WDNR Off-Site Sub-Slab Sampling 10 Day Notification:

Subject: JCI Humboldt Facility (BRRTs # 02-41-231951) – Offsite Sub-Slab Sample Results 10-Day Submittal

Dear David Neste:

Environmental Resources Management, Inc. (ERM), on behalf of Johnson Controls, Inc. (JCI), is submitting the attached sub-slab sample results for the adjacent western property (3728 N Fratney St) near the former Humboldt facility ("the Site") located at 3701 N. Humboldt Boulevard, Milwaukee, Wisconsin. This sub-slab sample was collected on 26 November 2024 near the eastern wall of the building (i.e., closer to the Site) and had a trichloroethene (TCE) concentration of 373 ug/m3. The sub-slab concentration detects is between the Small and Large Commercial/Industrial (C/I) Sub-Slab standards for TCE (290 and 880 ug/m3, respectively). As a next step, we are proposing to complete additional investigation activities at this property that include collection of a confirmation sub-slab sampling and paired indoor air sample.

We would request WDNR input regarding the if the Small or Large C/I standard is most appropriate to use for this ~25,000 sqft building. The building was historically used for industrial purposes (as a Tannery) but is currently used for commercial purposes. The WDNR Vapor Intrusion Guidance RR-800 indicates that a Small C/I property would be a former residence (house) converted into a business, which suggests that the Large C/I standard would be most appropriate for the 3728 N Fratney St property. We want to make sure that we are using the most appropriate interpretation, so let us know your thoughts on this matter.

If you have any questions on this information, please feel free to contact myself via e-mail at david.decourcybower@erm.com or by telephone at (414) 977-4705.

ANALYTICAL REPORT

December 04, 2024

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ERM - Milwaukee, WI

Sample Delivery Group:	L1804638
Samples Received:	11/27/2024
Project Number:	PN 0646830
Description:	JCI Humboldt VI Assessment
Report To:	Drew Hisey 700 W. Virginia St Suite 601 Milwaukee, WI 53204

Entire Report Reviewed By:

John Hawkins
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

FS-3728-20241126 L1804638-01 5

Qc: Quality Control Summary 7

Volatile Organic Compounds (MS) by Method TO-15 7

Gl: Glossary of Terms 15

Al: Accreditations & Locations 16

Sc: Sample Chain of Custody 17

FS-3728-20241126 L1804638-01 Air

Collected by	Collected date/time	Received date/time
	11/26/24 10:02	11/27/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2410631	1	11/30/24 22:00	11/30/24 22:00	DAH	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John V Hawkins

John Hawkins
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	4.11	89.6		1	WG2410631
Allyl chloride	107-05-1	76.53	1.94	ND		1	WG2410631
Benzene	71-43-2	78.10	1.17	1.80		1	WG2410631
Benzyl Chloride	100-44-7	127	1.54	ND		1	WG2410631
Bromodichloromethane	75-27-4	164	1.56	ND		1	WG2410631
Bromoform	75-25-2	253	2.61	ND		1	WG2410631
Bromomethane	74-83-9	94.90	1.21	ND		1	WG2410631
1,3-Butadiene	106-99-0	54.10	1.17	ND		1	WG2410631
Carbon disulfide	75-15-0	76.10	1.66	2.11		1	WG2410631
Carbon tetrachloride	56-23-5	154	1.57	ND		1	WG2410631
Chlorobenzene	108-90-7	113	1.82	ND		1	WG2410631
Chloroethane	75-00-3	64.50	0.968	ND		1	WG2410631
Chloroform	67-66-3	119	1.69	ND		1	WG2410631
Chloromethane	74-87-3	50.50	0.758	ND		1	WG2410631
2-Chlorotoluene	95-49-8	126	1.35	ND		1	WG2410631
Cyclohexane	110-82-7	84.20	1.95	ND		1	WG2410631
Dibromochloromethane	124-48-1	208	1.97	ND		1	WG2410631
1,2-Dibromoethane	106-93-4	188	1.77	ND		1	WG2410631
1,2-Dichlorobenzene	95-50-1	147	1.47	ND		1	WG2410631
1,3-Dichlorobenzene	541-73-1	147	1.51	ND		1	WG2410631
1,4-Dichlorobenzene	106-46-7	147	1.54	ND		1	WG2410631
1,2-Dichloroethane	107-06-2	99	0.984	ND		1	WG2410631
1,1-Dichloroethane	75-34-3	98	0.950	ND		1	WG2410631
1,1-Dichloroethene	75-35-4	96.90	0.987	ND		1	WG2410631
cis-1,2-Dichloroethene	156-59-2	96.90	1.05	ND		1	WG2410631
trans-1,2-Dichloroethene	156-60-5	96.90	0.971	ND		1	WG2410631
1,2-Dichloropropane	78-87-5	113	1.16	ND		1	WG2410631
cis-1,3-Dichloropropene	10061-01-5	111	1.13	ND		1	WG2410631
trans-1,3-Dichloropropene	10061-02-6	111	1.20	ND		1	WG2410631
1,4-Dioxane	123-91-1	88.10	1.97	ND		1	WG2410631
Ethanol	64-17-5	46.10	14.9	19.4		1	WG2410631
Ethylbenzene	100-41-4	106	1.12	2.27		1	WG2410631
4-Ethyltoluene	622-96-8	120	1.45	ND		1	WG2410631
Trichlorofluoromethane	75-69-4	137.40	1.44	ND		1	WG2410631
Dichlorodifluoromethane	75-71-8	120.92	1.33	2.17		1	WG2410631
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	1.92	ND		1	WG2410631
1,2-Dichlorotetrafluoroethane	76-14-2	171	1.76	ND		1	WG2410631
Heptane	142-82-5	100	1.55	5.69		1	WG2410631
Hexachloro-1,3-butadiene	87-68-3	261	2.85	ND		1	WG2410631
n-Hexane	110-54-3	86.20	1.68	7.16		1	WG2410631
Isopropylbenzene	98-82-8	120.20	1.18	ND		1	WG2410631
Methylene Chloride	75-09-2	84.90	1.95	ND		1	WG2410631
Methyl Butyl Ketone	591-78-6	100	1.81	ND		1	WG2410631
2-Butanone (MEK)	78-93-3	72.10	1.14	12.1		1	WG2410631
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.45	ND		1	WG2410631
Methyl methacrylate	80-62-6	100.12	2.31	ND		1	WG2410631
MTBE	1634-04-4	88.10	0.976	ND		1	WG2410631
Naphthalene	91-20-3	128	10.8	ND		1	WG2410631
2-Propanol	67-63-0	60.10	5.58	ND		1	WG2410631
Propene	115-07-1	42.10	1.23	ND		1	WG2410631
Styrene	100-42-5	104	1.14	ND		1	WG2410631
1,1,2,2-Tetrachloroethane	79-34-5	168	1.59	ND		1	WG2410631
Tetrachloroethylene	127-18-4	166	2.51	ND		1	WG2410631
Tetrahydrofuran	109-99-9	72.10	1.61	ND		1	WG2410631
Toluene	108-88-3	92.10	1.63	6.78		1	WG2410631
1,2,4-Trichlorobenzene	120-82-1	181	11.4	ND		1	WG2410631

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	1.30	6.64		1	WG2410631
1,1,2-Trichloroethane	79-00-5	133	1.24	ND		1	WG2410631
Trichloroethylene	79-01-6	131	1.22	373		1	WG2410631
1,2,4-Trimethylbenzene	95-63-6	120	1.52	1.68		1	WG2410631
1,3,5-Trimethylbenzene	108-67-8	120	1.39	ND		1	WG2410631
2,2,4-Trimethylpentane	540-84-1	114.22	1.40	ND		1	WG2410631
Vinyl chloride	75-01-4	62.50	0.703	ND		1	WG2410631
Vinyl Bromide	593-60-2	106.95	1.09	ND		1	WG2410631
Vinyl acetate	108-05-4	86.10	1.14	ND		1	WG2410631
Xylenes, Total	1330-20-7	106.16	1.29	5.04		1	WG2410631
m&p-Xylene	179601-23-1	106	2.51	3.35		1	WG2410631
o-Xylene	95-47-6	106	1.28	1.66		1	WG2410631
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*		*97.6*		*60.0-140*	WG2410631

Method Blank (MB)

(MB) R4152856-3 11/30/24 09:01

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.520	1.73
Allyl chloride	U		0.186	0.620
Benzene	U		0.110	0.367
Benzyl Chloride	U		0.0888	0.296
Bromodichloromethane	U		0.0695	0.232
Bromoform	U		0.0755	0.252
Bromomethane	U		0.0938	0.313
1,3-Butadiene	U		0.158	0.527
Carbon disulfide	U		0.160	0.533
Carbon tetrachloride	U		0.0746	0.249
Chlorobenzene	U		0.118	0.393
Chloroethane	U		0.110	0.367
Chloroform	U		0.104	0.347
Chloromethane	U		0.110	0.367
2-Chlorotoluene	U		0.0787	0.262
Cyclohexane	U		0.170	0.567
Dibromochloromethane	U		0.0696	0.232
1,2-Dibromoethane	U		0.0690	0.230
1,2-Dichlorobenzene	U		0.0734	0.245
1,3-Dichlorobenzene	U		0.0753	0.251
1,4-Dichlorobenzene	U		0.0768	0.256
1,2-Dichloroethane	U		0.0730	0.243
1,1-Dichloroethane	U		0.0710	0.237
1,1-Dichloroethene	U		0.0747	0.249
cis-1,2-Dichloroethene	U		0.0796	0.265
trans-1,2-Dichloroethene	U		0.0735	0.245
1,2-Dichloropropane	U		0.0752	0.251
cis-1,3-Dichloropropene	U		0.0743	0.248
trans-1,3-Dichloropropene	U		0.0795	0.265
1,4-Dioxane	U		0.164	0.547
Ethanol	U		2.37	7.90
Ethylbenzene	U		0.0778	0.259
4-Ethyltoluene	U		0.0887	0.296
Trichlorofluoromethane	U		0.0771	0.257
Dichlorodifluoromethane	U		0.0806	0.269
1,1,2-Trichlorotrifluoroethane	U		0.0751	0.250
1,2-Dichlorotetrafluoroethane	U		0.0756	0.252
Heptane	U		0.114	0.380
Hexachloro-1,3-butadiene	U		0.0800	0.267
n-Hexane	U		0.143	0.477

Method Blank (MB)

(MB) R4152856-3 11/30/24 09:01

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U		0.0722	0.241
Methylene Chloride	U		0.169	0.563
Methyl Butyl Ketone	U		0.133	0.443
2-Butanone (MEK)	U		0.116	0.387
4-Methyl-2-pentanone (MIBK)	U		0.106	0.353
Methyl methacrylate	U		0.169	0.563
MTBE	U		0.0813	0.271
Naphthalene	U		0.617	2.06
2-Propanol	U		0.680	2.27
Propene	U		0.214	0.713
Styrene	U		0.0802	0.267
1,1,2,2-Tetrachloroethane	U		0.0695	0.232
Tetrachloroethylene	U		0.111	0.370
Tetrahydrofuran	U		0.164	0.547
Toluene	U		0.130	0.433
1,2,4-Trichlorobenzene	U		0.462	1.54
1,1,1-Trichloroethane	U		0.0718	0.239
1,1,2-Trichloroethane	U		0.0683	0.228
Trichloroethylene	U		0.0680	0.227
1,2,4-Trimethylbenzene	U		0.0927	0.309
1,3,5-Trimethylbenzene	U		0.0853	0.284
2,2,4-Trimethylpentane	U		0.0898	0.299
Vinyl chloride	U		0.0826	0.275
Vinyl Bromide	U		0.0749	0.250
Vinyl acetate	U		0.0968	0.323
Xylenes, Total	U		0.0887	0.296
m&p-Xylene	U		0.174	0.580
o-Xylene	U		0.0887	0.296
(S) 1,4-Bromofluorobenzene	*96.6*			*60.0-140*

L1804379-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1804379-01 11/30/24 12:38 • (DUP) R4152856-4 11/30/24 13:22

Analyte	Original Result ppbv	DUP Result ppbv	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Acetone	3.98	3.79	1	4.89		25
Allyl chloride	ND	ND	1	0.000		25
Benzene	4.77	4.70	1	1.48		25
Benzyl Chloride	ND	ND	1	0.000		25

L1804379-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1804379-01 11/30/24 12:38 • (DUP) R4152856-4 11/30/24 13:22

Analyte	Original Result ppbv	DUP Result ppbv	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromodichloromethane	ND	ND	1	0.000		25
Bromoform	ND	ND	1	0.000		25
Bromomethane	ND	ND	1	0.000		25
1,3-Butadiene	1.23	1.18	1	4.15		25
Carbon disulfide	ND	ND	1	200	P1	25
Carbon tetrachloride	ND	ND	1	0.000		25
Chlorobenzene	ND	ND	1	0.000		25
Chloroethane	ND	ND	1	0.000		25
Chloroform	ND	ND	1	0.000		25
Chloromethane	0.544	0.514	1	5.67		25
2-Chlorotoluene	ND	ND	1	0.000		25
Cyclohexane	ND	ND	1	0.000		25
Dibromochloromethane	ND	ND	1	0.000		25
1,2-Dibromoethane	ND	ND	1	0.000		25
1,2-Dichlorobenzene	ND	ND	1	0.000		25
1,3-Dichlorobenzene	ND	ND	1	0.000		25
1,4-Dichlorobenzene	ND	ND	1	0.000		25
1,2-Dichloroethane	ND	ND	1	0.000		25
1,1-Dichloroethane	ND	ND	1	0.000		25
1,1-Dichloroethene	ND	ND	1	0.000		25
cis-1,2-Dichloroethene	ND	ND	1	0.000		25
trans-1,2-Dichloroethene	ND	ND	1	0.000		25
1,2-Dichloropropane	ND	ND	1	0.000		25
cis-1,3-Dichloropropene	ND	ND	1	0.000		25
trans-1,3-Dichloropropene	ND	ND	1	0.000		25
1,4-Dioxane	ND	ND	1	0.000		25
Ethanol	ND	ND	1	6.95		25
Ethylbenzene	0.519	0.497	1	4.33		25
4-Ethyltoluene	0.464	0.446	1	3.96		25
Trichlorofluoromethane	ND	ND	1	2.84		25
Dichlorodifluoromethane	0.418	0.406	1	2.91		25
1,1,2-Trichlorotrifluoroethane	ND	ND	1	0.000		25
1,2-Dichlorotetrafluoroethane	ND	ND	1	0.000		25
Heptane	ND	ND	1	2.86		25
Hexachloro-1,3-butadiene	ND	ND	1	0.000		25
n-Hexane	1.15	1.08	1	6.28		25
Isopropylbenzene	ND	ND	1	0.000		25
Methylene Chloride	ND	ND	1	0.000		25
Methyl Butyl Ketone	ND	ND	1	0.000		25

L1804379-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1804379-01 11/30/24 12:38 • (DUP) R4152856-4 11/30/24 13:22

Analyte	Original Result ppbv	DUP Result ppbv	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
2-Butanone (MEK)	1.62	1.49	1	8.36		25
4-Methyl-2-pentanone (MIBK)	ND	ND	1	0.000		25
Methyl methacrylate	ND	ND	1	0.000		25
MTBE	ND	ND	1	0.000		25
Naphthalene	ND	ND	1	0.000		25
2-Propanol	ND	ND	1	0.000		25
Propene	7.63	7.31	1	4.28		25
Styrene	0.323	0.326	1	0.924		25
1,1,2,2-Tetrachloroethane	ND	ND	1	0.000		25
Tetrachloroethylene	ND	ND	1	0.000		25
Tetrahydrofuran	ND	ND	1	0.000		25
Toluene	5.79	5.64	1	2.62		25
1,2,4-Trichlorobenzene	ND	ND	1	0.000		25
1,1,1-Trichloroethane	ND	ND	1	0.000		25
1,1,2-Trichloroethane	ND	ND	1	0.000		25
Trichloroethylene	ND	ND	1	0.000		25
1,2,4-Trimethylbenzene	0.498	0.479	1	3.89		25
1,3,5-Trimethylbenzene	ND	ND	1	6.22		25
2,2,4-Trimethylpentane	ND	ND	1	0.000		25
Vinyl chloride	ND	ND	1	0.000		25
Vinyl Bromide	ND	ND	1	0.000		25
Vinyl acetate	ND	ND	1	0.000		25
Xylenes, Total	ND	2.91	1	200	P1	25
m&p-Xylene	2.23	2.25	1	0.893		25
o-Xylene	0.668	0.662	1	0.902		25
(S) 1,4-Bromofluorobenzene		*101*				*60.0-140*

L1804379-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1804379-02 11/30/24 14:05 • (DUP) R4152856-5 11/30/24 14:48

Analyte	Original Result ppbv	DUP Result ppbv	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Acetone	3.67	3.44	1	6.47		25
Allyl chloride	ND	ND	1	0.000		25
Benzene	2.57	2.09	1	20.6		25
Benzyl Chloride	ND	ND	1	0.000		25
Bromodichloromethane	ND	ND	1	0.000		25
Bromoform	ND	ND	1	0.000		25

L1804379-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1804379-02 11/30/24 14:05 • (DUP) R4152856-5 11/30/24 14:48

Analyte	Original Result ppbv	DUP Result ppbv	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromomethane	ND	ND	1	0.000		25
1,3-Butadiene	0.911	0.752	1	19.1		25
Carbon disulfide	ND	ND	1	0.000		25
Carbon tetrachloride	ND	ND	1	0.000		25
Chlorobenzene	ND	ND	1	0.000		25
Chloroethane	ND	ND	1	0.000		25
Chloroform	ND	ND	1	0.000		25
Chloromethane	0.509	0.590	1	14.7		25
2-Chlorotoluene	ND	ND	1	0.000		25
Cyclohexane	ND	ND	1	0.000		25
Dibromochloromethane	ND	ND	1	0.000		25
1,2-Dibromoethane	ND	ND	1	0.000		25
1,2-Dichlorobenzene	ND	ND	1	0.000		25
1,3-Dichlorobenzene	ND	ND	1	0.000		25
1,4-Dichlorobenzene	ND	ND	1	0.000		25
1,2-Dichloroethane	ND	ND	1	0.000		25
1,1-Dichloroethane	ND	ND	1	0.000		25
1,1-Dichloroethene	ND	ND	1	0.000		25
cis-1,2-Dichloroethene	ND	ND	1	0.000		25
trans-1,2-Dichloroethene	ND	ND	1	0.000		25
1,2-Dichloropropane	ND	ND	1	0.000		25
cis-1,3-Dichloropropene	ND	ND	1	0.000		25
trans-1,3-Dichloropropene	ND	ND	1	0.000		25
1,4-Dioxane	ND	ND	1	0.000		25
Ethanol	20.1	40.4	1	67.1		25
Ethylbenzene	ND	ND	1	21.5		25
4-Ethyltoluene	ND	ND	1	200	P1	25
Trichlorofluoromethane	ND	ND	1	9.95		25
Dichlorodifluoromethane	0.485	0.465	1	4.21		25
1,1,2-Trichlorotrifluoroethane	ND	ND	1	0.000		25
1,2-Dichlorotetrafluoroethane	ND	ND	1	0.000		25
Heptane	ND	ND	1	0.000		25
Hexachloro-1,3-butadiene	ND	ND	1	0.000		25
n-Hexane	0.836	0.719	1	15.0		25
Isopropylbenzene	ND	ND	1	0.000		25
Methylene Chloride	1.34	2.25	1	50.7		25
Methyl Butyl Ketone	ND	ND	1	0.000		25
2-Butanone (MEK)	ND	ND	1	0.000		25
4-Methyl-2-pentanone (MIBK)	ND	ND	1	0.000		25

L1804379-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1804379-02 11/30/24 14:05 • (DUP) R4152856-5 11/30/24 14:48

Analyte	Original Result ppbv	DUP Result ppbv	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methyl methacrylate	ND	ND	1	0.000		25
MTBE	ND	ND	1	0.000		25
Naphthalene	ND	ND	1	0.000		25
2-Propanol	ND	4.27	1	64.0	P1	25
Propene	ND	ND	1	0.000		25
Styrene	ND	ND	1	0.000		25
1,1,2,2-Tetrachloroethane	ND	ND	1	0.000		25
Tetrachloroethylene	12.8	10.9	1	16.0		25
Tetrahydrofuran	ND	ND	1	0.000		25
Toluene	1.98	1.71	1	14.6		25
1,2,4-Trichlorobenzene	ND	ND	1	0.000		25
1,1,1-Trichloroethane	ND	ND	1	0.000		25
1,1,2-Trichloroethane	ND	ND	1	0.000		25
Trichloroethylene	0.795	0.666	1	17.7		25
1,2,4-Trimethylbenzene	ND	ND	1	0.000		25
1,3,5-Trimethylbenzene	ND	ND	1	0.000		25
2,2,4-Trimethylpentane	ND	ND	1	0.000		25
Vinyl chloride	ND	ND	1	0.000		25
Vinyl Bromide	ND	ND	1	0.000		25
Vinyl acetate	ND	ND	1	0.000		25
Xylenes, Total	ND	0.645	1	200	P1	25
m&p-Xylene	0.583	ND	1	15.9		25
o-Xylene	ND	ND	1	15.0		25
(S) 1,4-Bromofluorobenzene		*96.2*				*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4152856-1 11/30/24 07:35 • (LCSD) R4152856-2 11/30/24 08:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.96	3.97	106	106	70.0-130			0.252	25
Allyl chloride	3.75	3.53	4.05	94.1	108	70.0-130			13.7	25
Benzene	3.75	4.07	4.05	109	108	70.0-130			0.493	25
Benzyl Chloride	3.75	4.06	4.10	108	109	70.0-152			0.980	25
Bromodichloromethane	3.75	3.91	3.96	104	106	70.0-130			1.27	25
Bromoform	3.75	3.75	3.70	100	98.7	70.0-130			1.34	25
Bromomethane	3.75	3.73	3.85	99.5	103	70.0-130			3.17	25
1,3-Butadiene	3.75	4.06	4.08	108	109	70.0-130			0.491	25
Carbon disulfide	7.50	7.91	7.89	105	105	70.0-130			0.253	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4152856-1 11/30/24 07:35 • (LCSD) R4152856-2 11/30/24 08:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	3.75	3.88	3.97	103	106	70.0-130			2.29	25
Chlorobenzene	3.75	3.93	4.01	105	107	70.0-130			2.02	25
Chloroethane	3.75	4.09	4.12	109	110	70.0-130			0.731	25
Chloroform	3.75	3.92	3.95	105	105	70.0-130			0.762	25
Chloromethane	3.75	3.77	3.85	101	103	70.0-130			2.10	25
2-Chlorotoluene	3.75	4.22	4.22	113	113	70.0-130			0.000	25
Cyclohexane	3.75	4.12	4.18	110	111	70.0-130			1.45	25
Dibromochloromethane	3.75	3.77	3.81	101	102	70.0-130			1.06	25
1,2-Dibromoethane	3.75	3.86	4.00	103	107	70.0-130			3.56	25
1,2-Dichlorobenzene	3.75	3.84	3.82	102	102	70.0-130			0.522	25
1,3-Dichlorobenzene	3.75	3.88	3.90	103	104	70.0-130			0.514	25
1,4-Dichlorobenzene	3.75	3.92	3.89	105	104	70.0-130			0.768	25
1,2-Dichloroethane	3.75	3.87	3.97	103	106	70.0-130			2.55	25
1,1-Dichloroethane	3.75	4.00	4.07	107	109	70.0-130			1.73	25
1,1-Dichloroethene	3.75	4.01	4.16	107	111	70.0-130			3.67	25
cis-1,2-Dichloroethene	3.75	4.06	4.19	108	112	70.0-130			3.15	25
trans-1,2-Dichloroethene	3.75	4.11	4.14	110	110	70.0-130			0.727	25
1,2-Dichloropropane	3.75	4.03	4.08	107	109	70.0-130			1.23	25
cis-1,3-Dichloropropene	3.75	3.93	3.92	105	105	70.0-130			0.255	25
trans-1,3-Dichloropropene	3.75	3.90	3.99	104	106	70.0-130			2.28	25
1,4-Dioxane	3.75	4.08	4.06	109	108	70.0-140			0.491	25
Ethanol	3.75	3.84	4.18	102	111	55.0-148			8.48	25
Ethylbenzene	3.75	4.10	4.09	109	109	70.0-130			0.244	25
4-Ethyltoluene	3.75	4.16	4.04	111	108	70.0-130			2.93	25
Trichlorofluoromethane	3.75	3.96	4.06	106	108	70.0-130			2.49	25
Dichlorodifluoromethane	3.75	3.88	3.88	103	103	64.0-139			0.000	25
1,1,2-Trichlorotrifluoroethane	3.75	3.94	4.01	105	107	70.0-130			1.76	25
1,2-Dichlorotetrafluoroethane	3.75	3.75	3.86	100	103	70.0-130			2.89	25
Heptane	3.75	3.89	4.12	104	110	70.0-130			5.74	25
Hexachloro-1,3-butadiene	3.75	3.66	3.61	97.6	96.3	70.0-151			1.38	25
n-Hexane	3.75	4.05	4.20	108	112	70.0-130			3.64	25
Isopropylbenzene	3.75	4.32	4.28	115	114	70.0-130			0.930	25
Methylene Chloride	3.75	3.98	4.04	106	108	70.0-130			1.50	25
Methyl Butyl Ketone	3.75	4.14	4.28	110	114	70.0-149			3.33	25
2-Butanone (MEK)	3.75	4.09	4.10	109	109	70.0-130			0.244	25
4-Methyl-2-pentanone (MIBK)	3.75	4.06	4.26	108	114	70.0-139			4.81	25
Methyl methacrylate	3.75	3.97	4.04	106	108	70.0-130			1.75	25
MTBE	3.75	4.07	4.17	109	111	70.0-130			2.43	25
Naphthalene	3.75	3.75	3.87	100	103	70.0-159			3.15	25
2-Propanol	3.75	4.22	4.34	113	116	70.0-139			2.80	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4152856-1 11/30/24 07:35 • (LCSD) R4152856-2 11/30/24 08:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Propene	3.75	3.57	3.73	95.2	99.5	64.0-144			4.38	25
Styrene	7.50	8.82	8.73	118	116	70.0-130			1.03	25
1,1,2,2-Tetrachloroethane	3.75	3.97	3.94	106	105	70.0-130			0.759	25
Tetrachloroethylene	3.75	3.77	3.81	101	102	70.0-130			1.06	25
Tetrahydrofuran	3.75	4.14	4.17	110	111	70.0-137			0.722	25
Toluene	3.75	3.98	4.04	106	108	70.0-130			1.50	25
1,2,4-Trichlorobenzene	3.75	3.73	3.76	99.5	100	70.0-160			0.801	25
1,1,1-Trichloroethane	3.75	3.89	4.00	104	107	70.0-130			2.79	25
1,1,2-Trichloroethane	3.75	3.95	4.01	105	107	70.0-130			1.51	25
Trichloroethylene	3.75	3.88	3.86	103	103	70.0-130			0.517	25
1,2,4-Trimethylbenzene	3.75	4.21	4.12	112	110	70.0-130			2.16	25
1,3,5-Trimethylbenzene	3.75	4.29	4.39	114	117	70.0-130			2.30	25
2,2,4-Trimethylpentane	3.75	4.21	4.24	112	113	70.0-130			0.710	25
Vinyl chloride	3.75	3.89	4.03	104	107	70.0-130			3.54	25
Vinyl Bromide	3.75	3.95	4.02	105	107	70.0-130			1.76	25
Vinyl acetate	3.75	4.48	4.53	119	121	70.0-130			1.11	25
Xylenes, Total	11.3	12.8	12.6	113	112	70.0-130			1.57	25
m&p-Xylene	7.50	8.52	8.36	114	111	70.0-130			1.90	25
o-Xylene	3.75	4.27	4.27	114	114	70.0-130			0.000	25
(S) 1,4-Bromofluorobenzene				*97.2*	*96.9*	*60.0-140*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

L1604163S

Scan QR code for instructions

M001

Company Name: **ERM - Milwaukee, WI**

Street Address: **700 W. Virginia St Suite 601**
Milwaukee, WI 53204
City, State Zip:

Customer Project #: **PN 0646830**

Project Name: **JCI Humboldt VI Assessment**

Site Collection Info/Facility ID (as applicable): **ERMMWI-111124**

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

Contact/Report To: **Drew Hisey**

Phone #: **414-289-9505**

E-Mail: **leann.grahler@erm.com;Drew.Hisey@erm.com**

Cc E-Mail:

Invoice to:

Invoice E-Mail:

Purchase Order # (if applicable):

Quote #:

State origin of sample(s): WI

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other_____

Regulatory Program (CAA, RCRA, etc.) as applicable:

Rush (Pre-approval required): 2 Day 3 day 5 day Other_____

Date Results Requested:

Permit # as applicable:

Units for Reporting: ug/m³ PPBV mg/m³ PPMV

Field Information

Analyses Requested

TM 11/14/24

Proj. Manager: **341 - John Hawkins**

AcctNum / Client ID: **ERMMWI**

Table #:

Profile / Template: **T263880**

Prelog / Bottle Ord. ID: **P1114168**

Lab Use Only

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Pressure / Vacuum: Start Pressure / Vacuum (in Hg)	Canister Pressure / Vacuum: End Pressure / Vacuum (in Hg)	PUF / FILTER: Duration (minutes)	PUF / FILTER: Flow Rate m³/min or L/min	PUF / FILTER: Total Volume Sampled m³ or L	TO-15 Summa				Sample Comment
FS-3728- 20241126	SV	15294	011288	11/26	~~1002~~ 0935	11/26	1002	-29		30	320		X				07
													X				

Sample Receipt Checklist
eal Present/Intact: Y N Airs
igned/Accurate: Y N Size: 1L 6L 1.4
es arrive intact: Y N Tage Color: G W P B
ct bottles used: Y N Tubing Shunt
T/P#:
d:

Customer Remarks / Special Conditions / Possible Hazards:

Collected By:
Printed Name:
Signature:

Additional Instructions from Pace®:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): AMB Corrected Temp. (°C):

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number: 2823 0656 4706
Relinquished by/Company: (Signature) ERM	Date/Time: 11/26/24 @1200	Received by/Company: (Signature) FedEx	Date/Time: 11/26/24 @1200	Delivered by: In- Person Courier FedEx UPS Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 11/27 0930	Page: 1 of: 1