01-6	Trichloroethene	ND	1.9	0.26	ND	0.36	0.048	
123-91-1	1,4-Dioxane	**430**	19	2.2	**120**	5.3	0.62	**D**
80-62-6	Methyl Methacrylate	ND	3.9	0.67	ND	0.95	0.16	
142-82-5	n-Heptane	**0.94**	1.9	0.30	**0.23**	0.47	0.074	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.29	ND	0.41	0.065	
108-10-1	4-Methyl-2-pentanone	**0.83**	1.9	0.26	**0.20**	0.46	0.063	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.39	ND	0.41	0.086	
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.19	ND	0.35	0.035	
108-88-3	Toluene	**6.8**	1.9	0.23	**1.8**	0.51	0.061	
591-78-6	2-Hexanone	**1.7**	1.9	0.23	**0.42**	0.47	0.057	**J**
124-48-1	Dibromochloromethane	ND	1.9	0.25	ND	0.23	0.029	
106-93-4	1,2-Dibromoethane	ND	1.9	0.22	ND	0.25	0.029	
123-86-4	n-Butyl Acetate	ND	2.0	0.26	ND	0.41	0.055	

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.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 1** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SC00446

Initial Pressure (psig): -0.24 Final Pressure (psig): 5.81

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	**0.60**	1.9	0.43	**0.13**	0.41	0.091	**J**
127-18-4	Tetrachloroethene	**0.40**	1.8	0.24	**0.059**	0.27	0.036	**J**
108-90-7	Chlorobenzene	ND	1.9	0.25	ND	0.42	0.055	
100-41-4	Ethylbenzene	**0.64**	1.9	0.27	**0.15**	0.44	0.061	**J**
179601-23-1	m,p-Xylenes	**2.5**	3.9	0.50	**0.58**	0.90	0.11	**J**
75-25-2	Bromoform	ND	1.9	0.39	ND	0.19	0.038	
100-42-5	Styrene	ND	1.9	0.31	ND	0.44	0.072	
95-47-6	o-Xylene	**1.1**	1.9	0.27	**0.25**	0.44	0.063	**J**
111-84-2	n-Nonane	**0.90**	1.9	0.32	**0.17**	0.37	0.060	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.26	ND	0.28	0.038	
98-82-8	Cumene	ND	1.9	0.27	ND	0.39	0.056	
80-56-8	alpha-Pinene	**0.55**	1.9	0.29	**0.098**	0.34	0.052	**J**
103-65-1	n-Propylbenzene	ND	1.9	0.27	ND	0.39	0.056	
622-96-8	4-Ethyltoluene	ND	1.9	0.30	ND	0.39	0.061	
108-67-8	1,3,5-Trimethylbenzene	ND	1.9	0.27	ND	0.38	0.056	
95-63-6	1,2,4-Trimethylbenzene	**0.74**	1.9	0.26	**0.15**	0.39	0.053	**J**
100-44-7	Benzyl Chloride	ND	3.9	0.43	ND	0.75	0.082	
541-73-1	1,3-Dichlorobenzene	ND	1.9	0.28	ND	0.32	0.047	
106-46-7	1,4-Dichlorobenzene	ND	1.9	0.29	ND	0.32	0.048	
95-50-1	1,2-Dichlorobenzene	ND	1.9	0.28	ND	0.32	0.047	
5989-27-5	d-Limonene	**2.5**	1.9	0.39	**0.45**	0.34	0.070	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.9	0.36	ND	0.19	0.037	
120-82-1	1,2,4-Trichlorobenzene	ND	1.9	0.46	ND	0.26	0.062	
91-20-3	Naphthalene	ND	1.8	0.46	ND	0.35	0.088	
87-68-3	Hexachlorobutadiene	ND	1.9	0.39	ND	0.18	0.037	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 2** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00276

Initial Pressure (psig): -0.48 Final Pressure (psig): 6.20

Canister Dilution Factor: 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**220**	1.9	0.48	**130**	1.1	0.28	
75-71-8	Dichlorodifluoromethane (CFC 12)	**4.2**	1.9	0.32	**0.85**	0.39	0.065	
74-87-3	Chloromethane	**9.4**	1.9	0.32	**4.5**	0.94	0.15	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	**0.60**	1.9	0.31	**0.085**	0.28	0.044	**J**
75-01-4	Vinyl Chloride	ND	2.0	0.21	ND	0.78	0.082	
106-99-0	1,3-Butadiene	ND	1.9	0.32	ND	0.88	0.15	
74-83-9	Bromomethane	**3.0**	2.0	0.27	**0.78**	0.51	0.070	
75-00-3	Chloroethane	**1.5**	2.0	0.24	**0.55**	0.75	0.092	**J**
64-17-5	Ethanol	**130**	19	1.4	**67**	10	0.72	
75-05-8	Acetonitrile	**3.9**	1.9	0.48	**2.3**	1.2	0.28	
107-02-8	Acrolein	**10**	3.7	0.55	**4.5**	1.6	0.24	
67-64-1	Acetone	**170**	19	4.4	**73**	8.2	1.9	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.3**	1.9	0.30	**0.41**	0.35	0.053	
67-63-0	2-Propanol (Isopropyl Alcohol)	**3.4**	7.7	0.81	**1.4**	3.1	0.33	**J**
107-13-1	Acrylonitrile	ND	1.9	0.40	ND	0.90	0.19	
75-35-4	1,1-Dichloroethene	**48**	2.0	0.27	**12**	0.50	0.069	
75-09-2	Methylene Chloride	**0.64**	1.9	0.55	**0.19**	0.56	0.16	**J**
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.0	0.26	ND	0.63	0.085	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	2.0	0.28	ND	0.26	0.036	
75-15-0	Carbon Disulfide	**13**	4.0	0.59	**4.3**	1.3	0.19	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.27	ND	0.50	0.069	
75-34-3	1,1-Dichloroethane	ND	2.0	0.29	ND	0.50	0.071	
1634-04-4	Methyl tert-Butyl Ether	ND	2.0	0.23	ND	0.55	0.064	**L**
108-05-4	Vinyl Acetate	**22**	20	4.4	**6.4**	5.6	1.3	
78-93-3	2-Butanone (MEK)	**23**	4.0	0.40	**7.8**	1.4	0.14	

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

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 2** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00276

Initial Pressure (psig): -0.48 Final Pressure (psig): 6.20

Canister Dilution Factor: 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.28	ND	0.49	0.070	
141-78-6	Ethyl Acetate	**2.1**	4.0	1.0	**0.59**	1.1	0.29	**J**
110-54-3	n-Hexane	**0.53**	2.0	0.40	**0.15**	0.56	0.11	**J**
67-66-3	Chloroform	ND	2.0	0.26	ND	0.41	0.053	
109-99-9	Tetrahydrofuran (THF)	ND	2.0	0.25	ND	0.69	0.084	
107-06-2	1,2-Dichloroethane	ND	2.0	0.22	ND	0.49	0.054	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.24	ND	0.36	0.044	
71-43-2	Benzene	**0.53**	1.9	0.28	**0.17**	0.61	0.089	**J**
56-23-5	Carbon Tetrachloride	ND	1.9	0.27	ND	0.31	0.043	
110-82-7	Cyclohexane	ND	4.0	0.55	ND	1.2	0.16	
78-87-5	1,2-Dichloropropane	ND	2.0	0.24	ND	0.43	0.053	
75-27-4	Bromodichloromethane	ND	2.0	0.28	ND	0.30	0.042	
79-01-6	Trichloroethene	ND	2.0	0.26	ND	0.37	0.049	
123-91-1	1,4-Dioxane	**16**	2.0	0.23	**4.5**	0.55	0.064	
80-62-6	Methyl Methacrylate	ND	4.0	0.70	ND	0.99	0.17	
142-82-5	n-Heptane	**0.60**	2.0	0.31	**0.15**	0.48	0.076	**J**
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.31	ND	0.42	0.067	
108-10-1	4-Methyl-2-pentanone	**1.1**	1.9	0.27	**0.26**	0.48	0.065	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.40	ND	0.43	0.089	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.20	ND	0.36	0.036	
108-88-3	Toluene	**2.8**	2.0	0.24	**0.75**	0.53	0.063	
591-78-6	2-Hexanone	**1.6**	2.0	0.24	**0.38**	0.48	0.059	**J**
124-48-1	Dibromochloromethane	ND	2.0	0.26	ND	0.23	0.030	
106-93-4	1,2-Dibromoethane	ND	2.0	0.23	ND	0.26	0.030	
123-86-4	n-Butyl Acetate	ND	2.0	0.27	ND	0.43	0.056	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Post Carbon 2** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P2003000-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00276

Initial Pressure (psig): -0.48 Final Pressure (psig): 6.20

Canister Dilution Factor: 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.0	0.44	ND	0.42	0.094	
127-18-4	Tetrachloroethene	ND	1.9	0.25	ND	0.28	0.037	
108-90-7	Chlorobenzene	ND	2.0	0.26	ND	0.43	0.057	
100-41-4	Ethylbenzene	**0.38**	2.0	0.28	**0.087**	0.46	0.063	**J**
179601-23-1	m,p-Xylenes	**1.3**	4.0	0.51	**0.30**	0.93	0.12	**J**
75-25-2	Bromoform	ND	2.0	0.40	ND	0.19	0.039	
100-42-5	Styrene	ND	1.9	0.32	ND	0.46	0.074	
95-47-6	o-Xylene	**0.64**	2.0	0.28	**0.15**	0.46	0.065	**J**
111-84-2	n-Nonane	**0.78**	2.0	0.33	**0.15**	0.38	0.062	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.27	ND	0.29	0.040	
98-82-8	Cumene	ND	2.0	0.28	ND	0.40	0.058	
80-56-8	alpha-Pinene	**0.50**	2.0	0.30	**0.090**	0.36	0.054	**J**
103-65-1	n-Propylbenzene	ND	2.0	0.28	ND	0.40	0.058	
622-96-8	4-Ethyltoluene	ND	2.0	0.31	ND	0.40	0.064	
108-67-8	1,3,5-Trimethylbenzene	ND	1.9	0.28	ND	0.40	0.058	
95-63-6	1,2,4-Trimethylbenzene	**0.51**	2.0	0.27	**0.10**	0.40	0.055	**J**
100-44-7	Benzyl Chloride	**1.1**	4.0	0.44	**0.22**	0.78	0.085	**J**
541-73-1	1,3-Dichlorobenzene	**0.53**	2.0	0.29	**0.089**	0.33	0.049	**J**
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.30	ND	0.33	0.050	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.29	ND	0.33	0.048	
5989-27-5	d-Limonene	**2.4**	2.0	0.40	**0.43**	0.36	0.073	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.9	0.37	ND	0.20	0.038	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.48	ND	0.27	0.064	
91-20-3	Naphthalene	ND	1.9	0.48	ND	0.36	0.091	
87-68-3	Hexachlorobutadiene	ND	1.9	0.40	ND	0.18	0.038	

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200609-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa 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	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.53	0.086	ND	0.26	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	0.084	ND	0.076	0.012	
75-01-4	Vinyl Chloride	ND	0.54	0.057	ND	0.21	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.54	0.074	ND	0.14	0.019	
75-00-3	Chloroethane	ND	0.54	0.066	ND	0.20	0.025	
64-17-5	Ethanol	ND	5.2	0.37	ND	2.8	0.20	
75-05-8	Acetonitrile	ND	0.53	0.13	ND	0.32	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	0.081	ND	0.094	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	0.22	ND	0.85	0.090	
107-13-1	Acrylonitrile	ND	0.53	0.11	ND	0.24	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.35	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.55	0.078	ND	0.14	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	**L**
108-05-4	Vinyl Acetate	ND	5.4	1.2	ND	1.5	0.34	
78-93-3	2-Butanone (MEK)	ND	1.1	0.11	ND	0.37	0.037	

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

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2003000

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200609-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 6/9/20

Sample Type: 1.0 L Summa 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
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	
141-78-6	Ethyl Acetate	ND	1.1	0.28	ND	0.31	0.078	
110-54-3	n-Hexane	ND	0.54	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.54	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	0.067	ND	0.19	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.54	0.066	ND	0.099	0.012	
71-43-2	Benzene	ND	0.53	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.53	0.074	ND	0.084	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.32	0.044	
78-87-5	1,2-Dichloropropane	ND	0.54	0.066	ND	0.12	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.54	0.072	ND	0.10	0.013	
123-91-1	1,4-Dioxane	ND	0.54	0.063	ND	0.15	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.54	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	0.083	ND	0.11	0.018	
108-10-1	4-Methyl-2-pentanone	ND	0.53	0.073	ND	0.13	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	0.11	ND	0.12	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.54	0.054	ND	0.099	0.0099	
108-88-3	Toluene	ND	0.54	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	0.54	0.066	ND	0.13	0.016	
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.54	0.062	ND	0.070	0.0081	
123-86-4	n-Butyl Acetate	ND	0.55	0.073	ND	0.12	0.015	

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: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2003000

Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200609-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 6/9/20

Sample Type: 1.0 L Summa 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
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.52	0.069	ND	0.077	0.010	
108-90-7	Chlorobenzene	ND	0.54	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.54	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.54	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.54	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	0.074	ND	0.079	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	0.54	0.082	ND	0.097	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.54	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	1.1	0.12	ND	0.21	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.54	0.080	ND	0.090	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.54	0.082	ND	0.090	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	0.54	0.11	ND	0.097	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	0.10	ND	0.055	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	0.13	ND	0.073	0.018	
91-20-3	Naphthalene	ND	0.52	0.13	ND	0.099	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

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: **Environmental Management Services, Inc.**
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Project ID: P2003000

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date(s) Collected: 5/18/20
Analyst: Wida Ang Date(s) Received: 6/1/20
Sample Type: 1.0 L Summa Canister(s) Date(s) Analyzed: 6/9/20
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	P200609-MB	**109**	**93**	**88**	70-130	
Lab Control Sample	P200609-LCS	**110**	**93**	**92**	70-130	
Pre Carbon	P2003000-001	**119**	**93**	**83**	70-130	
Post Carbon 1	P2003000-002	**116**	**92**	**85**	70-130	
Post Carbon 2	P2003000-003	**117**	**94**	**82**	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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200609-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa 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	**224**	**107**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**201**	**96**	64-115	
74-87-3	Chloromethane	212	**239**	**113**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**185**	**90**	65-114	
75-01-4	Vinyl Chloride	212	**228**	**108**	61-129	
106-99-0	1,3-Butadiene	212	**247**	**117**	54-140	
74-83-9	Bromomethane	212	**203**	**96**	68-120	
75-00-3	Chloroethane	214	**212**	**99**	63-123	
64-17-5	Ethanol	1,060	**1040**	**98**	49-134	
75-05-8	Acetonitrile	214	**212**	**99**	50-137	
107-02-8	Acrolein	206	**211**	**102**	62-128	
67-64-1	Acetone	1,070	**1070**	**100**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**200**	**94**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**449**	**106**	57-133	
107-13-1	Acrylonitrile	212	**242**	**114**	64-136	
75-35-4	1,1-Dichloroethene	214	**213**	**100**	67-115	
75-09-2	Methylene Chloride	210	**202**	**96**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**214**	**100**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**189**	**88**	65-115	
75-15-0	Carbon Disulfide	212	**192**	**91**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**229**	**107**	65-122	
75-34-3	1,1-Dichloroethane	212	**208**	**98**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**283**	**132**	57-131	**L**
108-05-4	Vinyl Acetate	1,070	**941**	**88**	71-128	
78-93-3	2-Butanone (MEK)	212	**215**	**101**	67-123	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200609-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa 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**
156-59-2	cis-1,2-Dichloroethene	212	**221**	**104**	64-120	
141-78-6	Ethyl Acetate	432	**486**	**113**	64-131	
110-54-3	n-Hexane	216	**228**	**106**	58-125	
67-66-3	Chloroform	214	**209**	**98**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**220**	**100**	65-115	
107-06-2	1,2-Dichloroethane	214	**215**	**100**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**214**	**100**	66-115	
71-43-2	Benzene	210	**201**	**96**	66-109	
56-23-5	Carbon Tetrachloride	208	**200**	**96**	66-119	
110-82-7	Cyclohexane	422	**422**	**100**	67-117	
78-87-5	1,2-Dichloropropane	214	**220**	**103**	66-119	
75-27-4	Bromodichloromethane	218	**217**	**100**	71-119	
79-01-6	Trichloroethene	216	**197**	**91**	70-114	
123-91-1	1,4-Dioxane	216	**224**	**104**	71-117	
80-62-6	Methyl Methacrylate	430	**424**	**99**	76-121	
142-82-5	n-Heptane	214	**224**	**105**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**243**	**114**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**232**	**109**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**231**	**109**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**209**	**98**	70-117	
108-88-3	Toluene	212	**184**	**87**	67-113	
591-78-6	2-Hexanone	216	**227**	**105**	62-135	
124-48-1	Dibromochloromethane	214	**191**	**89**	73-126	
106-93-4	1,2-Dibromoethane	214	**193**	**90**	71-122	
123-86-4	n-Butyl Acetate	218	**239**	**110**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2003000
Client Project ID: **SVE Performance Monitoring / KUH0-20-010** ALS Sample ID: P200609-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Summa 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
111-65-9	n-Octane	216	**213**	**99**	63-120	
127-18-4	Tetrachloroethene	208	**163**	**78**	64-120	
108-90-7	Chlorobenzene	214	**174**	**81**	65-116	
100-41-4	Ethylbenzene	212	**196**	**92**	65-117	
179601-23-1	m,p-Xylenes	426	**386**	**91**	64-121	
75-25-2	Bromoform	214	**194**	**91**	72-130	
100-42-5	Styrene	212	**199**	**94**	72-126	
95-47-6	o-Xylene	214	**194**	**91**	64-120	
111-84-2	n-Nonane	214	**222**	**104**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**197**	**92**	66-122	
98-82-8	Cumene	214	**187**	**87**	64-121	
80-56-8	alpha-Pinene	212	**192**	**91**	62-136	
103-65-1	n-Propylbenzene	214	**195**	**91**	65-123	
622-96-8	4-Ethyltoluene	210	**185**	**88**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**188**	**89**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**206**	**97**	63-129	
100-44-7	Benzyl Chloride	214	**194**	**91**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**170**	**79**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**161**	**75**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**178**	**83**	67-128	
5989-27-5	d-Limonene	212	**221**	**104**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**179**	**84**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**156**	**72**	62-140	
91-20-3	Naphthalene	212	**173**	**82**	57-149	
87-68-3	Hexachlorobutadiene	214	**156**	**73**	57-129	

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.

Calculation of Mass Recovery Per Day and Per Month
SVE system
Kuhlman Electric Corporation
Crystal Springs, MS

OPERATING PARAMETER	UNITS	1,1,1-Trichloroethane	1,1-Dichloroethene	1,4-Dioxane
Constituent concentration	ppmv	**0.00570**	**0.03000**	**0.54000**
enter avg flow rate in ACFM air	cubic ft/min	**295.77**	295.77	295.77
ave flow rate in cubic ft per day	ft3/day	425902	425902	425902
enter avg vapor temperature	degrees F	70	70	70
enter nominal pressure in psig	lb/in2	**0.38**	0.38	0.38
temp in degrees rankin	degrees R	529.67	529.67	529.67
Ru = universal gas constant	psi ft3/(lbmol deg R)	10.73	10.73	10.73
R = specific gas constant air (R=Ru/mw)	(ft3 psi mol)/(R lbmol g)	0.37	0.37	0.37
molecular weight of air	lbm/lbmol	29	29	29
molecular weight of constituent	lbm/lbmol	133.4	96.94	88.11
density of air = P/(RT)= (psi R lbm)/(ft3 psi R) =lbm/ft3	lbm/ft3	0.0769	0.0769	0.0769
mass of air recovered per day= flow (ft3/day)*density (lb/ft3)	lbm/day	32769.8	32769.8	32769.8
moles of air recovered per day = mass air/day (lb/day) / mw (lbm/lbmol)	lbmol/ day	1129.99	1129.99	1129.99
moles of constituent recovered per day = ppmv/(10^6)* (lb mol/ day)	lbmol/day	6.44096E-06	3.38998E-05	0.000610196
mass of constituent recovered per day = (lbmol/day) * lbm/lbmol = lb/day	lbm/day	**0.0009**	**0.0033**	**0.0538**
January 2020 Recovery		**0.026**	**0.099**	**1.620**

Calculation of Mass Recovery Per Day and Per Month
SVE system
Kuhlman Electric Corporation
Crystal Springs, MS

OPERATING PARAMETER	UNITS	1,1,1-Trichloroethane	1,1-Dichloroethene	1,4-Dioxane
Constituent concentration	ppmv	**0.006**	**0.04**	**0.43**
enter avg flow rate in ACFM air	cubic ft/min	**302.89**	302.89	302.89
ave flow rate in cubic ft per day	ft3/day	436165	436165	436165
enter avg vapor temperature	degrees F	70	70	70
enter nominal pressure in psig	lb/in2	**0.38**	0.38	0.38
temp in degrees rankin	degrees R	529.67	529.67	529.67
Ru = universal gas constant	psi ft3/(lbmol deg R)	10.73	10.73	10.73
R = specific gas constant air (R=Ru/mw)	(ft3 psi)/(R lbm)	0.37	0.37	0.37
molecular weight of air	lbm/lbmol	29	29	29
molecular weight of constituent	lbm/lbmol	133.4	96.94	88.11
density of air = P/(RT)= (psi R lbm)/(ft3 psi R) =lbm/ft3	lbm/ft3	0.0769	0.0769	0.0769
mass of air recovered per day= flow (ft3/day)*density (lb/ft3)	lbm/day	33559.4	33559.4	33559.4
moles of air recovered per day = mass air/day (lb/day) / mw (lbm/lbmol)	lbmol/ day	1157.22	1157.22	1157.22
moles of constituent recovered per day = ppmv/(10^6)* (lb mol/ day)	lbmol/day	6.71189E-06	4.51317E-05	0.000497605
mass of constituent recovered per day = (lbmol/day) * lbm/lbmol = lb/day	lbm/day	**0.001**	**0.004**	**0.044**
February 2019 Recovery		**0.026**	**0.126**	**1.263**

Calculation of Mass Recovery Per Day and Per Month
SVE system
Kuhlman Electric Corporation
Crystal Springs, MS

OPERATING PARAMETER	UNITS	1,1,1-Trichloroethane	1,1-Dichloroethene	1,4-Dioxane
Constituent concentration	ppmv	**0.006**	**0.04**	**0.43**
enter avg flow rate in ACFM air	cubic ft/min	**308.94**	308.94	308.94
ave flow rate in cubic ft per day	ft3/day	444873	444873	444873
enter avg vapor temperature	degrees F	70	70	70
enter nominal pressure in psig	lb/in2	**0.38**	0.38	0.38
temp in degrees rankin	degrees R	529.67	529.67	529.67
Ru = universal gas constant	psi ft3/(lbmol deg R)	10.73	10.73	10.73
R = specific gas constant air (R=Ru/mw)	(ft3 psi)/(R lbm)	0.37	0.37	0.37
molecular weight of air	lbm/lbmol	29	29	29
molecular weight of constituent	lbm/lbmol	133.4	96.94	88.11
density of air = P/(RT)= (psi R lbm)/(ft3 psi R) =lbm/ft3	lbm/ft3	0.0769	0.0769	0.0769
mass of air recovered per day= flow (ft3/day)*density (lb/ft3)	lbm/day	34229.5	34229.5	34229.5
moles of air recovered per day = mass air/day (lb/day) / mw (lbm/lbmol)	lbmol/ day	1180.33	1180.33	1180.33
moles of constituent recovered per day = ppmv/(10^6)* (lb mol/ day)	lbmol/day	6.84589E-06	4.60327E-05	0.00050754
mass of constituent recovered per day = (lbmol/day) * lbm/lbmol = lb/day	lbm/day	**0.001**	**0.004**	**0.045**
March 2019 Recovery		**0.028**	**0.136**	**1.362**

Calculation of Mass Recovery Per Day and Per Month
SVE system
Kuhlman Electric Corporation
Crystal Springs, MS

OPERATING PARAMETER	UNITS	1,1,1-Trichloroethane	1,1-Dichloroethene	1,4-Dioxane
Constituent concentration	ppmv	**0.006**	**0.04**	**0.43**
enter avg flow rate in ACFM air	cubic ft/min	**305.31**	305.31	305.31
ave flow rate in cubic ft per day	ft3/day	439640	439640	439640
enter avg vapor temperature	degrees F	70	70	70
enter nominal pressure in psig	lb/in2	**0.38**	0.38	0.38
temp in degrees rankin	degrees R	529.67	529.67	529.67
Ru = universal gas constant	psi ft3/(lbmol deg R)	10.73	10.73	10.73
R = specific gas constant air (R=Ru/mw)	(ft3 psi)/(R lbm)	0.37	0.37	0.37
molecular weight of air	lbm/lbmol	29	29	29
molecular weight of constituent	lbm/lbmol	133.4	96.94	88.11
density of air = P/(RT)= (psi R lbm)/(ft3 psi R) =lbm/ft3	lbm/ft3	0.0769	0.0769	0.0769
mass of air recovered per day= flow (ft3/day)*density (lb/ft3)	lbm/day	33826.8	33826.8	33826.8
moles of air recovered per day = mass air/day (lb/day) / mw (lbm/lbmol)	lbmol/ day	1166.44	1166.44	1166.44
moles of constituent recovered per day = ppmv/(10^6)* (lb mol/ day)	lbmol/day	6.76537E-06	4.54913E-05	0.00050157
mass of constituent recovered per day = (lbmol/day) * lbm/lbmol = lb/day	lbm/day	**0.001**	**0.004**	**0.044**
April 2019 Recovery		**0.025**	**0.120**	**1.206**

Calculation of Mass Recovery Per Day and Per Month
SVE system
Kuhlman Electric Corporation
Crystal Springs, MS

OPERATING PARAMETER	UNITS	1,1,1-Trichloroethane	1,1-Dichloroethene	1,4-Dioxane
Constituent concentration	ppmv	**0.006**	**0.021**	**0.39**
enter avg flow rate in ACFM air	cubic ft/min	**304.51**	304.51	304.51
ave flow rate in cubic ft per day	ft3/day	438491	438491	438491
enter avg vapor temperature	degrees F	70	70	70
enter nominal pressure in psig	lb/in2	**0.38**	0.38	0.38
temp in degrees rankin	degrees R	529.67	529.67	529.67
Ru = universal gas constant	psi ft3/(lbmol deg R)	10.73	10.73	10.73
R = specific gas constant air (R=Ru/mw)	(ft3 psi)/(R lbm)	0.37	0.37	0.37
molecular weight of air	lbm/lbmol	29	29	29
molecular weight of constituent	lbm/lbmol	133.4	96.94	88.11
density of air = P/(RT)= (psi R lbm)/(ft3 psi R) =lbm/ft3	lbm/ft3	0.0769	0.0769	0.0769
mass of air recovered per day= flow (ft3/day)*density (lb/ft3)	lbm/day	33738.5	33738.5	33738.5
moles of air recovered per day = mass air/day (lb/day) / mw (lbm/lbmol)	lbmol/ day	1163.40	1163.40	1163.40
moles of constituent recovered per day = ppmv/(10^6)* (lb mol/ day)	lbmol/day	6.39867E-06	2.44313E-05	0.000453724
mass of constituent recovered per day = (lbmol/day) * lbm/lbmol = lb/day	lbm/day	**0.001**	**0.002**	**0.04**
May 2019 Recovery		**0.026**	**0.073**	**1.230**

Calculation of Mass Recovery Per Day and Per Month
SVE system
Kuhlman Electric Corporation
Crystal Springs, MS

OPERATING PARAMETER	UNITS	1,1,1-Trichloroethane	1,1-Dichloroethene	1,4-Dioxane
Constituent concentration	ppmv	**0.006**	**0.021**	**0.39**
enter avg flow rate in ACFM air	cubic ft/min	**310.75**	310.75	310.75
ave flow rate in cubic ft per day	ft3/day	447487	447487	447487
enter avg vapor temperature	degrees F	70	70	70
enter nominal pressure in psig	lb/in2	**0.38**	0.38	0.38
temp in degrees rankin	degrees R	529.67	529.67	529.67
Ru = universal gas constant	psi ft3/(lbmol deg R)	10.73	10.73	10.73
R = specific gas constant air (R=Ru/mw)	(ft3 psi)/(R lbm)	0.37	0.37	0.37
molecular weight of air	lbm/lbmol	29	29	29
molecular weight of constituent	lbm/lbmol	133.4	96.94	88.11
density of air = P/(RT)= (psi R lbm)/(ft3 psi R) =lbm/ft3	lbm/ft3	0.0769	0.0769	0.0769
mass of air recovered per day= flow (ft3/day)*density (lb/ft3)	lbm/day	34430.6	34430.6	34430.6
moles of air recovered per day = mass air/day (lb/day) / mw (lbm/lbmol)	lbmol/ day	1187.26	1187.26	1187.26
moles of constituent recovered per day = ppmv/(10^6)* (lb mol/ day)	lbmol/day	6.52994E-06	2.49325E-05	0.000463032
mass of constituent recovered per day = (lbmol/day) * lbm/lbmol = lb/day	lbm/day	**0.0009**	**0.0024**	**0.0408**
June 2019 Recovery		**0.0261**	**0.0725**	**1.2230**

APPENDIX C

AMBIENT AIR SAMPLING LABORATORY ANALYTICAL RESULTS

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

March 18, 2020

Collin Creel
Environmental Management Services, Inc.
P.O. Box 15369
Hattiesburg, MS 39402

RE: SVE In-Plant Monitoring / KUH0-20-011

Dear Collin:

Enclosed are the results of the samples submitted to our laboratory on March 5, 2020. For your reference, these analyses have been assigned our service request number P2001269.

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

By Sue Anderson at 4:42 pm, Mar 18, 2020

Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Environmental Management Services, Inc. Service Request No: P2001269
Project: SVE In-Plant Monitoring / KUH0-20-011

CASE NARRATIVE

The samples were received intact under chain of custody on March 5, 2020 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.

Volatile Organic Compound Analysis

The samples were 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 upper control criterion was exceeded for vinyl acetate in the Continuing Calibration Verification (CCV). Since the apparent problem equates to a potential high bias and the field samples analyzed in this sequence did not contain the analyte in question, the data quality has not been affected. No corrective action was required.

The spike recovery of vinyl acetate for the Laboratory Control Sample (LCS) was outside the laboratory generated control criterion. The recovery error equates to a potential high bias. However, the spike recovery of the analyte 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. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-007
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
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: Environmental Management Services, Inc. Service Request: P2001269

Project ID: SVE In-Plant Monitoring / KUH0-20-011

Date Received: 3/5/2020

Time Received: 09:15

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
Location 1	P2001269-001	Air	2/24/2020	07:52	1SS00159	-3.45	6.21	X
Location 2	P2001269-002	Air	2/24/2020	07:57	1SC00360	-1.64	6.66	X

Air - Chain of Custody Record & Analytical Service Request

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

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. P200469

ALS Contact:

Company Name & Address (Reporting Information)	Environmental Management Services PO Box 15369 Hattiesburg, MS 39402
Project Name	SVE In-Plant Monitoring
Project Number	KUH-20-011
Project Manager	Collin Creel
P.O. # / Billing Information	KUH-20-011 / Same as Reporting
Phone	(601) 544-3670
Fax	(601) 544-0504
Email Address for Result Reporting	ccreel@env-mgt.com
Sampler (Print & Sign)	Collin Creel

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	Analysis Method: TO-15		Comments e.g. Actual Preservative or specific instructions
Location 1		2/24/20	7:52	ISS00159	OA02093	-30	-7	1L	X		
Location 2		2/24/20	7:57	ISC00360	OA01801	-28	-5	1L	X		

5 of 19

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: 2/28/20	Time: 16:00	Received by: (Signature) - Fed Ex -	Date:	Time:	
Relinquished by: (Signature) - Fed Ex -	Date:	Time:	Received by: (Signature)	Date: 3/5/20	Time: 915	Cooler / Blank Temperature ___ °C

ALS Environmental

Sample Acceptance Check Form

Client: Environmental Management Services, Inc. Work order: P2001269

Project: SVE In-Plant Monitoring / KUH0-20-011

Sample(s) received on: 3/5/20 Date opened: 3/5/20 by: DENISE.POSADA

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
P2001269-001.01	1.0 L Source Silonite Canister					
P2001269-002.01	1.0 L Source 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: **Environmental Management Services, Inc.**
Client Sample ID: **Location 1** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2001269-001

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00159

Initial Pressure (psig): -3.45 Final Pressure (psig): 6.21

Canister Dilution Factor: 1.86

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**220**	2.5	**130**	1.4	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.5**	2.5	**0.50**	0.50	
74-87-3	Chloromethane	ND	2.5	ND	1.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.5	ND	0.35	
75-01-4	Vinyl Chloride	ND	2.5	ND	0.98	
106-99-0	1,3-Butadiene	ND	2.5	ND	1.1	
74-83-9	Bromomethane	ND	2.5	ND	0.65	
75-00-3	Chloroethane	ND	2.5	ND	0.95	
64-17-5	Ethanol	**350**	24	**180**	13	
75-05-8	Acetonitrile	ND	2.5	ND	1.5	
107-02-8	Acrolein	ND	4.7	ND	2.0	
67-64-1	Acetone	**340**	25	**140**	10	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	2.5	ND	0.44	
67-63-0	2-Propanol (Isopropyl Alcohol)	**11**	9.8	**4.6**	4.0	
107-13-1	Acrylonitrile	ND	2.5	ND	1.1	
75-35-4	1,1-Dichloroethene	ND	2.5	ND	0.63	
75-09-2	Methylene Chloride	ND	2.5	ND	0.71	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.5	ND	0.80	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	2.5	ND	0.33	
75-15-0	Carbon Disulfide	ND	5.1	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	ND	0.63	
75-34-3	1,1-Dichloroethane	ND	2.6	ND	0.63	
1634-04-4	Methyl tert-Butyl Ether	ND	2.5	ND	0.70	
108-05-4	Vinyl Acetate	ND	25	ND	7.1	
78-93-3	2-Butanone (MEK)	**65**	5.1	**22**	1.7	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Location 1** ALS Project ID: P2001269

Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2001269-001

Test Code:	EPA TO-15	Date Collected:	2/24/20
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	3/5/20
Analyst:	Wida Ang	Date Analyzed:	3/14/20
Sample Type:	1.0 L Silonite Summa Canister	Volume(s) Analyzed:	0.40 Liter(s)
Test Notes:			
Container ID:	1SS00159		

Initial Pressure (psig): -3.45 Final Pressure (psig): 6.21

Canister Dilution Factor: 1.86

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.5	ND	0.62	
141-78-6	Ethyl Acetate	**45**	5.1	**13**	1.4	
110-54-3	n-Hexane	**5.5**	2.5	**1.6**	0.71	
67-66-3	Chloroform	ND	2.5	ND	0.51	
109-99-9	Tetrahydrofuran (THF)	ND	2.6	ND	0.87	
107-06-2	1,2-Dichloroethane	ND	2.5	ND	0.62	
71-55-6	1,1,1-Trichloroethane	ND	2.5	ND	0.46	
71-43-2	Benzene	**3.2**	2.5	**0.99**	0.77	
56-23-5	Carbon Tetrachloride	ND	2.5	ND	0.39	
110-82-7	Cyclohexane	ND	5.1	ND	1.5	
78-87-5	1,2-Dichloropropane	ND	2.5	ND	0.54	
75-27-4	Bromodichloromethane	ND	2.5	ND	0.37	
79-01-6	Trichloroethene	ND	2.5	ND	0.47	
123-91-1	1,4-Dioxane	ND	2.5	ND	0.70	
80-62-6	Methyl Methacrylate	ND	5.1	ND	1.2	
142-82-5	n-Heptane	**2.9**	2.5	**0.72**	0.61	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	ND	0.53	
108-10-1	4-Methyl-2-pentanone	**22**	2.5	**5.5**	0.60	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ND	0.54	
79-00-5	1,1,2-Trichloroethane	ND	2.5	ND	0.46	
108-88-3	Toluene	**46**	2.5	**12**	0.67	
591-78-6	2-Hexanone	ND	2.5	ND	0.61	
124-48-1	Dibromochloromethane	ND	2.5	ND	0.29	
106-93-4	1,2-Dibromoethane	ND	2.5	ND	0.33	
123-86-4	n-Butyl Acetate	ND	2.6	ND	0.54	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Location 1** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2001269-001

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00159

Initial Pressure (psig): -3.45 Final Pressure (psig): 6.21

Canister Dilution Factor: 1.86

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.5	ND	0.54	
127-18-4	Tetrachloroethene	ND	2.4	ND	0.36	
108-90-7	Chlorobenzene	ND	2.5	ND	0.55	
100-41-4	Ethylbenzene	**25**	2.5	**5.8**	0.58	
179601-23-1	m,p-Xylenes	**110**	5.1	**24**	1.2	
75-25-2	Bromoform	ND	2.5	ND	0.24	
100-42-5	Styrene	ND	2.5	ND	0.58	
95-47-6	o-Xylene	**60**	2.5	**14**	0.58	
111-84-2	n-Nonane	ND	2.5	ND	0.48	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ND	0.37	
98-82-8	Cumene	ND	2.5	ND	0.51	
80-56-8	alpha-Pinene	**4.6**	2.5	**0.82**	0.45	
103-65-1	n-Propylbenzene	**4.0**	2.5	**0.81**	0.51	
622-96-8	4-Ethyltoluene	**7.2**	2.5	**1.5**	0.51	
108-67-8	1,3,5-Trimethylbenzene	**6.5**	2.5	**1.3**	0.50	
95-63-6	1,2,4-Trimethylbenzene	**22**	2.5	**4.5**	0.51	
100-44-7	Benzyl Chloride	ND	5.1	ND	0.99	
541-73-1	1,3-Dichlorobenzene	ND	2.5	ND	0.42	
106-46-7	1,4-Dichlorobenzene	ND	2.5	ND	0.42	
95-50-1	1,2-Dichlorobenzene	ND	2.5	ND	0.42	
5989-27-5	d-Limonene	**11**	2.5	**2.0**	0.45	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	ND	0.26	
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	ND	0.34	
91-20-3	Naphthalene	ND	2.4	ND	0.46	
87-68-3	Hexachlorobutadiene	ND	2.5	ND	0.23	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Location 2** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2001269-002

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00360

Initial Pressure (psig): -1.64 Final Pressure (psig): 6.66

Canister Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**110**	2.2	**64**	1.3	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.3**	2.2	**0.47**	0.44	
74-87-3	Chloromethane	ND	2.2	ND	1.1	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.2	ND	0.31	
75-01-4	Vinyl Chloride	ND	2.2	ND	0.87	
106-99-0	1,3-Butadiene	ND	2.2	ND	0.98	
74-83-9	Bromomethane	ND	2.2	ND	0.57	
75-00-3	Chloroethane	ND	2.2	ND	0.84	
64-17-5	Ethanol	**440**	21	**230**	11	
75-05-8	Acetonitrile	ND	2.2	ND	1.3	
107-02-8	Acrolein	ND	4.1	ND	1.8	
67-64-1	Acetone	**230**	22	**97**	9.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	2.2	ND	0.39	
67-63-0	2-Propanol (Isopropyl Alcohol)	**10**	8.6	**4.2**	3.5	
107-13-1	Acrylonitrile	ND	2.2	ND	1.0	
75-35-4	1,1-Dichloroethene	ND	2.2	ND	0.56	
75-09-2	Methylene Chloride	ND	2.2	ND	0.63	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.2	ND	0.71	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	2.2	ND	0.29	
75-15-0	Carbon Disulfide	**12**	4.5	**3.7**	1.4	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ND	0.56	
75-34-3	1,1-Dichloroethane	ND	2.3	ND	0.56	
1634-04-4	Methyl tert-Butyl Ether	ND	2.2	ND	0.61	
108-05-4	Vinyl Acetate	ND	22	ND	6.3	
78-93-3	2-Butanone (MEK)	**49**	4.5	**16**	1.5	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Location 2** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2001269-002

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00360

Initial Pressure (psig): -1.64 Final Pressure (psig): 6.66

Canister Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ND	0.55	
141-78-6	Ethyl Acetate	**27**	4.5	**7.6**	1.3	
110-54-3	n-Hexane	**5.0**	2.2	**1.4**	0.63	
67-66-3	Chloroform	ND	2.2	ND	0.45	
109-99-9	Tetrahydrofuran (THF)	ND	2.3	ND	0.76	
107-06-2	1,2-Dichloroethane	ND	2.2	ND	0.55	
71-55-6	1,1,1-Trichloroethane	ND	2.2	ND	0.41	
71-43-2	Benzene	ND	2.2	ND	0.68	
56-23-5	Carbon Tetrachloride	ND	2.2	ND	0.35	
110-82-7	Cyclohexane	ND	4.5	ND	1.3	
78-87-5	1,2-Dichloropropane	ND	2.2	ND	0.48	
75-27-4	Bromodichloromethane	ND	2.2	ND	0.33	
79-01-6	Trichloroethene	ND	2.2	ND	0.41	
123-91-1	1,4-Dioxane	ND	2.2	ND	0.61	
80-62-6	Methyl Methacrylate	ND	4.5	ND	1.1	
142-82-5	n-Heptane	**3.8**	2.2	**0.92**	0.54	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	ND	0.47	
108-10-1	4-Methyl-2-pentanone	**12**	2.2	**2.8**	0.53	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ND	0.48	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ND	0.41	
108-88-3	Toluene	**26**	2.2	**6.8**	0.59	
591-78-6	2-Hexanone	ND	2.2	ND	0.54	
124-48-1	Dibromochloromethane	ND	2.2	ND	0.26	
106-93-4	1,2-Dibromoethane	ND	2.2	ND	0.29	
123-86-4	n-Butyl Acetate	ND	2.3	ND	0.47	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Location 2** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2001269-002

Test Code: EPA TO-15 Date Collected: 2/24/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 3/5/20
Analyst: Wida Ang Date Analyzed: 3/14/20
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00360

Initial Pressure (psig): -1.64 Final Pressure (psig): 6.66

Canister Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**4.3**	2.2	**0.93**	0.47	
127-18-4	Tetrachloroethene	ND	2.1	ND	0.31	
108-90-7	Chlorobenzene	ND	2.2	ND	0.48	
100-41-4	Ethylbenzene	**15**	2.2	**3.5**	0.51	
179601-23-1	m,p-Xylenes	**59**	4.5	**14**	1.0	
75-25-2	Bromoform	ND	2.2	ND	0.21	
100-42-5	Styrene	ND	2.2	ND	0.51	
95-47-6	o-Xylene	**25**	2.2	**5.8**	0.51	
111-84-2	n-Nonane	**2.3**	2.2	**0.44**	0.42	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	ND	0.32	
98-82-8	Cumene	ND	2.2	ND	0.45	
80-56-8	alpha-Pinene	**3.5**	2.2	**0.63**	0.40	
103-65-1	n-Propylbenzene	ND	2.2	ND	0.45	
622-96-8	4-Ethyltoluene	**2.7**	2.2	**0.54**	0.45	
108-67-8	1,3,5-Trimethylbenzene	**2.6**	2.2	**0.52**	0.44	
95-63-6	1,2,4-Trimethylbenzene	**9.0**	2.2	**1.8**	0.45	
100-44-7	Benzyl Chloride	ND	4.5	ND	0.87	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ND	0.37	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ND	0.37	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ND	0.37	
5989-27-5	d-Limonene	**14**	2.2	**2.5**	0.40	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.2	ND	0.22	
120-82-1	1,2,4-Trichlorobenzene	ND	2.2	ND	0.30	
91-20-3	Naphthalene	ND	2.1	ND	0.41	
87-68-3	Hexachlorobutadiene	ND	2.2	ND	0.20	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200313-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/13/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	ND	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	ND	0.11	
74-87-3	Chloromethane	ND	0.53	ND	0.26	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	ND	0.076	
75-01-4	Vinyl Chloride	ND	0.54	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.53	ND	0.24	
74-83-9	Bromomethane	ND	0.54	ND	0.14	
75-00-3	Chloroethane	ND	0.54	ND	0.20	
64-17-5	Ethanol	ND	5.2	ND	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.3	ND	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	ND	0.094	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	ND	0.85	
107-13-1	Acrylonitrile	ND	0.53	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.54	ND	0.14	
75-09-2	Methylene Chloride	ND	0.53	ND	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	ND	0.070	
75-15-0	Carbon Disulfide	ND	1.1	ND	0.35	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	ND	0.14	
75-34-3	1,1-Dichloroethane	ND	0.55	ND	0.14	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	ND	0.15	
108-05-4	Vinyl Acetate	ND	5.4	ND	1.5	
78-93-3	2-Butanone (MEK)	ND	1.1	ND	0.37	

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.

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2001269

Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200313-MB

Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13	Date Received:	NA
Analyst:	Wida Ang	Date Analyzed:	3/13/20
Sample Type:	1.0 L Silonite Summa Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.53	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.1	ND	0.31	
110-54-3	n-Hexane	ND	0.54	ND	0.15	
67-66-3	Chloroform	ND	0.54	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	ND	0.19	
107-06-2	1,2-Dichloroethane	ND	0.54	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.54	ND	0.099	
71-43-2	Benzene	ND	0.53	ND	0.17	
56-23-5	Carbon Tetrachloride	ND	0.53	ND	0.084	
110-82-7	Cyclohexane	ND	1.1	ND	0.32	
78-87-5	1,2-Dichloropropane	ND	0.54	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.54	ND	0.081	
79-01-6	Trichloroethene	ND	0.54	ND	0.10	
123-91-1	1,4-Dioxane	ND	0.54	ND	0.15	
80-62-6	Methyl Methacrylate	ND	1.1	ND	0.27	
142-82-5	n-Heptane	ND	0.54	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.53	ND	0.13	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	ND	0.12	
79-00-5	1,1,2-Trichloroethane	ND	0.54	ND	0.099	
108-88-3	Toluene	ND	0.54	ND	0.14	
591-78-6	2-Hexanone	ND	0.54	ND	0.13	
124-48-1	Dibromochloromethane	ND	0.54	ND	0.063	
106-93-4	1,2-Dibromoethane	ND	0.54	ND	0.070	
123-86-4	n-Butyl Acetate	ND	0.55	ND	0.12	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200313-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/13/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.54	ND	0.12	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.54	ND	0.12	
100-41-4	Ethylbenzene	ND	0.54	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.1	ND	0.25	
75-25-2	Bromoform	ND	0.54	ND	0.052	
100-42-5	Styrene	ND	0.53	ND	0.12	
95-47-6	o-Xylene	ND	0.54	ND	0.12	
111-84-2	n-Nonane	ND	0.54	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	ND	0.079	
98-82-8	Cumene	ND	0.54	ND	0.11	
80-56-8	alpha-Pinene	ND	0.54	ND	0.097	
103-65-1	n-Propylbenzene	ND	0.54	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.54	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.21	
541-73-1	1,3-Dichlorobenzene	ND	0.54	ND	0.090	
106-46-7	1,4-Dichlorobenzene	ND	0.54	ND	0.090	
95-50-1	1,2-Dichlorobenzene	ND	0.54	ND	0.090	
5989-27-5	d-Limonene	ND	0.54	ND	0.097	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	ND	0.055	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	ND	0.073	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.53	ND	0.050	

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

SURROGATE SPIKE RECOVERY RESULTS

Client: **Environmental Management Services, Inc.**
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Project ID: P2001269

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date(s) Collected: 2/24/20
Analyst: Wida Ang Date(s) Received: 3/5/20
Sample Type: 1.0 L Silonite Summa Canister(s) / 1.0 L Summa Canister(s) Date(s) Analyzed: 3/13 - 3/14/20
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	P200313-MB	**101**	**101**	**98**	70-130	
Lab Control Sample	P200313-LCS	**97**	**101**	**100**	70-130	
Location 1	P2001269-001	**102**	**103**	**100**	70-130	
Location 2	P2001269-002	**99**	**100**	**98**	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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200313-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/13/20
Sample Type: 1.0 L Silonite Summa 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	**218**	**104**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**204**	**97**	64-115	
74-87-3	Chloromethane	212	**171**	**81**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**199**	**97**	65-114	
75-01-4	Vinyl Chloride	212	**219**	**103**	61-129	
106-99-0	1,3-Butadiene	212	**235**	**111**	54-140	
74-83-9	Bromomethane	212	**221**	**104**	68-120	
75-00-3	Chloroethane	214	**216**	**101**	63-123	
64-17-5	Ethanol	1,060	**1050**	**99**	49-134	
75-05-8	Acetonitrile	214	**218**	**102**	50-137	
107-02-8	Acrolein	206	**245**	**119**	62-128	
67-64-1	Acetone	1,070	**1040**	**97**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**207**	**98**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**461**	**109**	57-133	
107-13-1	Acrylonitrile	212	**244**	**115**	64-136	
75-35-4	1,1-Dichloroethene	214	**226**	**106**	67-115	
75-09-2	Methylene Chloride	210	**216**	**103**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**228**	**107**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**215**	**100**	65-115	
75-15-0	Carbon Disulfide	212	**199**	**94**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**238**	**111**	65-122	
75-34-3	1,1-Dichloroethane	212	**217**	**102**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**134**	**63**	57-131	
108-05-4	Vinyl Acetate	1,070	**1390**	**130**	71-128	**L**
78-93-3	2-Butanone (MEK)	212	**241**	**114**	67-123	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200313-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/13/20
Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	212	**224**	**106**	64-120	
141-78-6	Ethyl Acetate	432	**456**	**106**	64-131	
110-54-3	n-Hexane	216	**222**	**103**	58-125	
67-66-3	Chloroform	214	**213**	**100**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**224**	**102**	65-115	
107-06-2	1,2-Dichloroethane	214	**215**	**100**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**215**	**100**	66-115	
71-43-2	Benzene	210	**200**	**95**	66-109	
56-23-5	Carbon Tetrachloride	208	**210**	**101**	66-119	
110-82-7	Cyclohexane	422	**423**	**100**	67-117	
78-87-5	1,2-Dichloropropane	214	**220**	**103**	66-119	
75-27-4	Bromodichloromethane	218	**220**	**101**	71-119	
79-01-6	Trichloroethene	216	**218**	**101**	70-114	
123-91-1	1,4-Dioxane	216	**247**	**114**	71-117	
80-62-6	Methyl Methacrylate	430	**461**	**107**	76-121	
142-82-5	n-Heptane	214	**223**	**104**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**232**	**108**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**228**	**108**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**235**	**111**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**222**	**104**	70-117	
108-88-3	Toluene	212	**215**	**101**	67-113	
591-78-6	2-Hexanone	216	**234**	**108**	62-135	
124-48-1	Dibromochloromethane	214	**230**	**107**	73-126	
106-93-4	1,2-Dibromoethane	214	**236**	**110**	71-122	
123-86-4	n-Butyl Acetate	218	**248**	**114**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2001269
Client Project ID: **SVE In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200313-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 3/13/20
Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	216	**227**	**105**	63-120	
127-18-4	Tetrachloroethene	208	**210**	**101**	64-120	
108-90-7	Chlorobenzene	214	**211**	**99**	65-116	
100-41-4	Ethylbenzene	212	**223**	**105**	65-117	
179601-23-1	m,p-Xylenes	426	**436**	**102**	64-121	
75-25-2	Bromoform	214	**240**	**112**	72-130	
100-42-5	Styrene	212	**244**	**115**	72-126	
95-47-6	o-Xylene	214	**221**	**103**	64-120	
111-84-2	n-Nonane	214	**224**	**105**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**224**	**105**	66-122	
98-82-8	Cumene	214	**220**	**103**	64-121	
80-56-8	alpha-Pinene	212	**231**	**109**	62-136	
103-65-1	n-Propylbenzene	214	**224**	**105**	65-123	
622-96-8	4-Ethyltoluene	210	**213**	**101**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**216**	**102**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**224**	**106**	63-129	
100-44-7	Benzyl Chloride	214	**259**	**121**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**225**	**105**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**225**	**105**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**226**	**106**	67-128	
5989-27-5	d-Limonene	212	**244**	**115**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**232**	**108**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**249**	**115**	62-140	
91-20-3	Naphthalene	212	**250**	**118**	57-149	
87-68-3	Hexachlorobutadiene	214	**213**	**100**	57-129	

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.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

June 15, 2020

Collin Creel
Environmental Management Services, Inc.
P.O. Box 15369
Hattiesburg, MS 39402

RE: In-Plant Monitoring / KUH0-20-011

Dear Collin:

Enclosed are the results of the samples submitted to our laboratory on June 1, 2020. For your reference, these analyses have been assigned our service request number P2002996.

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

By Hayden Akers at 12:56 pm, Jun 15, 2020

For Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Environmental Management Services, Inc. Service Request No: P2002996
Project: In-Plant Monitoring / KUH0-20-011

CASE NARRATIVE

The samples were received intact under chain of custody on June 1, 2020 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.

Helium Analysis

The samples were analyzed for helium according to modified EPA Method 3C (single injection) using a gas chromatograph equipped with a thermal conductivity detector (TCD). This method is not included on the laboratory's NELAP or DoD-ELAP scope of 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 for methyl tert.-butylether (MTBE) in the Laboratory Control Sample (LCS) analyzed on June 9, 2020 was outside the upper control criterion. The error associated with elevated recovery equates to a potential high bias; The analyte in question was not detected in the associated field samples. The data has been flagged accordingly. No corrective action was required.

The upper control criterion was exceeded for methyl tert.-butylether (MTBE) in the Continuing Calibration Verification (CCV) and in the Laboratory Control Sample (LCS) analyzed on June 10, 2020. However, the reported sample result associated with the CCV in question was for dilutions of other compounds; therefore, the results were not affected. No corrective action was necessary.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-007
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
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: Environmental Management Services, Inc. Service Request: P2002996

Project ID: In-Plant Monitoring / KUH0-20-011

Date Received: 6/1/2020

Time Received: 10:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	3C Modified - Helium Can	TO-15 - VOC Cans
Location 1	P2002996-001	Air	5/18/2020	07:30	1SS01039	-1.60	5.98	X	X
Location 2	P2002996-002	Air	5/18/2020	07:35	1SS00053	-0.42	6.90	X	X
Location 3	P2002996-003	Air	5/18/2020	07:40	1SS00162	-0.74	6.71	X	X

Air - Chain of Custody Record & Analytical Service Request

Page _____ of _____

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

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: P2002996

ALS Contact:

Company Name & Address (Reporting Information)	Project Name	Analysis Method		
Environmental Management Services, Inc. PO Box 15369 Hattiesburg, MS 39404	In-Plant Monitoring			
	Project Number: KUHO-20-011			
Project Manager: Collin Creel	P.O. # / Billing Information: KUHO-20-011			
Phone: (985) 516-0142 / Fax: (601) 544-0504		TO15	Helium	Comments e.g. Actual Preservative or specific instructions
Email Address for Result Reporting: ccreel@env-mgt.com	Sampler (Print & Sign): Collin Creel			

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	TO15	Helium	Comments
Location 1	1	5/18/20	07:30	1550 1639	GA00137	-29	-6	1L	X	X	
Location 2	2	5/18/20	07:35	1550 0053	GA01642	-29	-5	1L	X	X	
Location 3	3	5/18/20	07:40	1550 1602	GA01102	-30	-4	1L	X	X	

6 of 30

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____ Tier III (Results + QC & Calibration Summaries) _____
Tier II (Results + QC 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:
Collin Creel	5/28/20	16:30	- Fed Ex -		
- Fed Ex -				6-1-20	10:30

Cooler / Blank Temperature ____ °C

ALS Environmental

Sample Acceptance Check Form

Client: Environmental Management Services, Inc. Work order: P2002996

Project: In-Plant Monitoring / KUH0-20-011

Sample(s) received on: 6/1/20 Date opened: 6/1/20 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)? Box sealing. 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
P2002996-001.01	1.0 L Source Silonite Canister					
P2002996-002.01	1.0 L Source Silonite Canister					
P2002996-003.01	1.0 L Source Silonite Canister					

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: **Environmental Management Services, Inc.**
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Project ID: P2002996

Helium

Test Code: EPA 3C Modified
Instrument ID: HP5890 II/GC8/TCD Date(s) Collected: 5/18/20
Analyst: Li Donghao Date Received: 6/1/20
Sample Type: 1.0 L Silonite Summa Canister(s) Date Analyzed: 6/4/20
Test Notes:

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Container Dilution Factor	**Result ppmV**	MRL ppmV	MDL ppmV	Data Qualifier
Location 1	P2002996-001	1.00	1.58	ND	40	7.4	
Location 2	P2002996-002	1.00	1.51	ND	38	7.1	
Location 3	P2002996-003	1.00	1.53	ND	38	7.2	
Method Blank	P200604-MB	1.00	1.00	ND	25	4.7	

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200604-LCS

Test Code: EPA 3C Modified Date Collected: NA
Instrument ID: HP5890 II/GC8/TCD Date Received: NA
Analyst: Li Donghao Date Analyzed: 6/04/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	Compound	Spike Amount ppmV	**Result ppmV**	**% Recovery**	ALS Acceptance Limits	Data Qualifier
7440-59-7	Helium	10,000	**12,100**	**121**	83-129	

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Location 1** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9 - 6/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SS01039

Initial Pressure (psig): -1.60 Final Pressure (psig): 5.98

Canister Dilution Factor: 1.58

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**780**	21	5.1	**450**	12	3.0	**D**
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	2.1	0.34	**0.49**	0.42	0.070	
74-87-3	Chloromethane	**0.99**	2.1	0.34	**0.48**	1.0	0.16	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.1	0.33	ND	0.30	0.047	
75-01-4	Vinyl Chloride	ND	2.1	0.23	ND	0.83	0.088	
106-99-0	1,3-Butadiene	ND	2.1	0.35	ND	0.95	0.16	
74-83-9	Bromomethane	ND	2.1	0.29	ND	0.55	0.075	
75-00-3	Chloroethane	ND	2.1	0.26	ND	0.81	0.099	
64-17-5	Ethanol	**980**	21	1.5	**520**	11	0.78	
75-05-8	Acetonitrile	**0.95**	2.1	0.51	**0.57**	1.2	0.31	**J**
107-02-8	Acrolein	**1.9**	4.0	0.59	**0.85**	1.7	0.26	**J**
67-64-1	Acetone	**110**	21	4.7	**45**	8.8	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.7**	2.1	0.32	**0.31**	0.37	0.057	**J**
67-63-0	2-Propanol (Isopropyl Alcohol)	**25**	8.3	0.87	**10**	3.4	0.35	
107-13-1	Acrylonitrile	ND	2.1	0.43	ND	0.97	0.20	
75-35-4	1,1-Dichloroethene	ND	2.1	0.29	ND	0.54	0.074	
75-09-2	Methylene Chloride	**0.68**	2.1	0.59	**0.20**	0.60	0.17	**J**
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.1	0.28	ND	0.68	0.091	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.41**	2.1	0.30	**0.053**	0.28	0.039	**J**
75-15-0	Carbon Disulfide	**1.6**	4.3	0.63	**0.52**	1.4	0.20	**J**
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.29	ND	0.54	0.074	
75-34-3	1,1-Dichloroethane	ND	2.2	0.31	ND	0.54	0.076	
1634-04-4	Methyl tert-Butyl Ether	ND	2.1	0.25	ND	0.59	0.069	**L**
108-05-4	Vinyl Acetate	**5.1**	21	4.7	**1.5**	6.1	1.3	**J**
78-93-3	2-Butanone (MEK)	**10**	4.3	0.43	**3.5**	1.5	0.15	

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.
D = The reported result is from a dilution.
L = Laboratory control sample recovery outside the specified limits, results may be biased high.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Location 1** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9 - 6/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SS01039

Initial Pressure (psig): -1.60 Final Pressure (psig): 5.98

Canister Dilution Factor: 1.58

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.30	ND	0.53	0.075	
141-78-6	Ethyl Acetate	**10**	4.3	1.1	**2.8**	1.2	0.31	
110-54-3	n-Hexane	**0.82**	2.1	0.43	**0.23**	0.61	0.12	**J**
67-66-3	Chloroform	ND	2.1	0.28	ND	0.44	0.057	
109-99-9	Tetrahydrofuran (THF)	**9.7**	2.2	0.26	**3.3**	0.74	0.090	
107-06-2	1,2-Dichloroethane	ND	2.1	0.23	ND	0.53	0.058	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.26	ND	0.39	0.048	
71-43-2	Benzene	**0.56**	2.1	0.30	**0.18**	0.66	0.095	**J**
56-23-5	Carbon Tetrachloride	**0.38**	2.1	0.29	**0.060**	0.33	0.046	**J**
110-82-7	Cyclohexane	ND	4.3	0.59	ND	1.3	0.17	
78-87-5	1,2-Dichloropropane	ND	2.1	0.26	ND	0.46	0.056	
75-27-4	Bromodichloromethane	ND	2.1	0.30	ND	0.32	0.045	
79-01-6	Trichloroethene	ND	2.1	0.28	ND	0.40	0.053	
123-91-1	1,4-Dioxane	ND	2.1	0.25	ND	0.59	0.069	
80-62-6	Methyl Methacrylate	ND	4.3	0.75	ND	1.1	0.18	
142-82-5	n-Heptane	**3.9**	2.1	0.34	**0.96**	0.52	0.082	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.33	ND	0.45	0.072	
108-10-1	4-Methyl-2-pentanone	**8.2**	2.1	0.29	**2.0**	0.51	0.070	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.43	ND	0.46	0.096	
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.21	ND	0.39	0.039	
108-88-3	Toluene	**20**	2.1	0.26	**5.2**	0.57	0.068	
591-78-6	2-Hexanone	ND	2.1	0.26	ND	0.52	0.064	
124-48-1	Dibromochloromethane	ND	2.1	0.28	ND	0.25	0.032	
106-93-4	1,2-Dibromoethane	ND	2.1	0.24	ND	0.28	0.032	
123-86-4	n-Butyl Acetate	**0.60**	2.2	0.29	**0.13**	0.46	0.061	**J**

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.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Location 1** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-001

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9 - 6/10/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SS01039

Initial Pressure (psig): -1.60 Final Pressure (psig): 5.98

Canister Dilution Factor: 1.58

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	**1.6**	2.1	0.47	**0.35**	0.46	0.10	**J**
127-18-4	Tetrachloroethene	ND	2.1	0.27	ND	0.30	0.040	
108-90-7	Chlorobenzene	ND	2.1	0.28	ND	0.46	0.061	
100-41-4	Ethylbenzene	**2.7**	2.1	0.30	**0.62**	0.49	0.068	
179601-23-1	m,p-Xylenes	**11**	4.3	0.55	**2.5**	1.0	0.13	
75-25-2	Bromoform	ND	2.1	0.43	ND	0.21	0.042	
100-42-5	Styrene	**2.7**	2.1	0.34	**0.64**	0.49	0.080	
95-47-6	o-Xylene	**5.7**	2.1	0.30	**1.3**	0.49	0.070	
111-84-2	n-Nonane	**0.93**	2.1	0.35	**0.18**	0.41	0.067	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.29	ND	0.31	0.043	
98-82-8	Cumene	ND	2.1	0.30	ND	0.43	0.062	
80-56-8	alpha-Pinene	**3.4**	2.1	0.32	**0.61**	0.38	0.058	
103-65-1	n-Propylbenzene	**0.66**	2.1	0.30	**0.14**	0.43	0.062	**J**
622-96-8	4-Ethyltoluene	**0.87**	2.1	0.34	**0.18**	0.43	0.068	**J**
108-67-8	1,3,5-Trimethylbenzene	**1.1**	2.1	0.30	**0.22**	0.43	0.062	**J**
95-63-6	1,2,4-Trimethylbenzene	**3.8**	2.1	0.29	**0.76**	0.43	0.059	
100-44-7	Benzyl Chloride	ND	4.3	0.47	ND	0.84	0.092	
541-73-1	1,3-Dichlorobenzene	ND	2.1	0.32	ND	0.35	0.053	
106-46-7	1,4-Dichlorobenzene	**1.8**	2.1	0.32	**0.30**	0.35	0.054	**J**
95-50-1	1,2-Dichlorobenzene	ND	2.1	0.31	ND	0.35	0.052	
5989-27-5	d-Limonene	**4.4**	2.1	0.43	**0.79**	0.38	0.078	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.1	0.40	ND	0.22	0.041	
120-82-1	1,2,4-Trichlorobenzene	ND	2.1	0.51	ND	0.29	0.069	
91-20-3	Naphthalene	**0.97**	2.1	0.51	**0.18**	0.39	0.098	**J**
87-68-3	Hexachlorobutadiene	ND	2.1	0.43	ND	0.20	0.041	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Location 2** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00053

Initial Pressure (psig): -0.42 Final Pressure (psig): 6.90

Canister Dilution Factor: 1.51

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**130**	2.0	0.49	**75**	1.2	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.7**	2.0	0.33	**0.54**	0.40	0.066	
74-87-3	Chloromethane	**0.85**	2.0	0.32	**0.41**	0.97	0.16	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.0	0.32	ND	0.29	0.045	
75-01-4	Vinyl Chloride	ND	2.0	0.22	ND	0.80	0.084	
106-99-0	1,3-Butadiene	ND	2.0	0.33	ND	0.90	0.15	
74-83-9	Bromomethane	ND	2.0	0.28	ND	0.53	0.072	
75-00-3	Chloroethane	ND	2.0	0.25	ND	0.77	0.094	
64-17-5	Ethanol	**940**	20	1.4	**500**	10	0.74	
75-05-8	Acetonitrile	**0.98**	2.0	0.49	**0.58**	1.2	0.29	**J**
107-02-8	Acrolein	**2.0**	3.8	0.57	**0.89**	1.6	0.25	**J**
67-64-1	Acetone	**160**	20	4.5	**68**	8.4	1.9	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.1**	2.0	0.31	**0.37**	0.36	0.054	
67-63-0	2-Propanol (Isopropyl Alcohol)	**13**	7.9	0.83	**5.5**	3.2	0.34	
107-13-1	Acrylonitrile	ND	2.0	0.42	ND	0.92	0.19	
75-35-4	1,1-Dichloroethene	ND	2.0	0.28	ND	0.51	0.070	
75-09-2	Methylene Chloride	**0.82**	2.0	0.57	**0.23**	0.58	0.16	**J**
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.0	0.27	ND	0.65	0.087	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.48**	2.0	0.29	**0.062**	0.27	0.037	**J**
75-15-0	Carbon Disulfide	**1.8**	4.2	0.60	**0.58**	1.3	0.19	**J**
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.28	ND	0.51	0.070	
75-34-3	1,1-Dichloroethane	ND	2.1	0.29	ND	0.51	0.073	
1634-04-4	Methyl tert-Butyl Ether	ND	2.0	0.24	ND	0.57	0.066	**L**
108-05-4	Vinyl Acetate	**5.0**	20	4.5	**1.4**	5.8	1.3	**J**
78-93-3	2-Butanone (MEK)	**16**	4.2	0.42	**5.5**	1.4	0.14	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Location 2** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00053

Initial Pressure (psig): -0.42 Final Pressure (psig): 6.90

Canister Dilution Factor: 1.51

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.28	ND	0.50	0.071	
141-78-6	Ethyl Acetate	**9.5**	4.2	1.1	**2.6**	1.2	0.29	
110-54-3	n-Hexane	**2.4**	2.0	0.42	**0.68**	0.58	0.12	
67-66-3	Chloroform	ND	2.0	0.27	ND	0.42	0.055	
109-99-9	Tetrahydrofuran (THF)	**32**	2.1	0.25	**11**	0.70	0.086	
107-06-2	1,2-Dichloroethane	ND	2.0	0.22	ND	0.50	0.055	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.25	ND	0.37	0.046	
71-43-2	Benzene	**1.4**	2.0	0.29	**0.43**	0.63	0.091	**J**
56-23-5	Carbon Tetrachloride	**0.42**	2.0	0.28	**0.066**	0.32	0.044	**J**
110-82-7	Cyclohexane	**0.62**	4.2	0.57	**0.18**	1.2	0.16	**J**
78-87-5	1,2-Dichloropropane	ND	2.0	0.25	ND	0.44	0.054	
75-27-4	Bromodichloromethane	ND	2.0	0.29	ND	0.30	0.043	
79-01-6	Trichloroethene	ND	2.0	0.27	ND	0.38	0.051	
123-91-1	1,4-Dioxane	ND	2.0	0.24	ND	0.57	0.066	
80-62-6	Methyl Methacrylate	ND	4.2	0.72	ND	1.0	0.18	
142-82-5	n-Heptane	**4.1**	2.0	0.32	**1.0**	0.50	0.078	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.31	ND	0.43	0.069	
108-10-1	4-Methyl-2-pentanone	**4.7**	2.0	0.28	**1.1**	0.49	0.067	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.42	ND	0.44	0.092	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.20	ND	0.37	0.037	
108-88-3	Toluene	**17**	2.0	0.25	**4.6**	0.54	0.065	
591-78-6	2-Hexanone	ND	2.0	0.25	ND	0.50	0.061	
124-48-1	Dibromochloromethane	ND	2.0	0.26	ND	0.24	0.031	
106-93-4	1,2-Dibromoethane	ND	2.0	0.23	ND	0.27	0.030	
123-86-4	n-Butyl Acetate	**0.64**	2.1	0.28	**0.13**	0.44	0.058	**J**

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: **Environmental Management Services, Inc.**
Client Sample ID: **Location 2** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-002

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00053

Initial Pressure (psig): -0.42 Final Pressure (psig): 6.90

Canister Dilution Factor: 1.51

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	**1.8**	2.0	0.45	**0.39**	0.44	0.097	**J**
127-18-4	Tetrachloroethene	ND	2.0	0.26	ND	0.29	0.038	
108-90-7	Chlorobenzene	ND	2.0	0.27	ND	0.44	0.058	
100-41-4	Ethylbenzene	**3.5**	2.0	0.28	**0.81**	0.47	0.065	
179601-23-1	m,p-Xylenes	**13**	4.2	0.53	**3.0**	0.96	0.12	
75-25-2	Bromoform	ND	2.0	0.42	ND	0.20	0.040	
100-42-5	Styrene	**2.3**	2.0	0.32	**0.53**	0.47	0.076	
95-47-6	o-Xylene	**5.4**	2.0	0.29	**1.2**	0.47	0.067	
111-84-2	n-Nonane	**0.82**	2.0	0.34	**0.16**	0.39	0.064	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.28	ND	0.30	0.041	
98-82-8	Cumene	ND	2.0	0.29	ND	0.41	0.059	
80-56-8	alpha-Pinene	**2.5**	2.0	0.31	**0.46**	0.37	0.056	
103-65-1	n-Propylbenzene	**0.55**	2.0	0.29	**0.11**	0.41	0.059	**J**
622-96-8	4-Ethyltoluene	**0.67**	2.0	0.32	**0.14**	0.41	0.065	**J**
108-67-8	1,3,5-Trimethylbenzene	**0.82**	2.0	0.29	**0.17**	0.41	0.059	**J**
95-63-6	1,2,4-Trimethylbenzene	**2.7**	2.0	0.28	**0.55**	0.41	0.057	
100-44-7	Benzyl Chloride	ND	4.2	0.45	ND	0.80	0.088	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.30	ND	0.34	0.050	
106-46-7	1,4-Dichlorobenzene	**1.1**	2.0	0.31	**0.18**	0.34	0.052	**J**
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.30	ND	0.34	0.050	
5989-27-5	d-Limonene	**4.0**	2.0	0.42	**0.71**	0.37	0.075	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.38	ND	0.21	0.039	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.49	ND	0.27	0.066	
91-20-3	Naphthalene	ND	2.0	0.49	ND	0.37	0.094	
87-68-3	Hexachlorobutadiene	ND	2.0	0.42	ND	0.19	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.
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: **Environmental Management Services, Inc.**
Client Sample ID: **Location 3** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00162

Initial Pressure (psig): -0.74 Final Pressure (psig): 6.71

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**9.9**	2.0	0.50	**5.8**	1.2	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.5**	2.0	0.33	**0.51**	0.41	0.067	
74-87-3	Chloromethane	**0.84**	2.0	0.33	**0.41**	0.98	0.16	**J**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.0	0.32	ND	0.29	0.046	
75-01-4	Vinyl Chloride	ND	2.1	0.22	ND	0.81	0.085	
106-99-0	1,3-Butadiene	ND	2.0	0.34	ND	0.92	0.15	
74-83-9	Bromomethane	ND	2.1	0.28	ND	0.53	0.073	
75-00-3	Chloroethane	ND	2.1	0.25	ND	0.78	0.096	
64-17-5	Ethanol	**620**	20	1.4	**330**	11	0.75	
75-05-8	Acetonitrile	**1.2**	2.0	0.50	**0.71**	1.2	0.30	**J**
107-02-8	Acrolein	**1.4**	3.8	0.57	**0.60**	1.7	0.25	**J**
67-64-1	Acetone	**33**	20	4.6	**14**	8.5	1.9	
75-69-4	Trichlorofluoromethane (CFC 11)	**2.1**	2.0	0.31	**0.38**	0.36	0.055	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	8.0	0.84	ND	3.3	0.34	
107-13-1	Acrylonitrile	ND	2.0	0.42	ND	0.93	0.19	
75-35-4	1,1-Dichloroethene	ND	2.1	0.28	ND	0.52	0.071	
75-09-2	Methylene Chloride	**0.72**	2.0	0.57	**0.21**	0.58	0.17	**J**
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.1	0.28	ND	0.66	0.088	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.42**	2.1	0.29	**0.054**	0.27	0.038	**J**
75-15-0	Carbon Disulfide	**8.8**	4.2	0.61	**2.8**	1.4	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.28	ND	0.52	0.071	
75-34-3	1,1-Dichloroethane	ND	2.1	0.30	ND	0.52	0.074	
1634-04-4	Methyl tert-Butyl Ether	ND	2.1	0.24	ND	0.57	0.067	**L**
108-05-4	Vinyl Acetate	**6.5**	21	4.6	**1.9**	5.9	1.3	**J**
78-93-3	2-Butanone (MEK)	**2.5**	4.2	0.42	**0.85**	1.4	0.14	**J**

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

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Location 3** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00162

Initial Pressure (psig): -0.74 Final Pressure (psig): 6.71

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.29	ND	0.51	0.072	
141-78-6	Ethyl Acetate	**6.4**	4.2	1.1	**1.8**	1.2	0.30	
110-54-3	n-Hexane	ND	2.1	0.42	ND	0.59	0.12	
67-66-3	Chloroform	ND	2.1	0.27	ND	0.42	0.056	
109-99-9	Tetrahydrofuran (THF)	ND	2.1	0.26	ND	0.71	0.087	
107-06-2	1,2-Dichloroethane	ND	2.1	0.23	ND	0.51	0.056	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.25	ND	0.38	0.046	
71-43-2	Benzene	**1.4**	2.0	0.29	**0.45**	0.63	0.092	**J**
56-23-5	Carbon Tetrachloride	**0.43**	2.0	0.28	**0.068**	0.32	0.045	**J**
110-82-7	Cyclohexane	ND	4.2	0.57	ND	1.2	0.17	
78-87-5	1,2-Dichloropropane	ND	2.1	0.25	ND	0.45	0.055	
75-27-4	Bromodichloromethane	ND	2.1	0.29	ND	0.31	0.044	
79-01-6	Trichloroethene	ND	2.1	0.28	ND	0.38	0.051	
123-91-1	1,4-Dioxane	ND	2.1	0.24	ND	0.57	0.067	
80-62-6	Methyl Methacrylate	ND	4.2	0.73	ND	1.0	0.18	
142-82-5	n-Heptane	**3.3**	2.1	0.33	**0.81**	0.50	0.079	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.32	ND	0.44	0.070	
108-10-1	4-Methyl-2-pentanone	**0.93**	2.0	0.28	**0.23**	0.49	0.068	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.42	ND	0.45	0.093	
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.21	ND	0.38	0.038	
108-88-3	Toluene	**7.3**	2.1	0.25	**1.9**	0.55	0.066	
591-78-6	2-Hexanone	ND	2.1	0.25	ND	0.50	0.062	
124-48-1	Dibromochloromethane	ND	2.1	0.27	ND	0.24	0.031	
106-93-4	1,2-Dibromoethane	ND	2.1	0.24	ND	0.27	0.031	
123-86-4	n-Butyl Acetate	ND	2.1	0.28	ND	0.44	0.059	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Location 3** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P2002996-003

Test Code: EPA TO-15 Date Collected: 5/18/20
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 6/1/20
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00162

Initial Pressure (psig): -0.74 Final Pressure (psig): 6.71

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
111-65-9	n-Octane	**1.4**	2.1	0.46	**0.29**	0.44	0.098	**J**
127-18-4	Tetrachloroethene	ND	2.0	0.26	ND	0.29	0.039	
108-90-7	Chlorobenzene	ND	2.1	0.27	ND	0.45	0.059	
100-41-4	Ethylbenzene	**0.52**	2.1	0.29	**0.12**	0.48	0.066	**J**
179601-23-1	m,p-Xylenes	**1.0**	4.2	0.54	**0.24**	0.97	0.12	**J**
75-25-2	Bromoform	ND	2.1	0.42	ND	0.20	0.041	
100-42-5	Styrene	**1.3**	2.0	0.33	**0.31**	0.48	0.077	**J**
95-47-6	o-Xylene	**0.38**	2.1	0.29	**0.088**	0.48	0.068	**J**
111-84-2	n-Nonane	**0.47**	2.1	0.34	**0.090**	0.39	0.065	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.28	ND	0.30	0.041	
98-82-8	Cumene	ND	2.1	0.29	ND	0.42	0.060	
80-56-8	alpha-Pinene	**1.6**	2.1	0.31	**0.29**	0.37	0.056	**J**
103-65-1	n-Propylbenzene	ND	2.1	0.29	ND	0.42	0.060	
622-96-8	4-Ethyltoluene	ND	2.1	0.33	ND	0.42	0.066	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.29	ND	0.41	0.060	
95-63-6	1,2,4-Trimethylbenzene	**0.39**	2.1	0.28	**0.079**	0.42	0.058	**J**
100-44-7	Benzyl Chloride	ND	4.2	0.46	ND	0.81	0.089	
541-73-1	1,3-Dichlorobenzene	ND	2.1	0.31	ND	0.34	0.051	
106-46-7	1,4-Dichlorobenzene	ND	2.1	0.31	ND	0.34	0.052	
95-50-1	1,2-Dichlorobenzene	ND	2.1	0.30	ND	0.34	0.050	
5989-27-5	d-Limonene	**3.8**	2.1	0.42	**0.69**	0.37	0.076	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.38	ND	0.21	0.040	
120-82-1	1,2,4-Trichlorobenzene	ND	2.1	0.50	ND	0.28	0.067	
91-20-3	Naphthalene	ND	2.0	0.50	ND	0.38	0.095	
87-68-3	Hexachlorobutadiene	ND	2.0	0.42	ND	0.19	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.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200609-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa 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	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.53	0.086	ND	0.26	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	0.084	ND	0.076	0.012	
75-01-4	Vinyl Chloride	ND	0.54	0.057	ND	0.21	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.54	0.074	ND	0.14	0.019	
75-00-3	Chloroethane	ND	0.54	0.066	ND	0.20	0.025	
64-17-5	Ethanol	ND	5.2	0.37	ND	2.8	0.20	
75-05-8	Acetonitrile	ND	0.53	0.13	ND	0.32	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	0.081	ND	0.094	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	0.22	ND	0.85	0.090	
107-13-1	Acrylonitrile	ND	0.53	0.11	ND	0.24	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.35	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.55	0.078	ND	0.14	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	**L**
108-05-4	Vinyl Acetate	ND	5.4	1.2	ND	1.5	0.34	
78-93-3	2-Butanone (MEK)	ND	1.1	0.11	ND	0.37	0.037	

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

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2002996

Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200609-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 6/9/20

Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	
141-78-6	Ethyl Acetate	ND	1.1	0.28	ND	0.31	0.078	
110-54-3	n-Hexane	ND	0.54	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.54	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	0.067	ND	0.19	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.54	0.066	ND	0.099	0.012	
71-43-2	Benzene	ND	0.53	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.53	0.074	ND	0.084	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.32	0.044	
78-87-5	1,2-Dichloropropane	ND	0.54	0.066	ND	0.12	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.54	0.072	ND	0.10	0.013	
123-91-1	1,4-Dioxane	ND	0.54	0.063	ND	0.15	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.54	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	0.083	ND	0.11	0.018	
108-10-1	4-Methyl-2-pentanone	ND	0.53	0.073	ND	0.13	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	0.11	ND	0.12	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.54	0.054	ND	0.099	0.0099	
108-88-3	Toluene	ND	0.54	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	0.54	0.066	ND	0.13	0.016	
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.54	0.062	ND	0.070	0.0081	
123-86-4	n-Butyl Acetate	ND	0.55	0.073	ND	0.12	0.015	

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: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2002996

Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200609-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 6/9/20

Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.52	0.069	ND	0.077	0.010	
108-90-7	Chlorobenzene	ND	0.54	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.54	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.54	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.54	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	0.074	ND	0.079	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	0.54	0.082	ND	0.097	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.54	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	1.1	0.12	ND	0.21	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.54	0.080	ND	0.090	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.54	0.082	ND	0.090	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	0.54	0.11	ND	0.097	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	0.10	ND	0.055	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	0.13	ND	0.073	0.018	
91-20-3	Naphthalene	ND	0.52	0.13	ND	0.099	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200610-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/10/20
Sample Type: 1.0 L Silonite Summa 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	0.53	0.13	ND	0.31	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.53	0.086	ND	0.26	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	0.084	ND	0.076	0.012	
75-01-4	Vinyl Chloride	ND	0.54	0.057	ND	0.21	0.022	
106-99-0	1,3-Butadiene	ND	0.53	0.088	ND	0.24	0.040	
74-83-9	Bromomethane	ND	0.54	0.074	ND	0.14	0.019	
75-00-3	Chloroethane	ND	0.54	0.066	ND	0.20	0.025	
64-17-5	Ethanol	ND	5.2	0.37	ND	2.8	0.20	
75-05-8	Acetonitrile	ND	0.53	0.13	ND	0.32	0.077	
107-02-8	Acrolein	ND	1.0	0.15	ND	0.44	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	0.081	ND	0.094	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	0.22	ND	0.85	0.090	
107-13-1	Acrylonitrile	ND	0.53	0.11	ND	0.24	0.051	
75-35-4	1,1-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	0.076	ND	0.070	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.35	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	0.074	ND	0.14	0.019	
75-34-3	1,1-Dichloroethane	ND	0.55	0.078	ND	0.14	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	**L**
108-05-4	Vinyl Acetate	ND	5.4	1.2	ND	1.5	0.34	
78-93-3	2-Butanone (MEK)	ND	1.1	0.11	ND	0.37	0.037	

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

Client: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2002996

Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200610-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 6/10/20

Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	ND	0.53	0.075	ND	0.13	0.019	
141-78-6	Ethyl Acetate	ND	1.1	0.28	ND	0.31	0.078	
110-54-3	n-Hexane	ND	0.54	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.54	0.071	ND	0.11	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	0.067	ND	0.19	0.023	
107-06-2	1,2-Dichloroethane	ND	0.54	0.059	ND	0.13	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.54	0.066	ND	0.099	0.012	
71-43-2	Benzene	ND	0.53	0.077	ND	0.17	0.024	
56-23-5	Carbon Tetrachloride	ND	0.53	0.074	ND	0.084	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.32	0.044	
78-87-5	1,2-Dichloropropane	ND	0.54	0.066	ND	0.12	0.014	
75-27-4	Bromodichloromethane	ND	0.54	0.077	ND	0.081	0.011	
79-01-6	Trichloroethene	ND	0.54	0.072	ND	0.10	0.013	
123-91-1	1,4-Dioxane	ND	0.54	0.063	ND	0.15	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.54	0.085	ND	0.13	0.021	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	0.083	ND	0.11	0.018	
108-10-1	4-Methyl-2-pentanone	ND	0.53	0.073	ND	0.13	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	0.11	ND	0.12	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.54	0.054	ND	0.099	0.0099	
108-88-3	Toluene	ND	0.54	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	0.54	0.066	ND	0.13	0.016	
124-48-1	Dibromochloromethane	ND	0.54	0.070	ND	0.063	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.54	0.062	ND	0.070	0.0081	
123-86-4	n-Butyl Acetate	ND	0.55	0.073	ND	0.12	0.015	

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: **Environmental Management Services, Inc.**

Client Sample ID: **Method Blank** ALS Project ID: P2002996

Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200610-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA

Analyst: Wida Ang Date Analyzed: 6/10/20

Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	ND	0.54	0.12	ND	0.12	0.026	
127-18-4	Tetrachloroethene	ND	0.52	0.069	ND	0.077	0.010	
108-90-7	Chlorobenzene	ND	0.54	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.54	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.54	0.11	ND	0.052	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.54	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.54	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	0.074	ND	0.079	0.011	
98-82-8	Cumene	ND	0.54	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	0.54	0.082	ND	0.097	0.015	
103-65-1	n-Propylbenzene	ND	0.54	0.077	ND	0.11	0.016	
622-96-8	4-Ethyltoluene	ND	0.54	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	0.077	ND	0.11	0.016	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	0.074	ND	0.11	0.015	
100-44-7	Benzyl Chloride	ND	1.1	0.12	ND	0.21	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.54	0.080	ND	0.090	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.54	0.082	ND	0.090	0.014	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	0.54	0.11	ND	0.097	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	0.10	ND	0.055	0.010	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	0.13	ND	0.073	0.018	
91-20-3	Naphthalene	ND	0.52	0.13	ND	0.099	0.025	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	

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: **Environmental Management Services, Inc.**
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Project ID: P2002996

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date(s) Collected: 5/18/20
Analyst: Wida Ang Date(s) Received: 6/1/20
Sample Type: 1.0 L Silonite Summa Canister(s) Date(s) Analyzed: 6/9 - 6/10/20
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	P200609-MB	**109**	**93**	**88**	70-130	
Method Blank	P200610-MB	**115**	**92**	**87**	70-130	
Lab Control Sample	P200609-LCS	**110**	**93**	**92**	70-130	
Lab Control Sample	P200610-LCS	**116**	**93**	**87**	70-130	
Location 1	P2002996-001	**121**	**94**	**84**	70-130	
Location 2	P2002996-002	**118**	**94**	**83**	70-130	
Location 3	P2002996-003	**119**	**93**	**83**	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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200609-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa 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	**224**	**107**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**201**	**96**	64-115	
74-87-3	Chloromethane	212	**239**	**113**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**185**	**90**	65-114	
75-01-4	Vinyl Chloride	212	**228**	**108**	61-129	
106-99-0	1,3-Butadiene	212	**247**	**117**	54-140	
74-83-9	Bromomethane	212	**203**	**96**	68-120	
75-00-3	Chloroethane	214	**212**	**99**	63-123	
64-17-5	Ethanol	1,060	**1040**	**98**	49-134	
75-05-8	Acetonitrile	214	**212**	**99**	50-137	
107-02-8	Acrolein	206	**211**	**102**	62-128	
67-64-1	Acetone	1,070	**1070**	**100**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**200**	**94**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**449**	**106**	57-133	
107-13-1	Acrylonitrile	212	**242**	**114**	64-136	
75-35-4	1,1-Dichloroethene	214	**213**	**100**	67-115	
75-09-2	Methylene Chloride	210	**202**	**96**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**214**	**100**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**189**	**88**	65-115	
75-15-0	Carbon Disulfide	212	**192**	**91**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**229**	**107**	65-122	
75-34-3	1,1-Dichloroethane	212	**208**	**98**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**283**	**132**	57-131	**L**
108-05-4	Vinyl Acetate	1,070	**941**	**88**	71-128	
78-93-3	2-Butanone (MEK)	212	**215**	**101**	67-123	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200609-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	212	**221**	**104**	64-120	
141-78-6	Ethyl Acetate	432	**486**	**113**	64-131	
110-54-3	n-Hexane	216	**228**	**106**	58-125	
67-66-3	Chloroform	214	**209**	**98**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**220**	**100**	65-115	
107-06-2	1,2-Dichloroethane	214	**215**	**100**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**214**	**100**	66-115	
71-43-2	Benzene	210	**201**	**96**	66-109	
56-23-5	Carbon Tetrachloride	208	**200**	**96**	66-119	
110-82-7	Cyclohexane	422	**422**	**100**	67-117	
78-87-5	1,2-Dichloropropane	214	**220**	**103**	66-119	
75-27-4	Bromodichloromethane	218	**217**	**100**	71-119	
79-01-6	Trichloroethene	216	**197**	**91**	70-114	
123-91-1	1,4-Dioxane	216	**224**	**104**	71-117	
80-62-6	Methyl Methacrylate	430	**424**	**99**	76-121	
142-82-5	n-Heptane	214	**224**	**105**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**243**	**114**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**232**	**109**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**231**	**109**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**209**	**98**	70-117	
108-88-3	Toluene	212	**184**	**87**	67-113	
591-78-6	2-Hexanone	216	**227**	**105**	62-135	
124-48-1	Dibromochloromethane	214	**191**	**89**	73-126	
106-93-4	1,2-Dibromoethane	214	**193**	**90**	71-122	
123-86-4	n-Butyl Acetate	218	**239**	**110**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200609-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/9/20
Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	216	**213**	**99**	63-120	
127-18-4	Tetrachloroethene	208	**163**	**78**	64-120	
108-90-7	Chlorobenzene	214	**174**	**81**	65-116	
100-41-4	Ethylbenzene	212	**196**	**92**	65-117	
179601-23-1	m,p-Xylenes	426	**386**	**91**	64-121	
75-25-2	Bromoform	214	**194**	**91**	72-130	
100-42-5	Styrene	212	**199**	**94**	72-126	
95-47-6	o-Xylene	214	**194**	**91**	64-120	
111-84-2	n-Nonane	214	**222**	**104**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**197**	**92**	66-122	
98-82-8	Cumene	214	**187**	**87**	64-121	
80-56-8	alpha-Pinene	212	**192**	**91**	62-136	
103-65-1	n-Propylbenzene	214	**195**	**91**	65-123	
622-96-8	4-Ethyltoluene	210	**185**	**88**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**188**	**89**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**206**	**97**	63-129	
100-44-7	Benzyl Chloride	214	**194**	**91**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**170**	**79**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**161**	**75**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**178**	**83**	67-128	
5989-27-5	d-Limonene	212	**221**	**104**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**179**	**84**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**156**	**72**	62-140	
91-20-3	Naphthalene	212	**173**	**82**	57-149	
87-68-3	Hexachlorobutadiene	214	**156**	**73**	57-129	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200610-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/10/20
Sample Type: 1.0 L Silonite Summa 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	**241**	**115**	51-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**208**	**99**	64-115	
74-87-3	Chloromethane	212	**251**	**118**	49-127	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**184**	**89**	65-114	
75-01-4	Vinyl Chloride	212	**241**	**114**	61-129	
106-99-0	1,3-Butadiene	212	**272**	**128**	54-140	
74-83-9	Bromomethane	212	**208**	**98**	68-120	
75-00-3	Chloroethane	214	**223**	**104**	63-123	
64-17-5	Ethanol	1,060	**1120**	**106**	49-134	
75-05-8	Acetonitrile	214	**226**	**106**	50-137	
107-02-8	Acrolein	206	**223**	**108**	62-128	
67-64-1	Acetone	1,070	**1140**	**107**	56-125	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**205**	**97**	64-115	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**455**	**108**	57-133	
107-13-1	Acrylonitrile	212	**255**	**120**	64-136	
75-35-4	1,1-Dichloroethene	214	**214**	**100**	67-115	
75-09-2	Methylene Chloride	210	**205**	**98**	68-114	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**230**	**107**	55-139	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**182**	**84**	65-115	
75-15-0	Carbon Disulfide	212	**196**	**92**	68-113	
156-60-5	trans-1,2-Dichloroethene	214	**240**	**112**	65-122	
75-34-3	1,1-Dichloroethane	212	**217**	**102**	63-118	
1634-04-4	Methyl tert-Butyl Ether	214	**293**	**137**	57-131	**L**
108-05-4	Vinyl Acetate	1,070	**937**	**88**	71-128	
78-93-3	2-Butanone (MEK)	212	**219**	**103**	67-123	

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

Client: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200610-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/10/20
Sample Type: 1.0 L Silonite Summa 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
156-59-2	cis-1,2-Dichloroethene	212	**231**	**109**	64-120	
141-78-6	Ethyl Acetate	432	**510**	**118**	64-131	
110-54-3	n-Hexane	216	**243**	**113**	58-125	
67-66-3	Chloroform	214	**216**	**101**	65-114	
109-99-9	Tetrahydrofuran (THF)	220	**226**	**103**	65-115	
107-06-2	1,2-Dichloroethane	214	**228**	**107**	59-119	
71-55-6	1,1,1-Trichloroethane	214	**219**	**102**	66-115	
71-43-2	Benzene	210	**201**	**96**	66-109	
56-23-5	Carbon Tetrachloride	208	**201**	**97**	66-119	
110-82-7	Cyclohexane	422	**424**	**100**	67-117	
78-87-5	1,2-Dichloropropane	214	**221**	**103**	66-119	
75-27-4	Bromodichloromethane	218	**220**	**101**	71-119	
79-01-6	Trichloroethene	216	**190**	**88**	70-114	
123-91-1	1,4-Dioxane	216	**223**	**103**	71-117	
80-62-6	Methyl Methacrylate	430	**414**	**96**	76-121	
142-82-5	n-Heptane	214	**224**	**105**	66-119	
10061-01-5	cis-1,3-Dichloropropene	214	**234**	**109**	72-125	
108-10-1	4-Methyl-2-pentanone	212	**223**	**105**	68-130	
10061-02-6	trans-1,3-Dichloropropene	212	**233**	**110**	71-132	
79-00-5	1,1,2-Trichloroethane	214	**207**	**97**	70-117	
108-88-3	Toluene	212	**183**	**86**	67-113	
591-78-6	2-Hexanone	216	**233**	**108**	62-135	
124-48-1	Dibromochloromethane	214	**187**	**87**	73-126	
106-93-4	1,2-Dibromoethane	214	**190**	**89**	71-122	
123-86-4	n-Butyl Acetate	218	**244**	**112**	65-134	

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: **Environmental Management Services, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2002996
Client Project ID: **In-Plant Monitoring / KUH0-20-011** ALS Sample ID: P200610-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/10/20
Sample Type: 1.0 L Silonite Summa 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
111-65-9	n-Octane	216	**217**	**100**	63-120	
127-18-4	Tetrachloroethene	208	**157**	**75**	64-120	
108-90-7	Chlorobenzene	214	**170**	**79**	65-116	
100-41-4	Ethylbenzene	212	**193**	**91**	65-117	
179601-23-1	m,p-Xylenes	426	**385**	**90**	64-121	
75-25-2	Bromoform	214	**187**	**87**	72-130	
100-42-5	Styrene	212	**197**	**93**	72-126	
95-47-6	o-Xylene	214	**194**	**91**	64-120	
111-84-2	n-Nonane	214	**236**	**110**	56-132	
79-34-5	1,1,2,2-Tetrachloroethane	214	**199**	**93**	66-122	
98-82-8	Cumene	214	**185**	**86**	64-121	
80-56-8	alpha-Pinene	212	**191**	**90**	62-136	
103-65-1	n-Propylbenzene	214	**195**	**91**	65-123	
622-96-8	4-Ethyltoluene	210	**182**	**87**	71-126	
108-67-8	1,3,5-Trimethylbenzene	212	**186**	**88**	65-120	
95-63-6	1,2,4-Trimethylbenzene	212	**204**	**96**	63-129	
100-44-7	Benzyl Chloride	214	**190**	**89**	66-138	
541-73-1	1,3-Dichlorobenzene	214	**166**	**78**	65-127	
106-46-7	1,4-Dichlorobenzene	214	**159**	**74**	65-125	
95-50-1	1,2-Dichlorobenzene	214	**173**	**81**	67-128	
5989-27-5	d-Limonene	212	**226**	**107**	65-136	
96-12-8	1,2-Dibromo-3-chloropropane	214	**172**	**80**	73-133	
120-82-1	1,2,4-Trichlorobenzene	216	**151**	**70**	62-140	
91-20-3	Naphthalene	212	**167**	**79**	57-149	
87-68-3	Hexachlorobutadiene	214	**152**	**71**	57-129	

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.