

Jorgensen, Theadora O - DNR

From: Jorgensen, Theadora O - DNR
Sent: Friday, February 22, 2019 9:01 AM
To: Jorgensen, Theadora O - DNR
Subject: FW: 02-30-582211 - Pershing Plaza Shopping Center
Attachments: Sigma Map.pdf; 17278_Soil Data Table -- 23081230 v1.PDF

From: Stephen Owens <sowens@gilesengr.com>
Sent: Wednesday, February 20, 2019 2:40 PM
To: Cieslak, Douglas J - DNR <Douglas.Cieslak@wisconsin.gov>
Subject: 02-30-582211 - Pershing Plaza Shopping Center

Hi Doug,

This email is intended to summarize our telephone conversation from yesterday. Below are several of the items we discussed:

- You concurred with my request of a variance to install monitoring wells constructed using prepacked well screens (1-inch inside diameter Schedule 40 PVC, with metal screen containing filter pack sand) with a 1.7-inch outside diameter. to use that using.
- You requested contact information for the site owner:
KRT, LLC
8575 W. Forest Home Ave., Suite #160
Greenfield, WI 53228
Contact: Carlee Beier
414-8772203
- We also discussed the need to provide the owner with sampling results within 10 days of receipt from the lab.

Please let me know if this email differs from your understanding of our conversation. As requested, attached is a map showing the locations of the samples collected by Sigma on behalf of the site owner, and a table summarizing the soil results.

Thanks,
Steve Owens

Stephen M. Owens, P.G., P.H.
Project Manager



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Project: 17278 | Directory: CAD Created by: JRS | Date: 3/16/2018 | Filename: 17278 Basemap | Coordinate System: NAD 1927 StatePlane Wisconsin South FIPS 4803

LEGEND

- ✕ Geoprobe Soil Boring
- ◎ Hand Auger Boring



0 10 20 40 Feet
GRAPHIC SCALE

THE SIGMA GROUP
Single Source. Sound Solutions.

SOIL BORING LOCATION MAP
PERSHING PLAZA
7536 PERSHING BOULEVARD
KENOSHA, WISCONSIN

FIGURE
1

Table 1
Soil Analytical Results Table
Sears - 7630 Pershing Boulevard, Kenosha, WI
Sigma Project No. 17278

Soil Sample Location:		B-1	B-2	B-3	GP-1		GP-2		GP-3		GP-4		Groundwater Pathway RCL ⁴	Non-Industrial Direct Contact RCL ⁵	Industrial Direct Contact RCL ⁶	Background Threshold Value ⁷
Sample Depth (feet bgs):	3 - 4	3 - 4	3 - 4	2 - 4	8 - 10	0 - 2	10 - 12	2 - 4	10 - 12	2 - 4	10 - 12					
Sample Collection Date:		3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18				
Depth to Groundwater (feet bgs):																
Unsaturated/Smear Zone (U) or Saturated (S):																
VOCs																
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.0051	1.6	7.07	NS
Bromobenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	NS	342	679	NS
Bromodichloromethane	mg/kg	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074	<0.074	0.0003	0.418	1.83	NS
Bromoform	mg/kg	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	0.0023	25.4	113	NS
tert-Butylbenzene	mg/kg	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	NS	183	183	NS
sec-Butylbenzene	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	NS	145	145	NS
n-Butylbenzene	mg/kg	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	NS	108	108	NS
Carbon tetrachloride	mg/kg	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	0.0039	0.916	4.03	NS
Chlorobenzene	mg/kg	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	NS	370	761	NS
Chloroethane	mg/kg	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	0.2266	NS	NS	NS
Chloroform	mg/kg	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	0.0033	0.454	1.98	NS
Chloromethane	mg/kg	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	0.0155	159	669	NS
2-Chlorotoluene (o-)	mg/kg	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	NS	907	907	NS
4-Chlorotoluene (p-)	mg/kg	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	NS	253	253	NS
1,2-Dibromo-3-chloropropane	mg/kg	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	0.0002	0.008	0.092	NS
Dibromochloromethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.032	8.28	38.9	NS
1,4-Dichlorobenzene	mg/kg	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	0.144	3.74	16.4	NS
1,3-Dichlorobenzene	mg/kg	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	1.1528	297	297	NS
1,2-Dichlorobenzene	mg/kg	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	1.168	376	376	NS
Dichlorodifluoromethane	mg/kg	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	3.0863	126	530	NS
1,2-Dichloroethane	mg/kg	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	0.0028	0.652	2.87	NS
1,1-Dichloroethane	mg/kg	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	0.4834	5.06	22.2	NS
1,1-Dichloroethene	mg/kg	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	0.005	320	1,190	NS
cis-1,2-Dichloroethene	mg/kg	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.0412	156	2,340	NS
trans-1,2-Dichloroethene	mg/kg	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.0626	1,560	1,850	NS
1,2-Dichloropropane	mg/kg	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	0.0033	3.4	15	NS
1,3-Dichloropropane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	NS	1,490	1,490	NS
trans-1,3-Dichloropropene	mg/kg	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	NS	NS	NS	NS
cis-1,3-Dichloropropene	mg/kg	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	NS	NS	NS	NS
Di-isopropyl Ether	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS	2,260	2,260	NS
EDB (1,2-Dibromoethane)	mg/kg	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	0.0000282	0.05	0.221	NS
Ethylbenzene	mg/kg	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1.57	8.02	35.4	NS
Hexachlorobutadiene	mg/kg	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	NS	1.63	7.19	NS
Isopropylbenzene	mg/kg	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	NS	NS	NS	NS
p-Isopropyltoluene	mg/kg	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	NS	162	162	NS
Methylene chloride	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.0026	61.8	1,150	NS
Methyl-tert-butyl-ether	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.027	63.8	282	NS
Naphthalene	mg/kg	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	<0.094	0.6582	5.52	24.1	NS
n-Propylbenzene	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	NS	264	264	NS
1,1,2,2-Tetrachloroethane	mg/kg	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.0002	0.81	3.6	NS
1,1,1,2-Tetrachloroethane	mg/kg	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.0534	2.78	12.3	NS
Tetrachloroethene	mg/kg	15.9	2.63	1.01	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.0045	33	145	NS
Toluene	mg/kg	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	1.1072	818	818	NS
1,2,4-Trichlorobenzene	mg/kg	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	0.408	24	113	NS
1,2,3-Trichlorobenzene	mg/kg	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	NS	62.6	934	NS
1,1,1-Trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1402	640	640	NS
1,1,2-Trichloroethane	mg/kg	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	0.0032	1.59	7.01	NS
Trichloroethene (TCE)	mg/kg	0.127 J	0.43	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	0.0036	1.3	8.41	NS
Trichlorofluoromethane	mg/kg	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	NS	1,230	1,230	NS
1,2,4-Trimethylbenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		219	219	NS
1,3,5-Trimethylbenzene	mg/kg	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	1.3787	182	182	NS
Vinyl Chloride	mg/kg	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	0.0228 J	<0.019	<0.019	<0.019	<0.019	0.0001	0.067	2.08	NS
Xylenes (total)	mg/kg	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	3.96	260	260	NS

Notes:

- Unsaturated/smear zone versus saturated soil conditions based on: (1) measured water levels in adjacent/nearby monitoring wells, or (2) soil moisture conditions recorded on soil boring logs during drilling.
- Analytical units: mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
- NA = not analyzed
- Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater (dilution factor of 2) as presented on the WDNR's RCL Spreadsheet (dated December 2017) referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014
- Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as presented on the WDNR's RCL Spreadsheet (dated December 2017) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014
- Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at an industrial property as presented on the WDNR's RCL Spreadsheet (dated December 2017) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014
- Background Threshold Value = Non-outlier trace element maximum levels in Wisconsin surface soils from USGS report "Distribution and Variation of Arsenic in Wisconsin Surface Soils, With Data on Other Trace Elements" (revised February 2013).
- NS = no standard established
- Laboratory flags: "J" = Analyte detected between Limit of Detection and Limit of Quantitation
- Exceedances: **BOLD** = Concentration exceeds Groundwater Pathway RCL
[] = Concentration exceeds Non-Industrial Direct Contact RCL (any depth)
{ } = Concentration exceeds Industrial Direct Contact RCL (any depth)