March 17, 2021



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Wisconsin Department of Natural Resources Attn: Mr. Matt Thompson 1300 West Clairemont Avenue Eau Claire, WI 54701

Subject:

Update Report Band Box Cleaners & Laundry, Inc. 122 East Oak Street Sparta, WI 54656 BRRTS #02-42-551921

Dear Matt,

On behalf of Band Box Cleaners & Laundry, Inc., REI is submitting an Update Report for the above referenced site. REI has completed the approved sanitary sewer vapor analysis and collection scope of service. Based on the results, REI is recommending the site be again submitted for case closure consideration.

If you have any questions or concerns over the data presented in this report, please contact me at your earliest convenience at (715) 675-9784.

Sincerely, REI Engineering, Inc.

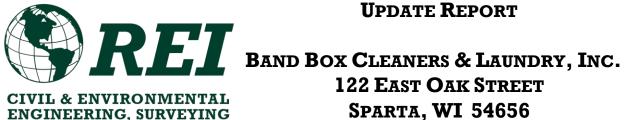
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David N. Larsen P.G. Senior Hydrogeologist/Project Manager

Enclosure

CC: Band Box Cleaners & Laundry, Inc., Attn: Mr. John Tessman, P.O. Box 299, Tomah, WI 54660





122 EAST OAK STREET SPARTA, WI 54656

> **BRRTS** #02-42-551921 **REI PROJECT #6546**

COMPREHENSIVE SERVICES WITH PRACTICAL SOLUTIONS

BAND BOX CLEANERS & LAUNDRY, INC. 122 EAST OAK STREET SPARTA, WI 54656 BRRTS #02-42-551921

REI PROJECT #6546



PREPARED FOR:

Mr. John Tessman PO Box 299 Tomah, WI 54660

March 2021

BAND BOX CLEANERS & LAUNDRY, INC. 122 EAST OAK STREET SPARTA, WI 54656 BRRTS #02-42-551921

REI PROJECT #6546

The recommendations contained in this report are based on the information obtained from our study of the site and were arrived at in accordance with accepted hydrogeologic and engineering practices at this time and location.

"I, David N. Larsen, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of Ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of Ch. GHSS 3, Wis. Admn. Code, and that to the best of my knowledge, all the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

M Lan

Hydrogeologist

<u>3/17/2021</u> Date

"I, Brian J. Bailey, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Environmental Scientist

<u>3/17/2021</u> Date

TABLE OF CONTENTS

- 1.0 Introduction
 - 1.1 Purpose
- 2.0 Site Location
- 3.0 Summary of Work
 - 3.1 Sanitary Sewer Line Reconnaissance
 - 3.2 Sanitary Sewer Line Vapor Sampling
 - 3.3 Sanitary Sewer Line Vapor Sampling Analytical Results
- 4.0 Conclusion and Recommendations

LIST OF FIGURES

- Figure 1 Site Vicinity Map
- Figure 2 Detailed Site Map

LIST OF TABLES

- Table 1
 Summary of Sewer Line Vapor Analytical Results
- Table 2
 Summary of Sub Slab Vapor Analytical Results

LIST OF APPENDICES

- Appendix A Site Photographs
- Appendix B Copy of Sewer Vapor Laboratory Analytical Report

BAND BOX CLEANERS & LAUNDRY, INC. 122 EAST OAK STREET SPARTA, WI 54656 BRRTS #02-42-551921

REI PROJECT #6546

1.0 INTRODUCTION

1.1 Purpose

This report presents results from the limited scope of work for the Band Box Cleaners & Laundry, Inc. in Sparta, WI. REI Engineering, Inc. (REI) had submitted the site investigation for case closure review in August 2019 and closure was subsequently denied. Case closure was denied due to the lack of a sewer vapor sample to determine if residual dry-cleaning solvent remained in the sanitary sewer line that could negatively affect the indoor air quality of the building.

2.0 SITE LOCATION

The Band Box Cleaners & Laundry Sparta Facility site is located at 122 East Oak Street in the SW ¹/₄ of the SW ¹/₄ of Section 13, Township 17 North, Range 4 West, Monroe County, Wisconsin (Figure 1). While the site had historically been used as a dry cleaning and wet laundry location, the dry cleaning operations had been removed for years. The property currently houses a coin laundry, real estate and a glass service business.

3.0 SUMMARY OF WORK

3.1 Sanitary Sewer Line Reconnaissance

In accordance with the August 24, 2020 Change Order approval, REI performed a sewer line reconnaissance to determine an appropriate sanitary sewer sampling location. The building contained multiple sanitary penetration points and it was



determined that the best location to sample would be from the bathroom sink drain. The location of the sink is depicted in Figure 2.

3.2 Sanitary Sewer Line Vapor Sampling

REI personnel completed the sanitary sewer line sampling, as outlined in the November 30, 2020 scope of services approval on February 24, 2021. The sample was collected through a bathroom sink drain. Photographs of the sample collection process are included in Attachment A. The *Investigation Protocol – Sewers and Utility Tunnels as Preferential Pathways for Volatile Organic Compound Migration Into Buildings: Risk Factors and Investigation Protocol* document describes the process by which sewer lines can be sampled through a sink drain beyond the P trap. The polyethylene tubing could not pass the trap without disconnecting the plumbing, which consisted of hand tight PVC fittings. The piping was disconnected, the tubing slid beyond the trap, and the plumbing was then reconnected for sampling.

The line was purged for five (5) minutes using a RAE Plus Classic 4 gas meter with field measurements for Oxygen, Carbon Monoxide (CO), Lower Explosive Limit (LEL), Hydrogen Sulfide (H₂S) and Volatile Organic Compounds (VOCs). Oxygen was 20.1%, CO and LEL were 0 %, with H₂S and VOCs 0.0 parts per million (PPM).

After purging, the line was connected to the Summa can and filled through a 200 ml/minute flow controller. The sample "Sewer Gas 1" was submitted to Synergy Environmental Lab, Inc. in Appleton, WI for TO-15 analysis.

3.3 Sanitary Sewer Line Vapor Sampling Analytical Results

A single sanitary sewer line vapor sample was collected from the bathroom sink on February 24. 2021. The results are summarized on the attached Table 1. Detections were compared to Small Commercial Building sub-slab screening levels. A variety of low-level detections were present, with Tetrachloroethylene and Trichloroethylene (contaminants of concern for former dry cleaning releases) well below the screening level. No analytical results were identified in concentrations greater than their respective enforceable screening levels. The complete laboratory analytical report is



included in Appendix B. A copy of the sub-slab vapor analytical from SS-1 and SS-4 are presented in Table 2 for comparison purposes.

4.0 CONCLUSION AND RECOMMENDATIONS

Active dry cleaning has not been performed at the Band Box Cleaners and Laundry – Sparta, WI location for years. Based on the results of sanitary sewer line vapor sampling, residual product does not appear to be present in the sewer line. Sewer line vapor does not represent a significant vapor source into the building. This information should be the final requirement for case closure consideration and REI recommends submitting an updated case closure package for the site.

Table 1 Summary of Sewer Line Vapor Anlytical Results Band Box Cleaners 122 E Oak Street Sparta, WI

	Bathroom Sink		
	Date>	2/24/2021	
	REI		
Small Commercial Building (Attenuati			
Chemical (µg/m³)			
Acetone	4,500,000	5.2	
Benzene	530	1.72	
2-Butanone (MEK)	730,000	3.15	
Carbon disulfide	102,333	6.0	
Chloromethane	13,000	4.6	
Cyclohexane	876,667	0.38 ^J	
1,4-Dichlorobenzene	370	< 0.302	
Dichlorodifluoromethane	15,000	2.67	
Ethylbenzene	1,600	4.9	
4-Ethyltoluene		2.75	
n-Heptane	58,333	3.4	
n-Hexane	102,333	2.1	
Methylene Chloride	87,000	< 15	
Tetrachloroethene	6,000	4.4	
Trichloroethene	290	< 0.237	
Toluene	730,000	13.7	
Trichlorofluoromethane (Halocarbon 11)		1.57	
1,2,4-Trimethylbenzene	8,700	7.7	
1,3,5-Trimethylbenzene	8,700	2.7	
Vinyl acetate	29,200	< 0.203	
Xylene (mix)	15,000	24.4	

Notes:

Sub-Slab Vapor Risk Screening Levels Based on November 2017 USEPA Regional Screening Level Summary Table

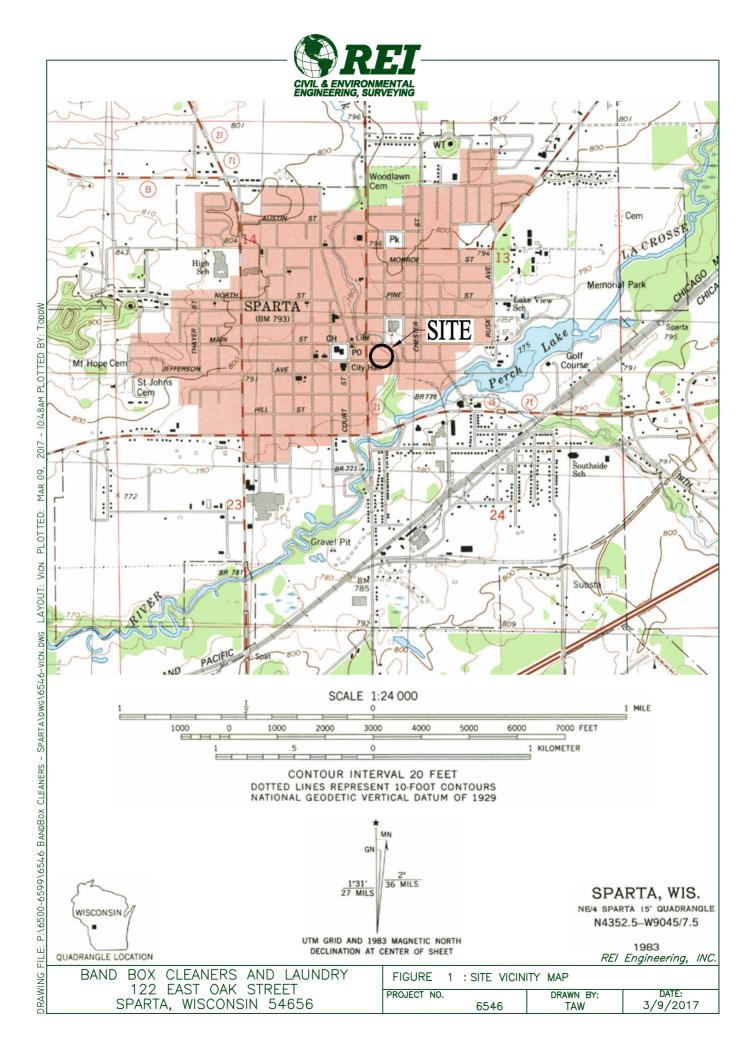
Bold Exceeds Sub-Slab Vapor Risk Screening Level

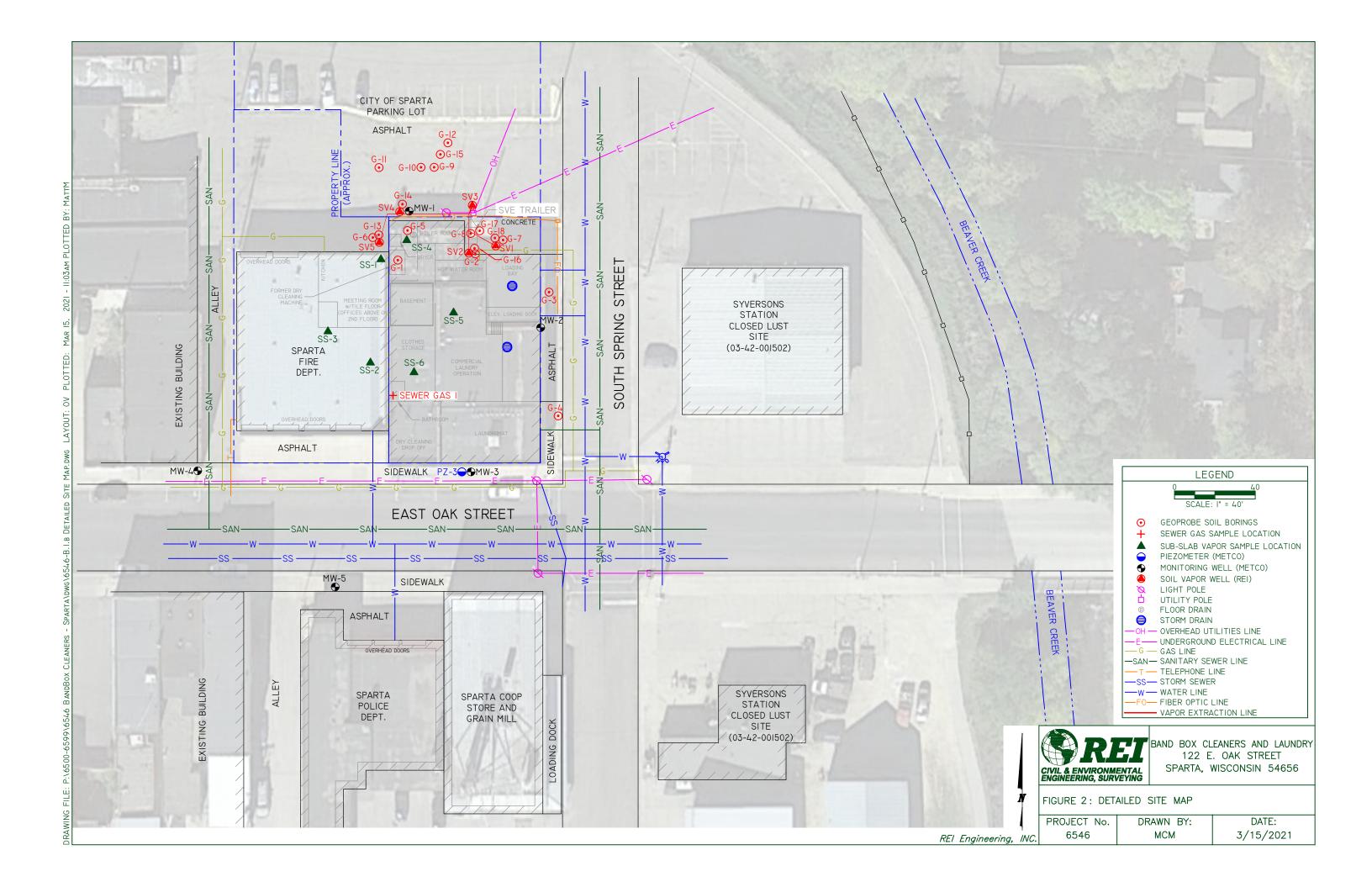
¹ - Estimated concentration at or above the Limit of Detection and below the Limit of Quantification

Table 2 Summary of Sub Slab Vapor Analytical Results Band Box Cleaners 122 E Oak Street Sparta, WI

	Location> SS-1								SS-4										
	4/12/2011	11/4/2014	11/10/2014	11/13/2015	12/9/2015	4/20/2016	6/17/2016	11/25/2016	1/23/2018	4/12/2011	11/4/2014	11/10/2014	11/13/2015	12/9/2015	4/20/2016	6/17/2016	11/25/2016	1/23/2018	
	Braun	Braun REI						Braun											
Small Commercial Building (Attenuation Factor 0.03)																			
Chemical (µg/m³)	SS-VRSL																		
Acetone	4,500,000	19.2	10.3	SVE	6.4	SVE	17.9	SVE	SVE	6.7	17.2	8	SVE	362	SVE	21.6	SVE	SVE	62.0 ^J
Benzene	530	< 1.51	12.7	System	< 0.28	System	3.2	System	System	< 0.30	1.96	3.4	System	31.6	System	0.78	System	System	<5.4
2-Butanone (MEK)	730,000	3.21	3.8	Startup	< 2.6	Shutdown	1.8 ^J	Startup	Shutdown	2.1 ^J	< 1.41	2.1	Startup	< 32.1	Shutdown	< 0.38	Startup	Shutdown	<7.3
Carbon disulfide	102,333	< 1.42	< 0.84		< 0.066		0.33 ^J			< 0.35	< 1.43	< 0.91		< 0.81		0.64 ^J			<6.4
Chloromethane	13,000	< 0.978	< 0.56		0.65 ^J		0.58 ^J			<0.26	< 0.988	< 0.60		< 0.45		1.50			<4.8
Cyclohexane	876,667	< 1.57	18.1		< 0.091		11.9			<0.44	< 1.59	1.3		143		0.75 ^J			13.0 ^J
1,4-Dichlorobenzene	370	< 2.85	28.2		2.8		12.1			3.8	< 2.88	4.9		< 1.3		< 0.84			29.0 ^J
Dichlorodifluoromethane	15,000	< 3.88	3.0		2.2		4.3			3.0	< 3.93	2.2		48.6		247			951
Ethylbenzene	1,600	< 2.06	18.4		6.6		5.0			6.0	< 2.08	7.3		109		4.1			<6.1
4-Ethyltoluene		< 2.33	11.9		2.7		6.2			12.2	< 2.35	7.1		30.6		6.2			<7.7
n-Heptane	58,333	< 1.87	15.3		< 0.73		3.5			14.0	< 1.89	2.8		75.9		1.2^{J}			<7.5
n-Hexane	102,333	< 1.67	32.4		< 0.096		5.2			1.9	< 1.69	2.0		80.2		1.7			<11.9
Propylene	436,667	< 0.815	< 0.47		0.35 ^J		< 0.24			< 0.31	3.98	< 0.50		< 0.49		< 0.23			<5.6
Methylene Chloride	87,000	< 1.65	< 4.7		< 3.1		1.2^{J}			<3.0	< 1.66	< 5.1		< 37.8		5.0 ^J			<54.4
Tetrachloroethene	6,000	27.3	7.0		< 0.60		235			147	36,600	29,400		< 7.4		2,660			2,420
Trichloroethene	290	< 2.45	< 0.74		< 0.48		0.98			< 0.53	151	160		< 0.59		17.8			10.6 ^J
Toluene	730,000	< 1.85	83.1		12.5		21.3			12.7	< 1.87	19.5		265		16.3			14.0 ^J
Trichlorofluoromethane (Halocarbon 11)		< 2.66	1.6		1.3 ^J		1.5 ^J			< 0.82	< 2.69	< 1.6		< 14.6		6.2			<15.0
1,2,4-Trimethylbenzene	8,700	< 2.33	29.1		12.4		18.3			146	< 2.35	13.7		88.5		19.9			99.0
1,3,5-Trimethylbenzene	8,700	< 2.33	10.4		2.8		5.5			77.9	< 2.35	5.8		28		5.7			50.1
Vinyl acetate	29,200	< 1.73	< 2.4		2.2		2.2^{J}			<0.33	< 1.75	< 2.6		< 0.96		< 0.55			<5.9
Xylene (mix)	15,000	< 3.96	100.3		36.4		28.0			111.1	< 4.0	39.3		554		25.5			42.2

Notes: <u>Sub-Slab</u> Vapor Risk Screening Levels Based on November 2017 USEPA Regional Screening Level Summary Table <u>Bold</u> Exceeds Sub-Slab Vapor Risk Screening Level ¹ - Estimated concentration at or above the Limit of Detection and below the Limit of Quantification





Appendix A

SITE PHOTOGRAPHS





APPENDIX B

COPY OF SEWER VAPOR

LABORATORY ANALYTICAL RESULTS



Synergy Environmental Lab, INC

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

MATHEW C. MICHELSKI REI 4080 N. 20TH AVENUE WAUSAU. WI 54401

Report Date 05-Mar-21

Project Name Project #	BAND BOX 6546	BOX SPARTA Invoice # E39116									
Lab Code	5039116A										
Sample ID	SEWER G	AS 1									
Sample Matrix	2/24/2021										
Sample Date	2/24/2021	Decult	II				Method	Ext Date	Dun Data	Analyst	Code
		Result	Unit	LOD I	LUQI	Dil	Method	Ext Date	Run Date	Analyst	Coue
Organic											
Air Samples											
Acetone		5.2	ug/m3	0.299	0.95	1	TO-15		3/3/2021	CJR	1
Acrolein		0.71	ug/m3	0.094	0.299	1	TO-15		3/3/2021	CJR	1
Benzene		1.72	ug/m3	0.136	0.433	1	TO-15		3/3/2021	CJR	1
Benzyl Chloride		< 0.209	ug/m3	0.209	0.665	1	TO-15		3/3/2021	CJR	1
Bromodichloromet	thane	< 0.374	ug/m3	0.374	1.19	1	TO-15		3/3/2021	CJR	1
Bromoform		< 0.414	ug/m3	0.414	1.32	1	TO-15		3/3/2021	CJR	1
Bromomethane		0.43 "J"	ug/m3	0.2	0.637	1	TO-15		3/3/2021	CJR	1
1,3-Butadiene		< 0.143	ug/m3	0.143	0.454	1	TO-15		3/3/2021	CJR	1
Carbon Disulfide		6.0	ug/m3	0.138	0.44	1	TO-15		3/3/2021	CJR	1
Carbon Tetrachlor	ide	0.57 "J"	ug/m3	0.307	0.978	1	TO-15		3/3/2021	CJR	1
Chlorobenzene		< 0.251	ug/m3	0.251	0.798	1	TO-15		3/3/2021	CJR	1
Chloroethane		3.5	ug/m3	0.159	0.507	1	TO-15		3/3/2021	CJR	1
Chloroform		< 0.3	ug/m3	0.3	0.953	1	TO-15		3/3/2021	CJR	1
Chloromethane		4.6	ug/m3	0.831	2.64	1	TO-15		3/3/2021	CJR	1
Cyclohexane		0.38 "J"	ug/m3	0.212	0.674	1	TO-15		3/3/2021	CJR	1
Dibromochloromet	thane	< 0.376	ug/m3	0.376	1.2	1	TO-15		3/3/2021	CJR	1
1,4-Dichlorobenzer	ne	< 0.302	ug/m3	0.302	0.96	1	TO-15		3/3/2021	CJR	1
1,3-Dichlorobenzer	ne	0.42 "J"	ug/m3	0.302	0.96	1	TO-15		3/3/2021	CJR	1
1,2-Dichlorobenzer	ne	< 0.235	ug/m3	0.235	0.749	1	TO-15		3/3/2021	CJR	1
Dichlorodifluorom	ethane	2.67	ug/m3	0.263	0.836	1	TO-15		3/3/2021	CJR	1
1,2-Dichloroethane	9	< 0.24	ug/m3	0.24	0.763	1	TO-15		3/3/2021	CJR	1
1,1-Dichloroethane	2	< 0.187	ug/m3	0.187	0.596	1	TO-15		3/3/2021	CJR	1
1,1-Dichloroethene	;	< 0.21	ug/m3	0.21	0.668	1	TO-15		3/3/2021	CJR	1
cis-1,2-Dichloroeth	nene	< 0.197	ug/m3	0.197	0.626	1	TO-15		3/3/2021	CJR	1
trans-1,2-Dichloroe	ethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		3/3/2021	CJR	1

Project Name BAND BOX SPARTA

Project # 6546

Lab Code 5039116A

Sample ID SEWER GAS 1

Sample Matrix Air

Sample Date 2/24/2021

Sumple Date 2/24/2021	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.28	ug/m3	0.28	0.89	1	TO-15		3/3/2021	CJR	1
trans-1,3-Dichloropropene	< 0.198	ug/m3	0.198	0.63	1	TO-15		3/3/2021	CJR	1
cis-1,3-Dichloropropene	< 0.234	ug/m3	0.234	0.745	1	TO-15		3/3/2021	CJR	1
1,2-Dichlorotetrafluoroethane	< 0.446	ug/m3	0.446	1.42	1	TO-15		3/3/2021	CJR	1
1,4-Dioxane	< 0.157	ug/m3	0.157	0.5	1	TO-15		3/3/2021	CJR	1
EDB (1,2-Dibromoethane)	< 0.342	ug/m3	0.342	1.09	1	TO-15		3/3/2021	CJR	1
Ethanol	18.5	ug/m3	0.152	0.482	1	TO-15		3/3/2021	CJR	1
Ethyl Acetate	< 0.176	ug/m3	0.176	0.559	1	TO-15		3/3/2021	CJR	1
Ethylbenzene	4.9	ug/m3	0.203	0.645	1	TO-15		3/3/2021	CJR	1
4-Ethyltoluene	2.75	ug/m3	0.214	0.681	1	TO-15		3/3/2021	CJR	1
Heptane	3.4	ug/m3	0.265	0.845	1	TO-15		3/3/2021	CJR	1
Hexachlorobutadiene	< 0.489	ug/m3	0.489	1.56	1	TO-15		3/3/2021	CJR	1
Hexane	2.11	ug/m3	0.235	0.748	1	TO-15		3/3/2021	CJR	1
2-Hexanone	< 0.222	ug/m3	0.222	0.707	1	TO-15		3/3/2021	CJR	1
Isopropyl Alcohol	23.8	ug/m3	0.109	0.347	1	TO-15		3/3/2021	CJR	1
Methyl ethyl ketone (MEK)	3.15	ug/m3	0.178	0.567	1	TO-15		3/3/2021	CJR	1
Methyl isobutyl ketone (MIBK)	0.86	ug/m3	0.168	0.536	1	TO-15		3/3/2021	CJR	1
Methyl Methacrylate	< 0.217	ug/m3	0.217	0.69	1	TO-15		3/3/2021	CJR	1
Methylene chloride	< 15	ug/m3	0.159	0.506	1	TO-15		3/3/2021	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.16	ug/m3	0.16	0.509	1	TO-15		3/3/2021	CJR	1
Naphthalene	0.94 "J"	ug/m3	0.675	2.15	1	TO-15		3/3/2021	CJR	1
Propene	8.9	ug/m3	0.079	0.251	1	TO-15		3/3/2021	CJR	1
Styrene	5.4	ug/m3	0.181	0.577	1	TO-15		3/3/2021	CJR	1
1,1,2,2-Tetrachloroethane	< 0.325	ug/m3	0.325	1.03	1	TO-15		3/3/2021	CJR	1
Tetrachloroethene	4.4	ug/m3	0.278	0.884	1	TO-15		3/3/2021	CJR	1
Tetrahydrofuran	0.62	ug/m3	0.131	0.417	1	TO-15		3/3/2021	CJR	1
Toluene	13.7	ug/m3	0.184	0.585	1	TO-15		3/3/2021	CJR	1
1,2,4-Trichlorobenzene	< 0.657	ug/m3	0.657	2.09	1	TO-15		3/3/2021	CJR	1
1,1,1-Trichloroethane	< 0.249	ug/m3	0.249	0.793	1	TO-15		3/3/2021	CJR	1
1,1,2-Trichloroethane	< 0.258	ug/m3	0.258	0.822	1	TO-15		3/3/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		3/3/2021	CJR	1
Trichlorofluoromethane	1.57	ug/m3	0.337	1.07	1	TO-15		3/3/2021	CJR	1
Trichlorotrifluoroethane	0.69 "J"	ug/m3	0.402	1.28	1	TO-15		3/3/2021	CJR	1
1,2,4-Trimethylbenzene	7.7	ug/m3	0.283	0.899	1	TO-15		3/3/2021	CJR	1
1,3,5-Trimethylbenzene	2.7	ug/m3	0.232	0.739	1	TO-15		3/3/2021	CJR	1
Vinyl acetate	< 0.203	ug/m3	0.203	0.645	1	TO-15		3/3/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		3/3/2021	CJR	1
m&p-Xylene	17.2	ug/m3	0.377	1.2	1	TO-15		3/3/2021	CJR	1
o-Xylene	7.2	ug/m3	0.218	0.695	1	TO-15		3/3/2021	CJR	1

Invoice # E39116

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code Comment

1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

Michaelphal