1695 Bellevue Street
Green Bay, WI 54311
920-491-9081
www.cedarcorp.com

September 22, 2023

Todd Fischer
2220 W. Woodlark Road
Appleton, WI 54911

RE: Limited Phase II Environmental Site Assessment for Vapor Intrusion at 505 Grand Avenue, Little Chute, Wisconsin – Cedar Corporation Project Number: F6983-001

Dear Mr. Fischer:

Cedar Corporation (Cedar) is providing this Limited Phase II Environmental Site Assessment (ESA) for vapor intrusion at 505 Grand Avenue in Little Chute, Outagamie, Wisconsin (Site) (reference Figure 1 – Detailed Site Map, attached). Cedar completed sub-slab vapor sampling at the Site based on an agreed upon scope of work between Todd Fischer (Client), and Cedar.

Background

Cedar was contacted by Mr. Fischer for a potential Phase I ESA. Mr. Fischer was aware of the open Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) case on the adjoining property to the north, Sandies Dry Cleaners & Laundry (Former) – SL (BRRTS #02-45-552222). Mr. Fischer noted that the WDNR is drafting a Liability Clarification Letter stating that he would not be liable for contamination related to the adjoining property, chose not to perform a Phase I ESA, but a Limited Vapor Assessment instead to address the immediate threat to human health as it related to his future business. Cedar was then authorized to perform the Limited Vapor Assessment on August 31, 2023.

Work Conducted

On September 5, 2023, Cedar staff mobilized to the Site to conduct sub-slab vapor sampling at the Site. The weather at the time of sampling was 76° Fahrenheit (°F), indicating samples were collected during the cooling season. Cedar collected two sub-slab vapor samples from the building. Vapor sample (VP-1) was installed approximately five feet from the north side of the building closest to the identified soil plume. The second vapor sample (VP-2) was placed approximately five feet from the northwest corner of the building closest to the identified groundwater plume (reference Figure 1 – Detailed Site Map, attached).

Foundation Observations

At the time of sampling, Cedar observed the basement to contain three (3) cooling systems for the freezers located in the bakery storefront on the main level. There was a box fan installed in the wall to regulate the temperature in the basement. The box fan was mainly used in the summers to help push hot air out of the basement. In the winter months, it appears that the box fan was not used in an attempt to keep heat within the basement. Additionally, there was an active vapor extraction system installed in the basement. The system was hung in the ceiling and vented outdoors (reference Photo Log, attached). There was no pressure meter as it was not a traditional sub-slab vapor system. At the time of the site visit, the fan to the system appeared to be off and/or not working properly.

The concrete slab in the basement appeared to be in good condition. The walls in the basement were constructed of concrete block or brick. The concrete block walls appeared to be in good condition with little evidence of water staining/seepage. There were two floor drains observed within the basement slab. The floor drains are presumed to drain to the Village of Little Chute's sanitary department.

The sampling areas were separated by a wall and was accessed by two different entrances. The eastern basement of the basement had the vapor mitigation system installed. The western basement did not appear to have a vapor mitigation system installed. Both basements had a floor drain. The eastern basement is where VP-1 was installed, which was closer to the soil contamination identified in the Sandies Dry Cleaners & Laundry (Former) – SL (BRRTS #02-45-552222). The western basement is where VP-2 was installed, which was closer to the groundwater contamination plume identified in the Sandies Dry Cleaners & Laundry (Former) – SL (BRRTS #02-45-552222).

Sampling Procedures

A water dam was placed around the vapor pins to verify and ensure a proper seal around the vapor pin. The water dam showed no visual indications of air gaps or compromised sampling conditions at any of the vapor pins. Once sampling quality was verified, the tubing connecting the pin to the flow regulator was purged prior to sample collection. Once the tubing was purged, air flow to the vapor canister was engaged. Prior to engaging the regulators, Cedar recorded the initial vacuum readings and times were collected in order to compare against the vacuum readings at the time of finalizing the sample collection. Vapor canisters were shut off at pressures between four and two inches of mercury (Hg). The final times and pressures were recorded (reference Photo Log, attached). After sub-slab samples were collected the vapor pins were removed and the pin locations were sealed with concrete.

Vapor samples were delivered to Synergy Environmental Lab, Inc under standard chain of custody practices. Vapor samples were analyzed for Volatile Organic Compounds (VOCs) under method TO-15 (reference Table 1 – Vapor Analytical Table; and Laboratory Report and Chain of Custody, attached).

Vapor Analytical Results

The VOC results were compared against the Wisconsin Vapor Risk Screening Levels (WI VRSLs) August 2023 update. There were VOCs detected in both of the sampling points collected and are listed below (reference Table 1 – Vapor Analytical Table; and Laboratory Report and Chain of Custody, attached).

The September 5, 2023, sampling event identified cis-1,2-dichloroethene (95,000 micrograms per cubic meter (ug/m^3)) and vinyl chloride (2,550 ug/m^3) at VP-1 exceeding the Small Commercial WI VRSLs. Tetrachloroethene (PCE) (6,900 ug/m^3) and trichloroethene (TCE) (1,140 ug/m^3) at VP-2 exceeding the Small Commercial WI VRSLs. These analytes detected are commonly associated with chlorinated solvents.

Conclusions

Based on the latest round of vapor sampling, VOC vapors were detected below the building foundation. Concentrations of cis-1,2-dichloroethene, vinyl chloride, PCE, and TCE were detected exceeding the Small Commercial WI VRSLs at VP-1 and VP-2. Vapor probe VP-1 was located closets to the soil plume and VP-2 was located closest to the groundwater plume. According to the Village of Little Chute Official Zoning Map (December 2016) the Site is zoned CB – Central Business. The Site is utilized as a commercial property on the first floor with small apartments on the second floor. The Site is owned by Four D Investments LLC. The first floor tenants are Bakers Outlet and American Family Insurance. Based on this information, the results discovered at the Site should be compared against the Small Commercial WI VRSLs. The analytes detected exceeded the Small Commercial WI VRSLs.

Recommendations

Cedar recommends the results from this Limited Phase II ESA be submitted to the WDNR under the Sandies Dry Cleaners & Laundry (Former) – SL (BRRTS #02-45-552222). The analytes detected are consistent with the analytes detected in the Sandies Dry Cleaners & Laundry (Former) – SL (BRRTS #02-45-552222) which adjoining the Site to the north. Additionally, Cedar recommends that the Responsible Party for Sandies Dry Cleaners & Laundry (Former) – SL (BRRTS #02-45-552222) assess the effectiveness of the existing vapor mitigation system, along with indoor air sampling, and provide system improvements if necessary.

If you have any questions about the enclosed information, please contact me at (920) 491-9081 or by email at quin.lenz@cedarcorp.com.

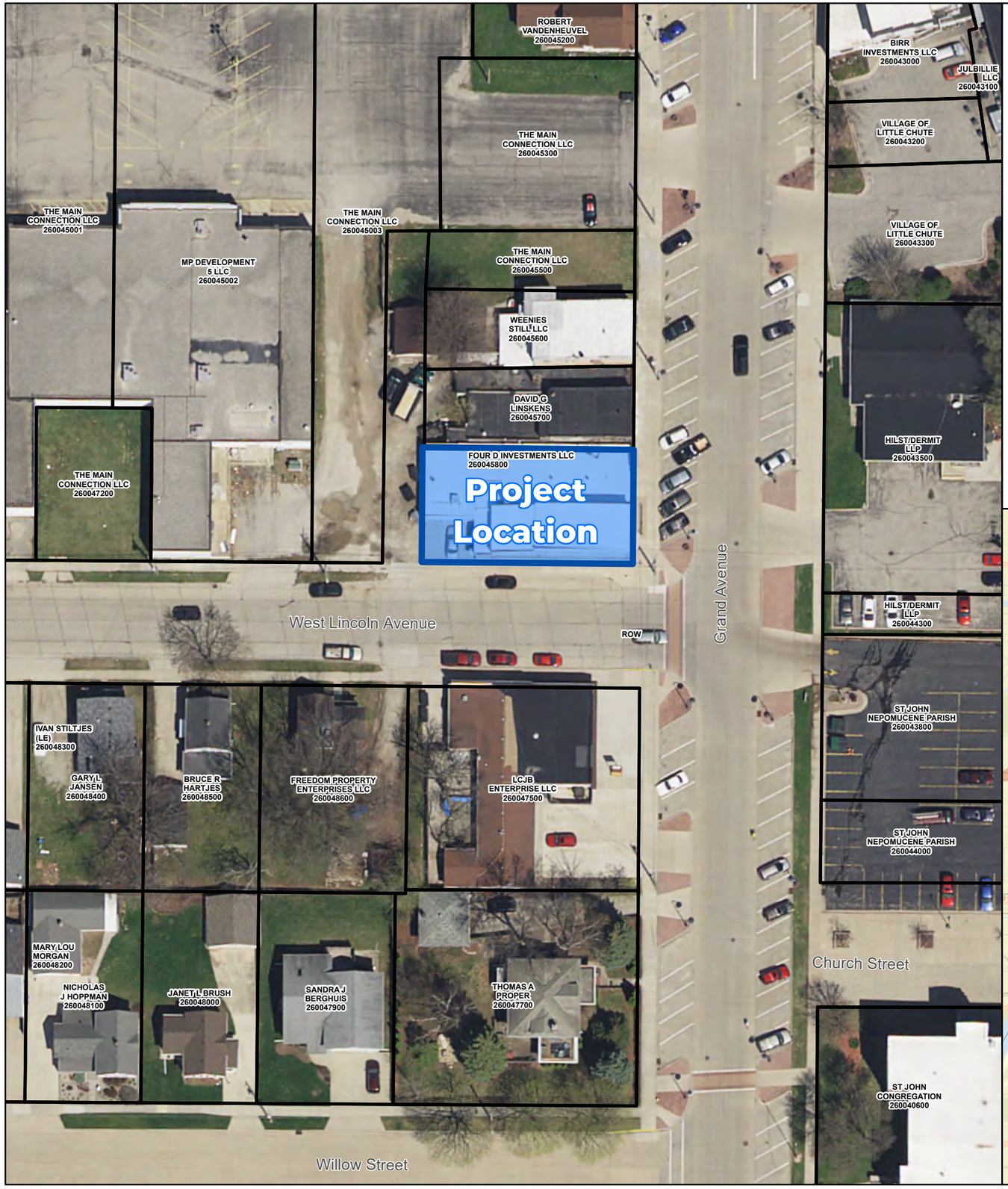
Sincerely,

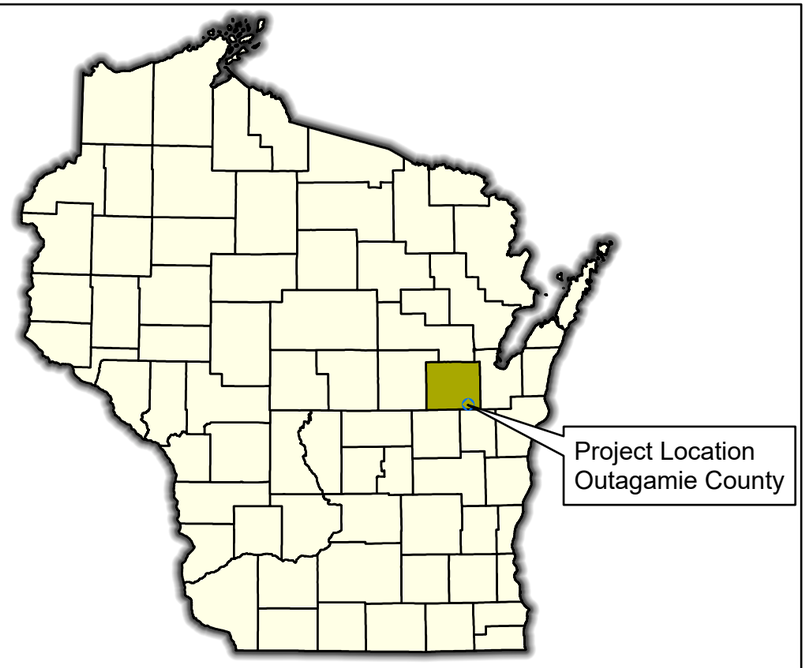
Quin Lenz, P.G.
Professional Geologist

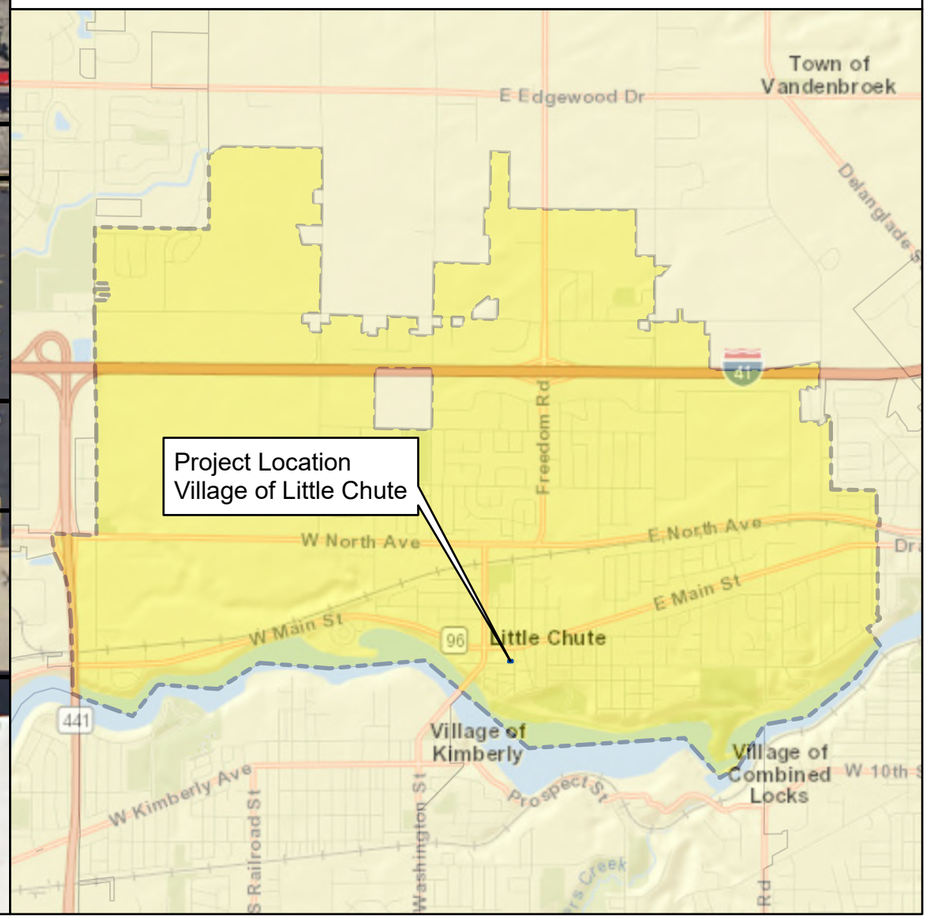
Dan O'Connell, P.G., C.P.G.
Environmental Manager

Enclosure(s)

Figure 1 – Location Map
Figure 2 – Detailed Site Map
Table 1 – Vapor Analytical Table
Photo Log
Laboratory Results and Chain of Custody







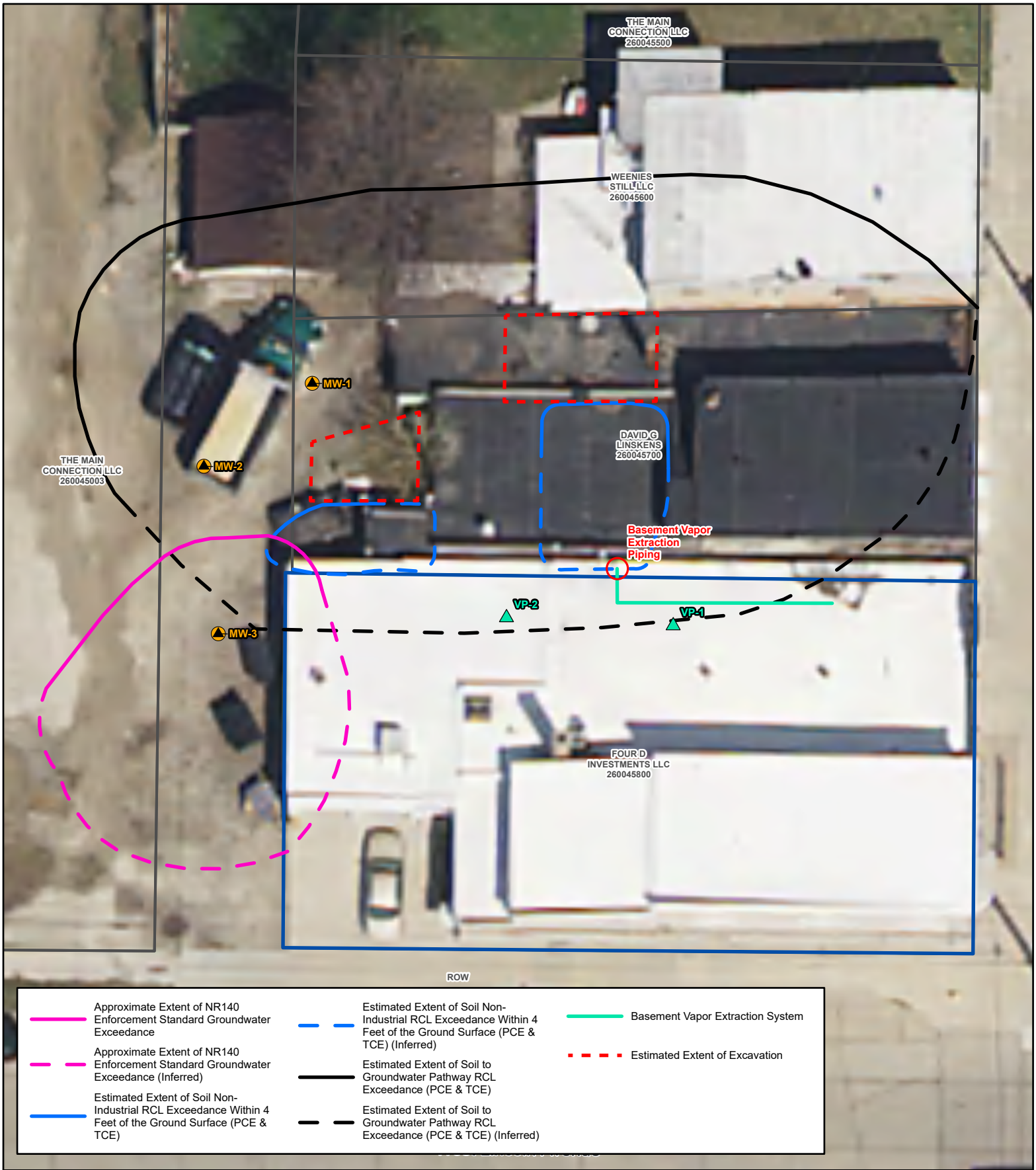
NORTH
W E
S

Cedar Corporation

Project Location Map
505 Grand Avenue

505 GRAND AVENUE
VILLAGE OF LITTLE CHUTE,
OUTAGAMIE COUNTY, WISCONSIN

JOB NO.	F6983-001
DATE	9/6/2023
FIGURE	1



NORTH
W E
S

Cedar CORPORATION

505 Grand Avenue

Detailed Site Map

0 20 40 Feet

Legend

- Project Location
- Monitoring Well
- Vapor Point
- Other Features

JOB NO.
F6983-001

DATE
9/11/2023

FIGURE
2

Cedar CORPORATION

Table 1
Vapor Analytical Results
505 Grand Avenue
Little Chute, WI

Parameter	Residential Indoor Air VAL	Residential Sub-Slab VRSL	Small Commercial Indoor Air VAL	Small Commercial Sub-Slab VRSL	Large Commercial Indoor Air VAL	Large Commercial Sub-Slab VRSL	VP-1	VP-2
Sampling Date							9/5/2023	9/5/2023
Regulated Fill Time							30-minute	30-minute
Structure/Location Sampled							Sub-Slab	Sub-Slab
Acetone	--	--	--	--	--	--	<1,500	580
Benzene *	3.6	120	16	520	16	1,600	32J	12.3
Benzyl Chloride	--	--	--	--	--	--	<20.9	<0.209
Bromodichloromethane	--	--	--	--	--	--	<37.4	<0.374
Bromoform	--	--	--	--	--	--	<41.4	<0.414
Bromomethane	--	--	--	--	--	--	<20	<0.2
1,3-Butadiene	--	--	--	--	--	--	<14.3	<0.143
Carbon Disulfide	--	--	--	--	--	--	171	137
Carbon tetrachloride *	4.7	160	20	680	20	2,000	<30.7	0.5J
Chlorobenzene	--	--	--	--	--	--	<25.1	0.32J
Chloroethane	--	--	--	--	--	--	<15.9	0.29J
Chloroform *	1.2	41	5.3	180	5.3	530	<30	11
Chloromethane **	94	3,100	390	13,000	390	39,000	<83.1	<0.831
Cyclohexane	--	--	--	--	--	--	224	11.8
Dibromochloromethane	--	--	--	--	--	--	<37.6	<0.376
1,4-Dichlorobenzene	--	--	--	--	--	--	<30.2	<0.302
1,3-Dichlorobenzene	--	--	--	--	--	--	<30.2	<0.302
1,2-Dichlorobenzene	--	--	--	--	--	--	<23.5	<0.235
Dichlorodifluoromethane **	100	3,500	440	15,000	440	44,000	<26.3	2.57
1,2-Dichloroethane * (1,2-DCA)	1.1	36	4.7	160	4.7	470	<24	<0.24
1,1-Dichloroethane * (1,1-DCA)	18	590	77	2,600	77	7,700	<18.7	0.32J
1,1-Dichloroethene ** (1,1-DCE)	210	7,000	880	29,000	880	88,000	170	20
cis-1,2-Dichloroethene	42	1,400	180	5,800	180	18,000	95,000	3,400
trans-1,2-Dichloroethene **	42	1,400	180	5,800	180	18,000	4,300	66
1,2-Dichloropropane	--	--	--	--	--	--	<28	0.88J
trans-1,3-Dichloropropene	--	--	--	--	--	--	<19.8	<0.198
cis-1,3-Dichloropropene	--	--	--	--	--	--	<23.4	<0.234
1,2-Dichlorotetrafluoroethane	--	--	--	--	--	--	<44.6	<0.446
1,4-Dioxane	--	--	--	--	--	--	<15.7	<0.157
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	<34.2	<0.342
Ethanol	--	--	--	--	--	--	<1500	228
Ethyl Acetate	--	--	--	--	--	--	<17.6	<0.176
Ethylbenzene *	11	370	49	1,600	49	4,900	26J	32
4-Ethyltoluene	--	--	--	--	--	--	<21.4	4.9
Heptane	--	--	--	--	--	--	1450	28.5
Hexachloro-1,3-butadiene	--	--	--	--	--	--	<48.9	<0.489
Hexane	--	--	--	--	--	--	<1500	42
2-Hexanone	--	--	--	--	--	--	<22.2	<0.222
Isopropyl Alcohol	--	--	--	--	--	--	187	27.3
Methyl ethyl ketone (MEK)	--	--	--	--	--	--	<17.8	33
Methyl isobutyl ketone (MIBK)	--	--	--	--	--	--	<16.8	31.1
Methyl Methacrylate	--	--	--	--	--	--	<21.7	1.11
Methylene Chloride **	630	21,000	2,600	88,000	2,600	260,000	3,400	59
Methyl-tert-butyl ether (MTBE)	--	--	--	--	--	--	16	4.6
Naphthalene *	0.83	28	3.6	120	3.6	360	<67.5	2.41
Propene	--	--	--	--	--	--	<7.9	<0.079
Styrene	--	--	--	--	--	--	<18.1	20.5
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	<32.5	<0.325
Tetrachloroethene (PCE) **	42	1,400	180	5,800	180	18,000	600	6,900
Tetrahydrofuran	--	--	--	--	--	--	<13.1	<0.131
Toluene	--	--	--	--	--	--	87	83
1,2,4-Trichlorobenzene	--	--	--	--	--	--	<65.7	<0.657
1,1,1-Trichloroethane **	5,200	170,000	22,000	730,000	22,000	2,200,000	<24.9	0.38J
1,1,2-Trichloroethane	--	--	--	--	--	--	<25.8	<0.258
Trichloroethene (TCE) **	2.1	70	8.8	290	8.8	880	284	1,140
Trichlorofluoromethene	--	--	--	--	--	--	<33.7	2.3
Trichlorotrifluoroethane	--	--	--	--	--	--	<40.2	0.84J
1,2,4-Trimethylbenzene	--	--	--	--	--	--	74J	15.7
1,3,5-Trimethylbenzene	--	--	--	--	--	--	29.4J	3.4
Vinyl acetate	--	--	--	--	--	--	<20.3	<0.203
Vinyl Chloride *	1.7	56	28	930	28	2,800	2,550	5.2
m&p-Xylene	100	3,500	440	15,000	440	44,000	48J	43
o-Xylene	100	3,500	440	15,000	440	44,000	<21.8	14.3

Notes:

All units are in micrograms per cubic meter (ug/m3)

-- = No Established Standard

Bold/Red = Concentration exceeds Indoor Air VAL

Bold/Blue = Concentration exceeds Sub-Slab VRSL

NA = Not analyzed

J = Reported value was between the limit of detection and the limit of quantitation.

All values are obtained from U.S. EPA Vapor intrusion Screening Level (VISL) calculator (three significant figures) and rounded to two significant figures

VAL = Vapor Action Level

VRSL = Vapor Risk Screening Level

Yellow Highlight = Immediate action criteria

Carcinogens (*) = 10 x VAL or VRSL

Non-carcinogens (**) = 3 x VAL or VRSL

VALs and VRSLs for xylene are mix.

Client	Todd Fischer
Project	505 Grand Avenue
Prepared By	Quin Lenz

Project No.	F6983-001
Date	9/8/2023

Photo No.	Date
1	9/5/2023
Direction Photo Taken	
--	
Description	
Weather during the time of sampling.	

Photo No.	Date
2	9/5/2023
Direction Photo Taken	
Southeast	
Description	
General view of the eastern basement, northern half.	

PHOTO LOG

Photo No.	Date
3	9/5/2023
Direction Photo Taken	
Southeast	
Description	
General view of the eastern basement, southern half.	

Photo No.	Date
4	9/5/2023
Direction Photo Taken	
Southwest	
Description	
General view of the eastern basement, southern half.	

Photo No.	Date
5	9/5/2023
Direction Photo Taken	
South	
Description	
Floor drain within the eastern basement, northern half.	

Photo No.	Date
6	9/5/2023
Direction Photo Taken	
Northeast	
Description	
Active vapor mitigation system within the building.	

Photo No.	Date
7	9/5/2023
Direction Photo Taken	
West	
Description	
Box fan installed in the north side of the building to help regulate the temperature in the basement. The PVC piping below the box fan is where the vapor mitigation system leaves the building.	

Photo No.	Date
8	9/5/2023
Direction Photo Taken	
East	
Description	
Active vapor mitigation system on the north side of the building in the alley.	

PHOTO LOG

Photo No.	Date
9	9/5/2023
Direction Photo Taken	
North	
Description	
General view of the western basement hallway.	

Photo No.	Date
10	9/5/2023
Direction Photo Taken	
Southeast	
Description	
General view of the western basement.	

Photo No.	Date
11	9/5/2023
Direction Photo Taken	
Southeast	
Description	
Floor drain within the western basement.	

Photo No.	Date
12	9/5/2023
Direction Photo Taken	
North	
Description	
Location of VP-1.	

Photo No.	Date
13	9/5/2023
Direction Photo Taken	
South	
Description	
Typical vapor sampling setup. Sampling VP-2.	

Photo No.	Date
14	9/5/2023
Direction Photo Taken	
South	
Description	
Location of VP-2.	

PHOTO LOG

Photo No.	Date
15	9/5/2023
Direction Photo Taken	
Northeast	
Description	
Abandonment of VP-1.	

Photo No.	Date
16	9/5/2023
Direction Photo Taken	
Southwest	
Description	
Abandonment of VP-2.	

Synergy Environmental Lab, LLC.

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

DAN OCONNELL
CEDAR CORPORATION
1695 BELLEVUE STREET
GREEN BAY, WI 54311

Report Date *08-Sep-23*

Project Name 505 GRAND AVE, LITTLE CHUTE **Invoice #** E42880
Project #

Lab Code 5042880A
Sample ID VP-1
Sample Matrix Air
Sample Date 9/5/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
Acetone	< 1500	ug/m3	29.9	95	100	TO-15		9/7/2023	CJR	1
Benzene	32 "J"	ug/m3	13.6	43.3	100	TO-15		9/7/2023	CJR	1
Benzyl Chloride	< 20.9	ug/m3	20.9	66.5	100	TO-15		9/7/2023	CJR	1
Bromodichloromethane	< 37.4	ug/m3	37.4	119	100	TO-15		9/7/2023	CJR	1
Bromoform	< 41.4	ug/m3	41.4	132	100	TO-15		9/7/2023	CJR	1
Bromomethane	< 20	ug/m3	20	63.7	100	TO-15		9/7/2023	CJR	1
1,3-Butadiene	< 14.3	ug/m3	14.3	45.4	100	TO-15		9/7/2023	CJR	1
Carbon Disulfide	171	ug/m3	13.8	44	100	TO-15		9/7/2023	CJR	1
Carbon Tetrachloride	< 30.7	ug/m3	30.7	97.8	100	TO-15		9/7/2023	CJR	1
Chlorobenzene	< 25.1	ug/m3	25.1	79.8	100	TO-15		9/7/2023	CJR	1
Chloroethane	< 15.9	ug/m3	15.9	50.7	100	TO-15		9/7/2023	CJR	1
Chloroform	< 30	ug/m3	30	95.3	100	TO-15		9/7/2023	CJR	1
Chloromethane	< 83.1	ug/m3	83.1	264	100	TO-15		9/7/2023	CJR	1
Cyclohexane	224	ug/m3	21.2	67.4	100	TO-15		9/7/2023	CJR	1
Dibromochloromethane	< 37.6	ug/m3	37.6	120	100	TO-15		9/7/2023	CJR	1
1,4-Dichlorobenzene	< 30.2	ug/m3	30.2	96	100	TO-15		9/7/2023	CJR	1
1,3-Dichlorobenzene	< 30.2	ug/m3	30.2	96	100	TO-15		9/7/2023	CJR	1
1,2-Dichlorobenzene	< 23.5	ug/m3	23.5	74.9	100	TO-15		9/7/2023	CJR	1
Dichlorodifluoromethane	< 26.3	ug/m3	26.3	83.6	100	TO-15		9/7/2023	CJR	1
1,2-Dichloroethane	< 24	ug/m3	24	76.3	100	TO-15		9/7/2023	CJR	1
1,1-Dichloroethane	< 18.7	ug/m3	18.7	59.6	100	TO-15		9/7/2023	CJR	1
1,1-Dichloroethene	170	ug/m3	21	66.8	100	TO-15		9/7/2023	CJR	1
cis-1,2-Dichloroethene	95000	ug/m3	1970	6260	1000	TO-15		9/8/2023	CJR	1
trans-1,2-Dichloroethene	4300	ug/m3	23.1	73.4	100	TO-15		9/7/2023	CJR	1
1,2-Dichloropropane	< 28	ug/m3	28	89	100	TO-15		9/7/2023	CJR	1

Project Name 505 GRAND AVE, LITTLE CHUTE **Invoice #** E42880
Project #

Lab Code 5042880A
Sample ID VP-1
Sample Matrix Air
Sample Date 9/5/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,3-Dichloropropene	< 19.8	ug/m3	19.8	63	100	TO-15		9/7/2023	CJR	1
cis-1,3-Dichloropropene	< 23.4	ug/m3	23.4	74.5	100	TO-15		9/7/2023	CJR	1
1,2-Dichlorotetrafluoroethane	< 44.6	ug/m3	44.6	142	100	TO-15		9/7/2023	CJR	1
1,4-Dioxane	< 15.7	ug/m3	15.7	50	100	TO-15		9/7/2023	CJR	1
EDB (1,2-Dibromoethane)	< 34.2	ug/m3	34.2	109	100	TO-15		9/7/2023	CJR	1
Ethanol	< 1500	ug/m3	15.2	48.2	100	TO-15		9/7/2023	CJR	1
Ethyl Acetate	< 17.6	ug/m3	17.6	55.9	100	TO-15		9/7/2023	CJR	1
Ethylbenzene	26 "J"	ug/m3	20.3	64.5	100	TO-15		9/7/2023	CJR	1
4-Ethyltoluene	< 21.4	ug/m3	21.4	68.1	100	TO-15		9/7/2023	CJR	1
Heptane	1450	ug/m3	26.5	84.5	100	TO-15		9/7/2023	CJR	1
Hexachlorobutadiene	< 48.9	ug/m3	48.9	156	100	TO-15		9/7/2023	CJR	1
Hexane	< 1500	ug/m3	23.5	74.8	100	TO-15		9/7/2023	CJR	1
2-Hexanone	< 22.2	ug/m3	22.2	70.7	100	TO-15		9/7/2023	CJR	1
Isopropyl Alcohol	187	ug/m3	10.9	34.7	100	TO-15		9/7/2023	CJR	1
Methyl ethyl ketone (MEK)	< 17.8	ug/m3	17.8	56.7	100	TO-15		9/7/2023	CJR	1
Methyl isobutyl ketone (MIBK)	< 16.8	ug/m3	16.8	53.6	100	TO-15		9/7/2023	CJR	1
Methyl Methacrylate	< 21.7	ug/m3	21.7	69	100	TO-15		9/7/2023	CJR	1
Methylene chloride	3400	ug/m3	15.9	50.6	100	TO-15		9/7/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 16	ug/m3	16	50.9	100	TO-15		9/7/2023	CJR	1
Naphthalene	< 67.5	ug/m3	67.5	215	100	TO-15		9/7/2023	CJR	1
Propene	< 7.9	ug/m3	7.9	25.1	100	TO-15		9/7/2023	CJR	1
Styrene	< 18.1	ug/m3	18.1	57.7	100	TO-15		9/7/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 32.5	ug/m3	32.5	103	100	TO-15		9/7/2023	CJR	1
Tetrachloroethene	600	ug/m3	27.8	88.4	100	TO-15		9/7/2023	CJR	1
Tetrahydrofuran	< 13.1	ug/m3	13.1	41.7	100	TO-15		9/7/2023	CJR	1
Toluene	87	ug/m3	18.4	58.5	100	TO-15		9/7/2023	CJR	1
1,2,4-Trichlorobenzene	< 65.7	ug/m3	65.7	209	100	TO-15		9/7/2023	CJR	1
1,1,1-Trichloroethane	< 24.9	ug/m3	24.9	79.3	100	TO-15		9/7/2023	CJR	1
1,1,2-Trichloroethane	< 25.8	ug/m3	25.8	82.2	100	TO-15		9/7/2023	CJR	1
Trichloroethene (TCE)	284	ug/m3	23.7	75.4	100	TO-15		9/7/2023	CJR	1
Trichlorofluoromethane	< 33.7	ug/m3	33.7	107	100	TO-15		9/7/2023	CJR	1
Trichlorotrifluoroethane	< 40.2	ug/m3	40.2	128	100	TO-15		9/7/2023	CJR	1
1,2,4-Trimethylbenzene	74 "J"	ug/m3	28.3	89.9	100	TO-15		9/7/2023	CJR	1
1,3,5-Trimethylbenzene	29.4 "J"	ug/m3	23.2	73.9	100	TO-15		9/7/2023	CJR	1
Vinyl acetate	< 20.3	ug/m3	20.3	64.5	100	TO-15		9/7/2023	CJR	1
Vinyl Chloride	2550	ug/m3	14.8	47.2	100	TO-15		9/7/2023	CJR	1
m&p-Xylene	48 "J"	ug/m3	37.7	120	100	TO-15		9/7/2023	CJR	1
o-Xylene	< 21.8	ug/m3	21.8	69.5	100	TO-15		9/7/2023	CJR	1

Project Name 505 GRAND AVE, LITTLE CHUTE **Invoice #** E42880
Project #

Lab Code 5042880B
Sample ID VP-2
Sample Matrix Air
Sample Date 9/5/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
Acetone	580	ug/m3	29.9	95	100	TO-15		9/7/2023	CJR	1
Benzene	12.3	ug/m3	0.136	0.433	1	TO-15		9/7/2023	CJR	1
Benzyl Chloride	< 0.209	ug/m3	0.209	0.665	1	TO-15		9/7/2023	CJR	1
Bromodichloromethane	< 0.374	ug/m3	0.374	1.19	1	TO-15		9/7/2023	CJR	1
Bromoform	< 0.414	ug/m3	0.414	1.32	1	TO-15		9/7/2023	CJR	1
Bromomethane	< 0.2	ug/m3	0.2	0.637	1	TO-15		9/7/2023	CJR	1
1,3-Butadiene	< 0.143	ug/m3	0.143	0.454	1	TO-15		9/7/2023	CJR	1
Carbon Disulfide	137	ug/m3	13.8	44	100	TO-15		9/7/2023	CJR	1
Carbon Tetrachloride	0.5 "J"	ug/m3	0.307	0.978	1	TO-15		9/7/2023	CJR	1
Chlorobenzene	0.32 "J"	ug/m3	0.251	0.798	1	TO-15		9/7/2023	CJR	1
Chloroethane	0.29 "J"	ug/m3	0.159	0.507	1	TO-15		9/7/2023	CJR	1
Chloroform	11	ug/m3	0.3	0.953	1	TO-15		9/7/2023	CJR	1
Chloromethane	< 0.831	ug/m3	0.831	2.64	1	TO-15		9/7/2023	CJR	1
Cyclohexane	11.8	ug/m3	0.212	0.674	1	TO-15		9/7/2023	CJR	1
Dibromochloromethane	< 0.376	ug/m3	0.376	1.2	1	TO-15		9/7/2023	CJR	1
1,4-Dichlorobenzene	< 0.302	ug/m3	0.302	0.96	1	TO-15		9/7/2023	CJR	1
1,3-Dichlorobenzene	< 0.302	ug/m3	0.302	0.96	1	TO-15		9/7/2023	CJR	1
1,2-Dichlorobenzene	< 0.235	ug/m3	0.235	0.749	1	TO-15		9/7/2023	CJR	1
Dichlorodifluoromethane	2.57	ug/m3	0.263	0.836	1	TO-15		9/7/2023	CJR	1
1,2-Dichloroethane	< 0.24	ug/m3	0.24	0.763	1	TO-15		9/7/2023	CJR	1
1,1-Dichloroethane	0.32 "J"	ug/m3	0.187	0.596	1	TO-15		9/7/2023	CJR	1
1,1-Dichloroethene	20	ug/m3	0.21	0.668	1	TO-15		9/7/2023	CJR	1
cis-1,2-Dichloroethene	3400	ug/m3	19.7	62.6	100	TO-15		9/7/2023	CJR	1
trans-1,2-Dichloroethene	66	ug/m3	0.231	0.734	1	TO-15		9/7/2023	CJR	1
1,2-Dichloropropane	0.88 "J"	ug/m3	0.28	0.89	1	TO-15		9/7/2023	CJR	1
trans-1,3-Dichloropropene	< 0.198	ug/m3	0.198	0.63	1	TO-15		9/7/2023	CJR	1
cis-1,3-Dichloropropene	< 0.234	ug/m3	0.234	0.745	1	TO-15		9/7/2023	CJR	1
1,2-Dichlorotetrafluoroethane	< 0.446	ug/m3	0.446	1.42	1	TO-15		9/7/2023	CJR	1
1,4-Dioxane	< 0.157	ug/m3	0.157	0.5	1	TO-15		9/7/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.342	ug/m3	0.342	1.09	1	TO-15		9/7/2023	CJR	1
Ethanol	228	ug/m3	15.2	48.2	100	TO-15		9/7/2023	CJR	1
Ethyl Acetate	< 0.176	ug/m3	0.176	0.559	1	TO-15		9/7/2023	CJR	1
Ethylbenzene	32	ug/m3	0.203	0.645	1	TO-15		9/7/2023	CJR	1
4-Ethyltoluene	4.9	ug/m3	0.214	0.681	1	TO-15		9/7/2023	CJR	1
Heptane	28.5	ug/m3	0.265	0.845	1	TO-15		9/7/2023	CJR	1
Hexachlorobutadiene	< 0.489	ug/m3	0.489	1.56	1	TO-15		9/7/2023	CJR	1
Hexane	42	ug/m3	0.235	0.748	1	TO-15		9/7/2023	CJR	1
2-Hexanone	< 0.222	ug/m3	0.222	0.707	1	TO-15		9/7/2023	CJR	1
Isopropyl Alcohol	27.3	ug/m3	0.109	0.347	1	TO-15		9/7/2023	CJR	1
Methyl ethyl ketone (MEK)	33	ug/m3	0.178	0.567	1	TO-15		9/7/2023	CJR	1
Methyl isobutyl ketone (MIBK)	31.1	ug/m3	0.168	0.536	1	TO-15		9/7/2023	CJR	1
Methyl Methacrylate	1.11	ug/m3	0.217	0.69	1	TO-15		9/7/2023	CJR	1
Methylene chloride	59	ug/m3	0.159	0.506	1	TO-15		9/7/2023	CJR	1
Methyl tert-butyl ether (MTBE)	4.6	ug/m3	0.16	0.509	1	TO-15		9/7/2023	CJR	1

Project Name 505 GRAND AVE, LITTLE CHUTE **Invoice #** E42880
Project #

Lab Code 5042880B
Sample ID VP-2
Sample Matrix Air
Sample Date 9/5/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Naphthalene	2.41	ug/m3	0.675	2.15	1	TO-15		9/7/2023	CJR	1
Propene	< 0.079	ug/m3	0.079	0.251	1	TO-15		9/7/2023	CJR	1
Styrene	20.5	ug/m3	0.181	0.577	1	TO-15		9/7/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.325	ug/m3	0.325	1.03	1	TO-15		9/7/2023	CJR	1
Tetrachloroethene	6900	ug/m3	27.8	88.4	100	TO-15		9/7/2023	CJR	1
Tetrahydrofuran	< 0.131	ug/m3	0.131	0.417	1	TO-15		9/7/2023	CJR	1
Toluene	83	ug/m3	0.184	0.585	1	TO-15		9/7/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.657	ug/m3	0.657	2.09	1	TO-15		9/7/2023	CJR	1
1,1,1-Trichloroethane	0.38 "J"	ug/m3	0.249	0.793	1	TO-15		9/7/2023	CJR	1
1,1,2-Trichloroethane	< 0.258	ug/m3	0.258	0.822	1	TO-15		9/7/2023	CJR	1
Trichloroethene (TCE)	1140	ug/m3	23.7	75.4	100	TO-15		9/7/2023	CJR	1
Trichlorofluoromethane	2.3	ug/m3	0.337	1.07	1	TO-15		9/7/2023	CJR	1
Trichlorotrifluoroethane	0.84 "J"	ug/m3	0.402	1.28	1	TO-15		9/7/2023	CJR	1
1,2,4-Trimethylbenzene	15.7	ug/m3	0.283	0.899	1	TO-15		9/7/2023	CJR	1
1,3,5-Trimethylbenzene	3.4	ug/m3	0.232	0.739	1	TO-15		9/7/2023	CJR	1
Vinyl acetate	< 0.203	ug/m3	0.203	0.645	1	TO-15		9/7/2023	CJR	1
Vinyl Chloride	5.2	ug/m3	0.148	0.472	1	TO-15		9/7/2023	CJR	1
m&p-Xylene	43	ug/m3	0.377	1.2	1	TO-15		9/7/2023	CJR	1
o-Xylene	14.3	ug/m3	0.218	0.695	1	TO-15		9/7/2023	CJR	1

"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

CHAIN OF STODY RECORD

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Chain # 52995

Page 1 of 1

Sample Handling Request

X Rush Analysis Date Required: 3-Day
(Rushes accepted only with prior authorization)
___ Normal Turn Around

Lab I.D. #	
QUOTE # :	
Project #:	
Sampler: (signature)	
Project (Name / Location):	505 Grand Ave, Little Chute WI
Reports To:	Dan. OConnell
Company	Cedar Corporation
Address	1695 Bellevue St
City State Zip	Green Bay WI 54311
Phone	920 491 - 9081
Email	Dan.OConnell@CedarCorp.com
Invoice To:	SAME
Company	
Address	
City State Zip	
Phone	
Email	

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
542880A	VP-1	9/5/23	908	N	1	A	None
B	VP-2	9/5/23	1002	N	1	A	None

Analysis Requested

DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	VOC AIR (TO - 15)	8-RCRA METALS
													X	
													X	

Other Analysis

PID/FID

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge, etc.)

VP-1 Start time 8:57, End time 908; start pressure 26Hg, Final pressure 2Hg

VP-2 Start time 935, End time 1002; start pressure 24Hg, Final pressure 3Hg

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Client

Temp. of Temp. Blank: _____ °C On Ice: _____

Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	1123	9/5/23			

Received in Laboratory By: _____ Time: 11:24 Date: 9/5/23