





January 24, 2020

Wisconsin Department of Natural Resources Remediation and Redevelopment Program 223 E. Steinfest Road Antigo, Wisconsin 54409

Attn: Aaron J. Zielsdorf

Hydrogeologist

Aaron.Zielsdorf@Wisconsin.gov

Subject: Addendum to Site Investigation Report

BMO Harris Bank Property

900 E. Main Street Merrill, Wisconsin

PSI Project No. 00541993 BRRTS No. 02-35-584409

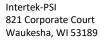
Dear Mr. Zielsdorf,

Professional Service Industries, Inc. (PSI) is pleased to submit herewith this addendum to the previously submitted Site Investigation Report (SIR) for the Subject Property as described above. The Subject Property consists of an approximate 0.8-acre commercial property located at 900 E. Main Street in Merrill, Wisconsin. It is located to the north of E. Main Street, south of N. 1st Street, east of S. Mill Street and west of several commercial properties and S. Poplar Street. The Subject Property consists of two parcels and is situated within the Southwest 1/4 of Section 12, in Township 31 North, Range 6 East, in Lincoln County.

This addendum has been prepared in response to a WDNR email, dated January 22, 2020. In the email it was requested that the "Soil Analytical Results Table" be revised so that the test results that are at levels at or above their respective NR720 Non-Industrial Direct Contact RCLs are both "Bold" and "Outlined". PSI has made the revisions to the "Soil Analytical Results Table" and it is included herein.

The email indicated that it was needed to identify if any nearby public or private potable wells were in the area of the Subject Property and show the locations of utilities on and nearby the parcel. PSI had prepared a utility line location diagram, which was unintentionally not included in the Site Investigation Report. A copy of the buried utilities diagram is included herein. It indicates that the only utilities that cross the area of residual soil contamination are shallow private electrical lines. PSI also contacted the City of Merrill Water Department to inquire about the presence of public city wells and private potable wells in the area of the Subject Property. The representative indicated that the nearest public city well is about 2 miles to the west of the Subject Property. The representative indicated that no private potable wells are allowed in the City of Merrill. As such, no private potable wells are near the Subject Property.

The email indicated that a more detailed description of the physical characteristics of the Subject Property be included with this addendum, along with a description of well installation and development procedures. As





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such, the revised description of the physical characteristics and the procedures are included in the following paragraphs:

PHYSICAL CHARACTERISTICS OF THE SUBJECT PROPERTY

Quaternary Deposits & Geomorphology

Based on PSI's review of the "Soil Survey of Lincoln County, Wisconsin" publication published by the United States Department of Agriculture (USDA) Soil Conservation Service (issued November 1996), the "General Soil Map" of the area around the Subject Property is indicated to be within the Pence-Padus Sandy Loam. This soil series consists of deep, well-drained and moderately permeable soils that have a subsoil of sandy loam over loamy sand to gravelly sand. These soils are above igneous bedrock, which is approximately 50 to 100 feet below grade.

Hydrogeology

The estimated hydraulic gradient within the glacial deposits within this area of north-central Wisconsin range from high permeable material to moderate permeable material. This is consistent with the subsurface soils encountered within the completed soil probes placed in the Subject Property, which were varying layers of native shallow sandy loam soils and deeper sand soils to the maximum depths explored.

Surface Drainage

Surface drainage is to the south and west towards the Wisconsin and Prairie Rivers. The surface water drainage at the Subject Property lies within the Mississippi River Watershed.

Potential Migration Pathways

Low levels of groundwater contamination were detected in the groundwater samples collected from the wells placed on the Subject Property. However, these levels were indicated by the laboratory as estimated values and are not considered as accurate. It is anticipated that no potential migration pathways are present in the area of the encountered PAH contamination on the Subject Property. However, shallow electrical lines associated with exterior lighting are within the area of the residual PAH contamination, but not deemed as potential migration pathways. Further, PAH contaminants are generally immobile compounds and are unlikely to migrate into the underlying groundwater.

Soil Conditions

The surface material at the recent probe locations consisted of about 3 inches of asphalt pavement. The exception was grass present at soil probe SP-11. The underlying fill to possible fill material consisting of brown, dark brown, yellowish brown to black silty sand, sandy silt to silt with gravel, wood and cinders extended to depths of about 4 to 6.5 feet below grade. The underlying natural soils encountered beneath the fill material consisted of brown to dark brown sandy silt, silty sand to sand with variable amounts of gravel to depths of about 10 to 15 feet below grade. No obvious evidence of contamination was present within the collected soil samples.

Shallow Groundwater Conditions

Saturated soils were encountered at depths of about 11 to 12 feet below grade during probing activities. The groundwater levels were measured within the monitoring wells on August 28, 2019 at depths ranging





from 11.07 to 13.81 feet below top of casing (EL. 1252.18± to EL. 1252.61±). No obvious evidence of contamination was observed within the collected water samples.

MONITORING WELL INSTALLATION PROCEDURES

On August 28, 2019, three groundwater monitoring wells were installed at three of the soil probe locations in general accordance with WDNR procedures set forth in Chapter NR141. The well construction consisted of a 10-foot section of 2-inch diameter, Schedule 40 PVC screen with 0.010 inch factory cut slots and 2-inch diameter Schedule 40 PVC flush threaded riser pipe extending to about 6 inches below the ground surface. A steel protective flush mount cover was placed over the top of each PVC riser pipe. Clean sand backfill was utilized as a filter medium around the screened PVC to a level about two feet above the top of the screened section. The sand backfill was placed into the annular space between the auger and PVC during progressive withdrawal of the auger. Bentonite chips filled the annular space above the sand filter. The well construction and other related details were previously submitted to the WDNR.

MONITORING WELL DEVELOPMENT PROCEDURES

The monitoring wells were developed on August 28, 2019. The development was performed by alternately surging and purging with a disposable Teflon bailer. The development water was placed into a 55-gallon drum. The well development and other pertinent details were previously submitted to the WDNR.

The WDNR also suggested that photographs of the area of the soil probes and wells be submitted to assist with the review process. In addition, they suggested that the submitted photographs should also include pictures of the existing surface cover/cap, structures, and the alleyway. As such, requested photographs are included with this submittal.

Should you have any questions regarding the contents of this response letter, please call at any time. PSI appreciates the opportunity to be of service.

Respectfully Submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Patrick J. Patterson, P.E., P.G.

Senior Engineer

Environmental Services

Larry Raether, P.E.
Department Manager

Environmental Services

cc: Joaquin Camacho, Jones Lang LaSalle Americas, Inc.

Attachments: Revised Soil Analytical Results Table Buried Utilities Diagram Site Photographs

BMO Harris Bank Property 900 E. Main Street Merrill, Wisconsin BRRTS No. 02-35-584409

	Location	SP-1	SP-2	SP-3	SP-4	NR 720 RCL		NR720
	Depth	2-4'	2-4'	6-8'	2-4'			
Analysis of Bananastan	Date	7/1/2019	7/1/2019	7/1/2019	7/1/2019			
Analytical Parameter saturated/unsaturated	Units					Direct Contact	Groundwater	BTV
PID	i.u.	u 0	u 0	u 0	u 0	Non-Industrial	Pathway	BIV
Detected VOCs	i.u.	U	U	U	0	Non-industrial		
Benzene	mg/kg	<0.03	<0.03	<0.03	0.062J	1.6	0.0051	
Tetrachloroethene	mg/kg	<0.032	0.07J	0.065J	<0.032	33	0.0045	
Toluene	mg/kg	<0.032	<0.032	<0.032	0.038J	818	1,107.2	
Detected PAHs							_	
Acenaphthene	mg/kg	0.048J	<0.0163			3,590		
Acenaphthylene	mg/kg	0.0213J	0.0094J					
Anthracene	mg/kg	0.199	0.0113J			17,900	196.9492	
Benzo(a)anthracene	mg/kg	0.75	0.07			1.14		
Benzo(a)pyrene	mg/kg	0.71	0.071			0.115	0.470	
Benzo(b)fluoranthene	mg/kg	1.08	0.101			1.15	0.4781	
Benzo(g,h,i)perylene	mg/kg	0.69	0.068					
Benzo(k)fluoranthene	mg/kg	0.39	0.043			11.5		
Chrysene	mg/kg	0.84	0.085			115	0.1442	
Dibenz(a,h)anthracene	mg/kg	0.131	0.0157J			0.115		
Fluoranthene	mg/kg	2.45	0.145			2,390	88.8778	
Fluorene	mg/kg	0.057	<0.0086			2,390	14.8299	
Indeno(1,2,3-cd)pyrene	mg/kg	0.57	0.056			1.15		
Phenanthrene	mg/kg	1.11	0.053					
Pyrene	mg/kg	1.95	0.154			1,790	54.5455	
Detected RCRA Metals								
Arsenic	mg/kg	2.06	1.37J			0.677	0.584	(8)
Barium	mg/kg	84.1	79.8			15,300	164.8	(364)
Cadmium	mg/kg	(1.12)	0.081J			71.1	0.752	(1)
Chromium (a)	mg/kg	16.7	9.21			(b)	360,000 (c)	(44) (d)
Lead	mg/kg	37.4	25.1			400	27	(52)
Mercury	mg/kg	0.113	0.144			3.13	0.208	

Notes:

Bold/outlined concentrations exceed NR 720 non-industrial direct contact RCLs Italicized concentrations exceed NR 720 groundwater pathway RCLs Concentrations in parenthises exceed NR 720 BTV

--- Not analyzed/Not Established

RCL - residual contaminant level

BTV = Background Threshold Value

PID = Photoionization Detector

S/U = Sample Saturated/Unsaturated

i.u. - instrument units

PAH - polynuclear aromatic hydrocarbons

VOC - volatile organic compounds mg/kg -milligrams per kilogram

- J concentration detected between the laboratory Limit of Detection and the Limit of Quantitation
- a: Total Chromium laboratory analytical results may be comprised of trivalent chromium (Cr III) and/or hexavalent chromium (Cr VI)
- b: DC RCLs for Chromium VI are 0.301 (NI) and 6.36 mg/kg (I) and DC RCL for Chromium III is 100,000 mg/kg
- c: use 360,000 mg/kg for GW RCL, if no CR-VI is present
- d: BTV applies to Total Chromium = CR-III and CR-VI

BMO Harris Bank Property 900 E. Main Street Merrill, Wisconsin BRRTS No. 02-35-584409

Analytical Parameter	Location Depth Date Units	SP-5 2-4' 8/28/2019	SP-6 2-4' 8/28/2019	SP-7 2-4' 8/28/2019	SP-8 6-8' 8/28/2019	NR 720 RCL		NR720
saturated/unsaturated		u	u	u	u	Direct Contact	Groundwater	BTV
PID	i.u.	0	0	0	0	Non-Industrial	Pathway	
Detected VOCs	1			ı	<u> </u>			1
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	1.6	0.0051	
Tetrachloroethene	mg/kg	<0.032	<0.032	<0.032	<0.032	33	0.0045	
Toluene	mg/kg	<0.032	<0.032	<0.032	<0.032	818	1,107.2	
Detected PAHs	1			1	1			,
Acenaphthene	mg/kg	<0.0163	<0.0163			3,590		
Acenaphthylene	mg/kg	0.047	<0.0086					
Anthracene	mg/kg	0.1	<0.0043			17,900	196.9492	
Benzo(a)anthracene	mg/kg	0.51	<0.016			1.14		
Benzo(a)pyrene	mg/kg	0.61	<0.0124			0.115	0.470	
Benzo(b)fluoranthene	mg/kg	1.05	<0.0109			1.15	0.4781	
Benzo(g,h,i)perylene	mg/kg	0.43	<0.0084					
Benzo(k)fluoranthene	mg/kg	0.309	<0.0091			11.5		
Chrysene	mg/kg	0.75	<0.006			115	0.1442	
Dibenz(a,h)anthracene	mg/kg	0.091	<0.0101			0.115		
Fluoranthene	mg/kg	1.74	0.0067J			2,390	88.8778	
Fluorene	mg/kg	0.0244J	<0.0086			2,390	14.8299	
Indeno(1,2,3-cd)pyrene	mg/kg	0.36	<0.0082			1.15		
1-Methyl naphthalene	mg/kg	0.0105J	<0.0086			17.6		
Phenanthrene	mg/kg	0.63	<0.0071					
Pyrene	mg/kg	1.41	0.0095J			1,790	54.5455	
Detected RCRA Metals								_
Arsenic	mg/kg					0.677	0.584	(8)
Barium	mg/kg					15,300	164.8	(364)
Cadmium	mg/kg	0.807	0.124J			71.1	0.752	(1)
Chromium (a)	mg/kg					(b)	360,000 (c)	(44) (d)
Lead	mg/kg					400	27	(52)
Mercury	mg/kg					3.13	0.208	

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- J concentration detected between the laboratory Limit of Detection and the Limit of Quantitation
- a: Total Chromium laboratory analytical results may be comprised of trivalent chromium (Cr III) and/or hexavalent chromium (Cr VI)
- b: DC RCLs for Chromium VI are 0.301 (NI) and 6.36 mg/kg (I) and DC RCL for Chromium III is 100,000 mg/kg
- c: use 360,000 mg/kg for GW RCL, if no CR-VI is present
- d: BTV applies to Total Chromium = CR-III and CR-VI

BMO Harris Bank Property 900 E. Main Street Merrill, Wisconsin BRRTS No. 02-35-584409

	Location	SP-9	SP-9	SP-10	SP-11	SP-12	NR720 N			NR720
	Depth	2-4'	6-8'	2-4'	2-4'	2-4'	RCL			
	Date	8/28/2019	8/28/2019	8/28/2019	8/28/2019	8/28/2019				
Analytical Parameter	Units						•	I	l .	
saturated/unsaturated PID		u	u	u O	u O	u 0	Direct Contact	Direct Contact	Groundwater Pathway	BTV
Detected VOCs	i.u.	0	0	0	0	U	Industrial	Non-Industrial	1 attiway	
Benzene	mg/kg		<0.03	<0.03	<0.03	0.072J	7.07	1.6	0.0051	
Ethylbenzene	mg/kg		<0.035	<0.035	<0.035	0.125	35.4	8.02	1.57	
Naphthalene	mg/kg		<0.094	<0.094	<0.094	0.52	24.1	5.52	0.6582	
n-Propylbenzene	mg/kg		<0.033	<0.033	<0.033	0.041J	264	264		
Tetrachloroethene	mg/kg		<0.032	<0.032	<0.032	<0.032	145	33	0.0045	
Toluene	mg/kg		<0.032	<0.032	<0.032	0.6	818	818	1,107.2	
1,2,4-TMB	mg/kg		<0.025	<0.025	<0.025	0.223	219	219	4.000.4	
1,3,5-TMB	mg/kg		<0.032	<0.032	<0.032	0.045J	182	182	1.3821	
Total Xylenes	mg/kg		<0.116	<0.116	<0.116	0.87	260	260	3.96	
Detected PAHs	•			•	•					•
Acenaphthene	mg/kg	0.144					45,200	3,590		
Acenaphthylene	mg/kg	0.0182J								
Anthracene	mg/kg	0.7					100,000	17,900	196.9492	
Benzo(a)anthracene	mg/kg	2.22					20.8	1.14		
Benzo(a)pyrene	mg/kg	2.15*					2.11	0.115	0.470	
Benzo(b)fluoranthene	mg/kg	3.2					21.1	1.15	0.4781	
Benzo(g,h,i)perylene	mg/kg	1.21								
Benzo(k)fluoranthene	mg/kg	1.07					211	211		
Chrysene	mg/kg	2.33					2,110	2,110	0.1442	
Dibenz(a,h)anthracene	mg/kg	0.276					2.11	2.11		
Fluoranthene	mg/kg	6.5					30,100	30,100	88.8778	
Fluorene	mg/kg	0.214					30,100	30,100	14.8299	
Indeno(1,2,3-cd)pyrene	mg/kg	1.08					21.1	21.1		
1-Methyl naphthalene	mg/kg	0.009J					72.7	72.7		
Phenanthrene	mg/kg	3.4								
Pyrene	mg/kg	5.2					226,000	22,600	54.5455	
Detected RCRA Metals				1	1					
Arsenic	mg/kg						3	0.677	0.584	(8)
Barium	mg/kg						100,000	15,300	164.8	(364)
Cadmium	mg/kg	0.122J					985	71.1	0.752	(1)
Chromium (a)	mg/kg						(b)	(b)	360,000 (c)	(44) (d)
Lead	mg/kg						800	400	27	(52)
Mercury	mg/kg						3.13	3.13	0.208	

Notes:

Bold/outlined concentrations exceed NR 720 non-industrial direct contact RCLs Italicized concentrations exceed NR 720 groundwater pathway RCLs Concentrations in parenthises exceed NR 720 BTV

* - concentration exceed NR720 industrial direct contact RCLs

--- Not analyzed/Not Established

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- b: DC RCLs for Chromium VI are 0.301 (NI) and 6.36 mg/kg (I) and DC RCL for Chromium III is 100,000 mg/kg
- c: use 360,000 mg/kg for GW RCL, if no CR-VI is present
- d: BTV applies to Total Chromium = CR-III and CR-VI

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S/U = Sample Saturated/Unsaturated i.u. - instrument units

BMO Harris Bank Property 900 E. Main Street Merrill, Wisconsin BRRTS No. 02-35-584409

	Location	SP-13	SP-14	SP-15	SP-16	SP-17	NR720 RCL	
	Depth	2-4'	2-4'	2-4'	2-4'	2-4'		
	Date	10/29/2019	10/29/2019	10/29/2019	10/29/2019	10/29/2019		
Analytical Parameter	Units							
saturated/unsaturated		u	u	u	u	u	Direct Contact	Groundwater
PID	i.u.	0	0	0	0	0	Non-Industrial	Pathway
Detected PAHs								
Acenaphthene	mg/kg	<0.0163	0.265	<0.0163	<0.0163	<0.0163	3,590	
Acenaphthylene	mg/kg	<0.0086	0.0134J	<0.0086	0.0151J	<0.0086		
Anthracene	mg/kg	<0.0043	0.62	<0.0043	0.014	<0.0043	17,900	196.9492
Benzo(a)anthracene	mg/kg	<0.016	1.02	<0.016	0.059	<0.016	1.14	
Benzo(a)pyrene	mg/kg	<0.0124	0.83	<0.0124	0.067	<0.0124	0.115	0.470
Benzo(b)fluoranthene	mg/kg	0.0239J	1.17	<0.0109	0.099	0.0154J	1.15	0.4781
Benzo(g,h,i)perylene	mg/kg	0.013J	0.36	<0.0084	0.042	<0.0084		
Benzo(k)fluoranthene	mg/kg	0.0125J	0.43	<0.0091	0.044	<0.0091	211	
Chrysene	mg/kg	0.0174J	0.91	<0.006	0.069	0.0133J	2,110	0.1442
Dibenz(a,h)anthracene	mg/kg	<0.0101	0.088	<0.0101	<0.0101	<0.0101	2.11	
Fluoranthene	mg/kg	0.0212	2.47	<0.0054	0.102	0.0223	30,100	88.8778
Fluorene	mg/kg	<0.0086	0.27	<0.0086	<0.0086	<0.0086	30,100	14.8299
Indeno(1,2,3-cd)pyrene	mg/kg	0.0087J	0.34	<0.0082	0.032	<0.0082	21.1	
1-Methyl naphthalene	mg/kg	<0.0086	0.052	<0.0086	<0.0086	<0.0086	72.7	
2-Methyl naphthalene	mg/kg	<0.0147	0.036J	<0.0147	<0.0147	<0.0147	239	
Naphthalene	mg/kg	<0.0153	0.043J	<0.0153	<0.0153	<0.0153	5.52	0.6582
Phenanthrene	mg/kg	0.0102J	2.37	<0.0071	0.051	0.0156J		
Pyrene	mg/kg	0.0228	2.07	<0.0067	0.109	0.0198J	1,790	54.5455

Notes:

Bold/outlined concentrations exceed NR 720 non-industrial direct contact RCLs Italicized concentrations exceed NR 720 groundwater pathway RCLs

--- Not analyzed/Not Established

mg/kg -milligrams per kilogram

RCL - residual contaminant level

J - concentration detected between the laboratory Limit of Detection and the Limit of Quantitation

PID = Photoionization Detector

S/U = Sample Saturated/Unsaturated

i.u. - instrument units

PAH - polynuclear aromatic hydrocarbons

BURIED UTILITIES DIAGRAM PSI Project No. 00541993





Environmental Services 821 Corporate Court Waukesha, Wisconsin 53189 (262) 521-2125 Fax (262) 521-2471 BMO Bank Branch

900 East Main Street Merrill, Wisconsin 54452

> Scale: Not to Scale

Date: 11/11/2019





 Photograph shows highway cones placed at the locations of SP-1 (left) and SP-2 (right) and the surrounding asphalt pavement and small retaining walls associated with the Subject Property. The photograph is taken facing to the west from the alleyway.



 Photograph shows the northern drivethru lines of the service window building associated with the BMO Harris Bank parcel. The highway cone shows the location of SP-4. A stormwater drain is located south of SP-4. SP-11 was placed in the grass area shown on the right side of the photograph. Photograph taken facing to the west.



 Photograph shows the southern drivethru lines of the service window building and the highway cone is placed over SP-3. The photograph also shows the retaining wall along the alleyway and the asphalt and concrete pavement associated with the bank parcel.



SITE PHOTOGRAPHS

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4. Photograph shows the drive-thru window building and SP-3 (left) and SP-4 (right).



5. Photograph shows the alleyway and is taken facing to the west.



6. Photograph taken for near the northern property line and facing to the south. The photograph shows SP-12/MW-3 (in foreground), SP-10 (in the near background), and SP-9 (background left) and SP-8/MW-2 (background right). The photograph also shows the asphalt and concrete pavement associated with the bank parcel.



SITE PHOTOGRAPHS

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7. Photograph taken from the alleyway and facing to the north and shows the northeastern portion of the asphalt parking lot area. The highway cone is over SP-17 and SP-7 would be to the northwest of SP-17.



8. Photograph shows the alleyway from east to west. The near highway cone is over SP-16, while the farther cone is near SP-5/MW-1. The drums are associated with the installation and sampling of the wells.



9. Photograph shows the alleyway facing to the east from near the west end and the retaining wall present along the north side of the alley. The highway cone is over SP-9.



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10. Photograph shows a highway cone over SP-14 and a stormwater drain.



11. Photograph shows a highway cone over SP-13.



12. Photograph shows the western side of the drive-thru window building and the alleyway (right side of photo). Photograph also shows asphalt and concrete pavement associated with the bank parcel.



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