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Dept of Public Works

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Milwaukee, Wisconsin 53202

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March 8, 2010

Mr. Richard M. Jones
Commissioner of Public Works / City Engineer
City of Racine Department of Public Works
City Hall, Room 303
730 Washington Avenue
Racine, Wisconsin 53403

Reference: *Contamination in Right-of-Way or Adjacent Property*
Former Draeger – Langendorf Funeral Home
1900 and 1910 Taylor Avenue
Racine, Wisconsin 53403
Parcel ID # 276000014011003
WDNR BRRTS# 03-52-545225
Commerce # 53403-2412-00-A

KEY ENGINEERING GROUP, LTD.
Project No. 1509009.1

Dear Mr. Jones:

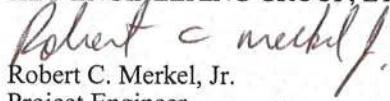
This letter is intended to inform the City of Racine that petroleum contaminated soil exists within the parking lot at the above referenced site and the adjacent right-of-way of 19th Street. Based upon laboratory data, soil (estimated to be 3 to 12 feet below grade) beneath the parking lot remains marginally impacted.

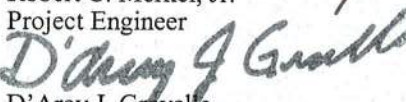
The attached table (Tables 1) and figures (Figures 1 and Figure 2) summarize and depict the approximate extent of the release. This release is currently under review for closure from the Wisconsin Department of Commerce. Notification to the City of Racine that contamination exists within the right-of-way is required for site closure consideration.

No further investigation or remediation is planned for this release. Please feel free to contact us at (414) 224-8300 if you have any questions regarding this letter.

Sincerely,

KEY ENGINEERING GROUP, LTD


Robert C. Merkel, Jr.
Project Engineer


D'Arcy J. Gravelle
Vice President – Environmental Division

RCM/dmm

Attachments: Table 1 Summary of Soil Analytical Results
Table 2 Summary of Groundwater Analytical Results
Figure 1 Site Location Map
Figure 2 Site Layout

cc: Mr. Gary Langendorf, Draeger-Langendorf Funeral Home

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TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

DEAGER LANGENDORF FUNERAL HOME
1900-1910 Taylor Avenue
Racine, Wisconsin

PARAMETERS	SAMPLE IDENTIFICATION													GENERIC RCLs		NR 746		
	GP-1A	GP-1B	GP-2	GP-3	GP-4	GP-5	MW-1		MW-2		MW-3		MW-4		PROTECTION OF GROUNDWATER	DIRECT CONTACT (NON-INDUSTRIAL)	TABLE 1 PRODUCT INDICATORS	TABLE 2 DIRECT-CONTACT
Date Collected	9/30/05	9/30/05	9/30/05	9/30/05	10/5/05	10/5/05	11/17/06	11/17/06	11/14/06	11/14/06	11/17/06	11/17/06	11/17/06	11/17/06	---	---	---	---
Depth (feet bgs)	3.75	5	7.5	3	11.5	9.7	2-4	10-12	2-4	12-14'	2-4	25-27	2-4	27-29	---	---	---	---
Detected VOCs (µg/kg)																		
Benzene	11,000	6,400	31	<25	<25	<25	170	2,400	<25	<25	<25	<25	<25	<25	5.5 (1)	---	8,500	1,100
n-Butylbenzene	11,000	15,000	350	<25	<25	<25	<40	<40	<40	<40	<40	<40	<40	<40	---	---	---	---
sec-Butylbenzene	3,300	<2,500	88	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	---	---	---	---
Ethylbenzene	20,000	56,000	880	<25	<25	<25	85	4,500	<25	<25	<25	<25	<25	<25	---	---	---	---
Isopropylbenzene	6,400	5,100	150	<25	<25	<25	<25	780	<25	<25	<25	<25	<25	<25	2,900 (1)	---	4,600	---
p-Isopropyltoluene	<2,500	<2,500	110	<25	<25	<25	<25	540	<25	<25	<25	<25	<25	<25	---	---	---	---
Naphthalene	40,000	38,000	430	<25	<25	<25	47 J	2,600	<25	<25	<25	<25	<25	<25	---	---	---	---
n-Propylbenzene	30,000	26,000	650	<25	<25	<25	<25	2,600	<25	<25	<25	<25	<25	<25	---	---	2,700	---
Toluene	<2,500	37,000	<25	<25	<25	<25	31 J	1,500	<25	<25	<25	<25	<25	<25	---	---	---	---
1,2,4-Trimethylbenzene	5,900	160,000	52	<25	<25	<25	<25	7,000	<25	<25	<25	<25	<25	<25	1,500 (1)	---	38,000	---
1,3,5-Trimethylbenzene	<2,500	48,000	33	<25	<25	<25	<25	2,300	<25	<25	<25	<25	<25	<25	---	---	83,000	---
Xylenes	19,000	275,000	150	<75	<75	<75	140	12,200	<75	<75	<75	<75	<75	<75	---	---	11,000	---
Detected PAHs (µg/kg)															4,100 (1)	---	42,000	---
Acenaphthene	<85	<85	<17	<17	<17	<17	36	<3.5	<3.3	<3.5	<3.7	<3.5	<3.5	44	38,000 (2)	900,000 (2)	---	---
Acenaphthylene	<95	<95	<19	<19	<19	<19	<10	<3.4	<3.2	<3.4	6.6 J	<3.4	<3.4	400	700 (2)	18,000 (2)	---	---
Anthracene	<55	<55	<11	<11	<11	<11	160	<4.2	<4.0	<4.2	16 J	<4.2	<4.2	780	3,000,000 (2)	5,000,000 (2)	---	---
Benzo (a) anthracene	<60	<60	<12	<12	<12	<12	520	8.0 J	<5.9	<6.2	16	<6.2	<6.3	170	17,000 (2)	88 (2)	---	---
Benzo (a) pyrene	<40.5	<40.5	<8.1	<8.1	<8.1	<8.1	530	9.6 J	10	<3.4	23 J	<3.4	<3.4	210	48,000 (2)	8.8 (2)	---	---
Benzo(b)fluoranthene	102 J	43 J	<7.5	<7.5	<7.5	26	640	13	13	<3.3	32	3.8 J	<3.3	350	360,000 (2)	88 (2)	---	---
Benzo(b,h)perylene	63 J	<42.5	<14	<14	<14	<14	120	9.2 J	13	<3.6	26	<3.6	<3.6	290	870,000 (2)	39,000 (2)	---	---
Benzo (k) fluoranthene	<70	<70	<20	<20	<20	29 J	720	14 J	13	<5.1	39	5.3 J	<5.2	320	37,000 (2)	8,800 (2)	---	---
Chrysene	121 J	<100	<11	<11	<11	47	120	<3.2	<3.1	<3.2	4.2 J	<3.2	<3.3	60	38,000 (2)	390 (2)	---	---
Dibenz (a,h) anthracene	<55	<55	<11	<11	<11	24 J	1,700	32 J	24	<3.4	56	9.4 J	<3.4	500	500,000 (2)	600,000 (2)	---	---
Fluoranthene	327	70 J	<7.4	<7.4	<7.4	47	45	4.7 J	<3.8	<4.0	4.7 J	<4.0	<4.1	63	100,000 (2)	600,000 (2)	---	---
Fluorene	183	<47.5	<9.5	<9.5	<9.5	<9.5	320	5.3 J	7.0	<3.0	9.8 J	<2.9	<3.0	180	680,000 (2)	88 (2)	---	---
Indeno (1,2,3 - cd) pyrene	<47.5	<47.5	<9.5	<9.5	<9.5	<9.5	45	4.7 J	<3.8	<4.0	4.7 J	<4.0	<4.1	63	100,000 (2)	600,000 (2)	---	---
1-methyl naphthalene	12,000	4,240	42	<11	<11	<11	18 J	260	<3.4	<3.6	<3.8	<3.5	<3.6	20 J	23,000 (2)	1,100,000 (2)	---	---
2-methyl naphthalene	30,300	10,600	59	<12	<12	<12	25 J	620	<3.5	<3.7	4.0 J	<3.7	<3.7	38	20,000 (2)	600,000 (2)	---	---
Naphthalene	19,400	7,170	63	<17	<17	<17	32 J	500	<4.5	<4.7	<5.0	<4.7	<4.8	37	400 (2)	20,000 (2)	---	---
Phenanthrene	564	84 J	<8.9	<8.9	<8.9	36	950	27	13	<3.5	44	11 J	<3.5	250	1,800 (2)	18,000 (2)	---	---
Pyrene	225	<55	<11	<11	<11	24 J	1,300	25	19	<2.9	86	7.5 J	<2.9	570	8,700,000 (2)	500,000 (2)	---	---
Metals																		
Arsenic	---	---	---	---	---	---	4.1	3.4	3.4	---	4.4	4.0	6.3	4.5	---	0.039 (1)	---	---
Barium	---	---	---	---	---	---	20	29	37	---	120	57	40	---	---	---	---	---
Cadmium	---	---	---	---	---	---	0.21	0.28	0.22	---	0.25	0.20	0.22	0.17 J	---	---	---	---
Chromium	---	---	---	---	---	---	8.5	12	15	---	27	23	25	17	---	14 (1) (3)/16,000 (1) (4)	---	---
Lead	---	---	---	---	---	---	12	24	10	---	16	7.9	11	7.0	---	---	---	---
Mercury	---	---	---	---	---	---	0.038	0.022	0.010	---	0.063	0.015	0.018	0.013	---	---	---	---
Selenium	---	---	---	---	---	---	<0.87	<0.95	<0.90	---	<1.0	<0.95	<0.97	<0.93	---	---	---	---
Silver	---	---	---	---	---	---	<0.26	<0.28	<0.27	---	<0.30	<0.28	<0.29	<0.27	---	---	---	---

Notes:

- Bold concentrations exceed generic RCLs protective of groundwater
- Boxed concentrations exceed NR 720 or NR 746 direct contact standards
- Shaded concentrations exceed NR 746 Table 1 Soil Screening Level indicative of residual petroleum product in soil pores
- not analyzed or no standard established
- (1) - NR 720 generic RCLs
- (2) - Suggested generic RCLs PAHs Interim Guidance (WDNR), Publication RR-519-97, April 1997 corrected.
- bgs - below ground surface
- J - detected between limit of detection and limit of quantitation
- mg/kg - milligrams per kilogram
- PAHs - polynuclear aromatic hydrocarbons
- RCL - residual contaminant level
- µg/kg - micrograms per kilogram
- VOCs - volatile organic compounds

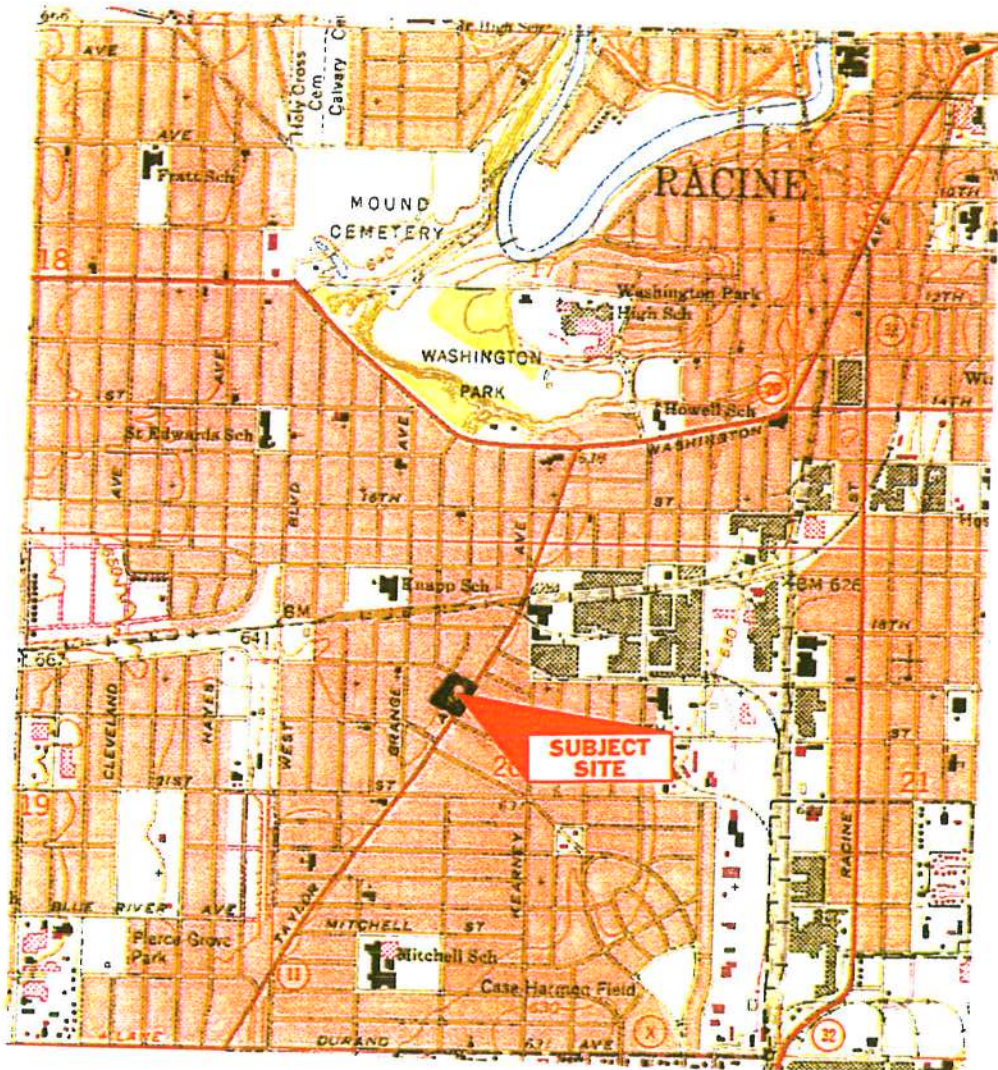
TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

DREAGER LANGENDORF FUNERAL HOME
1900-1910 Taylor Avenue
Racine, Wisconsin

PARAMETERS	SAMPLE IDENTIFICATION																NR 140		
	GP-5	MW-1				MW-2				MW-3				MW-4				ES	PAL
Date Collected	10/7/05	11/20/06	8/24/07	3/31/09	7/20/09	11/20/06	8/24/07	3/31/09	7/20/09	12/22/06	8/24/07	3/31/09	7/20/09	12/22/06	8/24/07	3/31/09	7/20/09		
Detected VOCs (µg/l)																			
Benzene	<0.26	400	120	287	17.7	<0.41	<0.47	<0.41	<0.41	<0.41	<0.47	<0.41	<0.41	<0.41	<0.47	<0.41	<0.41	---	---
Chloroform	<0.78	<1.8	<0.48	<5.2	<0.48	<0.37	<0.48	<1.3	<0.48	0.51 Q	<0.48	<1.3	<0.48	0.39 Q	<0.48	<0.41	<0.48	5	0.5
1,2-Dichloroethane	<0.25	<1.8	<0.45	<1.4	0.71 J	<0.36	<0.45	<0.36	<0.43	<0.36	<0.45	<0.36	<0.43	<0.36	<0.45	<0.36	<0.43	6	0.6
Ethylbenzene	<0.3	<2.7	1.45	<2.2	<0.87	<0.54	<0.38	<0.54	<0.87	<0.54	<0.38	<0.54	<0.87	<0.54	<0.38	<0.54	<0.87	---	---
Isopropylbenzene	<0.56	<2.9	0.78 J	<2.4	<0.39	<0.59	<0.48	<0.59	<0.39	<0.59	<0.48	<0.59	<0.87	<0.59	<0.48	<0.59	<0.87	700	140
Methylene Chloride	<0.55	4.7 Q	<0.69	<1.7	<1.5	<0.43	<0.69	<0.43	<1.5	<0.43	<0.69	<0.43	<1.5	<0.43	<0.69	<0.43	<1.5	---	---
n-Propylbenzene	<0.56	<4.1	0.53 J	<3.2	<0.33	<0.81	<0.38	<0.81	<0.33	<0.81	<0.38	<0.81	<0.33	<0.81	<0.38	<0.81	<0.33	5	0.5
Toluene	<0.52	<3.4	1.3 J	<2.7	<0.51	<0.67	<0.46	<0.67	<0.51	<0.67	<0.46	0.69 J	<0.51	<0.67	<0.46	<0.67	<0.51	---	---
Xylenes	<1.17	<13.1	1.83 J	<10.5	<2.13	<2.63	<0.99	<2.63	<2.13	<2.63	<0.99	<2.63	<2.13	<2.63	<0.99	<2.63	<2.13	1,000	200
Detected PAHs (µg/l)																			
Acenaphthene	---	0.019 Q	<0.015	<0.0079	<0.009	0.014 Q	<0.015	<0.0080	<0.009	<0.0085	<0.015	<0.066	<0.009	<0.0082	<0.015	<0.0090	<0.009	---	---
Acenaphthylene	---	0.030 Q	<0.016	<0.0050	<0.011	<0.0085	<0.016	<0.0051	<0.011	0.011 Q	<0.016	<0.042	<0.011	<0.0081	<0.016	<0.0057	<0.011	---	---
Anthracene	---	0.030 Q	<0.013	<0.0066	<0.01	0.030 Q	<0.013	0.011 J	<0.01	0.027 Q	<0.013	0.24 J	<0.01	<0.012	<0.013	<0.0075	<0.01	3,000	600
Benzo (a) anthracene	---	0.066 Q	0.019 J	0.0079 J	<0.017	0.036 Q	<0.015	0.042 J	<0.017	0.15	0.107	1.5	<0.017	0.044 Q	0.022 J	0.052 J	<0.017	---	---
Benzo (a) pyrene	---	0.12 Q	<0.015	0.010 J	<0.014	0.059 Q	<0.015	0.065	<0.014	0.24	0.137	2.0	<0.014	0.068	0.018 J	0.083	<0.014	0.2	0.02
Benzo (b) fluoranthene	---	0.15	0.028 J	0.019 J	<0.018	0.082	<0.014	0.10	<0.018	0.35	0.245	2.8	<0.018	0.095	0.035 J	0.11	<0.018	0.2	0.02
Benzo (ghi) perylene	---	0.11 Q	<0.015	0.013 J	<0.018	0.069	<0.015	0.065	<0.018	0.24	0.116	1.7	<0.018	0.067	<0.015	0.081	<0.018	---	---
Benzo (k) fluoranthene	---	0.12 Q	<0.023	0.015 J	<0.029	0.058 Q	<0.023	0.066	<0.029	0.25	0.081	2.0	<0.029	0.073	<0.023	0.094	<0.029	---	---
Chrysene	---	0.16	0.027 J	0.019 J	<0.01	0.11	<0.016	0.095	<0.01	0.30	0.174	2.4	0.015 J	0.093	0.026 J	0.10	<0.01	0.2	0.02
Dibenz(a,h)anthracene	---	<0.038	<0.015	<0.0043	<0.019	<0.020	<0.015	0.013 J	<0.019	0.046 Q	0.021 J	0.47	<0.019	<0.019	<0.015	0.017 J	<0.019	---	---
Fluoranthene	---	0.42	0.066	0.033 J	<0.013	0.24	0.023 J	0.18	<0.013	0.59	0.36	4.6	0.027 J	0.18	0.058	0.16	<0.013	400	80
Fluorene	---	0.028 Q	<0.019	<0.0063	<0.013	0.018 Q	<0.019	<0.0064	<0.013	<0.019	0.19	1.5	<0.019	0.050 Q	0.014 J	0.067	<0.019	---	---
Indeno (1,2,3-cd) pyrene	---	0.083 Q	<0.014	0.010 J	<0.019	0.043 Q	<0.014	0.052	<0.019	<0.019	<0.019	0.10 J	<0.013	<0.0091	<0.019	<0.0072	<0.013	400	80
1-Methylnaphthalene	---	0.096	0.027 J	<0.0096	<0.013	0.053	<0.018	<0.0098	<0.013	0.018	0.024 J	<0.080	<0.013	0.026 Q	<0.018	<0.011	<0.013	---	---
2-Methylnaphthalene	---	0.24	0.037 J	<0.011	<0.019	0.099	<0.021	<0.011	<0.019	0.031	0.044 J	<0.090	<0.019	0.046 QB	<0.021	0.015 J	<0.019	---	---
Naphthalene	---	0.091	0.044 J	0.23	<0.024	0.034 Q	<0.018	<0.017	<0.024	0.033 QB	0.045 J	<0.14	<0.024	0.040	0.040 J	<0.019	<0.024	40	8
Phenanthrene	---	0.29	0.037 J	0.016 J	<0.015	0.26	<0.017	0.088	<0.015	0.24	0.134	1.8	<0.015	0.073	0.025 J	0.062	<0.015	---	---
Pyrene	---	0.28	0.053	0.030 J	<0.012	0.16	0.024 J	0.15	<0.012	0.47	0.28	3.7	0.028 J	0.14	0.047	0.13	<0.012	250	50

Notes:

- Bold concentrations exceed NR 140 PAL
- Boxed concentrations exceed NR 140 ES
- not analyzed, not applicable or no standard established
- B - Analyte detected in the method blank
- ES - enforcement standard
- PAHs - polynuclear aromatic hydrocarbons
- PAL - preventive action limit
- Q - analyte detected between limit of detection and limit of quantitation
- µg/l - micrograms per kilogram
- VOCs - volatile organic compounds



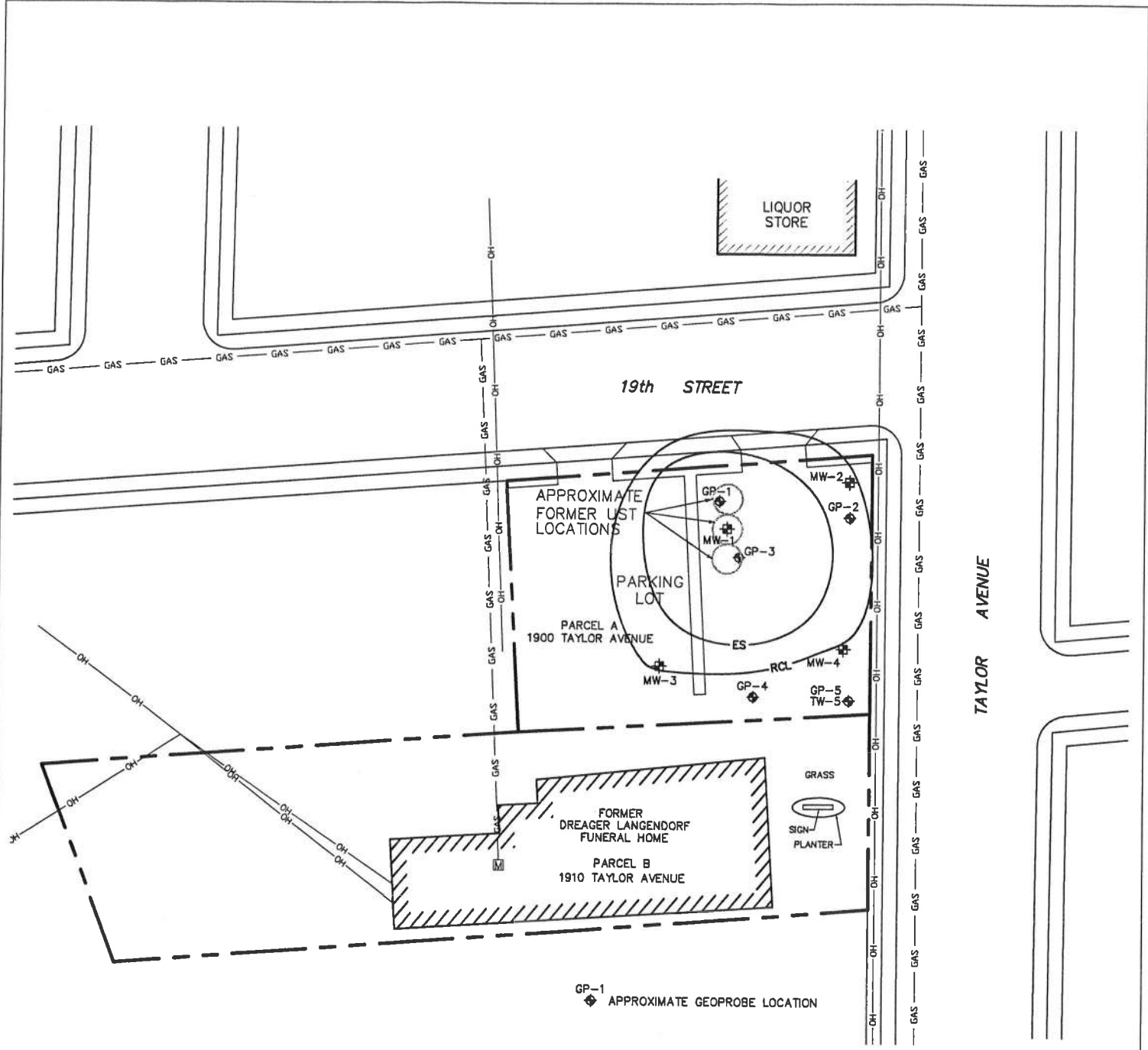
SOURCE:
 USGS
 Racine South, Wisconsin 7.5 Minute Series
 Quadrangle Map 1958, Photo Revised 1971 and 1976




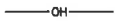




FIGURE 1
 SITE LOCATION MAP
 FORMER DRAEGER LANGENDORF FUNERAL HOME
 1900 AND 1910 TAYLOR AVENUE
 RACINE, WISCONSIN

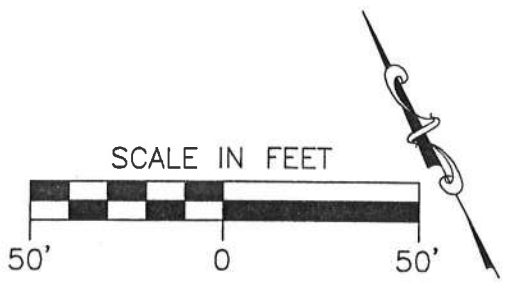


DESIGNED BY	DATE
RCM	03/03/09
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	15090019
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GP-1
 ◆ APPROXIMATE GEOPROBE LOCATION

-  MONITORING WELL LOCATION
-  OVERHEAD ELECTRIC UTILITY
-  GAS UTILITY
-  PROPERTY BOUNDRY
-  GROUND WATER CONTAMINATION AT THE ES LEVEL
-  SOIL CONTAMINATION AT THE RCL LEVEL



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DESIGNED BY AMB	DATE 1/26/2010
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CADFILE G:\ACAD\1509009\DWG\figure2.dwg	
XREF LMAN	

FIGURE 2
SITE LAYOUT
 FORMER DREAGER LANGENDORF FUNERAL HOME
 CITY OF RACINE, WISCONSIN

