

## Lauridsen, Keld B - DNR

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**From:** Max Wilkinson <maxnrpconsultants@gmail.com>  
**Sent:** Friday, August 3, 2018 10:59 AM  
**To:** Lauridsen, Keld B - DNR  
**Subject:** Re: Ambrosius Property  
**Attachments:** image002.gif; Ambrosius Property SI SUmmary Report.pdf

Keld,

Unfortunately I have not found any thing even close to a complete SIR for the Ambrosius Property, only update letter reports. I have attached a Site Investigation Summary Report to supplement the closure request. It has much of the same information presented in the CR, and a chronology of site work. The goal of the document is to flesh out as much of the site background information and investigative history as possible. I hope it helps, though much of the information is reflected in the the closure request.

Please let me know if there is anything else that I can provide to supplement the closure request.

Max Wilkinson  
Environmental Scientist  
(920)327-1081 (cell)

NRP Consultants, Inc.  
2357 Pamperin Road, Suite 2  
Green Bay, Wisconsin 54313-8929

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On Fri, Aug 3, 2018 at 10:35 AM Lauridsen, Keld B - DNR <[Keld.Lauridsen@wisconsin.gov](mailto:Keld.Lauridsen@wisconsin.gov)> wrote:

Max,

Did you have a chance to look into the missing SIR issue for the above site?

Thanks,

-Keld

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Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

**Keld B. Lauridsen**

Hydrogeologist – Remediation & Redevelopment Program  
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# ***NRP ENVIRONMENTAL CONSULTANTS INC.***

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August 3, 2018

Keld Lauridsen  
WI-DNR  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Keld.Lauridsen@wisconsin.gov

RE: **Environmental Investigation Site Investigation Summary Report**  
Ambrosius Farm Property, 1620 Grant Street, De Pere Wisconsin, (Parcel# VA-L202)  
DNR BRRTS# 02-05-551631

Dear Mr. Lauridsen:

NRP Environmental Consultants Inc. (NRP) is submitting this Site Investigation Summary Report to apprise you of all relevant information pertaining to the case and to supplement the case closure request submitted on July 25<sup>th</sup>, 2018. the most recent environmental investigation action and the progress of the remediation at the Ambrosius property.

## **SITE LOCATION:**

The site is located in rural West De Pere approximately 2.5 miles West of the Fox River. Specifically, the site is on the North side of Grant Street, West of the intersection with Sand Acres drive. The property is bordered to the North by Highland Ridge Golf Club, to the East by Sand Acres Drive, and to the West by agricultural land (Parcel VA-L201). PLSS Location is described as SE 1/4 of the SE 1/4 of Sec 19, T23N, R20E.

## **SITE HISTORY AND BACKGROUND INFORMATION:**

The site is currently unused agricultural land. The site has not been used for farming purposes since the early 2000s, prior to the discovery of contaminated fill on the property. Historically the site has been used as farmland. There are no other known historical uses of the site. There is also a single-family residence on East end the property.

The Site has Polycyclic Aromatic Hydrocarbon (PAH), and RCRA metals based soil contamination. The suspected source of contamination is an industrial property in West De Pere located at 2191 American Boulevard (Parcel WD-L176). The industrial property was the site of municipal waste water sludge lagoons in the late 1960's and 70's. Many industrial activities including bulk fueling operations, and fabrication are known to have occurred there.

A variety of fill material was brought to the site from many locations to raise the ground surface elevation of two fields on the property. Fill material observed in soil piles from the initial site investigation in 2008 was primarily mixed clay and sand, cobbles, and some pieces of concrete and asphalt. The original topsoil was stripped, and fill material from several unidentified locations was brought in to the interior of both fields. The area filled in the Eastern field is approximately 675 feet by 450 feet. The area of fill in the Western field is approximately 375 feet by 450 feet.

Site contamination was discovered in 2008 when contaminated fill material was removed from an industrial property in West De Pere located at 2191 American Boulevard (Parcel WD-L176) and placed at the Ambrosius property. The DNR was notified by RC Excavating's legal counsel of their clients unknowing transportation and dumping of contaminated soil at the Ambrosius property. The BRRTS case was opened 5/28/2008.

Reviewing Brown county digital elevation maps from 2000 and 2010, it appears that fill was used to raise the ground surface elevation approximately 6 feet near the center of the property. Prior to filling activities on-site, the lowest surface elevation was 634 feet above mean sea level (MSL). The current surface elevation across the site is approximately 640 feet MSL. Screenshots of the Brown county GIS digital elevation contour maps from 2000 and 2010 are included at the end of this report.

It should be noted that fill material was also brought to the 1620 Grant Street property from several unidentified sites NOT owned by the RP - GDC American BLVD LLC.

There are BRRTS activities associated with the SOURCE property, 2191 American Boulevard O'Keefe Property - Open ERP - 02-05-241687 (original source of contaminated fill brought to Ambrosius Property)

### **SITE SOILS INFORMATION:**

Geoprobe soil borings advanced across the site for the installation of MW-1 through MW-6 revealed reddish brown silty clay from 0 to 3-4 feet below ground surface. The silty clay was observed throughout the profile mixed with some lighter silty sand with little to no organic matter to 12-14 feet. There is approximately 5 feet of fill throughout the interior of the fields on site.

The NRCS soil survey identified four soil types across the site. The dominant soil type on the east end of the site is Oshkosh silt loam 2 to 6 percent slopes. Oshkosh silty loams have a typical profile of 0 to 7 inches of silt loam underlain by silty clay to 79 inches. These are well drained soils.

The dominant soil types on the west side of the site are Kewaunee silt loam, and Manawa silty clay loam. Kewaunee silt loams have a typical profile of silt loam from 0 to 10 inches below grade, underlain by silty clay loam, or clay to 79 inches. These soils are well drained. Manawa silty clay loams have a typical profile of 0 to 9 inches of silty clay loam underlain by silty clay to 79 inches. Manawa silty clay loams are somewhat poorly drained.

There is a "wedge" of Poygan silty clay loam through the north central region of the site. The typical profile for these soils is silty clay loam to 10 inches underlain by silty clay to 27 inches, and clay to 79 inches. These soils are poorly drained.

### **SITE SOIL ANALYTICAL RESULTS**

Soil sample analytical data indicates there are NO PAH, or PCBs above the NR 700 residual contamination levels (RCL's) for Non-Industrial Direct Contact sites, or the Groundwater Pathway. Minor PAH contamination below the RCL likely remains in the North central area of the site near sample location 27 (B27, 27-R, 27-R-R). This sample location is the only location to return PAH detects of Benzo(a)pyrene above the RCL until the Department revised PAH standards in Spring of 2017. All sample points now fall below the revised RCL.

The receptors and migration pathways of concern are native soil and groundwater. Native soil samples collected in 2011 returned only minor detects of PAH, none approaching the applicable RCL. Soil sample analytical results are included in the A.2. Soil Analytical Results Table at the end of this

report. Native soil “background” analytical results from samples collected during the installation of monitoring wells MW-1 through MW-6 and other background location across the site are included in the A.2.b. Soil Analytical Results Table at the end of this report.

The source of the contaminated fill material is an industrial property in the West De Pere industrial park owned by GDC American Boulevard LLC (Parcel # WD-L176-2).

## **SITE GROUNDWATER ANALYTICAL RESULTS**

Groundwater samples collected on 7/29/2011 returned low level detects for Metals. MW-1 returned one detect of Lead (16.9 ppb) above the ES. MW-6 returned detects of Arsenic (11.0J ppb) and Lead (20.6 ppb) above the ES. The arsenic concentration falls within the native background concentration for the area. Analytical groundwater results for PAH compounds returned NO detects at or approaching the applicable standard. Groundwater samples were not field filtered prior to laboratory analysis and are believed to be skewed high and thus nonrepresentative of site conditions.

Analytical groundwater results from samples collected on 6/22/2012 returned low level detects of Barium in all Monitoring Wells. These groundwater samples returned NO DETECTS of Lead or Arsenic above the laboratory Method Detection Limit. These analytical results indicate there is no impact to groundwater. Groundwater results are included in A.1. Groundwater Analytical Table at the end of this report.

Impacts to water supply wells are unlikely given the proximity to any nearby private well, PAH's affinity to adhere to particulates, and the onsite drainage ditch which facilitates shallow groundwater flow. Impacts or interception with building foundations is also unlikely given observed analytical contaminant concentrations and proximity to nearby buildings.

## **SITE INVESTIGATION HISTORY**

### CHRONOLOGY OF SITE INVESTIGATION WORK

- 11/10/2008 – RMT advances geoprobe borings B-1 through B-35 across the east and west fields of the Ambrosius property per WDNR recommended locations. Soil samples are collected from 1-6 feet below grade and composited. Samples are analyzed for PAH, RCRA metals, and PCB's. Analytical results returned detects of PAH compounds exceeding RCL's in 26 of 35 sample locations. Eleven sample locations returned RCRA metals RCL exceedances. One sample location returned a PCB RCL exceedance.
- 8/6/2010 – NRP submits an Environmental Investigation Workplan which was conditionally approved, with some modifications by the Department in a letter dated 1/12/2011.
- 06/02/2011 and 7/22/2011 - A site investigation is initiated. Six monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6) are installed and soil samples were collected and delivered to a state-certified laboratory. Due to weather and condition restraints, the first two wells were installed in June and the remaining four were installed in July. The field was very wet which limited access the field until July.
- 07/29/2011– NRP collects groundwater samples from all wells, after the wells were properly developed. Additionally, NRP collects three soil samples from areas suggested by the WDNR in the January 2011 letter. Samples were analyzed for PAH and RCRA Metals.

Groundwater samples were collected and delivered to a state-certified laboratory (The site was mapped, and the wells were surveyed). The results are located in A.1. Groundwater Analytical Table. All monitoring wells were constructed of two-inch, schedule 40, flush threaded PVC casing and well screens. Well parts were supplied by Diedrich Drill and were individually wrapped in plastic. Backfill material was installed by gravity as the augers were withdrawn from the hole. Wells were cut to the required height using a pipe cutter. A mark was made at the top of the PVC casing to ensure that all measurements would be taken from the same location.

NRP Environmental Consultants and Engel and Associates of Fond Du Lac Wisconsin performed well survey work. Ground elevation was surveyed to the nearest 0.1-foot, and the top of the well casing to the nearest 0.01 foot. Please see Table II for results.

- On September 27, 2012 - NRP collects four background (BG) soil samples to determine if there has been any impact on the native soils from the material from American Blvd spread on the site. These discreet samples will be collected from the upper 2 feet of the native soil profile. Additional samples were collected around samples; B1, B6, B10, B13, B15, B19, B21, B27 and B30 for a total of nine. These are areas of the site that have imported soil from the GDC American Boulevard site spread on it, and have the highest PAH levels reported from data gathered from previous investigative activities.

The samples were collected using a hand auger from the soil piles. Samples were collected from approximately one foot below grade; mixing equal amounts from every approximately 6 inches in the fill material. At each location, equal parts of the samples were mixed in the field and submitted to the laboratory as a composite sample. The samples were not collected from the native material or material from the top 1 foot.

All samples were analyzed for PAH, the four samples from the native soils were also analyzed for RCRA Metals. The sample near B15 was also be analyzed for lead. Equipment decontamination procedures will be followed during sampling to minimize the possibility of cross-contamination between samples. A new pair of nitrile gloves were worn to place soil samples in the glass sample jars provided by the laboratory. These procedures will be used when obtaining hand auger samples.

- On July 22, 2013, NRP personnel (Bob Herubin) and WDNR personnel (Al Nass and Bob Klauk) had a meeting to discuss the status of this site and the Ashwaubenon Boardwalk site. The goal of the meeting was to focus on achieving case closure on the cases. The options for the Ambrosius site were; to permanently cap the property, remove the impacted soil and properly dispose of it in a landfill, or turn the property into a Municipal Park. These options are not feasible due to the fact that the RP (GDC) does not own the property.
- On May 20, 2014 Mr Herubin wrote; "NRP Environmental Consultants Inc. (NRP) personnel, Bob Herubin and Jeff LaViolette, met with Mr. Gary DeCaster and Mr. Steve Gay at the Ambrosius property on May 20, 2014 at about 10:00. The goal of the meeting was to determine a cost effective approach to achieving case closure.

The area on the east side of the property, east of the drainage ditch that bisects the property, is fairly flat and it was agreed that it is tillable as it is. The part of the property on the west side of the drainage ditch was not tillable at that time. There were large piles of soil on the area of the parcel that were hauled in by other contractors and not from GDC sites. That area and the interior had standing water.

NRP proposed to collect soil samples from the area around original sample and re-sample number B27 and B30 (please see attached site map). Those were the only locations on the west side that were reported as having PAH compounds above the Non-Industrial Direct Contact Standard (NIDCS).

Additionally, Mr. DeCaster stated that none of the soil generated from his project was placed on the west side of the site. This is logical when considering that the filling started on the eastern edge of the property and progressed west. Fill was being deposited on this site up to a year after the fill from Mr. DeCaster's project was placed. The east side had been filled, leveled and what is assumed to be the original topsoil replaced."

- On May 21, 2014 samples were collected from the area around original sample and re-sample number 27 and 30 (please see a site map). These were the only locations on the west side that were reported as having PAH compounds above the Non-Industrial Direct Contact Standard (NIDCS). The results indicate that the soil sample that was collected near the location of the boring number 30 was reported as no PAH compounds present that are even approaching whichever PAH standard is most restrictive. The results from the soil sample that was collected near the location of the boring number 27 indicate that the levels similar to the previous sample results with exceedances for; benzo(a)pyrene and benzo(b)fluoranthene. The results are above the Non-Industrial Direct Contact Standard but below the Groundwater Pathway and Industrial Direct contact standards.
- Fall 2014, Site was graded and soil piles leveled to accommodate chisel plowing in 2015.
- Spring 2015, native vegetation allowed to overtake the site.
- July 2015, site was chisel plowed per the workplan. Native vegetation onsite had flourished to heights of 3-5 feet. This biomass was reincorporated into the surface soils. See the 2016 Update report for photos.
- August 2015, the site was disked to uniformed grade. See 2016 Update Report
- On May 18, 2016 One soil sample was collected from the area near original sample, and re-sample boring number 27 This is the only location on the west side of the property that returned PAH exceedances above the Non-Industrial Contact Standard (NIDCS) following sampling conducted in 2014. The results returned one detect of Benzo(a)pyrene above the Non-Industrial Direct Contact Standard. Samples were collected at this location to show natural attenuation throughout the site.

## **VAPOR MIGRATION ANALYSIS**

No vapor migration assessment was conducted. The site is an open field. With the exception of Naphthalene, the contaminants of concern have no screening level or standard. Vapor assessment was not requested by the department.

## **SEDIMENT MIGRATION AND SURFACE WATER IMPACT**

Surface soil has been stabilized by years of vegetative growth across the agricultural property. Any sediment migration which may have occurred is no longer an issue to due dense vegetation across the site.

## CONCLUSION

The site has PAH impacted soils. Contaminated soil was placed between 2006 and 2008 and has remained on site. Soil contamination levels are below the current NR 700 Residual Contamination Level (RCL). Sample locations which returned detects of PAH, RCRA metals, or PCB contamination above the RCL in November of 2008 were resampled in September 2012. Of the nine resample locations (1-R, 6-R, 10-R, 13-R, 15-R, 19-R, 21-R, 27-R, and 30-R), only two locations (27-R, and 30-R) returned detects above the RCL. These locations were sampled again in 2014, returning RCL exceedances from 27-R. Soil sample location 27-R was sampled for the fourth time in 2016. Analytical results for sample 27-R returned NO detects above the applicable RCL. There are NO PAH compounds above the most restrictive RCL at the site.

RCRA metals analysis completed as part of the 2008 investigation returned detects of Arsenic, Barium, and Cadmium. Adjusting for the statewide background threshold values (BTV), there are 12 locations with cadmium groundwater pathway exceedances ranging from 1.0-1.8 ppm, with a BTV of 1.0 ppm. Cadmium was not detected in groundwater samples collected from the site.

Initial groundwater analytical results from July 2011, which returned ES exceedances for Lead and Arsenic, and PAL exceedances for Barium and Chromium were not field filtered and may have skewed results. Subsequent groundwater analysis in June 2012 were filtered and returned NO ES or PAL exceedances for any compound. Groundwater has not been analyzed since 2012, but increases would not be expected considering the contaminated soil had been onsite for approximately 6 years at the time of sampling in 2012.

We believe the case is ready for closure based on declining soil PAH concentrations observed in all sample location, and no detects of groundwater contamination in 2012 sampling. All soil contaminant concentrations are below applicable RCLs with the exception of cadmium in several sample locations. It should be noted most cadmium exceedances are relatively close to the statewide BTV of 1.0ppm.

If you have any questions, concerns, or comments, please reach out to NRP using the contact information below or call our offices at (920) 662-9212.

Sincerely,  
NRP Environmental Consultants, Inc.



Max A. Wilkinson  
Environmental Scientist  
(920) 327 – 1081  
[MaxNRPconsultants@gmail.com](mailto:MaxNRPconsultants@gmail.com)



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### A.1. Groundwater Analytical Table:

#### RCRA Metals and PAH Analysis

Sample Date	7/29/2011						W.A.C. NR 140 Table 1 - Groundwater Quality Standards Effective February 2017	
Sample ID	MW1	MW-2*	MW-3	MW-4	MW-5	MW-6		
PVC casing elevation	636.84	633.1	632.42	632.06	632.7	636.58		
Groundwater static level	7.83	6.95	4.46	4.01	5.91	6.90		
Groundwater elevation	629.01	626.15	627.96	628.05	626.79	629.68	WDNR PAL	WDNR ES
Metals - in ug/L or PPB								
Arsenic	9.3J	NA	7.9J	2.8J	6.2J	11.0J	1	10
Barium	266	NA	404	202	339	520	400	2,000
Cadmium	.35J	NA	<.28	<.28	.37J	.29J	0.5	5
Chromium	60.2	NA	55.7	17.4	42.5	77.4	10	100
Lead	16.9	NA	14.8	6.4J	14.3	20.6	1.5	15
Mercury	<.10	NA	<.10	<.10	<.10	<.10	0.2	2
Selenium	<2.2	NA	<2.2	<2.2	<2.2	<2.2	10	50
Silver	<.69	NA	<.69	<.69	<.69	<.69	10	50
PAH - in ug/L or PPB								
ACENAPHTHENE	<.0048	NA	<.0048	<.0048	.0050J	<.0048	NE	NE
ACENAPHTHYLENE	<.0038	NA	<.0038	<.0038	<.0038	<.0038	NE	NE
ANTHRACENE	.0067J	NA	<.0061	<.0061	<.0061	<.0061	600	3000
BENZNO(a)ANTHRACENE	<.0038	NA	<.0038	<.0038	<.0038	<.0038	NE	NE
BENZO(a)PYRENE	<.0030	NA	<.0030	<.0030	<.0030	<.0030	0.02	0.2
BENZO(b)FLUORANTHENE	<.0036	NA	<.0036	<.0036	<.0036	<.0036	0.02	0.2
BENZO(g,h,i)PERYLENE	.0061J	NA	<.0051	<.0051	.0068J	<.0051	NE	NE
BENZO(k)FLUORANTHENE	<.0046	NA	<.0046	<.0046	<.0046	<.0046	NE	NE
CHRYSENE	.0055J	NA	<.0037	<.0037	.0059J	<.0037	0.02	0.2
DIBENZO(a,h)ANTHRACENE	<.0034	NA	<.0034	<.0034	<.0034	<.0034	NE	NE
FLUORANTHENE	<.0047	NA	.0047J	.0054J	.0065J	.052J	80	400
FLUORENE	<.0051	NA	<.0051	<.0051	.0066J	<.0051	80	400
INDENO(1,2,3-cd)PYRENE	<.0050	NA	<.0050	<.0050	<.0050	<.0050	NE	NE
1-METHYLNAPHTHALENE	.0063J	NA	.014J	.013J	.025J	.0076J	NE	NE
2-METHYLNAPHTHALENE	.011J	NA	.0093J	.015J	.039J	.0094J	NE	NE
NAPHTHALENE	.018J	NA	.014J	0.064	.035J	.017J	10	100
PHENANTHRENE	<.0086	NA	<.0086	.0091J	.022J	<.0086	NE	NE
PYRENE	<.0050	NA	.011J	.0055J	.0088J	.017J	50	250

NOTES:

µg/L = parts per billion

WDNR PAL = WDNR NR 140 Preventive Action Limit

WDNR ES = WDNR NR 140 Enforcement Standard

**BOLD** values indicate ES exceedance

ND = Not detected above the MDL

NE - Standard is Not Established

NA - Not Analyzed

Q - Detected below the limit of quantification

J = Estimated value - below MDL

PVC Casing Elevation tied to USGS Datum

\* The well has a bailer and string tangled inside – a sample could not be collected and this will be repaired for the April 2012 sample

### A.1. Groundwater Analytical Table:

#### RCRA Metals and PAH Analysis

Sample Date	6/22/2012						W.A.C. NR 140 Table 1 - Groundwater Quality Standards Effective February 2017	
Sample ID	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6		
PVC casing elevation*	636.84	633.1	632.42	632.06	632.7	636.58		
Groundwater static level	8.65	7.58	5.79	5.71	6.58	7.70	WDNR PAL	WDNR ES
Groundwater elevation	628.19	625.52	626.63	626.35	626.12	628.88		
Metals - in ug/L or PPB								
Arsenic	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	1	10
Barium	43.5	68.6	170	78.8	105	135	400	2,000
Cadmium	0.42 J	<0.39	<0.39	<0.39	<0.39	<0.39	0.5	5
Chromium	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	10	100
Lead	<1.4	<1.4	<1.4	<1.4	1.4 J	<1.4	1.5	15
Mercury	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.2	2
Selenium	<5.8	<5.8	<5.8	<5.8	<5.8	<5.8	10	50
Silver	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	10	50
PAH - in ug/L or PPB								
ACENAPHTHENE	NA	<0.0045	NA	NA	NA	NA	NE	NE
ACENAPHTHYLENE	NA	<0.0036	NA	NA	NA	NA	NE	NE
ANTHRACENE	NA	0.0060 J	NA	NA	NA	NA	600	3000
BENZNO(a)ANTHRACENE	NA	<0.0036	NA	NA	NA	NA	NE	NE
BENZO(a)PYRENE	NA	<0.0029	NA	NA	NA	NA	0.02	0.2
BENZO(b)FLUORANTHENE	NA	<0.0034	NA	NA	NA	NA	0.02	0.2
BENZO(g,h,i)PERYLENE	NA	<0.0048	NA	NA	NA	NA	NE	NE
BENZO(k)FLUORANTHENE	NA	<0.0044	NA	NA	NA	NA	NE	NE
CHRYSENE	NA	<0.0035	NA	NA	NA	NA	0.02	0.2
DIBENZO(a,h)ANTHRACENE	NA	<0.0032	NA	NA	NA	NA	NE	NE
FLUORANTHENE	NA	<0.0044	NA	NA	NA	NA	80	400
FLUORENE	NA	<0.0048	NA	NA	NA	NA	80	400
INDENO(1,2,3-cd)PYRENE	NA	<0.0047	NA	NA	NA	NA	NE	NE
1-METHYLNAPHTHALENE	NA	<0.0050	NA	NA	NA	NA	NE	NE
2-METHYLNAPHTHALENE	NA	0.0061 J	NA	NA	NA	NA	NE	NE
NAPHTHALENE	NA	0.0074 J	NA	NA	NA	NA	10	100
PHENANTHRENE	NA	<0.0081	NA	NA	NA	NA	NE	NE
PYRENE	NA	<0.0047	NA	NA	NA	NA	50	250

NOTES:

µg/L = parts per billion

WDNR PAL = WDNR NR 140 Preventive Action Limit

WDNR ES = WDNR NR 140 Enforcement Standard

**BOLD** values indicate ES exceedance

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NE - Standard is Not Established

NA - Not Analyzed

Q - Detected below the limit of quantification

J = Estimated value - below MDL

\* PVC Casing Elevation tied to USGS Datum

Ambrosius Property – 1620 Grant Street, De Pere, Wisconsin  
WDBR BRRTS# 02-05-551631

A.2. Soil Analytical Results Table:

PAH, RCRA Metals, and PCB Analysis for Original Soil Sample and Resample Locations

Sample ID	B-1	1-R	B-2	B-3	B-4	B-5	B-6	6-R	B-7	B-8	NR 720 Suggested generic Residual Contaminant Levels (RCL) for soil		
Sample Depth (ft)	1-6	0 - 4	1-6	1-6	1-6	1-6	1-6	0 - 2	1-6	1-4			
Sample Collection Date	11/10/08	9/27/12	11/10/08	11/10/08	11/10/08	11/10/08	11/10/08	9/27/12	11/10/08	11/10/08			
PAHs - in ug/kg or PPB <sup>1</sup>											Groundwater Pathway	Non-Industrial Direct Contact	Industrial Direct Contact
Acenaphthene	<180	<18.8	<98	<92	<190	<200	<210	15.0J	<180	<190	NE	3,590,000	45,200,000
Acenaphthylene	<300	<18.8	<170	<160	<320	<350	<360	10.4J	<300	<320	NE	NE	NE
Anthracene	85	21.5J	44	<9.2	<19	<20	33	42	19	<19	196,950	17,900,000	100,000,000
Benzo (a) anthracene	220	66.8	110	<9.2	<19	46	190	107	180	62	NE	1,140	20,800
Benzo (b) fluoranthene	160	99	76	<9.2	<19	<20	140	122	68	84	479	1,150	21,100
Benzo (k) fluoranthene	98	107	54	<9.2	<19	34	52	140	37	53	NE	11,500	211,000
Benzo (a) pyrene	<b>230</b>	105	110	<9.2	<19	29	<b>200</b>	55.1	84	110	470	115	2,100
Benzo (g,h,i) perylene	150	57.7	71	<9.2	<19	<20	140	109	110	75	NE	NE	NE
Chrysene	<b>190</b>	103	100	<9.2	<19	29	140	115	73	70	145	115,000	2,110,000
Dibenzo (a,h) anthracene	<26	21.9J	<15	<14	<28	<31	<32	17.7J	<27	<28	NE	115	2,110
Fluoranthene	600	121	230	<18	<38	<41	450	259	220	190	88,878	2,390,000	30,100,000
Fluorene	<35	<18.8	<20	<18	<38	<41	<42	14.5J	<36	<38	14,830	2,390,000	30,100,000
Indeno (1,2,3-cd) pyrene	160	38.5	70	<9.2	<19	<20	120	46.7	63	81	NE	1,150	21,100
1-Methylnaphthalene	<110	<17.2	<59	<55	<110	<120	<130	<8.6	<110	<110	NE	17,600	72,700
2-Methylnaphthalene	<88	<3.5	<49	<46	<94	<100	<110	18.9	<89	<94	NE	239,000	3,010,000
Naphthalene	<110	<7.1	<59	<55	<110	<120	<130	15.7J	<110	<110	658	5,520	24,100
Phenantrene	340	61.9	160	<9.2	<19	<20	290	123	81	75	NE	NE	NE
Pyrene	520	166	230	<9.2	<19	<20	250	191	110	170	54,546	1,790,000	22,600,000
Metals - in mg/kg or PPM <sup>1</sup>													
Arsenic	<b>1.6</b>	NA	<1.8	<1.7	<b>3.5</b>	<b>2.4</b>	<20	NA	<1.7	<1.8	0.542	0.677	3
Barium	79	NA	49	74	<b>100</b>	<b>120</b>	<b>160</b>	NA	73	99	164.8	15,300	100,000
Cadmium	<b>0.84</b>	NA	0.58	0.71	<b>1.4</b>	<b>1.2</b>	<b>1.7</b>	NA	0.56	0.08	0.752	71.1	985
Chromium	30	NA	21	25	49	46	61	NA	19	28	360,000	NE	NE
Lead	10	NA	7.0	11	19	23	13	NA	19	7.6	27	400	800
Mercury	0.043	NA	0.016	0.065	0.22	0.068	0.13	NA	0.019	0.016	0.208	3.13	3.13
Selenium	<4.7	NA	<5.2	<4.9	<5.0	<5.4	5.6	NA	<4.8	<5.0	0.52	391	5,840
Silver	<0.13	NA	<0.14	<0.14	<0.14	0.51	<0.15	NA	<0.13	<0.014	0.8491	391	5,840
PCBs - in mg/kg or PPM <sup>1</sup>													
PCB-1016	<0.059	NA	<0.065	<0.061	<0.063	<0.068	<0.070	NA	<0.060	<0.063	NE	4.11	28
PCB-1221	<0.059	NA	<0.065	<0.061	<0.063	<0.068	<0.070	NA	<0.060	<0.063	NE	0.213	0.883
PCB-1232	<0.059	NA	<0.065	<0.061	<0.063	<0.068	<0.070	NA	<0.060	<0.063	NE	0.19	0.792
PCB-1242	<0.059	NA	<0.065	<0.061	<0.063	<0.068	<0.070	NA	<0.060	<0.063	NE	0.235	0.972
PCB-1248	<0.059	NA	<0.065	<0.061	<0.063	<0.068	<0.070	NA	<0.060	<0.063	NE	0.236	0.975
PCB-1254	<0.059	NA	<0.065	<0.061	<0.063	<0.068	<0.070	NA	<0.060	<0.063	NE	0.239	0.988
PCB-1260	<0.059	NA	<0.065	<0.061	<0.063	<0.068	<0.070	NA	<0.060	<0.063	NE	0.243	1

<sup>1</sup> - ug/kg means micrograms per kilogram, PPB means parts per billion, mg/kg means milligrams per kilogram, and PPM means parts per million.

Bolded concentrations exceed an established standard or residual contamination level (RCL).

< means less than.

Ambrosius Property – 1620 Grant Street, De Pere, Wisconsin

WDBR BRRTS# 02-05-551631

A.2. Soil Analytical Results Table:

PAH, RCRA Metals, and PCB Analysis for Original Soil Sample and Resample Locations

Sample ID	B-9	B-10	10-R	B-11	B-12	B-13	13-R	B-14	B-15	15-R	NR 720 Suggested generic Residual Contaminant Levels (RCL) for soil		
Sample Depth (ft)	1-5	1-6	0 - 2	1-6	1-6	1-6	0 - 2.5	1-7	1-6	0-2.5			
Sample Collection Date	11/10/08	11/10/08	9/27/12	11/10/08	11/10/08	11/10/08	9/27/12	11/10/08	11/10/08	9/27/12			
PAHs - in ug/kg or PPB <sup>1</sup>											Groundwater Pathway	Non-Industrial Direct Contact	Industrial Direct Contact
Acenaphthene	<190	<470	<9.2	<200	<310	<240	<10	<120	<140	<10.5	NE	3,590,000	45,200,000
Acenaphthylene	<320	<790	<9.2	<340	<520	<400	<10	<200	<240	11.7J	NE	NE	NE
Anthracene	<19	<47	<1.9	<20	<31	270	2.5J	30	52	14.2J	196,950	17,900,000	100,000,000
Benzo (a) anthracene	20	280	<9.2	<20	38	470	<10	110	94	27.3	NE	1,140	20,800
Benzo (b) fluoranthene	20	380	<9.2	23	44	370	<10	75	50	42.9	479	1,150	21,100
Benzo (k) fluoranthene	19	190	9.0J	22	<31	190	13.3J	47	58	66	NE	11,500	211,000
Benzo (a) pyrene	26	<b>510</b>	9.7J	38	71	<b>480</b>	<10	110	<b>120</b>	48.3	470	115	2,100
Benzo (g,h,i) perylene	<19	380	<9.2	25	52	300	<10	82	68	42.9	NE	NE	NE
Chrysene	19	<b>230</b>	8.9J	21	42	<b>380</b>	12.2J	82	90	61.2	145	115,000	2,110,000
Dibenzo (a,h) anthracene	<28	<70	<9.2	<30	<46	40	<10	<17	<21	10.6J	NE	115	2,110
Fluoranthene	52	520	10.1J	46	110	1,400	16.1	240	250	127	88,878	2,390,000	30,100,000
Fluorene	<37	<93	<9.2	<40	<61	<47	<10	<23	<29	<10.5	14,830	2,390,000	30,100,000
Indeno (1,2,3-cd) pyrene	<19	340	<9.2	<20	59	280	<10	71	54	31.6	NE	1,150	21,100
1-Methylnaphthalene	<110	<280	<8.4	<120	<180	<140	<9.1	<70	<86	<9.6	NE	17,600	72,700
2-Methylnaphthalene	<93	<230	2.3J	<99	<150	<120	3.5J	<58	<71	9.5J	NE	239,000	3,010,000
Naphthalene	<110	<280	<3.5	<120	<180	140	<3.8	<70	<86	8.3J	658	5,520	24,100
Phenantrene	22	150	4.5J	<20	39	1,000	9.4J	110	180	85.2	NE	NE	NE
Pyrene	49	460	<9.2	46	94	1,300	12.6J	200	240	97.7	54,546	1,790,000	22,600,000
Metals - in mg/kg or PPM <sup>1</sup>													
Arsenic	<1.7	<1.7	NA	<1.6	<1.7	1.7	NA	<1.6	4.2	NA	0.542	0.677	3
Barium	75	90	NA	87	73	79	NA	73	120	NA	164.8	15,300	100,000
Cadmium	0.75	<b>0.94</b>	NA	<b>1.0</b>	<b>0.86</b>	<b>0.78</b>	NA	0.75	<b>1.8</b>	NA	0.752	71.1	985
Chromium	26	27	NA	34	25	32	NA	25	170	NA	360,000	NE	NE
Lead	10	16	NA	14	14	12	NA	10	65	NA	27	400	800
Mercury	0.038	0.028	NA	0.022	0.057	0.054	NA	0.028	0.045	NA	0.208	3.13	3.13
Selenium	<5.0	<5.0	NA	<4.5	<4.9	<4.7	NA	<4.7	<4.6	NA	0.52	391	5,840
Silver	<0.14	<0.14	NA	<0.12	<0.13	<0.13	NA	<0.13	3.4	NA	0.8491	391	5,840
PCBs - in mg/kg or PPM <sup>1</sup>													
PCB-1016	<0.062	<0.062	NA	<0.056	<0.061	<0.059	NA	<0.058	<0.057	NA	NE	4.11	28
PCB-1221	<0.062	<0.062	NA	<0.056	<0.061	<0.059	NA	<0.058	<0.057	NA	NE	0.213	0.883
PCB-1232	<0.062	<0.062	NA	<0.056	<0.061	<0.059	NA	<0.058	<0.057	NA	NE	0.19	0.792
PCB-1242	<0.062	<0.062	NA	<0.056	<0.061	<0.059	NA	<0.058	<0.057	NA	NE	0.235	0.972
PCB-1248	<0.062	<0.062	NA	<0.056	<0.061	<0.059	NA	<0.058	<0.057	NA	NE	0.236	0.975
PCB-1254	<0.062	<0.062	NA	<0.056	<0.061	<0.059	NA	<0.058	<0.057	NA	NE	0.239	0.988
PCB-1260	<0.062	<0.062	NA	<0.056	<0.061	<0.059	NA	<0.058	<0.057	NA	NE	0.243	1

1 - ug/kg means micrograms per kilogram, PPB means parts per billion, mg/kg means milligrams per kilogram, and PPM means parts per million.

**Bolded** concentrations exceed an established standard or suggested generic residual contamination level (RCL).

< means less than.

Ambrosius Property – 1620 Grant Street, De Pere, Wisconsin  
WDBR BRRTS# 02-05-551631

A.2. Soil Analytical Results Table:

PAH, RCRA Metals, and PCB Analysis for Original Soil Sample and Resample Locations

Sample ID	B-16	B-17	B-18	B-19	19-R	B-20	B-21	21-R	B-22	B-23	NR 720 Suggested generic Residual Contaminant Levels (RCL) for soil		
Sample Depth (ft)	1-6	1-6	1-7	1-5	0-2	1-5	1-6	0-2.5	1-5	1-4	Groundwater Pathway	Non-Industrial Direct Contact	Industrial Direct Contact
Sample Collection Date	11/10/08	11/10/08	11/10/08	11/10/08	9/27/12	11/10/08	11/10/08	9/27/12	11/10/08	11/11/08			
<b>PAHs - in ug/kg or PPB <sup>1</sup></b>													
Acenaphthene	<110	<100	<280	<350	<9.4	<100	<370	<9.8	<180	<88	NE	3,590,000	45,200,000
Acenaphthylene	<180	<180	<480	<600	<9.4	<170	<620	<9.8	<300	<150	NE	NE	NE
Anthracene	<11	<10	<28	61	14.8J	<10	2,200	<2.0	<18	<8.8	196,950	17,900,000	100,000,000
Benzo (a) anthracene	20	<10	<28	280	71.3	<10	<b>3,300</b>	<9.8	31	18	NE	1,140	20,800
Benzo (b) fluoranthene	26	<10	<28	320	115	<10	<b>2,900</b>	<9.8	44	19	479	1,150	21,100
Benzo (k) fluoranthene	<11	<10	<28	170	134	<10	1,200	6.4J	19	13	NE	11,500	211,000
Benzo (a) pyrene	21	<10	<28	<b>360</b>	75.7	<10	<b>3,600</b>	<9.8	34	23	470	115	2,100
Benzo (g,h,i) perylene	18	<10	<28	320	102	<10	2,400	<9.8	27	19	NE	NE	NE
Chrysene	18	<10	<28	<b>270</b>	116	<10	<b>3,100</b>	6.2J	28	15	145	115,000	2,110,000
Dibenzo (a,h) anthracene	<16	<16	<42	<53	18.2J	<15	<b>400</b>	<9.8	<27	<13	NE	115	2,110
Fluoranthene	52	<21	<57	850	213	<20	15,000	10.2J	81	45	88,878	2,390,000	30,100,000
Fluorene	<21	<21	<57	<70	<9.4	<20	570	<9.8	<35	<18	14,830	2,390,000	30,100,000
Indeno (1,2,3-cd) pyrene	17	<10	<28	250	53.1	<10	<b>2,400</b>	<9.8	31	20	NE	1,150	21,100
1-Methylnaphthalene	<64	<63	<170	<210	<8.5	<61	<220	<9.0	<110	<53	NE	17,600	72,700
2-Methylnaphthalene	<53	<52	<140	<180	3.4J	<51	<180	2.4J	<88	<44	NE	239,000	3,010,000
Naphthalene	<64	<63	<170	<210	<3.5	<61	<220	<3.7	<110	<53	658	5,520	24,100
Phenantrene	28	<10	<28	470	96.6	<10	9,800	5.0J	47	20	NE	NE	NE
Pyrene	43	<10	31	730	205	<10	14,000	<9.8	78	41	54,546	1,790,000	22,600,000
<b>Metals - in mg/kg or PPM <sup>1</sup></b>													
Arsenic	<1.7	<1.7	<1.6	<1.6	NA	<1.6	<1.7	NA	<1.6	<1.6	0.542	0.677	3
Barium	85	79	47	56	NA	50	59	NA	76	81	164.8	15,300	100,000
Cadmium	<b>1.0</b>	<b>0.83</b>	0.46	0.41	NA	0.45	0.6	NA	0.69	<b>0.99</b>	0.752	71.1	985
Chromium	34	27	16	19	NA	17	18	NA	26	31	360,000	NE	NE
Lead	4.3	7.9	8.5	13	NA	7.7	8.3	NA	8.0	7.4	27	400	800
Mercury	0.018	0.018	0.02	0.025	NA	0.013	0.022	NA	0.019	0.021	0.208	3.13	3.13
Selenium	<4.8	<4.8	<4.5	<4.7	NA	<4.6	<4.9	NA	<4.7	<4.7	0.52	391	5,840
Silver	<0.13	<0.13	<0.12	<0.13	NA	<0.13	<0.13	NA	<0.13	<0.13	0.8491	391	5,840
<b>PCBs - in mg/kg or PPM <sup>1</sup></b>													
PCB-1016	<0.061	<0.060	<0.057	<0.059	NA	<0.058	<0.061	NA	<0.059	<0.059	NE	4.11	28
PCB-1221	<0.061	<0.060	<0.057	<0.059	NA	<0.058	<0.061	NA	<0.059	<0.059	NE	0.213	0.883
PCB-1232	<0.061	<0.060	<0.057	<0.059	NA	<0.058	<0.061	NA	<0.059	<0.059	NE	0.19	0.792
PCB-1242	<0.061	<0.060	<0.057	<0.059	NA	<0.058	<0.061	NA	<0.059	<0.059	NE	0.235	0.972
PCB-1248	<0.061	<0.060	<0.057	<0.059	NA	<0.058	<0.061	NA	<0.059	<0.059	NE	0.236	0.975
PCB-1254	<0.061	<0.060	<0.057	<0.059	NA	<0.058	<0.061	NA	<0.059	<0.059	NE	0.239	0.988
PCB-1260	<0.061	<0.060	<0.057	<0.059	NA	<0.058	<0.061	NA	<0.059	<0.059	NE	0.243	1

<sup>1</sup> - ug/kg means micrograms per kilogram, PPB means parts per billion, mg/kg means milligrams per kilogram, and PPM means parts per million.

Bolded concentrations exceed an established standard or suggested generic residual contamination level (RCL).

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Ambrosius Property – 1620 Grant Street, De Pere, Wisconsin  
WDBR BRRTS# 02-05-551631

A.2. Soil Analytical Results Table:

PAH, RCRA Metals, and PCB Analysis for Original Soil Sample and Resample Locations

Sample ID	B-24	B-25	B-26	B-27	27-R	27-R-R	27-R-R	B-28	B-29	NR 720 Suggested generic Residual Contaminant Levels (RCL) for soil		
Sample Depth (ft)	2-4	1-4	1-4	1-4	0-2	0-2	0-2	1-6	1-4			
Sample Collection Date	11/11/08	11/11/08	11/11/08	11/11/08	9/27/12	5/21/14	5/18/16	11/11/08	11/11/08			
PAHs - in ug/kg or PPB <sup>1</sup>										Groundwater Pathway	Non-Industrial Direct Contact	Industrial Direct Contact
Acenaphthene	<64	<56	<59	<110	<10.1	<11.0	<9.9	<100	<75	NE	3,590,000	45,200,000
Acenaphthylene	<110	<95	<100	<180	<10.1	<9.9	<8.8	<180	<130	NE	NE	NE
Anthracene	<6.4	<5.6	<5.9	51	4.4J	18.8J	<10.2	37	<7.5	196,950	17,900,000	100,000,000
Benzo (a) anthracene	<6.4	<5.6	<5.9	130	10.8J	74	19.4J	90	16	NE	1,140	20,800
Benzo (b) fluoranthene	<6.4	<5.6	<5.9	110	13.8J	94	27	81	17	479	1,150	21,100
Benzo (k) fluoranthene	<6.4	<5.6	<5.9	62	9.8J	102	36	46	9.0	NE	11,500	211,000
Benzo (a) pyrene	<6.4	<5.6	<5.9	<b>150</b>	10.9J	60	24	<b>120</b>	21	470	115	2,100
Benzo (g,h,i) perylene	<6.4	<5.6	<5.9	97	12.2J	98	15.0J	80	14	NE	NE	NE
Chrysene	<6.4	<5.6	<5.9	110	16.3J	97	29	84	13	145	115,000	2,110,000
Dibenzo (a,h) anthracene	<9.5	<8.4	<8.9	<16	<10.1	16.8J	<7.2	<15	<11	NE	115	2,110
Fluoranthene	<13	<11	<12	280	20.4	164	37	250	32	88,878	2,390,000	30,100,000
Fluorene	<13	<11	<12	<21	<10.1	<11.0	<9.9	22	<15	14,830	2,390,000	30,100,000
Indeno (1,2,3-cd) pyrene	<6.4	<5.6	<5.9	81	11.9J	60	20	88	14	NE	1,150	21,100
1-Methylnaphthalene	<38	<33	<36	<64	<9.2	<11.0	<9.9	<62	<45	NE	17,600	72,700
2-Methylnaphthalene	<32	<28	<30	<53	9.4J	15.5J	<9.9	<52	<37	NE	239,000	3,010,000
Naphthalene	<38	<33	<36	<64	7.7J	13.3J	<9.9	<62	<45	658	5,520	24,100
Phenantrene	<6.4	<5.6	<5.9	180	11.7J	65	17.1J	180	18	NE	NE	NE
Pyrene	<6.4	<5.6	<5.9	300	16.4J	130	28	230	31	54,546	1,790,000	22,600,000
Metals - in mg/kg or PPM <sup>1</sup>												
Arsenic	<1.8	<b>1.7</b>	<b>3.3</b>	3.8	NA	NA	NA	<1.6	<1.7	0.542	0.677	3
Barium	88	91	79	130	NA	NA	NA	100	81	164.8	15,300	100,000
Cadmium	<b>0.89</b>	<b>0.79</b>	0.41	<b>1.6</b>	NA	NA	NA	<b>1.7</b>	0.6	0.752	71.1	985
Chromium	32	30	24	48	NA	NA	NA	92	29	360,000	NE	NE
Lead	5.0	6.9	6.4	13	NA	NA	NA	23	6.9	27	400	800
Mercury	0.017	<0.011	0.014	0.044	NA	NA	NA	0.13	0.028	0.208	3.13	3.13
Selenium	<5.1	<4.5	<4.7	<4.9	NA	NA	NA	<4.7	<4.8	0.52	391	5,840
Silver	<0.14	<0.12	<0.13	<0.13	NA	NA	NA	0.18	<0.13	0.8491	391	5,840
PCBs - in mg/kg or PPM <sup>1</sup>												
PCB-1016	<0.064	<0.056	<0.059	<0.061	NA	NA	NA	<0.059	<0.060	NE	4.11	28
PCB-1221	<0.064	<0.056	<0.059	<0.061	NA	NA	NA	<0.059	<0.060	NE	0.213	0.883
PCB-1232	<0.064	<0.056	<0.059	<0.061	NA	NA	NA	<0.059	<0.060	NE	0.19	0.792
PCB-1242	<0.064	<0.056	<0.059	<0.061	NA	NA	NA	<0.059	<0.060	NE	0.235	0.972
PCB-1248	<0.064	<0.056	<0.059	<0.061	NA	NA	NA	<0.059	<0.060	NE	0.236	0.975
PCB-1254	<0.064	<0.056	<0.059	<0.061	NA	NA	NA	<0.059	<0.060	NE	0.239	0.988
PCB-1260	<0.064	<0.056	<0.059	0.28	NA	NA	NA	<0.059	<0.060	NE	0.243	1

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Ambrosius Property – 1620 Grant Street, De Pere, Wisconsin  
WDBR BRRTS# 02-05-551631

A.2. Soil Analytical Results Table:

PAH, RCRA Metals, and PCB Analysis for Original Soil Sample and Resample Locations

Sample ID	B-30	R-30	30-R-R	B-31	B-32	B-33	B-34	B-35	NR 720 Suggested generic Residual Contaminant Levels (RCL) for soil		
Sample Depth (ft)	1-4	0-2	0-2	1-4	1-4	1-2.5	1-4	1-4			
Sample Collection Date	11/11/08	9/27/12	5/21/14	11/11/08	11/11/08	11/11/08	11/11/08	11/11/08			
PAHs - in ug/kg or PPB <sup>1</sup>									Groundwater Pathway	Non-Industrial Direct Contact	Industrial Direct Contact
Acenaphthene	<110	229	<10.4	<190	<150	<170	<180	<170	NE	3,590,000	45,200,000
Acenaphthylene	<190	<96.9	<9.3	<320	<250	<300	<300	<300	NE	NE	NE
Anthracene	240	600	<10.8	<19	34	<17	<18	<17	196,950	17,900,000	100,000,000
Benzo (a) anthracene	<b>1,700</b>	<b>1,160</b>	<7.2	22	98	19	<18	28	NE	1,140	20,800
Benzo (b) fluoranthene	640	<b>1,280</b>	<7.4	55	78	<17	<18	39	479	1,150	21,100
Benzo (k) fluoranthene	190	1,410	<10.4	27	53	<17	<18	<17	NE	11,500	211,000
Benzo (a) pyrene	<b>560</b>	<b>793</b>	<7.9	34	110	26	<18	25	470	115	2,100
Benzo (g,h,i) perylene	320	940	<11.5	27	85	<17	<18	<17	NE	NE	NE
Chrysene	<b>560</b>	<b>1,300</b>	<9.6	36	74	<17	<18	20	145	115,000	2,110,000
Dibenzo (a,h) anthracene	47	<b>240</b>	<7.6	<28	<22	<26	<27	<26	NE	115	2,110
Fluoranthene	1,400	3,280	<10.4	48	270	<35	<35	36	88,878	2,390,000	30,100,000
Fluorene	77	266	<10.4	<38	<29	<35	<35	<35	14,830	2,390,000	30,100,000
Indeno (1,2,3-cd) pyrene	210	703	<7.9	<19	77	<17	<18	<17	NE	1,150	21,100
1-Methylnaphthalene	<65	<88.5	<10.4	<110	<87	<100	<110	<100	NE	17,600	72,700
2-Methylnaphthalene	<55	45.1J	<10.4	<94	<73	<87	<88	<87	NE	239,000	3,010,000
Naphthalene	<65	160J	14.1J	<110	<87	<100	<110	<100	658	5,520	24,100
Phenantrene	850	2,210	<10.4	<19	140	<17	<18	<17	NE	NE	NE
Pyrene	1,600	2,250	<10.4	27	220	29	<18	<17	54,546	1,790,000	22,600,000
Metals - in mg/kg or PPM <sup>1</sup>											
Arsenic	2.1	NA	NA	2.2	<1.6	2.8	<1.7	<1.6	0.542	0.677	3
Barium	130	NA	NA	120	100	72	70	65	164.8	15,300	100,000
Cadmium	<b>1.1</b>	NA	NA	<b>1.2</b>	<b>1.1</b>	<b>1.3</b>	0.57	0.7	0.752	71.1	985
Chromium	45	NA	NA	50	33	27	24	26	360,000	NE	NE
Lead	8.5	NA	NA	14	9.1	17	8.3	5.5	27	400	800
Mercury	0.04	NA	NA	0.033	0.022	0.037	0.029	0.022	0.208	3.13	3.13
Selenium	<5.0	NA	NA	<5.0	<4.7	<4.6	<4.7	<4.6	0.52	391	5,840
Silver	<0.14	NA	NA	<0.14	<0.13	<0.13	<0.13	<0.13	0.8491	391	5,840
PCBs - in mg/kg or PPM <sup>1</sup>											
PCB-1016	<0.062	NA	NA	<0.063	<0.058	<0.058	<0.059	<0.058	NE	4.11	28
PCB-1221	<0.062	NA	NA	<0.063	<0.058	<0.058	<0.059	<0.058	NE	0.213	0.883
PCB-1232	<0.062	NA	NA	<0.063	<0.058	<0.058	<0.059	<0.058	NE	0.19	0.792
PCB-1242	<0.062	NA	NA	<0.063	<0.058	<0.058	<0.059	<0.058	NE	0.235	0.972
PCB-1248	<0.062	NA	NA	<0.063	<0.058	<0.058	<0.059	<0.058	NE	0.236	0.975
PCB-1254	<0.062	NA	NA	<0.063	<0.058	<0.058	<0.059	<0.058	NE	0.239	0.988
PCB-1260	<0.062	NA	NA	<0.063	<0.058	<0.058	<0.059	<0.058	NE	0.243	1

<sup>1</sup> - ug/kg means micrograms per kilogram, PPB means parts per billion, mg/kg means milligrams per kilogram, and PPM means parts per million.

Bolded concentrations exceed an established standard or suggested generic residual contamination level (RCL).

< means less than.

Ambrosius Property – 1620 Grant Street, De Pere, Wisconsin  
A.2. Soil Analytical Results Table:

PAH and RCRA Metals Analytical Results from Soil Borings and Background Soil Sample Locations

Sample ID	MW-1-2.5'	MW-2 1-2'	3-2	4 0-2	5 0-2	6-1	S-1	S-2	S-3	BG-1	BG-2	BG-3	BG-4	NR 720 Suggested generic Residual Contaminant Levels (RCL) for soil		
Sample Depth (ft)	2.5	1-2	0-2	1-4	1-4	1-2.5	0-1	0-1	0-1	0-1	0-1	0-1	0-1			
Sample Collection Date	6/2/11		7/22/11				7/29/11			9/27/12						
PAHs - in ug/kg or PPB <sup>1</sup>														Groundwater Pathway	Non-Industrial Direct Contact	Industrial Direct Contact
Acenaphthene	<2.9	<3.1	<3.0	<3.0	<3.0	4.5J	<3.1	<2.9	<3.1	<9.5	<9.6	<9.9	<10.5	NE	3,590,000	45,200,000
Acenaphthylene	<3.3	<3.0	<3.4	<3.5	<3.4	<3.4	<3.5	<3.3	<3.5	<9.5	<9.6	<9.9	<10.5	NE	NE	NE
Anthracene	<4.9	<5.1	<5.0	<5.0	<4.9	9.6J	<5.1	<4.8	<5.1	<2.0	<2.0	<2.0	<2.1	196,950	17,900,000	100,000,000
Benzo (a) anthracene	<3.0	4.8 J	<3.0	<3.1	<3.0	<3.0	<3.1	<2.9	<3.1	<9.5	<9.6	<9.9	<10.5	NE	1,140	20,800
Benzo (b) fluoranthene	<3.6	5.3J	<3.7	<3.8	<3.7	<3.7	<3.8	<3.6	4.1J	11.8J	10.3J	5.9J	16.4J	479	1,150	21,100
Benzo (k) fluoranthene	<3.9	4.6J	<4.0	<4.0	<3.9	<3.9	<4.0	<3.8	<4.1	<9.5	<9.6	<9.9	10.8J	NE	11,500	211,000
Benzo (a) pyrene	<3.4	4.8J	<3.5	<3.5	<3.5	<3.5	<3.6	<3.4	4.0J	<9.5	<9.6	<9.9	<10.5	470	115	2,100
Benzo (g,h,i) perylene	<2.8	3.6J	<2.8	<2.9	<2.8	<2.8	<2.9	<2.7	3.4J	<9.5	<9.6	<9.9	<10.5	NE	NE	NE
Chrysene	<3.8	5.5J	<3.9	<3.9	<3.8	<3.8	<3.9	<3.7	<4.0	10.5J	10.3J	5.7J	15.2J	145	115,000	2,110,000
Dibenzo (a,h) anthracene	<5.7	<6.0	<5.8	<5.9	<5.8	<5.8	<5.9	<5.6	<6.0	<9.5	<9.6	<9.9	<10.5	NE	115	2,110
Fluoranthene	<10.5	<11	<10.7	<10.8	<10.6	<10.6	<10.9	<10.3	<11.0	15.8J	20.3	<9.9	23.7	88,878	2,390,000	30,100,000
Fluorene	<5.2	<5.5	<5.3	<5.4	<5.3	7.2 J	<5.4	<5.1	<5.5	<9.5	<9.6	<9.9	<10.5	14,830	2,390,000	30,100,000
Indeno (1,2,3-cd) pyrene	<3.0	<3.1	<3.0	<3.1	<3.0	<3.0	<3.1	<2.9	<3.1	<9.5	<9.6	<9.9	<10.5	NE	1,150	21,100
1-Methylnaphthalene	<3.2	<3.0	<3.3	<3.3	4.3J	36.1	<3.3	<3.1	<3.4	<8.7	<8.7	<9.0	<9.5	NE	17,600	72,700
2-Methylnaphthalene	<3.2	<3.3	3.9 J	<3.3	10J	13.8J	<3.3	<3.1	<3.4	3.5J	3.6J	2.3J	16.0J	NE	239,000	3,010,000
Naphthalene	<3.7	<3.8	10.5J	<3.8	<3.7	4.2J	<3.8	<3.6	<3.9	<3.6	<3.6	<3.7	10.4J	658	5,520	24,100
Phenanthrene	<4.6	6.8J	<4.7	<4.8	<4.6	46.7	<4.8	<4.5	<4.9	7.3J	9.5J	5.9J	12.5J	NE	NE	NE
Pyrene	<3.8	<3.8	<3.9	<4.0	<3.9	19.9J	<4.0	<3.8	.47J	11.0J	12.9J	<9.9	15.5J	54,546	1,790,000	22,600,000
Metals - in mg/kg or PPM <sup>1</sup>																
Arsenic	<b>7.1</b>	<b>3.3</b>	<b>3.1</b>	<b>3.2</b>	<b>5.3</b>	<b>5.8</b>	<b>2.6</b>	<b>2.6</b>	<b>4.6</b>	NA	NA	NA	NA	0.542	0.677	3
Barium	138	150	145	135	94.5	<b>211</b>	124	88.1	147	NA	NA	NA	NA	164.8	15,300	100,000
Cadmium	.12J	.54J	.49J	.48J	.091J	.037J	.30J	.22J	.35J	NA	NA	NA	NA	0.752	71.1	985
Chromium	40.8	44.2	44.1	39.9	35.4	52.8	36.4	32.8	41.2	NA	NA	NA	NA	360,000	NE	NE
Lead	9.9	14.2	12.9	13.2	8.8	13.3	11.9	9.5	14.5	NA	NA	NA	NA	27	400	800
Mercury	0.02	0.024	0.016	0.024	0.018	0.037	0.022	0.019	0.025	NA	NA	NA	NA	0.208	3.13	3.13
Selenium	<.35	.72J	<.35	.59J	<.35	<.36	.57J	.31J	.41J	NA	NA	NA	NA	0.52	391	5,840
Silver	<.10	.19J	<.10	<1.0	<.10	<.11	.11J	.11J	.14J	NA	NA	NA	NA	0.8491	391	5,840

1 - ug/kg means micrograms per kilogram, PPB means parts per billion, mg/kg means milligrams per kilogram, and PPM means parts per million.  
 Bolded concentrations exceed an established standard or suggested generic residual contamination level (RCL).  
 < means less than.










Ambrosius Property – 1620 Grant Street, De Pere, Wisconsin  
A.2.b Soil Analytical Results Table:

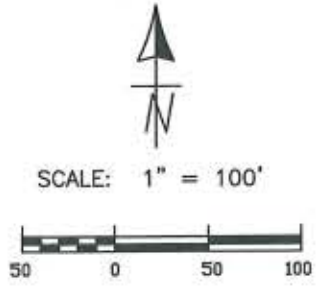
PAH and RCRA Metals Analytical Results from Soil Borings and Background Soil Sample Locations

Sample ID	MW-1-2.5'	MW-2 1-2'	3-2	4 0-2	5 0-2	6-1	S-1	S-2	S-3	BG-1	BG-2	BG-3	BG-4	NR 720 Suggested generic Residual Contaminant Levels (RCL) for soil		
Sample Depth (ft)	2.5	1-2	0-2	1-4	1-4	1-2.5	0-1	0-1	0-1	0-1	0-1	0-1	0-1			
Sample Collection Date	6/2/11		7/22/11				7/29/11			9/27/12						
PAHs - in ug/kg or PPB <sup>1</sup>														Groundwater Pathway	Non-Industrial Direct Contact	Industrial Direct Contact
Acenaphthene	<2.9	<3.1	<3.0	<3.0	<3.0	4.5J	<3.1	<2.9	<3.1	<9.5	<9.6	<9.9	<10.5	NE	3,590,000	45,200,000
Acenaphthylene	<3.3	<3.0	<3.4	<3.5	<3.4	<3.4	<3.5	<3.3	<3.5	<9.5	<9.6	<9.9	<10.5	NE	NE	NE
Anthracene	<4.9	<5.1	<5.0	<5.0	<4.9	9.6J	<5.1	<4.8	<5.1	<2.0	<2.0	<2.0	<2.1	196,950	17,900,000	100,000,000
Benzo (a) anthracene	<3.0	4.8J	<3.0	<3.1	<3.0	<3.0	<3.1	<2.9	<3.1	<9.5	<9.6	<9.9	<10.5	NE	1,140	20,800
Benzo (b) fluoranthene	<3.6	5.3J	<3.7	<3.8	<3.7	<3.7	<3.8	<3.6	4.1J	11.8J	10.3J	5.9J	16.4J	479	1,150	21,100
Benzo (k) fluoranthene	<3.9	4.6J	<4.0	<4.0	<3.9	<3.9	<4.0	<3.8	<4.1	<9.5	<9.6	<9.9	10.8J	NE	11,500	211,000
Benzo (a) pyrene	<3.4	4.8J	<3.5	<3.5	<3.5	<3.5	<3.6	<3.4	4.0J	<9.5	<9.6	<9.9	<10.5	470	115	2,100
Benzo (g,h,i) perylene	<2.8	3.6J	<2.8	<2.9	<2.8	<2.8	<2.9	<2.7	3.4J	<9.5	<9.6	<9.9	<10.5	NE	NE	NE
Chrysene	<3.8	5.5J	<3.9	<3.9	<3.8	<3.8	<3.9	<3.7	<4.0	10.5J	10.3J	5.7J	15.2J	145	115,000	2,110,000
Dibenzo (a,h) anthracene	<5.7	<6.0	<5.8	<5.9	<5.8	<5.8	<5.9	<5.6	<6.0	<9.5	<9.6	<9.9	<10.5	NE	115	2,110
Fluoranthene	<10.5	<11	<10.7	<10.8	<10.6	<10.6	<10.9	<10.3	<11.0	15.8J	20.3	<9.9	23.7	88,878	2,390,000	30,100,000
Fluorene	<5.2	<5.5	<5.3	<5.4	<5.3	7.2J	<5.4	<5.1	<5.5	<9.5	<9.6	<9.9	<10.5	14,830	2,390,000	30,100,000
Indeno (1,2,3-cd) pyrene	<3.0	<3.1	<3.0	<3.1	<3.0	<3.0	<3.1	<2.9	<3.1	<9.5	<9.6	<9.9	<10.5	NE	1,150	21,100
1-Methylnaphthalene	<3.2	<3.0	<3.3	<3.3	4.3J	36.1	<3.3	<3.1	<3.4	<8.7	<8.7	<9.0	<9.5	NE	17,600	72,700
2-Methylnaphthalene	<3.2	<3.3	3.9J	<3.3	10J	13.8J	<3.3	<3.1	<3.4	3.5J	3.6J	2.3J	16.0J	NE	239,000	3,010,000
Naphthalene	<3.7	<3.8	10.5J	<3.8	<3.7	4.2J	<3.8	<3.6	<3.9	<3.6	<3.6	<3.7	10.4J	658	5,520	24,100
Phenanthrene	<4.6	6.8J	<4.7	<4.8	<4.6	46.7	<4.8	<4.5	<4.9	7.3J	9.5J	5.9J	12.5J	NE	NE	NE
Pyrene	<3.8	<3.8	<3.9	<4.0	<3.9	19.9J	<4.0	<3.8	.47J	11.0J	12.9J	<9.9	15.5J	54,546	1,790,000	22,600,000
Metals - in mg/kg or PPM <sup>1</sup>																
Arsenic	7.1	3.3	3.1	3.2	5.3	5.8	2.6	2.6	4.6	NA	NA	NA	NA	0.542	0.677	3
Barium	138	150	145	135	94.5	211	124	88.1	147	NA	NA	NA	NA	164.8	15,300	100,000
Cadmium	.12J	.54J	.49J	.48J	.091J	.037J	.30J	.22J	.35J	NA	NA	NA	NA	0.752	71.1	985
Chromium	40.8	44.2	44.1	39.9	35.4	52.8	36.4	32.8	41.2	NA	NA	NA	NA	360,000	NE	NE
Lead	9.9	14.2	12.9	13.2	8.8	13.3	11.9	9.5	14.5	NA	NA	NA	NA	27	400	800
Mercury	0.02	0.024	0.016	0.024	0.018	0.037	0.022	0.019	0.025	NA	NA	NA	NA	0.208	3.13	3.13
Selenium	<.35	.72J	<.35	.59J	<.35	<.36	.57J	.31J	.41J	NA	NA	NA	NA	0.52	391	5,840
Silver	<.10	.19J	<.10	<.10	<.10	<.11	.11J	.11J	.14J	NA	NA	NA	NA	0.8491	391	5,840

1 - ug/kg means micrograms per kilogram, PPB means parts per billion, mg/kg means milligrams per kilogram, and PPM means parts per million.  
 Bolded concentrations exceed an established standard or suggested generic residual contamination level (RCL).  
 < means less than.

LEGEND

-  BUILDING
-  PROPERTY BOUNDARY
-  LOCATIONS OF PILES
-  B29 SOIL SAMPLE AND RESAMPLE LOCATIONS
-  MONITORING WELL
-  DNR RECOMMENDED DEGREE/EXTENT SOIL SAMPLE LOCATIONS
-  BACKGROUND SOIL SAMPLE LOCATIONS



NOTES:  
 1) MAP SOURCE: RMT, 744 HEARTLAND TRAIL, MADISON, WI 53717 - 2008.  
 2) ALL OBJECTS & LOCATIONS DEPICTED ARE APPROXIMATE.



FILE REFERENCE:  
 Ambrosius\_plot1

**NRP**

DEN  
 July 2010

NRP ENVIRONMENTAL CONSULTANTS  
 2357 PAMPERIN ROAD  
 GREEN BAY, WI 54313-8929  
 PHONE: 920-339-9212

**B.1.b. Detailed Site Map**  
 Ambrosius Property  
 Green Bay, Wisconsin

FIGURE  
**B.1.b.**