



May 10, 2011

Mr. John Feeney
Wisconsin Department of Natural Resources SE Region
2300 North Dr. Martin Luther King Jr. Dr.
Milwaukee, Wisconsin 53212

Re: Environmental Investigation Status Update
Clare Central
1003 and 1033 West Atkinson Avenue
Milwaukee, Wisconsin
BRRTS # 02-41-549867
Terracon Project No. 58107058

Dear Mr. Feeney:

Terracon Consultants, Inc. (Terracon) has prepared this status letter for the environmental site investigation which is being performed on behalf of St. Clare Management at the apartment complexes located at 1003 and 1033 West Atkinson Avenue, Milwaukee, Wisconsin (Clare Central).

Soil and groundwater at Clare Central have been impacted by chlorinated volatile organic compounds (CVOCs). The primary contaminant of concern is tricholoroethene (TCE), which was historically utilized as a degreaser solvent in the former sheet metal works building. The following sections outline the field work performed to date, present the findings, and discuss the strategy forward.

Field Services

From October 18-21, 2010, Terracon supervised Probe Technologies, Inc. advance twenty-seven (27) direct-push soil borings to approximately 20 feet below ground surface (bgs) (two borings were advanced to 36 feet bgs). Soil samples were collected and submitted for volatile organic compound (VOC) laboratory analysis. Nine (9) of the direct-push boreholes were converted into temporary groundwater monitoring wells by installing ¾ inch diameter PVC, filter pack sand and a bentonite seal to the surface.

On November 10, 2010, Terracon sampled groundwater from the nine temporary groundwater monitoring wells, and the samples were submitted for VOC laboratory analysis.

On February 10, 2011, Terracon installed two sub-slab vapor monitoring points (SS-1 and SS-2), one in each of the apartment buildings, to evaluate potential CVOC vapor migration from the subsurface to the indoor air. On February 11, 2011 the summa canisters were collected and

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sent to the laboratory for EPA TO-15 VOC laboratory analysis.

On March 11, 2011, Terracon supervised On-Site Environmental Service Inc. advance 5 hollow stem auger soil borings to approximately 16 feet bgs. One soil sample was collected from each soil boring and submitted for VOC analysis. The borings were subsequently converted to Wisconsin Administrative Code (WAC) NR 140 compliant groundwater monitoring wells (MW-1 through MW-5).

On March 16 and 17, 2011, Terracon collected vapor samples from the same sub-slab vapor probe locations to verify impacts from the February 2011 sampling event. Ambient air samples were also collected in the area adjacent to the sub-slab locations to document indoor air quality. Groundwater monitoring wells MW-1 through MW-5 were developed as per WAC, NR 141 and surveyed to a datum.

On March 24, 2011, Terracon collected groundwater samples from the groundwater monitoring wells via low-flow sampling technique, and submitted the groundwater for VOC laboratory analysis.

Investigation Results

The site stratigraphy is homogeneous, consisting mainly of silty clay with interbeds of sandy silt to depths of 36 feet bgs (maximum depth explored).

Static groundwater levels ranged from 0.60 to 8.15 feet bgs in the groundwater monitoring wells. Overall groundwater flow direction is towards the southwest; however, groundwater elevation data suggests groundwater is mounded to the northeast (MW-5) and south (MW-1). The horizontal hydraulic gradient is approximately 0.03 feet per feet (ft/ft). Groundwater depth and elevation are likely to be locally influenced by impervious surfaces and underground utilities at the site.

TCE was reported at concentrations above United States Environmental Protection Agency (EPA) direct contact and groundwater pathway standards in soil near the apartment buildings. Analytical data from soil samples at the site suggest two hot spots of TCE impact.

TCE and its daughter compounds, cis-1, 2-dichloroethene, 1, 1-dichloroethene and vinyl chloride were reported at concentrations above Wisconsin Administrative Code (WAC), Chapter NR 140 Enforcement Standards (ES) at 7 of the 9 temporary groundwater monitoring well locations.

TCE, 1, 4-dichlorobenzene, and 1, 1-Dichloroethane were detected above their respective WDNR vapor screening levels in the sub-slab sample location SS-1 (1003 West Atkinson

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Avenue). In addition, TCE, Dichlorodifluoromethane was detected above WDNR vapor screening levels in sub-slab sample location SS-2 (1033 West Atkinson Avenue).

TCE, vinyl chloride and benzene were reported in groundwater at concentrations above their respective WAC, Chapter NR 140 ES at 2 of the 5 groundwater monitoring well locations.

Soil, groundwater and air analytical summary tables are presented as Table 1, 2 and 3, respectively. A Site Diagram Map, showing the location of the soil borings, groundwater monitoring wells and sub-slab vapor monitoring point locations is included as Figure 2.

Path Forward

- Install a sub-slab depressurization system in each apartment building to mitigate potential vapor intrusion affects. Radon Abatement is scheduled to install the systems from May 9-10, 2011.
- Apply for a right-of-way permit for monitoring well installation in the City of Milwaukee right-of-way to install three (3) additional off-site groundwater monitoring wells, and one (1) piezometer to delineate the extent of the dissolved phase CVOC plume.
- Evaluate remedial action options and prepare a Remedial Action Plan.

Please contact us with any additional questions/concerns.

Sincerely,

Terracon

A handwritten signature in black ink, appearing to read "PL".

Paul A. Lenaker
Senior Staff Geologist

A handwritten signature in black ink, appearing to read "Timothy P. Welch".

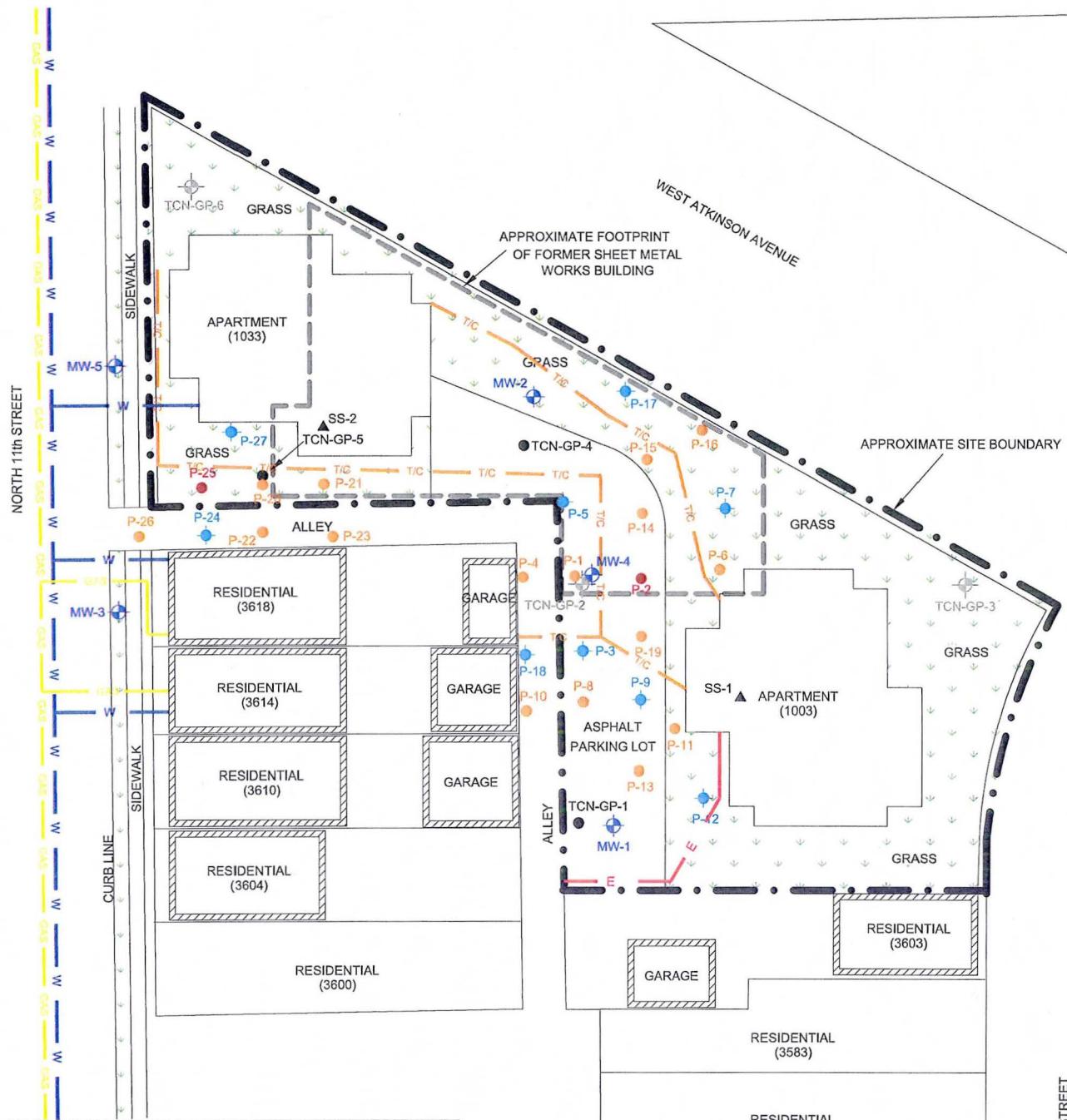
Timothy P. Welch, P. G.
Senior Project Manager

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Attachments: Figure 1 – Site Diagram

- Table 1 – Soil Analytical Test Results Summary for VOCs
- Table 2 – Groundwater Analytical Test Results Summary for VOCs
- Table 3 – Air Analytical Test Results Summary

Copy: Margaret Kidder, St Clare Management



LEGEND

- SOIL & GROUNDWATER PROBE LOCATION (TERRACON LSI, AUGUST 16, 2006)
- SOIL PROBE LOCATION (TERRACON LSI, AUGUST 16, 2006)
- MONITORING WELL
- GEOPROBE BORING TO 20 FEET BGS
- GEOPROBE BORING TO 20 FEET BGS WITH TEMPORARY WELL
- GEOPROBE BORING TO 35 FEET BGS
- ▲ SUB SLAB VAPOR MONITORING POINT (2/11/11)
- ELECTRIC (WE ENERGIES)
- W WATER LINE
- G GAS LINE
- T/C COMMUNICATION (AT & T)

50 0 50
APPROXIMATE SCALE: 1" = 50'

NORTH 10TH STREET



Project Mgr:	PAL
Drawn By:	AGC
Checked By:	PAL
Approved By:	TWP

Project No.	58107058
Scale:	AS SHOWN
File No.	58107058 BL
Date:	3/22/11

Terracon
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SITE DIAGRAM
CLARE CENTRAL
1003 AND 1033 WEST ATKINSON AVENUE
MILWAUKEE WISCONSIN

FIGURE
2

Table 1
Soil Analytical Test Results Summary for VOCs

Clare Central
1003 and 1033 West Atkinson Avenue
Milwaukee, Wisconsin
Terracon Project No. 58107058

Sample ID	Sample Depth (feet)	Sample Date	PID (iu)	Detected VOCs (ug/kg)																				
				Benzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethane	trans-1,2-Dichloroethane	Ethylbenzene	Isopropylbenzene	p-Propylbenzene	Styrene	1,1,1-Trichloroethane	Tetrachloroethene	Toluene	Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	Total xylenes			
TCN-GP-1	6	7/20/2006	<1	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50		
TCN-GP-2	10	7/20/2006	1182	<25	<25	<25	<25	6,100	119	1,950	29	<25	<25	<25	<25	<25	<25	2,970	180,000	44	<25	<25	4,210	
TCN-GP-3	6	7/21/2006	0	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50		
TCN-GP-4	2	7/21/2006	5	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50		
TCN-GP-5	10	7/21/2006	32	<25	<25	<25	<25	640	47	<25	<25	<25	<25	<25	<25	<25	<25	<25	680	<25	<25	<25	<50	
TCN-GP-6	6	7/21/2006	0	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<50		
P-1	3	10/18/2010	10	<25.0	<25.0	<25.0	<25.0	34.6	105	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	72.1	<25.0	64.0	<25.0	<25.0	216	155.9
P-1	8	10/18/2010	2640	<2,000	<2,000	<2,000	<2,000	6780	<2,000	<2,000	<2,000	<2,000	<2,000	<2,000	<2,000	<2,000	<2,000	2,640,000	<2,000	<2,000	<2,000	<2,000	<6,000	
P-1	12	10/18/2010	7	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	78.7	<25.0	<25.0	<25.0	<25.0	<75.0	
P-2	3	10/18/2010	4	<25.0	<25.0	<25.0	<25.0	419	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	462	<25.0	<25.0	<25.0	<25.0	<75.0	
P-2	8	10/18/2010	73	<25.0	81.7	<25.0	35.0	1,140	128	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	99.2	<25.0	3,400	<25.0	<25.0	80.4	<75.0
P-2	12	10/18/2010	14	<25.0	229	39.1	65.4	1,640	212	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	59.4	<25.0	3,530	<25.0	<25.0	211	<75.0
P-3	3	10/18/2010	12	<25.0	<25.0	<25.0	<25.0	126	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	462	<25.0	<25.0	<25.0	<25.0	<75.0	
P-3	9	10/18/2010	90	<125	<125	<125	<125	6,240	861	<125	<125	<125	<125	<125	<125	<125	<125	25,500	<125	<125	<125	<125	357	<425
P-3	11	10/18/2010	35	<25.0	96.3	41.3	<25.0	3,240	313	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	166	<25.0	<25.0	<25.0	<25.0	369	<75.0
P-4	4	10/18/2010	10	<62.5	<62.5	<62.5	<62.5	925	<62.5	<62.5	<62.5	<62.5	<62.5	<62.5	<62.5	<62.5	4,850	<62.5	<62.5	<62.5	<62.5	<187.5		
P-4	9	10/18/2010	24	<250	<250	<250	<250	10,500	1,710	<250	<250	<250	<250	<250	<250	<250	<250	46,000	<250	<250	<250	<250	<750	
P-4	12	10/18/2010	9	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	65.5	<25.0	<25.0	<25.0	<25.0	<75.0	
P-5	3	10/18/2010	3	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	4,510	<25.0	<25.0	<25.0	<25.0	<75.0	
P-5	6	10/18/2010	10	<25.0	<25.0	<25.0	<25.0	68.2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	2,290	<25.0	<25.0	<25.0	<25.0	<75.0	
P-5	11	10/18/2010	9	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3,150	<25.0	<25.0	<25.0	<25.0	<75.0	
P-6	10	10/19/2010	33	<200	<200	<200	<200	804	<200	<200	<200	<200	<200	<200	<200	<200	53,500	<200	<200	<200	<200	<600		
P-7	10	10/19/2010	<1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	46.3	<25.0	<25.0	<25.0	<25.0	<75.0		
P-8	4	10/19/2010	13	<100	<100	<100	<100	<100	<100	1,460	670	<100	328	<100	<100	<100	<100	138	<100	25,130	<100	<100	<100	
P-8	8	10/19/2010	35	<25.0	<25.0	<25.0	<25.0	3,080	131	<25.0	49.5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3,150	<25.0	<25.0	<25.0	<25.0	<75.0	
P-9	8	10/19/2010	302	<1,250	<1,250	<1,250	<1,250	<1,250	<1,250	<1,250	<1,250	<1,250	<1,250	<1,250	<1,250	<1,250	4,610	<1,250	<1,250	141,000	<1,250	<3,750		
P-10	8	10/19/2010	9	<25.0	<25.0	<25.0	<25.0	72.9	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	596	<25.0	<25.0	<25.0	<25.0	<75.0		
P-11	6																							

Table 1
Soil Analytical Test Results Summary for VOCs

Clare Central
1003 and 1033 West Atkinson Avenue
Milwaukee, Wisconsin
Terracon Project No. 58107058

Sample ID	Sample Depth (feet)	Sample Date	PID (lu)	Detected VOCs (ug/kg)																			
				Benzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Dichloroethane	trans-1,2-Dichloroethane	Ethybenzene	Isopropylbenzene	p-isopropyltoluene	n-Propylbenzene	Styrene	1,1,1-Trichloroethane	Tetrachloroethene	Toluene	Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	Total xylenes
P-21	10	10/21/2010	12	<25.0	<25.0	<25.0	<225.0	885	71.2	<25.0	<25.0	<25.0	<25.0	<25.0	132	<25.0	<25.0	2,420	<25.0	<25.0	<25.0	<75.0	
P-22	4	10/21/2010	3	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<75.0	
P-22	11	10/21/2010	41	<25.0	<25.0	<25.0	63.5	10,900	595	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	351	<75.0
P-23	10	10/21/2010	9	<25.0	<25.0	<25.0	<25.0	33.5	<225.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	767	<25.0	<25.0	<25.0	<75.0
P-24	10	10/21/2010	346	<500	<500	<500	<500	12,500	1,780	<500	<500	<500	<500	<500	<500	<500	<500	<500	34,800	<500	<500	<500	<1,500
P-25	2	10/21/2010	7	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	60.6	<25.0	<25.0	<25.0	<75.0
P-25	10	10/21/2010	8	<25.0	<25.0	<25.0	<25.0	45.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	203	<25.0	<25.0	<25.0	<75.0
P-26	10	10/21/2010	5	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<75.0
P-27	2	10/21/2010	2	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<75.0
P-27	10	10/21/2010	8	<25.0	<25.0	<25.0	<25.0	286	28.9	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1,410	<25.0	<25.0	<25.0	<75.0
MW-1	6	3/11/2011	<1	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<58	<29	<29	<29	<29	<29	<29	<40	<98
MW-2	7	3/11/2011	<1	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<57	<29	<29	<29	<29	<29	<29	<40	<97
MW-3	6	3/11/2011	2	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<57	<28	<28	<28	<28	<28	<28	<40	<97
MW-4	7	3/11/2011	620	<1,400	<1,400	<1,400	<1,400	8,400	<1,400	2,600	<1,400	<1,400	<1,400	<1,400	4,900	<1,400	<1,400	9,700	350,000	<1,400	<1,400	<2,000	27,000
MW-5	7	3/11/2011	<1	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<58	<29	<29	<29	<29	<29	<29	<41	<99
NR 720, WAC, Generic RCL ¹			5.5	—	4.9	—	—	—	2,900	—	—	—	—	—	—	—	—	1,500	—	—	—	—	4,100
EPA RCL Site-Specific Soil Screening Level (ingestion) ²			—	—	62,900	—	—	—	—	—	—	—	—	—	3.13	—	110,000	—	14,300	—	—	3,820	—
EPA RCL Site-Specific Soil Screening Level (inhalation) ²			—	1,200,000	77	270,000	—	—	5,200,000	4,200,000	—	—	162,000	14	2,100	—	4,700,000	—	67,000	56	580,000	—	
EPA RCL Site-Specific Soil Screening Level (soil to groundwater) ²			—	29,000	16	50	270	490	7,700	180,000	—	—	5.5	1,400	41	—	370	—	66,000	13	230,000	—	

Notes:

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

NA = Not Analyzed

PID (lu) = Photoionization Detector (Instrument units)

* < * Indicates not detected above listed method detection limit (MDL)

— = — Indicates standard not established, not calculated or not analyzed

XXX values indicate listed concentration above its respective NR 720 RCL or Suggested Generic RCL

¹ NR 720, Wisconsin Administrative Code (WAC), Generic Residual Contaminant Level (RCL) for Non-Industrial Sites

² Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site, PUB-RR-682, January 11, 2002

*NR 720 Table 2 RCL based on Non-Industrial Sites (Hexavalent and Trivalent Chromium RCLs are listed). Species specific testing required.

Table 2
Groundwater Analytical Test Results Summary for VOCs

Clare Central
1003 and 1033 West Atkinson Avenue
Milwaukee, Wisconsin
Terracon Project No. 58107058

Sample ID	Sample Date	Detected VOCs (ug/L)														
		Benzene	Chloroform	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2-dichloroethene	trans-1,2-dichloroethane	1,1,1-trichloroethane	Ethylbenzene	Toluene	1,1,2-Trichloroethane	Methylene chloride	Trichloroethane	Vinyl chloride	Xylene
P-3	11/10/2010	<2.0	<6.5	5.1	2.3	<2.8	<u>239</u>	30.0	<4.5	<2.7	<3.4	<2.1	<2.2	<u>102</u>	<u>89.0</u>	<13.2
P-5	11/10/2010	<0.41	<1.3	<0.75	<0.36	<0.57	1.0	<0.89	<0.90	<0.54	<0.67	<0.42	<0.43	<u>5.2</u>	<u>1.6</u>	<2.63
P-7	11/10/2010	<0.41	<1.3	<0.75	<0.36	<0.57	<0.83	<0.89	<0.90	<0.54	<0.67	<0.42	0.58	<0.48	<u>1.1</u>	<2.63
P-9	11/10/2010	<0.41	<1.3	3.1	3.0	1.3	<u>12.3</u>	<0.89	2.8	<0.54	<0.67	<0.42	0.65	<u>113</u>	<0.18	<2.63
P-12	11/10/2010	<0.41	<1.3	<0.75	<0.36	<0.57	<0.83	<0.89	<0.90	<0.54	<0.67	<0.42	<0.43	<0.48	<0.18	<2.63
P-17	11/10/2010	<0.41	<1.3	<0.75	<0.36	<0.57	<0.83	<0.89	<0.90	<0.54	<0.67	<0.42	0.43	<0.48	<0.18	<2.63
P-18	11/10/2010	<8.2	<26.0	<15.0	<7.2	<11.4	<u>1,830</u>	<u>325</u>	<18.0	<10.8	<13.4	<8.4	<8.6	<u>1,500</u>	<u>262</u>	<52.6
P-24	11/10/2010	<82.0	<260	<150	<72.0	<u>253</u>	<u>17,900</u>	<u>1,380</u>	<180	<108	<134	<84.0	<86.0	<u>6,790</u>	<u>2,310</u>	<526
P-27	11/10/2010	<1.0	<3.2	<1.9	<0.90	<1.4	<u>138</u>	11.3	7.3	<1.4	<1.7	<1.0	<1.1	<u>74.4</u>	<0.45	<6.6
MW-1	3/30/2011	<0.20	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<1.0	<0.20	<0.20	<0.50
MW-2	3/30/2011	<0.20	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<1.0	<0.20	<u>38</u>	<0.50
MW-3	3/30/2011	<0.20	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<1.0	<0.20	<0.20	<0.50
DUP 1	3/30/2011	<0.20	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<1.0	<0.20	<0.20	<0.50
MW-4	3/30/2011	<u>35</u>	<32	<80	<80	<80	1,700	<32	<80	<80	130	<40	<160	<u>16,000</u>	<32	,80
MW-5	3/30/2011	<0.20	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<1.0	<0.20	<0.20	<0.50
East Sump	3/30/2011	<0.20	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<1.0	0.98	<0.20	<0.50
NR 140, WAC, PAL ¹		<u>0.5</u>	<u>0.6</u>	<u>85</u>	<u>0.5</u>	<u>0.7</u>	<u>7</u>	<u>20</u>	<u>40</u>	<u>140</u>	<u>200</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.02</u>	1,000
NR 140, WAC, ES ²		<u>5</u>	<u>6</u>	<u>850</u>	<u>5</u>	<u>7</u>	<u>70</u>	<u>100</u>	<u>200</u>	<u>700</u>	<u>1,000</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>0.2</u>	10,000

Notes:

" < " Indicates not detected above listed method detection limit (MDL)

"Bold" values indicate listed concentration above its respective NR 140, WAC, PAL

XX.X indicates listed concentration above its respective NR 140, WAC, ES

¹NR 140, Wisconsin Administrative Code, Preventive Action Limit (PAL)

²NR 140, Wisconsin Administrative Code, Enforcement Standard (ES)

ug/L = Micrograms per Liter

Table 3
Air Analytical Test Results Summary (Detected Compounds Only)

Clare Central
1003 West Atkinson Avenue
Milwaukee, Wisconsin
Terracon Project No. 58107058

Sample ID	SS-1 (1003 West Atkinson)		Subslab 1003	Ambient 1003	Vapor Screening Levels (Residential) ¹	Vapor Action Level ²
	Sample Type	Sample Depth (inches)				
	Sub-slab	6	Sub-slab	Ambient air		
		1-Liter Summa Canister with 24-hour grab sample	1-Liter Summa Canister with 24-hour grab sample	1-Liter Summa Canister with 24-hour grab sample		
Sample Date	2/11/2011		3/17/2011	3/17/2011		
Acetone	65.8	<60		32	320,000	32,000
Benzene	2.3	<3.3		3.4	31	3.1
2-Butanone (MEK)	4.7	<11		8.2	52,000	5,200
Carbon disulfide	5.5	<1.8		<0.39	7,300	730
Chlorobenzene	<1.6	<4.1		<0.90	520	52
Cyclohexane	3.2	<2.5		1.8	63,000	6,300
Dibromochloromethane	3.9	<6.5		<1.4	9	0.9
1,2-Dibromoelthane (EDB)	3.3	<6.1		<1.4	0.41	0.041
1,4-Dichlorobenzene	5.4	<7.0		4.1	22	2.2
Dichlorodifluoromethane	270	570		46	2,100	210
1,1-Dichloroethane	4.9	7.2		<0.42	150	15
1,2-Dichloroethane	2.1	<3.5		1.2	9.4	0.94
1,1-Dichloroethene	8.8	5.2		<0.51	2,100	210
cis-1,2-Dichloroethene	47.7	56		3.6	NE	NE
trans-1,2-Dichloroethene	2.8	<3.6		<0.79	630	63
Ethanol	778	540		890	NE	NE
Ethylbenzene	3.6	<5.4		1.8	97	9.7
n-Heptane	4.7	<3.5		2.3	NE	NE
n-Hexane	4.9	<2.1		4.8	7,300	730
Methylene Chloride	4.5	15		32	520	52
2-Propanol (Isopropyl alcohol)	45.2	40		83	NE	NE
Styrene	<1.4	<4.5		<0.99	10,000	1,000
Tetrachloroethene	3.1	<4.9		2.3	41	4.1
Tetrahydrofuran	6.6	<3.4		<0.74	NE	NE
Toluene	38.2	6.6		36	52,000	5,200
1,1,1-Trichloroethane	20.2	62		2.1	52,000	5,200
Trichloroethene	5,130	2,500		80	120.0	12.0
Trichlorofluoromethane	84.4	86		43	7,300	730
1,2,4-Trimethylbenzene	8.0	<5.6		5.1	73	7.3
1,3,5-Trimethylbenzene	3.9	<5.8		<1.3	NE	NE
m&p-Xylene	9.0	<9.5		5.0	7,300	730
o-xylene	4.1	<4.8		1.6	7,300	730

Notes:

All concentrations are in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

" < " Indicates not detected above listed method detection limit (MDL)

-- Indicates standard not established, not calculated or not analyzed

¹ Screening value is the Vapor Action Level adjusted for sub-slab and soil-gas vapor to residential indoor air by applying an attenuation factor of 10 for comparison with the analytical results.

² Vapor Action Level for residential indoor air given as the lesser of 1:100,000 lifetime cancer risk or

noncancer hazard index of 1 value in generic U.S EPA Tables at the web address:

http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm and modified for Wisconsin Vapor Intrusion Guidance PUB-RR-800 lifetime cancer risk (1:100,000)

BOLD TYPE = Values indicate EPA residential indoor air screening level exceedances

NE = EPA screening level not established

E= Estimated result. Result concentration exceeds the calibration range.

Table 3
Air Analytical Test Results Summary (Detected Compounds Only)

Clare Central
1033 West Atkinson Avenue
Milwaukee, Wisconsin
Terracon Project No. 58107058

Sample ID	SS-2 (1033 West Atkinson)	Subslab 1033	Ambient 1033	Vapor Screening Levels (Residential) ¹	Vapor Action Level ²
	Sub-slab 6 1-Liter Summa Canister with 24-hour grab sample	Sub-slab 6 1-Liter Summa Canister with 24-hour grab sample	Ambient Air Surface 1-Liter Summa Canister with 24-hour grab sample		
Sample Type	Sub-slab	Sub-slab	Ambient Air Surface		
Sample Depth (inches)	6	6	1-Liter Summa Canister with 24-hour grab sample		
Sample Method	1-Liter Summa Canister with 24-hour grab sample	1-Liter Summa Canister with 24-hour grab sample	1-Liter Summa Canister with 24-hour grab sample		
Sample Date	2/11/2011	3/17/2011	3/17/2011		
Acetone	482	360	44.0	320,000	32,000
Benzene	<23.4	<14	2.7	31	3.1
2-Butanone (MEK)	<21.6	<45	2.5	52,000	5,200
Carbon disulfide	32.8	<7.4	<0.39	7,300	730
Chlorobenzene	109	20	<0.90	520	52
Cyclohexane	<24.5	<11	<0.55	63,000	6,300
Dibromochloromethane	<61.2	<28	<1.4	9	0.9
1,2-Dibromoethane (EDB)	<57.6	<26	<1.4	0.41	0.041
1,4-Dichlorobenzene	<43.2	<30	<1.5	22	2.2
Dichlorodifluoromethane	762,000	25,000E	37	2,100	210
1,1-Dichloroethane	<29.5	<8.1	<0.42	150	15
1,2-Dichloroethane	<29.5	<15	2.7	9.4	0.94
1,1-Dichloroethene	<29.2	<9.8	<0.51	2,100	210
cis-1,2-Dichloroethene	<29.2	<18	<0.95	NE	NE
trans-1,2-Dichloroethene	<29.2	<15	<0.79	630	63
Ethanol	279	360	1,100	NE	NE
Ethylbenzene	331	52	2.0	97	9.7
n-Heptane	<29.9	<15	0.85	NE	NE
n-Hexane	<25.9	<8.7	1.1	7,300	730
Methylene Chloride	<25.6	53	2.5	520	52
2-Propanol (Isopropyl alcohol)	<90.0	93.0	130	NE	NE
Styrene	398	74	<0.99	10,000	1,000
Tetrachloroethene	<50.4	<21	<1.1	41	4.1
Tetrahydrofuran	<21.6	<14	<0.74	NE	NE
Toluene	82.8	28	57	52,000	5,200
1,1,1-Trichloroethane	42.7	<13	0.82	52,000	5,200
Trichloroethene	89.8	44	3.1	120.0	12.0
Trichlorofluoromethane	<39.6	240	130	7,300	730
1,2,4-Trimethylbenzene	78.6	<24	5.5	73	7.3
1,3,5-Trimethylbenzene	49.3	<25	1.3	NE	NE
m&p-Xylene	<63.4	<40	5.1	7,300	730
o-xylene	42.1	<20	1.1	7,300	730

Notes:

All concentrations are in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

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