

OMNNI ASSOCIATES, INC.
ONE SYSTEMS DRIVE
APPLETON, WI 54914-1654
1-800-571-6677 920-735-6900
FAX 920-830-6100

October 25, 2016

Ms. Jennifer Borski, Hydrogeologist Wisconsin Department of Natural Resources 625 East County Road Y, Suite 700 Oshkosh, Wisconsin 54901-9731

RE: Eagle Point Senior Living - Development at Historic Fill Site or Licensed Landfill Exemption Application. BRRTS ID #02-45-530084

Dear Ms. Borski:

A senior living development (Eagle Point Senior Living) is being proposed by IconiCare, LLC, on the Former Foremost Farms site located at 935 E. John Street in Appleton, Wisconsin. This work may take place near areas that have been filled with non-native soil materials. Enclosed are the Development at Historic Fill Site or Licensed Landfill Exemption Application (Form 4400-226 R 5/16), the Development at Historic Fill Site or Licensed Landfill Expedited Exemption Application (Form 4400-226A R 9/14) and supporting documentation in anticipation of encountering fill material. A check (check # 32230) for \$700 is enclosed for the review fee.

If you have any questions on the enclosed information, please contact me at 920/830-6141 or by email at bwayner@omnni.com.

Sincerely,

OMNNI Associates, Inc.

Brian D. Wayner, P.E. Environmental Manager

Brian D. Wayner

**Enclosures** 

State of Wisconsin Department of Natural Resources PO Box 7921, Madison WI 53707-7921 dnr.wi.gov

### Development at Historic Fill Site or Licensed Landfill Exemption Application

Form 4400-226 (R 05/16)

Page 1 of 6

**Notice:** Use of this form is required by the DNR for any application to develop at a historic fill site or licensed landfill pursuant to secs. NR 506.085 and NR 500.08(4), Wls. Adm. Code. The Department will not consider your application unless you provide complete information requested. Personally identifiable information collected will be used to process your application and will also be accessible by request under Wisconsin's Open Records law [ss.19.31 - 19.39, Wis. Stats.]

Instructions: See Development at Historic Fill Sites and Licensed Landfills: What you need to know (PUB-RR-683, November 2013) for detailed instructions.

- · All Exemption Application materials should be sent to the region where the site is located, as listed on page 6.
- Include \$700 fee payment with this application. If the site is a licensed landfill and the Waste and Materials Management program is doing the review, submit no fee now. You will be sent an invoice upon receipt of this application.
- Determine the appropriate exemption type for the site and check appropriate box below.
- Provide complete information requested for each type of exemption. Include the following attachments:
   Required: Summary of Existing and Potential Impacts described in Section V as an attachment, under the seal of a professional engineer or geologist registered to practice in Wisconsin.

Optional: Site Visit Summary Comments (Section IX) in	ncluding	any pho	tos, sketches or si	te visit	notes.		
Exemption Type							
Remediation and Redevelopment Program NR 700 F accordance with NR 700 series  Required: Sections I - VI	≀ule Seri	ies Proc	•			ial actions conducted in tions VII - X	
Case-by-Case Evaluation: Sites with anticipated environmental Required: Sections I - VI	onmenta!	I impacts	or wastes of spec	cial con	cerns	tions VII - X	
Expedited Exemption: Site with no expected environm Required: Sections I - VI and Form 4400-226A Expedit	ental implited Exe	pact mption A	pplication	Option	nal: Sec	tions VII - X	
I. Applicant Information				1 - 41	1		
Owner - Last Name	First			MI	Phone r	Number (include area code)	
ASHRE, LLC (sale pending)							
Contact Name (if different)							
Tom Pientka							
Street Address	City				State	ZIP Code	
901 Deming Way	Madisc	on			WI	53717	
Developer - Last Name	First			MI	Phone N	Number (include area code)	
Eagan	Patrick	ί		L		(608) 664-3573	
Street Address	City				State	ZIP Code	
901 Deming Way	Madisc	on			WI	53717	
II. Site Name and Location							
Site Name	1	l	n / Address				
Eagle Point Senior Living	!	935 E. John Street					
Is the site known by another name(s)?	ıknown	● City ○ Town ○ Village					
If yes, provide name: Former Farms USA (Former)		·	Appleton				
Does the site have a license number? OYes ONo O Un	known	State	State ZIP Code County				
If yes, License Number:		WI	54911		Outagamie		
A. Attach a map with site location and limits of fill/wast							
B. Global Positioning System Coordinates			e method for colle				
Latitude DEGMIN SEC  Longitude DEGMIN SEC	_ !	1	•			from BRRTS records	
Latitude DEG MIN SEC Longitude DEG MIN SEC so that location data was consistent. (02-45-530084)							
Program Lead, Fee Status and Regulatory ID Numbers <i>(This area for DNR use only)</i>							
Program Lead, Fee Status and Re			bers (This area	for DN	R use o	nly)	
Program Lead, Fee Status and Re			bers (This area	for DN		nly) ment Attached	
Waste Management Bureau Remediation and Redevelopment Bureau - Exemption is	gulatory	ID Num	·			ment Attached	
<ul> <li>◯ Waste Management Bureau</li> <li>◯ Remediation and Redevelopment Bureau - Exemption is</li> <li>◯ Fee already paid for review of remedial design report.</li> </ul>	gulatory part of re	ID Num	·		Pay	ment Attached	
Waste Management Bureau Remediation and Redevelopment Bureau - Exemption is Fee already paid for review of remedial design report. Review of remedial design report not requested and payr	gulatory part of re	ID Num	der NR 700 progra	m	Pay Amoun	rment Attached t	
<ul> <li>◯ Waste Management Bureau</li> <li>◯ Remediation and Redevelopment Bureau - Exemption is</li> <li>◯ Fee already paid for review of remedial design report.</li> </ul>	gulatory part of re	ID Num	der NR 700 progra	m	Amoun	rment Attached	

## Development at Historic Fill Site or Licensed Landfill Exemption Application Form 4400-226 (R 05/16) Page 2 of 6

HI.	Site Ownership History						
Pre	evious Owner - Last Name	First		MI	Telephon	e Numbe	er
Ap	pleton Redevelopment Authority (sale pending)	c/o Karen Har	kness	İ		(920) 8	32-6468
Str	eet Address	City	· ·		***************************************	State	ZIP Code
	0 North Appleton Street	Appleton				WI	54911
Res	sponsible Municipal / Private Operator - Last Name (if applicable)	First	**	MI	Telephon	e Numbe	er
Str	eet Address	City			<u> </u>	State	ZIP Code
IV.	Evaluation of Existing and Potential Impacts. See D for Investigation and Development at Historic Fill S	evelopment at l ites and License	listoric Fill S ed Landfill:  P	ites an otenti	id Licens al Problei	ed Land ms and	fill: Guidance Considerations.
A.	Analytical data for the following media have been collect					War Saran Communication	
	1. Groundwater:   Yes  No						
	2. Soil:   Yes No						
	3. Surface water / sediment:   Yes No						
	4. Air: Yes No						
	5. Methane or other explosive gases: Yes No						
В.	Based on known or suspected sources and wastes, their suspect a release of pollutants to the environment?	physical charact	eristics, conta	inmeni	and geol	ogic env	rironment, do you
	Yes:	Surface Water / S	ediment	☐ Me	ethane or	Other E	xplosive Gases
C.	If there is NOT a likelihood of a release of pollutants or e likely to cause a release to the environment?	vidence of a rele	ase, would the	impac	t of the pr	oposed	development be
	Yes: If yes, be sure to summarize actions to be taken to No	to prevent advers	e environmenta	al impa	cts in V. Pa	art C belo	ow.
	Summary of Existing and Potential Impacts. See Deve Investigation and Development at Historic Fill Sites cribe the following in an attached narrative under the signal ow.	and Licensed L	andfill: Pote	ntial P	roblems	and Co	nsiderations.
Α.	Existing Site Conditions						
	existing site conditions including waste types,						
	2. potential for impacts, and						
	evaluation of existing impacts.						
В.	Proposed Development Summary, include explanation for	r overall site dec	sion.				
C.	Summary of actions to be taken and engineering controls potential threats to human health and welfare, including v	that will prevent		dverse	environm	ental im	pacts and
VI. (	Certification of Application Information						
cer	tify that information in this application and all its attachmen	its is true and cor	rect and in co	nformit	y with app	licable \	Wis. statutes.
Prin	/ Type Name of Applicant		<del></del>				
Fon	Pientka						
∆nnl	icant Signature				10	195	12016
,hh	iount oignature		Date S	Signed	( )	, L	/ ( }

## Development at Historic Fill Site or Licensed Landfill Exemption Application

Page 3 of 6

Form 4400-226 (R 05/16)

Sections VII - IX are optional for all Applicants.

VII. Current and Historic Type of Waste Disposal	Site (Check all that apply)	
Licensed Landfill	One-time Dispos	al
Non-approved {See s.289.01(3)}, Wis Stats.	Construction / De	
Approved	☐ Historic Fill Site	
Liner	Total Landfill Volu	ıma
		iirie
Unlined Clay L	-	000d
	ineered 50,000-500,	-
Composite Liner	> 500,000 yd	•
Other Liner (Describe):		
Does the landfill have a closure plan?		own
Does the landfill have a groundwater monitoring	olan? () Yes () No () Unkno	own
Have groundwater monitoring wells been installed	0 0	
	o, go to Past Land Uses.	
<u> </u>	, go to r ast Land oscs.	
Composite cap		
☐ Layered soil cap with clay barrier ☐ Clay cap		
Soil cap - not recompacted clay		
Other cover		
Unknown		
What is the thickness of the cover?	○ 6-12 in ○ 12-24 in ●	> 24 in Unknown
Past Land Uses. (Check all that apply)		
Agricultural co-op Electro	olater	Salvage yard
Brush pile Lagoor		Service Station
D Bullion Land	cturing Type:	☐ Tannery
Coal gas manufacturer Old but	<u> </u>	Unknown
Deer pit		Other: whey processing plant
Dry cleaner ====================================	generator	Z culon whey processing plant
<u> </u>	generater	
Date(s) of Site Operation	01/01/2002	No. of Years
From: 01/01/1950	To: 01/01/2003	
VIII. Waste Information & Geologic Environment. for Investigation	See Development at Historic F	ill Sites and Licensed Landfills: Guidance
A. Known or Suspected Sources/Wastes. (Check a	ll that apply)	
Abandoned containers Known	or suspected hazardous materials	Demolition/construction waste
	or suspected nazardous materials pal waste	Surface impoundment/lagoons
	mill sludge	Underground pipeline or tank
		Exempted fill [NR 500.08(1) and (2)] Unknown
		☐ Official Official Control Official Co
	·	sources
Industrial accident Fly ash	I	200,000
B. Physical Characteristics of Sources/Wastes	_	
◯Liquid ● Solid ◯ Liquid & Solid	Unknown	

## Development at Historic Fill Site or Licensed Landfill Exemption Application

Form 4400-226 (R 05/16)

Page 4 of 6

VIII.	Waste Information & Geologic Environment	t (continued)		
C.	Waste Containment	OLiner	Unknown	O Not applicable
	Engineered cover  Maintained  Not maintained	=	ng leachate collection & removal syng & maintained run-off manageme	
		Functionir	ng groundwater monitoring system	
D.	Soil Type: Estimate distances or determination	s based on regio	nal or site specific information.	
	Regional Site specific			
	Clay, silt or other fine grained soils present? (lad	custrine, tills, etc.	.) • Yes O No	
	At surface?   Yes  No At depth?	• Yes O No	<u>6</u> feet	
	Sand & gravel, coarse grained soils present? (	Yes     No		
	At surface? Yes  No At depth?	Yes No	feet	
E.	Depth to Groundwater			
	Regional Site specific	<u>5</u> feet		
F.	Direction of Groundwater Flow			
	Regional Site specific East	direction		
G.	Depth to Bedrock			
	Regional Site specific 26 fcct	direction		
H.	Bedrock Type			
	Regional	Sandstone	Limestone/Dolomite	Metamorphic/Igneous
IX.	Site Visit			
	duct a site visit to complete site screening and de oachment issues. As appropriate to document th			
On-	site visit conducted?     Yes   No			
	eral site conditions: Document any observed release aware of include the following:	eases and note v	whether or not you were able to wa	alk the site. Examples of things
• 5 • 6 • 6	eachate seeps or evidence of seeps such as staistressed vegetation as a sign of gas migration to quality and coverage of vegetation on the cap; odors which may indicate gas migration to the atreposion of the cap; maintenance of positive drainage over the capped visual desiccation cracks in the cap.	the surface or of mosphere;		
Atta	ch the following to your application:			
$\boxtimes$	Photographs, regular or digital Site ski	etch [	Site Visit Report	
	ne(s) of Person(s) Conducting Site Visit			Date of Site Visit
Doı	n Brittnacher			04/14/2016

## Development at Historic Fill Site or Licensed Landfill Exemption Application

Form 4400-226 (R 05/16) Page 5 of 6

IX.	Site Visit (continued)
A.	Adjacent Land Uses. Indicate all directions. (Check all that apply)
	Agricultural         N         S         E         W         NE         NW         SE         SW           Industrial         N         S         E         W         NE         NW         SE         SW           Recreational         N         S         E         W         NE         NW         SE         SW           Residential         N         S         E         W         NE         NW         SE         SW           Undeveloped         N         S         E         W         NE         NW         SE         SW           Commercial         N         S         E         W         NE         NW         SE         SW           Other:         Fox River         N         S         E         W         NE         NW         SE         SW
B.	Potential Groundwater Receptors. Estimate distances. (1 mile = 5,280 ft)
	Distance to and direction of nearest municipal well:feet> ½ mile from the wastedirection
	Distance to and direction of nearest other-than-municipal well:feet
	Distance to and direction of nearest non-community well:feet > ½ mile from the waste direction
	Distance to and direction of nearest private well: 2244 feet > ½ mile from the waste direction
	Distance to and direction of nearest private well: 2605 feet > ½ mile from the waste direction
C.	Potential For Gas Migration
	No. of homes within 300 feet of waste (gas migration potential)  No. of homes between 300 & 1,000 ft to waste (gas migration potential)
	10. of nomes between 300 & 1,000 it to waste (gas migration potential)
	Distance to and direction of nearest building: 26 feet > ½ mile from the waste direction
	Type of building: On-site building Municipal Residential Commercial Industrial Unknown
D.	Potential Surface Water Receptors. Estimate distances.
	○ Creek    feet     ○ Drainage ditch:    feet     ○ Intermittent stream:    feet
	● River feet
E.	Based on the site visit, did you visually observe
	<ol> <li>a release to a surface water body?</li> <li>a leachate seep?</li> <li>Yes  No  Unknown</li> <li>a release to soils?</li> <li>Yes  No  Unknown</li> <li>Unknown</li> <li>Unknown</li> </ol>

Comments: Use this section to provide comments on any aspect of the site visit. Attach any information or explanations labeled with the appropriate section number to which the material applies.

#### **Region Map**

#### **NORTHERN REGION**

Remediation & Redevelopment Team Supervisor Department of Natural Resources 107 Sutliff Avenue Rhinelander, WI 54501 (715) 365-8976 *OR* 

Regional Waste Program Manager Department of Natural Resources 107 Sutliff Avenue Rhinelander WI 54501 (715) 365-8946

#### **NORTHEAST REGION**

Remediation & Redevelopment Team Supervisor Department of Natural Resources 2984 Shawano Avenue Green Bay, WI 54313-6727 (920) 662-5160

#### OR

Regional Waste Program Manager Department of Natural Resources 2984 Shawano Avenue Green Bay, WI 54313-6727 (920) 662-5120

#### **SOUTHEAST REGION**

Remediation & Redevelopment Team Supervisor Department of Natural Resources 2300 N. Martin Luther King Drive Milwaukee, WI 53212 (414) 263-8561 or (414) 263-8714

Regional Waste Program Manager Department of Natural Resources 2300 N. Martin Luther King Drive Milwaukee, WI 53212

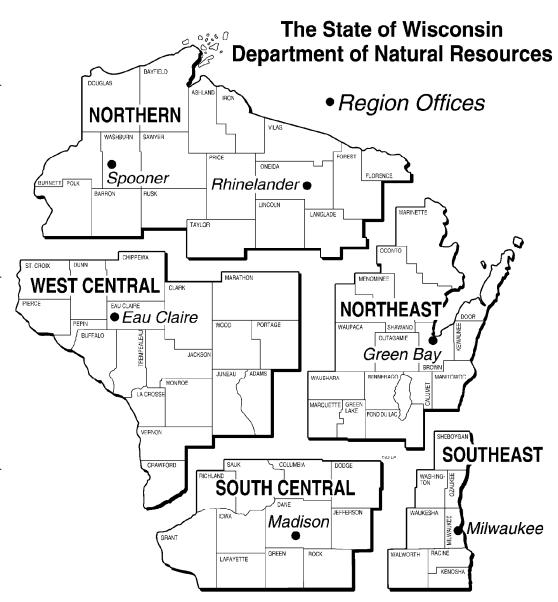
(414) 263-8694 or (414) 263-8697

#### WEST CENTRAL REGION

Remediation & Redevelopment Team Supervisor Department of Natural Resources 1300 West Clairemont Avenue Eau Claire, WI 54701 (715) 839-3710

OR

Regional Waste Program Manager Department of Natural Resources 1300 West Clairemont Avenue Eau Claire, WI 54701 (715) 839-3708



#### **SOUTH CENTRAL REGION**

Remediation & Redevelopment Team Supervisor Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711 (608) 275-3241 OR Regional Waste Program Manager Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711 (608) 275-3466 State of Wisconsin Department of Natural Resources PO Box 7921, Madison WI 53707-7921 dnr.wi.gov

## Development at Historic Fill Site or Licensed Landfill Expedited Exemption Application Form 4400-226A (R 9/14)

Notice: This form and Form 4400-226 are required to apply for an expedited exemption to develop at a historic fill site or licensed landfill pursuant to ss. NR 506.085 and NR 500.08(4), Wis. Adm. Code. This form may only be used for landfill sites with no environmental impact. The Department will not consider your application unless you provide complete information requested. Personally Identifiable information collected will be used to process your application and will also be accessible by request under Wisconsin's Open Records law [ss.19.31 - 19.39, Wis Stats.]

Environmental Professional Evaluation		Reprise to	<b>经大学的安徽等</b>		
Professional Engineer or Geologist - Last Name	First	MI	Telephone	Number	(incl. area code)
Wayner	Brian	D	(9	20) 830	)-6141
Address	City			State	ZIP Code
One Systems Drive	Appleton			WI	54914-1654

I am a professional engineer or professional geologist or hydrologist registered to practice in Wisconsin and am qualified by training and experience to evaluate the potential for soil and groundwater contamination and the migration and concentration of explosive or toxic gases to occur from the disposal of solid waste.

I have evaluated the proposal described in this document for development on a property where solid waste has been disposed and it is my professional opinion that it is unlikely that "environmental pollution" exists or that there has been a significant "discharge" of a "hazardous substance" at the property (as these terms are defined in s. 292.01, Wis. Stats.). It is also my professional opinion that the development of the property as described in this document will not cause or exacerbate an exceedance of any applicable soil or groundwater standard and will not cause a significant increase in risk due to the migration or concentration of explosive or toxic gasses or cause any other significant risk to public health, safety or welfare or the environment.

My professional opinion is given to a reasonable degree of professional certainty, and is based upon my evaluation of reasonable and sufficient information and generally accepted engineering and scientific practices.

					MIS	CONSTITUTE
Signature Bria il Wayner		Date Signed		Wisconsin E-3530		HAN D
Site Owner and Developer Cerufication		COUNTY OF THE PARTY OF THE PART		2004 12 A Car		
Property Owner - Last Name	First		MI			(indicates cade)
ASHRE, LLC - sale pending	Tom Pienti	ka		(6	08) 664	-3510 M
Address	(	City		•	State	ALZO Code
901 Deming Way, Suite 102	1	Madison			WI	53717
Developer - Last Name	First		MI	Telephone	Number	(incl. area code)
Iconica	Patrick Eag	gan		(6	08) 664	-3573
Address	C	City			State	ZIP Code
901 Deming Way	1	Madison			WI	53717

I certify that I have read the DNR publication, *Development at Historic Fill Sites and Licensed Landfills: Considerations and Potential Problems* (PUB-RR-685, November 2013), and understand the potential environmental, health and safety risks if the development of the property is not compatible with the waste disposed at the site.

I also understand that future decisions regarding the use of the property must consider whether those changes will create an adverse environmental impact and that activities causing a significant threat to public health, safety, or welfare are prohibited under s. 289.46 (2), Wis. Stats. This exemption application and any exemption related to this document that is issued by the Department transfers to any future purchaser of this property.

Owner Signature	Date Signed 10/25/16
Developer Signature	Date Signed 10/25/16

Section V.

## Summary of Existing and Potential Impacts

#### **Table of Contents**

1.0	Existing Site Conditions	1
1.1	Existing Site Conditions Including Waste Types	
1.2	Potential for Impacts	
1.3	Evaluation of Existing Impacts	
2.0	Proposed Development Summary	
3.0	Summary of Actions to be Taken	б
4.0	Standard of Care	7
5.0	Signature of Environmental Professional	8

#### **Appendices**

#### Appendix 1 Previous Site Documentation

Development at Historic Fill Site or Licensed Landfill Exemption Application, dated April 9, 2012 Conditional Case-by-Case Grant of Exemption for the Development of a Property Where Solid Waste has been Disposed response, dated April 25, 2012.

#### Appendix 2 Figures

- Figure 1 Location Map
- Figure 2 Historical Orthophotos 1938-2010
- Figure 3 Site Detail Map
- Figure 4 Historic Fill Exemption Distances
- Figure 5 Development Zones
- Figure 6 Contaminated Soil Excavation
- Figure 7 Proposed Overall Fill Locations
- Figure 8 Proposed Cut/Fill Section Views

#### Appendix 3 Tables

ARCADIS Table 3. Summary of Analytical Results for Soil Located Outside of the Development Area, Former FFUSA Site

#### 1.0 EXISTING SITE CONDITIONS

#### 1.1 Existing Site Conditions Including Waste Types

Additional site information can be found in the *Soil and Waste Management Plan*, dated October 24, 2016.

A residential development (Eagle Point Senior Living) is being proposed by IconiCare, LLC, on an approximately eight-acre site located at 935 E. John Street in Appleton, Wisconsin. The Eagle Point Senior Living facility is a redevelopment of the former Foremost Farms Dairy site. On May 16, 2014, the Wisconsin Department of Natural Resources (DNR) issued a case closure letter for the former Foremost Farms Dairy property (BRRTS # 02-45-530084). Soil and groundwater contamination remained on-site at the time of closure. Closure conditions included complying with a *Cap Maintenance Plan and Material Handling Plan*, dated February 2014. A prior *Development at Historic Fill Site or Licensed Landfill Exemption Application*, dated April 9, 2012, was prepared by ARCADIS. The DNR provided a *Conditional Case-by-Case Grant of Exemption for the Development of a Property Where Solid Waste has been Disposed* response, dated April 25, 2012. (Reference Appendix 1 for copies of the 2012 *Development at Historic Fill Site or Licensed Landfill Exemption Application* and the DNR's response.)

The proposed Eagle Point Senior Living development would be constructed on the former Foremost Dairy property located in the SW ¼ of the SW ¼ of section 25, and the NW ¼ of the NW ¼ of section 36, T 21N, R17E, Appleton, Outagamie County, WI. (Reference Figure 1 – Location Map, Appendix 2.) The property is currently owned by the Appleton Redevelopment Authority (sale pending) and is zoned R3, Multifamily District.

The 8.1-acre property is bordered by the Fox River to the west and south, by a relatively steep slope along the west border with residential properties at the top of the slope, and generally wooded and shallower sloped residential property to the north. The College Avenue Bridge is also located north of the site. The west side of the Appleton lower dam intersects the shoreline near the east central portion of the site. It is our understanding that where the dam intersects the shoreline is property owned by another party. John Street dead-ends at the property's west border.

Various industries have operated at the site since the late 1800's. (Reference Figure 2 – Historical Orthophotos – 1938 to 2010, Appendix 2.) The early development of the site involved significant filling of the site and construction of raceways to direct water for energy production. Early site operations involved papermaking, tanning, machining, and quilting. Most recently, from the 1950's until 2003, the property was used as a whey processing facility by Foremost Farms. When the Foremost Farms facility ceased operations at the site the majority of the machinery was removed. The aboveground storage tanks at the site were removed in 2002 and 2004. The site was placed in the Wisconsin DNR's Voluntary Party Liability Exemption (VPLE) program in 2004 (BRRTS # 06-45-523605), and underwent soil and groundwater investigations.

The City of Appleton acquired the property on June 28, 2011, and began to demolish buildings later that year, completing the process in June 2012. A capping plan was carried out, in which direct contact with

contaminated soils at the site has been minimized by the placement of fill over contaminated areas. The DNR issued a Low Hazard Grant of Exemption for Beneficial Reuse of Contaminated Materials on October 27, 2011, to allow placement of 1,200 cubic yards of lead-bearing painted concrete at the eastern face of the western building basement wall. A Low Hazard Grant was also issued on June 26, 2012, to allow placement of 7,750 cubic yards of contaminated soils within the former building basement. In both cases, the materials were covered with five to eight feet of clay. These areas are located within the site's "development zone". The site achieved closure on May 16, 2014.

Past investigations and remedial activities have provided soil data across the site. Fill material throughout the entire site contains polycyclic aromatic hydrocarbons (PAHs), and select metals at concentrations that exceed direct contact criteria. Select volatile organic compounds (VOCs), PAHs, and metals exceed applicable groundwater pathway criteria; however, groundwater monitoring indicated no VOCs, PAHs, and metals present in groundwater at concentrations above regulatory standards. Sediment within the abandoned head raceway contained polychlorinated biphenyls (PCBs), PAHs, and metals. The total PCB concentrations in sediment were below the United States Environmental Protection Agency Toxic Substances Control Act rule. All soils and sediments beneath the established engineered barriers should be considered impacted.

Historical groundwater monitoring data at the site indicated exceedances of the ch. NR 140 Wis. Adm. Code, enforcement standard for sulfate at monitoring well MW1. The DNR granted an exemption to sulfate in the groundwater

Based on the geotechnical investigations coordinated by OMNNI in 2014 and 2016, the fill material on the site generally consists of various combinations of lean clay, silty sand, and gravel. The native soils on the subject property consist generally of glacial till consisting of lean clay with varying amounts of sand and gravel, as well as some apparently discontinuous organic deposits. The bedrock in the subsurface of the subject property is Ordivician dolomite of the Sinnipee group and is encountered at depths ranging from 14 to 35 fbgs.

The site is planned to be divided into three separate development lots. Lots 1 and 3 will be future development areas. Lot 2 is proposed to be used for the Eagle Point Senior Living campus. It is anticipated that excavation depths will range from approximately 6 to 10 feet across the planned senior housing development in Lot 2. The slab-on-grade area in the far southern portion of the south wing will require 2 to 6 feet of fill to bring the existing grades to plan slab on grade elevation.

On the western side of the senior living housing development, proposed grading plans are indicating existing site grades for parking. On the eastern side of the senior housing development, existing grades for parking, drive and lawn areas are higher than plan grades in the southern portion of the lot and near plan grades in the northern portion of the lot. Small cuts and fills are anticipated in the northern portion of lot 2 on the east side of the senior living housing development, and cuts are anticipated in the southern portion of the lot on the east side of the development.

New infrastructure including sewer, water, storm water, curb and gutter will also be required on the site. In addition to this infrastructure, a lift station is planned in the northwest corner of Lot 2 near boring B04-IC. (Reference Figure 3 – Site Detail Map, Appendix 2.)

#### **1.2** Potential for Impacts

At this time the contamination from the historic fill detected does not appear to be impacting: species, habitat, or ecosystems sensitive to the contamination; wetlands; outstanding resource waters; or sites or facilities of historic or archaeological significance. However, laboratory analysis indicates that both the soil and groundwater have concentrations of contaminants.

#### 1.3 Evaluation of Existing Impacts

Results from soil investigations conducted by ARCADIS indicated that a majority of the unsaturated fill material beneath the subject property contained PAHs and metals at concentrations exceeding direct contact criteria. (Reference Figure 3 – Site Detail Map, Appendix 2 and ARCADIS Table 3. Summary of Analytical Results for Soil Located Outside of the Development Area, Former FFUSA Site, Appendix 3.) The source of the PAHs is likely the historic deposition of fill from unknown sources to develop the subject property. Although select PAH, metals, and VOC concentrations in the soil exceeded their respective soil-to-groundwater pathway criteria, these constituents were not detected in groundwater above regulatory criteria. Sediment sampled from the head raceway area contained PAH, metal, and PCB concentrations that exceeded applicable direct contact criteria. The total PCB concentrations in sediment were below the United States Environmental Protection Agency Toxic Substances Control Act rule. All soils and sediments beneath the established engineered barriers should be considered impacted<sup>1</sup>.

Groundwater monitoring results indicated that sulfate exceedances at the subject property were limited to one groundwater monitoring well (MW-1).

The DNR publication *Development At Historic Fill Sites And Licensed Landfills: Considerations And Potential Problems* (PUB-RR-685, April 2002) lists factors that should be considered when evaluating whether the planned land development is compatible with the waste conditions at the property. These factors and evaluations include:

- Methane gas accumulation in buildings and other enclosed structures
  - The lack of VOC concentrations and organic materials indicate that methane gas accumulation is unlikely.
- Toxic gases collection in buildings and other structures
  - VOC concentrations were not observed at levels that would pose a threat to indoor air quality. The developer was encouraged to install at least the underground infrastructure and make provisions for the equipment and venting for a radon type system.
- Disturbance of the soil cap

<sup>&</sup>lt;sup>1</sup> Paraphrased from the Cap Maintenance Plan and Materials Handling Plan, dated February 2014.

- A Cap Maintenance Plan and Material Handling Plan, dated February 2014, was
  prepared for the site. The Soil and Waste Management Plan, dated October 24, 2016,
  proposes how the materials will be handled during the redevelopment and proposes
  that the Cap Maintenance Plan and Material Handling Plan be amended to reflect the
  post-construction redevelopment.
- Utility lines acting as conduits for gas and leachate
  - The probability of the utility lines acting as a conduit for gas and leachate is unlikely due to the nature of the residual contamination, which is primarily PAHs. The site and surrounding area are serviced by the local municipal water supply system, which obtains drinking water from Lake Winnebago.
- Dewatering problems
  - If dewatering is necessary for the redevelopment, an application to the City of Appleton's Waste Water Treatment Plant will be submitted.
- Worker exposure
  - The developer is aware of the contamination present at the site and has been provided copies of the Cap Maintenance Plan and Material Handling Plan and the Soil and Waste Management Plan in addition to this document for his workers and subcontractors.
- Settlement problems
  - OMNNI conducted geotechnical surveys for the developer. The reports include recommendations for foundation design.
- Prohibition on water supply wells within 1200 feet of the waste limits
  - The property will be serviced by a municipal water supply. There are no known water supply wells within 1200 feet of the site.
- Material Handling
  - o In addition to the existing *Cap Maintenance Plan and Material Handling Plan*, a *Soil* and *Waste Management Plan* was prepared for the redevelopment.

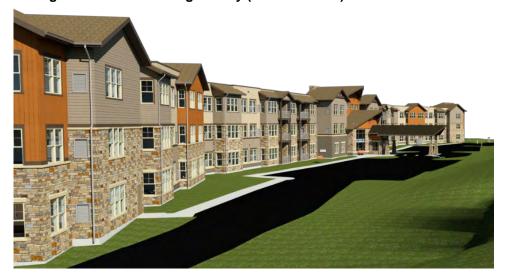
#### 2.0 PROPOSED DEVELOPMENT SUMMARY

The proposed Eagle Point Senior Living facility will consist of 99 units, including 73 congregate independent units, 25 assisted living units, and one guest suite. Common areas will provide space for activities and socializing. Spaces will include a lobby with seating, library, game room, dining room and pub, two activity rooms, theater/chapel, beauty/barbershop, exercise pool, locker rooms, spa and exercise room. There will also be 70 underground parking stalls and individual storage lockers for use by the residents.

**Preliminary Design of the Eagle Point Senior Living Facility Campus** 



West Side of Eagle Point Senior Living Facility (Entrance Side)



**East Side of Eagle Point Senior Living Facility (River Side)** 



The site is planned to be divided into three (3) separate development lots. Lots 1 and 3 will be future development areas. Lot 2 is proposed to be used for the Eagle Point Senior Living campus. One main building is proposed in Lot 2 with a general north to south orientation and has a central rectangular shaped common area as well as a northern and southern wing orientated with a slight skew from the central common section of the building. The structure is proposed to have a basement and three stories with the exception that no basement will be constructed under the far southern portion of the southern wing. The far southern wing of the senior living building will consist of slab on grade construction with planned shallow foundations.

The basement areas will predominantly consist of underground parking in the central common section, the northern wing of the building, and the northern portion of the southern wing of the building. The basement area is also planned to include a pool area, fitness and spa room, and general maintenance space on the eastern portion of the central common section. The main floor will predominantly consist of living quarters as well as a lobby, kitchen, and dining areas in the central common section. The second and third floor will consist mainly of living quarters.

Parking areas are proposed along the west side of the senior living building on Lot 2 with drive areas located around the perimeter of the building.

There are approximately 45 residences within 300 feet of the site. There are approximately 83 residences between 300 feet and 1,000 feet of the site. The nearest known private well is 2,244 feet to the southwest of the site on the other side of the Fox River. The nearest building is 26 feet west of the site. (Reference Figure 4 – Historic Fill Exemption – Distances, Appendix 2.)

#### 3.0 SUMMARY OF ACTIONS TO BE TAKEN

The site design of the Eagle Point Senior Living campus tried to work within the development areas. (Reference Figure 5 – Development Zones, Appendix 2.) The site design also factored in the contaminated materials on-site by raising the building and surrounding grade elevations. However, because of the grade changes across the site, there are still areas that are required to be cut and filled to allow the design to work. The final site design attempted to keep existing materials on-site and reduce the need for off-site materials.

Based on the proposed design, there would be an estimated 11,330 cubic yards of materials that would be cut for the development. The amount of cut materials includes clean fill that was brought to the site to create the development areas and materials beneath the clean fill and materials outside the development area, which are assumed to be contaminated. The volume of materials assumed to be contaminated is approximately 3,350 cubic yards. This volume will vary depending on the amount of clean fill that was brought in to cap the contaminated material. (Reference Figure 6 – Contaminated Soil Excavation, Appendix 2.) The main cut areas are for the building, a biofilter, and a stormwater pond. The biofilter and stormwater pond will have two-foot compacted clay liners. The notice of intent and Chapter 30 permits documentation has been submitted and approved.

The fill required for the development is estimated to be 10,000 cubic yards. The fill estimate includes volume that will be taken up by paved surfaces and topsoil. (Reference Figure 7 – Proposed Overall Fill Locations, Appendix 2.) The main fill areas are the parking area and around the building, including the southern part of the building, which will not have a lower level. (Reference Figure 8 – Proposed Cut/Fill Section Views, Appendix 2.)

Although the DNR agreed conceptually with the approach of placing a significant portion of the contaminated soil under the parking area, which is located above the former raceway, the U.S. Army Corps of Engineers requires that "fill material must consist of suitable material free from toxic pollutants in other than trace quantities". Nick Domer from the U.S. Army Corps of Engineers thought that "free from toxic pollutants in other than trace quantities" was interpreted to mean above laboratory detection limits. Therefore, the fill in the former raceway footprint will need to be from the clean cut material from the development areas.

The Phase II (Lot 1) development area has not been completely designed and can allow for more or less fill depending on the material actually encountered during construction. (Reference Figure 3 – Site Detail Map, Appendix 1 for future single family development (Phase II/Lot 1) area.) At this point approximately 2,700 cubic yards of fill is anticipated to be placed in the area of the future residential development. Every six-inch elevation change in the Phase II development area is approximately 620 cubic yards.

The northern part of the Eagle Point Senior Living building may encounter the fill material placed in the former building foundation. (Reference Figure 3 – Site Detail Map, Appendix 2 to compare proposed development to former building footprint.) If encountered, this material would be moved to an adjacent area requiring fill.

Areas that are disturbed and that are not covered by buildings or paved surface will have a soil cap of at least six-inches.

Because of the amount of cut and fill across the site, and because all soils and sediments beneath the established engineered barriers should be considered impacted, it is proposed that the existing Cap Maintenance Plan and Material Handling Plan be amended to reflect the new development.

Portions of the Eagle Point Senior Living building and supporting infrastructure may penetrate the geotextile barrier separating the clean fill from the contaminated material. Replacement of the geotextile barrier is not proposed, since the areas will be covered by structures, the clean fill relocation (other than over the former raceway) will not be tracked, and the entire site will be under a revised cap maintenance plan.

#### 4.0 STANDARD OF CARE

The conclusions presented in the *Development at Historic Fill Site or Licensed Landfill Exemption*Application and the accompanying supplemental material were arrived at using generally accepted hydrogeologic and engineering practices. The conclusions presented herein represent our professional

opinions, based on data collected at the time of the investigation, at the specific boring and sampling locations discussed in this application. Conditions at other locations on the property may be different than described in this application. The scope of this application is limited to the specific project and location described herein.

#### 5.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

"I, Brian D. Wayner, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Prepared by:	Brian D Waynes	,	
	Brian D. Wayner, P.E.	· ·	(P.E. Stamp)

### **Previous Site Documentation**

Development at Historic Fill Site or Licensed Landfill Exemption Application, dated April 9, 2012

Conditional Case-by-Case Grant of Exemption for the Development of a Property Where Solid Waste has been Disposed response, dated April 25, 2012.



Ms. Jennifer Borski Wisconsin Department of Natural Resources 625 E County Road, Suite 700 Oshkosh, WI 54901-9731 ARCADIS U.S., Inc.

126 North Jefferson Street

Suite 400 Milwaukee Wisconsin 53202

Tel 414.276.7742 Fax 414.276.7603

www.arcadis-us.com

Subject:

Development at Historic Fill Site or Licensed Landfill Exemption Application, Former Foremost Farms Property, 935 E. John Street, Appleton, Wisconsin. BRRT # 02-45-530084, VPLE # 06-45-523605

**ENVIRONMENT** 

Dear Ms. Borski:

This letter and attachments are the Development at Historic Fill Site or Licensed Landfill Exemption Application (Exemption Application) for the Former Foremost Farms Property located at 935 E. John Street in the city of Appleton, Wisconsin (Subject Site). The following bulleted list summarizes the material included with this Permit Application:

Date:

April 9, 2012

Contact.

**Brian Maillet** 

Phone:

414.277.6229

Email;

brian.maillet@arcadis-us.com

Our ref.

WI001272.0001

Wisconsin Department of Natural Resources Form 4400-226

Summary of Existing Site Conditions and Proposed Development

Summary of Protective Actions

If you have any questions or comments, please contact me at your convenience.

Sincerely,

ARCADIS U.S., Inc.

Brian Maillet

Certified Project Manager/Senior Scientist

Attachments

State of Wisconsin
Department of Natural Resources

#### Development at Historic Fill Site or Licensed Landfill Exemption Application

Form 4400-226 (R 12/05)

age 1 of 6

Notice: Use of this form is required by the DNR for any application to develop at a historic fill site or licensed landfill pursuant to secs. NR 506.085 and NR 500.08(4), Wis. Adm. Code. The Department will not consider your application unless you provide complete information requested. Personally identifiable information collected will be used to process your application and will also be accessible by request under Wisconsin's Open Records law [ss.19.31 - 19.39, Wis. Stats.]

Instructions: See Development at Historic Fill Sites and Licensed Landfills: What you need to know (PUB-RR-683, April 2002) for detailed instructions.

• All Exemption Application materials should be sent to the region where the site is located, as listed on page 6.

- Include \$500 fee payment with this application unless a fee was already paid for the review of the remedial design report under the NR 700 process.
- Determine the appropriate exemption type for the site and check appropriate box below.

Provide complete information requested for each type of exemption. Include the following attachments:

Required: Summary of Existing and Potential Impacts described in Section V as an attachment, under the seal of a professional engineer or geologist registered to practice in Wisconsin.

Optional: Site Visit Summary Comments (Section IX) including any photos, sketches or site visit notes

Chronar. Site visit Summary Comments (Section IX) including a	any prioros, sketches or site visit notes.
Exemption Type	
Remediation and Redevelopment Program NR 700 Rule Series with NR 700 series Required: Sections I - VI	es Process Exemption: Site with remedial actions conducted in accordance  Optional: Sections VII - X
Case-by-Case Evaluation: Sites with anticipated environmental impa Required: Sections I - VI	acts or wastes of special concerns  Optional: Sections VII - X
Expedited Exemption: Site with no expected environmental impact  Required: Sections I - VI and Form 4400-256A Expedited Exemption A	Application Optional: Sections VII - X
I. Applicant Information	
Appleton Redevelopment Authority	MI Telephone Number (920) 832-6468
Contact Name (if different)  Karen Hac Kness	
100 North Appleton Street	Appleton State ZIP Code WI 54911
Developer - Last Name First	MI Telephone Number
Street Address	City State ZIP Code
II. Site Name and Location	
Former Foremost Farms Property	1935 E. John Street
Is the site known by another name(s)?  Yes No Unknown	Acity Town Village of Appleton
If yes, provide name.	ZIP Code State  54911 WI
Does the site have a license number? If yes, License Number	County
Yes No Unknown	Outagamie
A. Attach a map with site location and limits of fill/waste disposal area.	
B. Global Positioning System Coordinates	Describe method for collecting GPS Coordinates
	w WDNR GIS Registry
Program Lead, Fee Status and Regulate	ory ID Numbers (This area for DNR use only)
Waste Management Bureau Remediation and Redevelopment Bureau - Exemption is part of	remedy under NR 700 program
Fee already paid for review of remedial design report	Amount
Review of remedial design report not requested and payment is a	attached
Hazardous Waste Facility License ID No. (5 digits) DNR FID No. (9 digits)	USEPA ID No (used for both RCRA and CERCLIS #s) (WI+Alpha+9 digits)
Region Project Manager	Telephone Number

## Development at Historic Fill Site or Licensed Landfill Exemption Application Form 4400-226 (R 12/05) Page 2 of 6

III.	Site Ownership History			·····	· • • • • • • • • • • • • • • • • • • •		
Prev	ious Owner - Last Name	First		MΙ	l'elephone	Number	
$\mathcal{F}$	premost Farms USA				1-800	)-3 <i>6</i>	2-9196
Stre	et Address		City			State	ZIP Code
	PO Box 111		Baraboo			WI	639/3
Res	consible Municipat / Private Operator - Last Name (if applicable)	First		MI	Telephone	Number	
Stre	et Address	<u></u>	City			State	ZIP Code
- •			J,			0.000	
īv.	Evaluation of Existing and Potential Impacts, See Dev and Development at Historic Fill Sites and Licensed Landfill				andfill: Gui	dance fo	or Investigation
A.	Analytical data for the following media have been collected	d and/or	examined before comple	ting this a	pplication:		
	1. Groundwater: Yes	No					
	2. Soll: Yes	No					
	3. Surface water / sediment: Yes	No					
	4. Air:	No					
	<ol> <li>Methane or other explosive gases: Yes</li> </ol>	No					
В.	Based on known or suspected sources and wastes, their a release of poliutants to the environment?	physical	characteristics, containm	ent and g	eologic env	ironme	nt, do you suspect
	Yes: Groundwater Soil	Sur	ace Water / Sediment	М	ethane or C	ther Ex	rplosive Gases
	If yes, an expedited exemption is not appropriate unless fur	her inve	etigation shows that a relea	se of poli	utants is not	likely.	
C.	If there is NOT a likelihood of a release of pollutants or excause a release to the environment?	ridence d	of a release, would the imp	pact of the	proposed	develo	oment be likely to
	Yes If yes, be sure to summarize actions to be taken to No	to prever	ıt adverse environmental in	npacts in t	/. Part C bel	ow.	
V.	Summary of Existing and Potential Impacts. See Deve Development at Historic Fill Sites and Licensed Landfill: Po				ndfill: Guld	ance for	Investigation and
Des	cribe the following in an attached narrative under the signa				bel and pad	ckege a	s listed below.
A.	Existing Site Conditions				•	_	
	1. existing site conditions including waste types,						
	2. potential for impacts, and						
	3. evaluation of existing impacts.						
B.	Proposed Development Summary. Include explanation for	r overall	site decision.				
C.	Summary of actions to be taken and engineering controls threats to human health and welfare, including worker sat	that will ety.	prevent or minimize adve	erse enviro	onmental im	ipacts a	ind potential
VI,	Certification of Application Information	A Comment		······			
l ce	rtify that information in this application and all its attactutes.	hments	is true and correct and	in confor	nity with a	pplicab	le Wis.
	/ Type Name of Appilcant	1		7			
X	haren E. Harvalas Dive	tor	of Commun	HU \$	EM	OUA	c Nevelopm
Appl	icant Signature	×1923		Signed	<u> </u>	<u> </u>	
_	Kruen E. Haverles	1		4-9	1-20	010	*

Sec	tions VII - IX are optional for all	Applicants.			
VII.	Current and Historic Type of V	/aste Disposal Site (Check all t	hat apply)		
	Licensed Landfill Non-approved {See s.289.01(3)}, N Approved	<b>V</b> is Stats.	One-time Disposal Construction / Demolition Historic Fill Site	1	
	r Jnlined Lined Composite Liner Other Liner (Describe):	Clay Liner Unengineered	Total Landfill Volume  50,000 yd³ 50,000-500,000 yd >500,000 yd³		
Doe	s the landfill have a closure plan? s the landfill have a groundwater r e groundwater monitoring wells be	een installed? Yes	No Unknown No Unknown Unknown		
Was	a cover installed? Yes  Composite cap  Layered soil cap with clay barried  Clay cap  Soil cap - not recompacted clay  Other cover  Unknown	No If no, go to Past Land	i Uses.		
Wha	t is the thickness of the cover?	☐ <6 in ☐ 6-12 in	12-24 in >24 in	Unknown	
Past	Land Uses. (Check all that apply)	·			
	Agricultural co-op Brush pile Bulk plant Coal gas manufacturer Deer pit Ory cleaner	Electroplater Lagoon Manufacturing Type: Old burn pit Pipeline RCRA generator	w)	Salvage yard Service Station Tannery Unknown Other:	<u>xessing P</u> ant
Date	e(s) of Site Operation			No. of Years	<u> </u>
From	ı: <u>1950</u>	To:_200	3	53	Unknown
VIII.	Waste Information & Geologic		nt at Historic Fill Sites and Licen	sed Landfills: Guidance for	Investigation
A.	Known or Suspected Sources/W	astes. (Check all that apply)			
	Abandoned containers Above ground pipeline or tan Animal carcasses Buried drums Burning of materials Foundry sand Industrial accident		Demolition/construction waste  Surface impoundment/lagoons Underground pipeline or tank  Exempted fill {NR 500.08(1) and Unknown  Other: off-site fill makes		
B.	Physical Characteristics of Source	es/Wastes			
	Liquid Solid	Liquid & Solid	Unknown		

VIII.	Waste Information & Geologic Environment (continued)								
C.	Waste Containment Liner Unknown	Not applicable							
	Engineered cover  Maintained  Not maintained  Functioning leachate collection & removal system  Functioning & maintained run-off management  Functioning groundwater monitoring system								
D.	Soil Type: Estimate distances or determinations based on regional or site specific information.								
	Regional Site specific								
	Clay, silt or other fine grained soils present? (lacustrine, tills, etc.)								
	At surface? Yes No At depth? Yes Nofeet								
	Sand & gravel, coarse grained soils present? Yes No								
	At surface? Yes No At depth? Yes No 26 feet								
E.	Depth to Groundwater								
	Regional Site specific 5 to 16 feet								
F.	Direction of Groundwater Flow								
	Regional Site specific <u>Fqs+</u> direction								
G.	Depth to Bedrock	Depth to Bedrock							
	Regional Site specific								
H.	Bedrock Type								
	Regional Site specific Sandstone Limestone/Dolomite	Metamorphic/Igneous							
IX.	Site Visit								
Condissue	duct a site visit to complete site screening and determine general site conditions, on-site activities and a es. As appropriate to document the site, take photos, sketch the site and prepare a Site Visit Report.	djacent land use encroachment							
On-s	site visit conducted?								
Gen	eral site conditions: Document any observed releases and note whether or not you were able to walk the re of include the following:	e site. Examples of things to be							
• s	eachate seeps or evidence of seeps such as stained soil/vegetation stressed vegetation as a sign of gas migration to the surface or of leachate seeps; quality and coverage of vegetation on the cap; dors which may indicate gas migration to the atmosphere; prosion of the cap; maintenance of positive drainage over the capped area; risual desiccation cracks in the cap.								
/	ch the following to your application:								
	Photographs, regular or digital Site sketch Sit Visit Report								
Nam	e(s) of Person(s) Conducting Site Visit	Date of Site Visit  March 27, 2012							

IX	Site Visit (continued)								
A.	Adjacent Land Uses. Indicate all directions. (Check all that apply)								
	Agricultural         N         S         E         W         NE         NW         SE         SW           Industrial         N         S         E         W         NE         NW         SE         SW           Recreational         N         S         E         W         NE         NW         SE         SW           Residential         N         S         E         W         NE         NW         SE         SW           Undeveloped         N         S         E         W         NE         NW         SE         SW           Commercial         N         S         E         W         NE         NW         SE         SW           Other:         Fox River         N         X         E         W         NE         NW         X         SE         SW								
B.	Potential Groundwater Receptors. Estimate distances. (1 mile = 5,280 ft)								
	Distance to and direction of nearest municipal well:feetfeet								
	Distance to and direction of nearest other-than-municipal well:feet > ½ mile from the waste direction								
	Distance to and direction of nearest non-community well:feet > ½ mile from the waste direction								
	Distance to and direction of nearest private well:  feet  > ½ mile from the waste  direction								
	Distance to and direction of nearest residence:   Adjacent feet   > ½ mile from the wastedirection								
C.	Potential For Gas Migration  No. of homes within 300 feet of waste (gas migration potential)  No. of homes between 300 & 1,000 ft to waste (gas migration potential)								
	Distance to and direction of nearest building:  Abace of feet > ½ mile from the waste direction								
	Type of building: On-site building Municipal Residential Commercial Industrial Unknown								
D.	Potential Surface Water Receptors. Estimate distances.								
	Creek:feet								
	River: Abaccatfeet								
E.	Based on the site visit, did you visually observe								
	1. a release to a surface water body?								
	2. a leachate seep?  Yes No Unknown  3. a release to soils?  Yes No Unknown								
X.	Comments: Use this section to provide comments on any aspect of the site visit. Attach any information or explanations labeled with the appropriate section number to which the material applies.								

#### Region Map

#### **NORTHERN REGION**

Remediation & Redevelopment Team Supervisor Department of Natural Resources 107 Sutiiff Avenue Rhinelander, Wi 54501 (715) 365-8976 OR

Regional Waste Program Manager Department of Natural Resources 107 Sutliff Avenue Rhinelander WI 54501 (715) 365-8946

#### **NORTHEAST REGION**

Remediation & Redevelopment Team Supervisor Department of Natural Resources 2984 Shawano Avenue Green Bay, WI 54307-0448 (920) 662-5160 OR

Regional Waste Program Manager Department of Natural Resources 2984 Shawano Avenue Green Bay, WI 54307-0448 (920) 662-5120

#### **SOUTHEAST REGION**

Remediation & Redevelopment Team Supervisor Department of Natural Resources P.O. Box 12436 Milwaukee, WI 53212-0436 (414) 263-8561 or (414) 263-8714 OR Regional Waste Program Manager Department of Natural Resources P.O. Box 12436 Milwaukee WI 53212-0436 (414) 263-8694 or (414) 263-8697

#### WEST CENTRAL REGION

Remediation & Redevelopment
Team Supervisor
Department of Natural Resources
1300 Clairemont Avenue
Eau Claire, WI 54701
(715) 839-3710
OR
Regional Waste Program Manager

Regional Waste Program Manager Department of Natural Resources 1300 Clairemont Avenue Eau Claire WI 54701 (715) 839-3708

#### **SOUTH CENTRAL REGION**

Remediation & Redevelopment Team Supervisor Department of Natural Resources 3911 Fish Hatchery Rd. Fitchburg, WI 53711 (608) 275-3241 OR

Regional Waste Program Manager Department of Natural Resources 3911 Fish Hatchery Road Fitchburg WI 53711 (608) 275-3466





#### **Summary of Site Conditions and Proposed Development**

The former Foremost Farms, USA property is located at 935 East John Street, Appleton, Wisconsin (the "Subject Site"). The Subject Site is currently owned by the Appleton Redevelopment Authority (Appleton). Appleton is currently in the process of demolishing building structures and abandoning select canals (hereafter referred to as raceways) on the Subject Site. These activities are part of a redevelopment project that will result in the completion of a 6.16-acre grass capped area within the 8.22 acre Subject Site that will be ready for future residential development.

Soil investigation results indicated that a majority of the unsaturated fill material beneath the Subject Site contained polycyclic aromatic hydrocarbons (PAHs) and metal constituent concentrations exceeding direct contact criteria. The source of the PAHs is likely the historic deposition of fill from unknown sources to develop the Subject Site. Groundwater monitoring results indicated sulfate exceedances at the Subject Site were limited to one groundwater monitoring well at the Subject Site (Monitoring Well MW-1). Although select volatile organic compound, metal, and PAH concentrations in soils exceeded their respective soil to groundwater pathway criteria, these constituents have not been detected in groundwater above regulatory criteria for the past six groundwater sampling events. Sediment samples collected from the 31,400 square foot (0.72 acre) head raceway area that is being abandoned in accordance with a Chapter 30 permit contained PAH, metal, and polychlorinated biphenyl (PCB) concentrations that exceed applicable direct contact criteria. The total PCB concentrations in sediment were below the United States Environmental Protection Agency Toxic Substances Control Act rule.

On March 21, 2012, Appleton developed an Analysis of Brownfield Cleanup Alternatives (ABCA) for the Subject Site. Alternative one was to leave the Subject Site in current condition, while Alternative two was to demolish the building structures on the Subject Site with mitigation of impacted soils with engineered barriers. Based on a review of potential remedial action options, a Remedial Action Plan (RAP) was developed under Alternative two and was approved by the Wisconsin Department of Natural Resources (WDNR) on March 28, 2012. The RAP consisted of the following elements:

 Relocation of soils exceeding ch. NR 720 direct contact pathway exceedances within the Subject Site boundaries to achieve a 4- to 7-foot clean soil cap within an



established residential development zone. A minimum 6-inch clean soil cap will be placed over the remaining affected soil.

- Reuse of concrete building aggregate coated with lead bearing paint as fill material.
- Completion of a vegetative cap across the Subject Site.
- Use of natural attenuation to address the limited extent of sulfate-affected groundwater, identified at one monitoring well (MW-1).

The demolition phase of the Subject Site started in November 2011. Between January 2009 and December 2011, ARCADIS completed a pre-demolition assessment and obtained a beneficial reuse exemption and a Chapter 30 permit from the WDNR for the Subject Site. The ARCADIS pre-demolition assessment recommendations and WDNR requirements are being followed and will be documented in a post-demolition report that will be submitted to the WDNR as part of closure-related activities.

During the demolition of the former FFUSA building structures, impacted soils will be relocated on-site and fill material will be imported to the Site from a WDNR-approved clean soil source area. The relocation and importation of soils will result in an approximate 103,350 square foot (2.37 acres) development zone within the Site. The engineered barrier for the development zone will consist of a 4 to 7 foot (ft) thick clean soil cap. Approximately 0.95 acre of this development zone located south of the building footprint will have a 4-ft thick clean soil cap. The remaining 1.42 acre of the development zone within the building footprint will have a 7-ft thick clean soil cap. The approximate 0.72 acre former head raceway area will have a cap thickness ranging from 3 to 8 ft to match a post-demolition preliminary grade. Approximately 3.07 acres of the Subject Site will be capped with a minimum 6-inch clean soil cap. The remaining 1.89 acres include the woodland embankments and wooded breakwater that will not be capped in order to preserve the natural setting of these areas. The existing 0.17 acre parking lot will also not be capped with soil.

Concrete building aggregate will be used as fill material in the former head raceway. The aggregate in these two areas will be covered with a geotextile and capped with at least 1 foot of clean soil material. Based on the post-demolition preliminary grade, the depth to this aggregate will likely be 3 to 6 feet below the preliminary grade. Lead based paint aggregate will be placed along the eastern face of the western building wall, which will be completed with the 7-foot clean soil cap. Grass seed will be applied



to the surface of the established soil grades to complete a vegetative soil cap across the Subject Site.

Due to the residual soil contamination, precautions will need to be taken during future Site work that requires penetrating the engineered barriers and disturbing underlying soil to ensure the protection of human health and the environment. A Cap Maintenance Plan and Materials Handling Plan (the Plan) was developed for the Subject Site to detail the approved engineered barriers which may consist of a minimum of 6 inches of clean soil (e.g., backfill, topsoil, and seed for landscaping), future buildings, and future concrete or asphalt pavement over the soils that exceed the direct contact residual contaminant levels. The Plan was submitted to the WDNR along with the RAP on March 22, 2012.

The procedures and controls that shall be followed to maintain the function of the engineered barriers is described in the Cap Maintenance Plan. Maintaining the function of the engineered barriers will provide continued protection of human health and the environment by minimizing potential exposure to the residual contamination. The activities required for maintaining the engineered barriers are: annual cap inspections, repairs of engineered barriers, and replacement of engineered barriers.

The Material Handling Plan specifies the requirements to be followed when performing earth work, groundwater, or surface water management at the Subject Site. These activities will be generally associated with future construction/redevelopment of the Subject Site. The activities required under the material handling plan are: contractor notification, soil management, soil characterization, and reporting (if applicable).



#### **Summary of Protective Actions**

The following sections present a summary of the protective actions for the Former Foremost Farms Property located in Appleton, Wisconsin.

The Wisconsin Department of Natural Resources (WDNR) publication *Development at Historic Fill Sites and Licensed Landfills: Considerations and Potential Problems* (PUB-RR-685, WDNR April 2002) lists factors that must be considered when evaluating whether the planned land development is compatible with the waste conditions at a property. These factors include:

- Methane Gas Accumulation in Buildings and Enclosed Structures
- Toxic Gases Collection in Buildings and Other Structures
- Disturbance of the Soil Cap
- Utility Lines Acting as Conduits for Gas and Leachate and Water Supply Wells
- Dewatering Problems
- Worker Exposure
- Settlement Problems
- Prohibition on Water Supply Wells within 1,200 Feet of Waste Limits
- Material Handling

Each factor is addressed in the sections that follow.

Methane Gas Accumulation in Buildings and Enclosed Structures

The Subject Site setting and lack of contaminant (e.g., VOCs) concentrations indicate that methane gas accumulation is unlikely.



Toxic Gases Collection in Buildings and Other Structures

There are no contaminants (e.g., VOCs) at concentrations that would pose a threat to indoor air quality.

Disturbance of the Soil Cap

As part of pursuing Site closure under NR726 Wisconsin Administrative Code, a Cap Maintenance Plan and Material Handling Plan was prepared for the Subject Site. The Cap Maintenance Plan and Material Handling Plan is designed to specify future measures to implement to address residual soil and groundwater contamination at the Subject Site.

Utility Lines Acting as Conduits for Gas and Leachate and Water Supply Wells

Future utility lines will be installed using the guidance outlined in the Material Handling Plan. Following installation of utility lines in accordance with the Plan, the probability of the utility lines acting as a conduit for gas and leachate is highly unlikely due to the nature of the residual soil contaminants (e.g., PAHs).

The Site and surrounding area is serviced by the local municipal water supply system, which obtains drinking water from Lake Winnebago. Based on a private potable water well search of the WDNR well database, there are at least three private potable wells between 0.5-mile and 1-mile of the Subject Site (see attached spreadsheet). The extent of sulfate-impacted groundwater at the Subject Site is limited to one well and it is delineated. Development of the Subject Site with the proposed cap elements will not expand the extent of sulfate-impacted groundwater at the Subject Site.

#### Dewatering Problems

Dewatering problems are not considered an issue with the current redevelopment scenario for the Subject Site.

#### Worker Exposure

Construction workers engaged in the redevelopment may come into contact with the residual fill material. These materials may be encountered during activities such as site grading, utility placement, or construction of footings/foundations.



Prior to redevelopment of the property, construction documents will be prepared for the general contractor and selected subcontractors. These documents will contain information pertaining to the nature and distribution of the residual fill material at the Subject Site. The general contractor and subcontractors who may potentially encounter the residual fill material will be required to inform workers of the fill material and to provide instructions on procedures to follow when the fill material is encountered.

#### Settlement Problems

Geotechnical surveys have been conducted at the Subject Site. A preliminary site grading plan and other surface water drainage features have been completed for the Subject Site. Settlement problems in areas of fill will be addressed through active participation between the city of Appleton and the future developer.

Prohibition on Water Supply Wells within 1,200 Feet of Waste Limits

The Subject Site is serviced by the local municipal water supply system. There are no water supply wells within 1,200 feet of the Subject Site.

#### Material Handling

Fill materials may be disturbed during construction activities, including site grading, utility placement, and footing/foundation construction. A Cap Maintenance Plan and Material Handling Plan was prepared as an institutional control to satisfy the ch. NR 726 Site Closure requirements.

WI Unique Well #	<b>County Name</b>	Data Owner	Municipality	Well Use	Construction Date	Well Bottom (ft.)	Static Water Level (ft.)	Casing Bottom (ft.)	Casing Diameter (in.)	Well Status	Address
FP798	Outagamie	WS	APPLETON	Private Potable	1/20/1993	142	6	50 7	2	6 ACTIVE	1219 Grandview, Appleton, WI
GI138	Outagamie	WS	APPLETON	Private Potable	5/21/1993	242	8	80 6	0	6 ACTIVE	2626 N. Onieda St., Appleton, WI
KY590	Outagamie	WS	APPLETON	Private Potable	4/28/1997	617	10	)5 244	5	12 ACTIVE	825 E. Wisconsin Ave., Appleton, WI

State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES
Oshkosh Service Center
625 East County Road Y, STE 700
Oshkosh, WI 54901-9731

Scott Walker, Governor Cathy Stepp, Secretary

State Customer Service # 888-936-7463 Oshkosh FAX# 920-424-4404



April 25, 2012

Karen Harkness
City of Appleton
Appleton Redevelopment Authority
100 N. Appleton St.
Appleton, WI 54911

Outagamie County FID # 445031510 WDNR ERP #: 02-45-530084 WDNR VPLE #: 06-45-523605

Subject: Conditional Case-by-Case Grant of Exemption for the Development of a Property Where Solid Waste has been Disposed: Parcel #s: 311077200, 311073500, Foremost Farms (Former) Redevelopment, 935 E. John St., Appleton, Outagamie Co., WI

Dear Ms. Harkness:

We have reviewed your request dated April 9, 2012 for a grant of exemption from regulation under s. NR 506.085, Wis. Adm. Code. Based on that evaluation, the Department is issuing this general grant of exemption from the prohibitions contained in s. NR 506.085, Wis. Adm. Code. You must comply with the conditions of this grant of exemption in order to maintain the exemption. This grant of exemption is limited to the proposed changes described in your application. If you are considering additional changes beyond those described in the application, a new application must be submitted to the department for approval.

Please review the information contained in the publication *Development at Historic Fill Sites and Licensed Landfills: Considerations and Potential Problems*, PUB-RR-685, to assist you in preventing environmental or safety problems during and after development. We would like to particularly draw your attention to the public safety risk posed by the explosive potential for methane gas that may be present on a property due to the presence of decomposing solid waste.

You are reminded that this approval does not relieve you of obligations to meet all other applicable federal, state and local permits, as well as zoning and regulatory requirements. If you have any questions concerning this letter, please contact Jennifer Borski in Oshkosh at (920) 424-7887 or by email to jennifer.borski@wisconsin.gov.

Sincerely,

Roxanne N. Chronert, Team Supervisor

Northeast Region Remediation & Redevelopment Program

c: J. Borski – DNR, Oshkosh

File copy - A. Coakley, WA/5, Madison and D. Hammel, WA, Green Bay Bruce Roskom, Community Development, 100 N. Appleton St., Appleton, WI 54911-4799

Attachment: Aerial photo and parcel boundary map



April 25, 2012 Conditional Case-by-Case Grant of Exemption Foremost Farms (Former) Redevelopment WDNR FID #: 445031510 WDNR ERP #: 02-45-530084

WDNR VPLE #: 06-45-523605

## BEFORE THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

# CONDITIONAL GRANT OF EXEMPTION FOR DEVELOPMENT ON A PROPERTY WHERE SOLID WASTE HAS BEEN DISPOSED

#### FINDINGS OF FACT

#### The Department finds that:

- 1. The Appleton Redevelopment Authority ("ARA") owns the property located at 935 East John Street, Appleton, Outagamie County, Wisconsin ("the Property").
- 2. Solid waste has been disposed of at the Property and remains at the Property.
- 3. Karen Harkness, Director of Community & Economic Development for the City of Appleton, has submitted a request dated April 9, 2012 for an exemption from the prohibition in NR 506.085, Wis. Adm. Code. The request has been submitted under the seal of a professional engineer or a professional geologist relating to the proposed development and the environmental conditions at the property.
- Based upon the information provided to the Department, the proposed development at the Property is not expected to cause future exceedances of applicable soil and groundwater standards.
- 5. Additional documents considered in review of the exemption request include the following:
  - The boundaries of the Property are shown on the **aerial photo and parcel boundary map**, which is attached and made part of this exemption.
  - Remedial Action Plan, Former Foremost Farms Property, Appleton, Wisconsin, FID No. 445031510, VPLE No. 06-45-523605, dated March 2012 and prepared by Arcadis;
  - Cap Maintenance Plan and Materials Handling Plan, Former Foremost Farms Property, Appleton, Wisconsin, FID No. 445031510, VPLE No. 06-45-523605, dated March 2012 and prepared by Arcadis;
  - Response to Remedial Action Plan and Cap Maintenance Plan and Materials Handling Plan for Foremost Farms (Former), 935 E. John St., Appleton, WI, WDNR BRRTS # 02-45-530084 / 06-45-523605, dated March 28, 2012 and issued to Ms. Karen Harkness, Appleton Redevelopment Authority, 100 N. Appleton St., Appleton, WI 54911.
  - April 24, 2012, 3:27 PM, electronic mail from Brian Maillet (Arcadis) to Jennifer Borski (Department) and copied to Karen Harkness (City of Appleton), Quasan Shaw (City of Appleton), Mark Hurban, Ryan Bombeck, Dennnis Wesselhoft and M. Carlson (Sabre Demolition) and titled FFUSA, Revised Cap thickness that includes the attachment, Figure 6.pdf, an amended soil management plan for the development area (proposed cap thickness reduced from seven feet to five feet of clean fill).

Conditional Case-by-Case Grant of Exemption Foremost Farms (Former) Redevelopment WDNR FID #: 445031510

WDNR ERP #: 02-45-530084 WDNR VPLE #: 06-45-523605

- April 25, 2012, 2:14 PM, electronic mail from Jennifer Borski (Department) to Brian Maillet (Arcadis) and titled RE: FFUSA, Revised Cap thickness that includes a response to the proposal to reduce cap thickness from seven feet to five feet of clean fill.
- 6. Additional facts relevant to the review of the grant of exemption modification request include the following:
  - The application is specific to the Property currently addressed as 935 E. John St., Appleton, Wisconsin and includes parcel numbers 311077200 and 311073500.
- 7. If the conditions set forth below are complied with, the development of the Property will not result in environmental pollution as defined in ss. 289.01(8) and 299.01(4), Wis. Stats.

#### CONCLUSIONS OF LAW

- 1. The Department has the authority under s. NR 500.08(4), Wis. Adm. Code to issue an exemption from the prohibition in s. NR 506.085, Wis. Adm. Code, if the proposed development will not cause environmental pollution as defined in ss. 289.01(8) and 299.01(4), Wis. Stats.
- 2. The Department has authority to approve a grant of exemption with conditions if the conditions are necessary to ensure compliance with the applicable provisions of chapters NR 500 to 538, Wis. Adm. Code, or to assure that environmental pollution will not occur.
- 3. The conditions set forth below are necessary to ensure compliance with the applicable provisions of chapters NR 500 to 538, Wis. Adm. Code, and to assure that environmental pollution will not occur.
- 4. In accordance with the foregoing, the Department has the authority under s. NR 500.08(4), Wis. Adm. Code, to issue the following conditional grant of exemption.

#### CONDITIONAL GRANT OF EXEMPTION

The Department hereby issues an exemption to from the prohibition in s. NR 506.085, Wis. Adm. Code for development on a property which contains solid waste as proposed in the submittal dated April 9, 2012, subject to the following conditions:

- 1. No action related to the development of the Property may be taken which will cause a significant adverse impact on wetlands as provided in ch. NR 103, Wis. Adm. Code.
- 2. No action related to the development of the Property may be taken which will cause a significant adverse impact on critical habitat areas, as defined in s. NR 500.03(55), Wis. Adm. Code.
- 3. No action related to the development of the Property may be taken which will cause a detrimental effect on any surface water, as defined in s. NR 500.03(62), Wis. Adm. Code.

Conditional Case-by-Case Grant of Exemption Foremost Farms (Former) Redevelopment WDNR FID #: 445031510

WDNR ERP #: 02-45-530084 WDNR VPLE #: 06-45-523605

4. No action related to the development of the Property may be taken which will cause a detrimental effect on groundwater, as defined in s. NR 500.03(62), Wis. Adm. Code, or will cause or exacerbate an attainment or exceedance of any preventive action limit or enforcement standard at a point of standards application as defined in ch. NR 140. Wis. Adm. Code.

- 5. No action related to the development of the Property may be taken which will cause a migration and concentration of explosive gases in any structures in excess of 25% of the lower explosive limit for such gases at any time. No actions may be taken which will cause a migration and concentration of explosive gases in the soils outside of the limits of solid waste disposal within 200 feet of the property boundary or beyond the property boundary in excess of the lower explosive limit for such gases at any time. No actions may be taken which will cause a migration and concentration of explosive gases in the air outside of the limits of solid waste disposal within 200 feet of the landfill boundary or beyond the landfill property boundary in excess of the lower explosive limit for such gases at any time.
- 6. No action related to the development of the Property may be taken which will cause an emission of any hazardous air contaminant exceeding the limitations for those substances contained in s. NR 445.03, Wis. Adm. Code.
- 7. No action related to the development of the Property may be taken which will cause an exceedance of a soil clean up standard in ch. NR 720, Wis. Adm. Code.
- 8. This exemption shall transfer with changes in Property ownership. In accordance with s.289.46(2), Stats., any person having or acquiring rights of ownership in land where a solid or hazardous waste disposal facility was previously operated may not undertake any activities on the land which interfere with the closed facility causing a significant threat to public health, safety or welfare. The Department of Natural Resources should be contacted to discuss any proposed changes to avoid activities that could violate the statute.
- 9. This grant of exemption is limited to the proposed changes described in your application. If you are considering additional changes beyond those described in the application, a new application must be submitted to the Department for approval.
- 10. Temporary storage of contaminated soils, concrete, and masonry on or off the Property, relocation and/or disposal of any solid waste on the Property, and beneficial reuse of any soil or waste on the Property must be in compliance with a Low Hazard Grant of Exemption to be issued by the Waste and Materials Management Program.
- 11. Institutional controls and capping required for the Property by the Remediation and Redevelopment Program and Waste and Materials Management Program must be implemented.

The Department reserves the right to require the submittal of additional information and to modify this grant of exemption at any time, if in the Department's opinion, modifications are necessary. Unless specifically noted, the conditions of this grant of exemption do not supersede or replace any previous conditions of approval for the Property.

April 25, 2012
Conditional Case-by-Case Grant of Exemption
Foremost Farms (Former) Redevelopment

WDNR FID #: 445031510 WDNR ERP #: 02-45-530084 WDNR VPLE #: 06-45-523605

#### NOTICE OF APPEAL RIGHTS

Page 5 of 5

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with section NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30 day period for filing a petition for judicial review.

Dated:	April 25,	2012		

DEPARTMENT OF NATURAL RESOURCES For the Secretary

Roxanne N. Chronert, Team Supervisor

Northeast Region Remediation & Redevelopment Program

Jennifer Borski, Hydrogeologist

Northeast Region



# **Figures**

- Figure 1 Location Map
- Figure 2 Historical Orthophotos 1938-2010
- Figure 3 Site Detail Map
- Figure 4 Historic Fill Exemption Distances
- Figure 5 Development Zones
- Figure 6 Contaminated Soil Excavation
- Figure 7 Proposed Overall Fill Locations
- Figure 8 Proposed Cut/Fill Section Views



WDNR BRRTS #: 0245530084

Site Name: FOREMOST FARMS (FORMER)

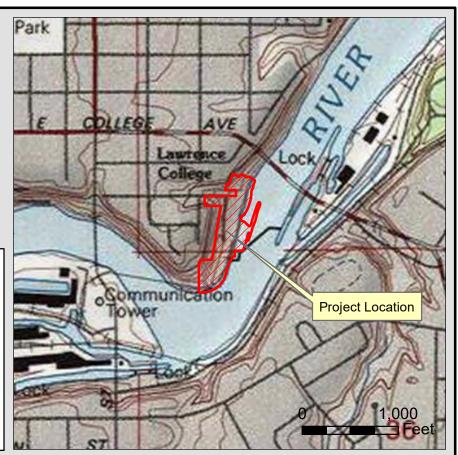
**WDNR Facility ID:** 445031510 **PLSS:** T21 R17E S25 **Parcel No.:** 311077200

 Lat/Long:
 44° 15' 35.092" N
 88° 23' 29.697" W

 Dec. Long/Lat:
 -88.391582
 44.259748

 WTM91 (m):
 648,390
 421,981

 County Coord (ft):
 831,405
 561,488





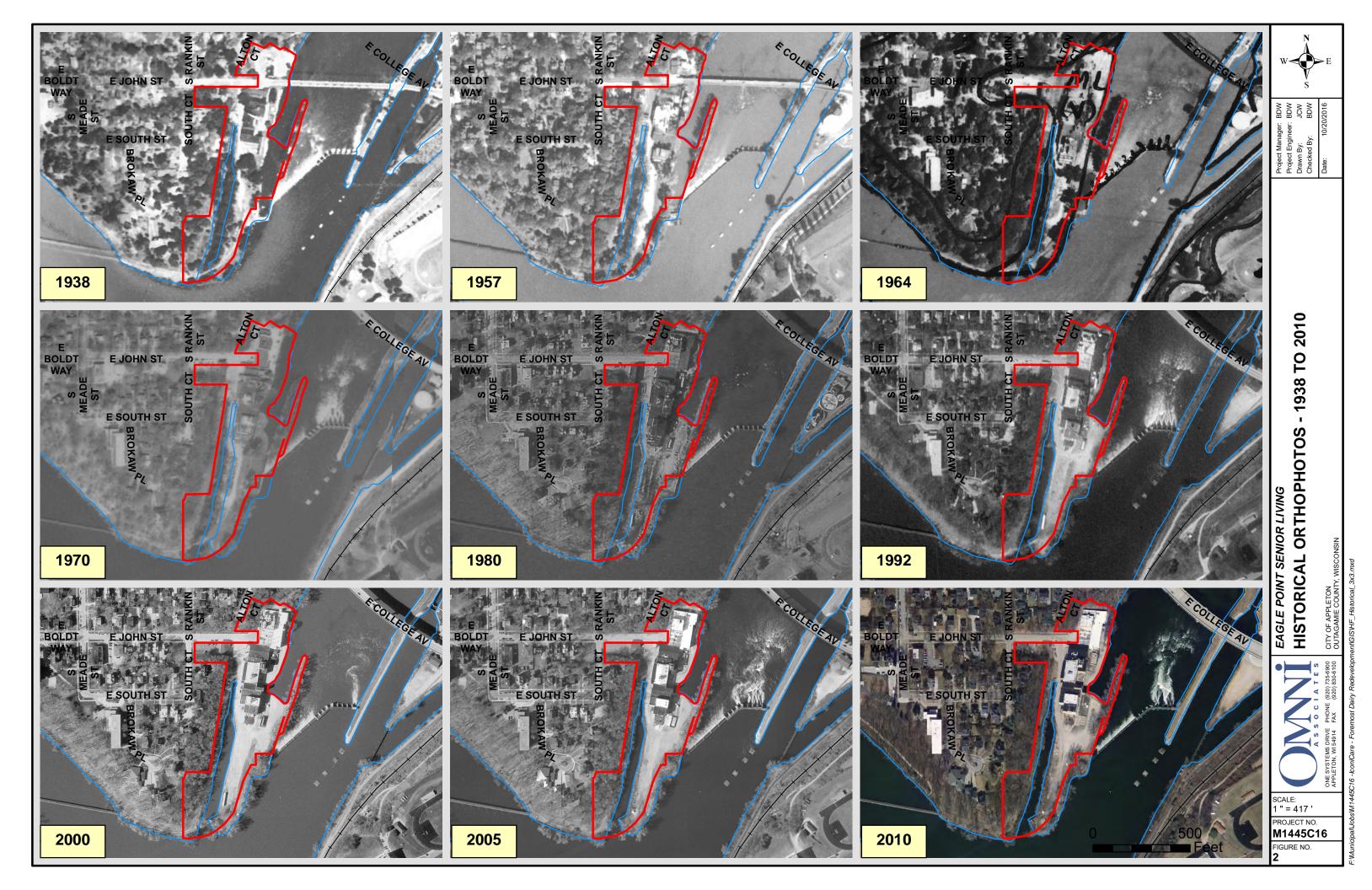


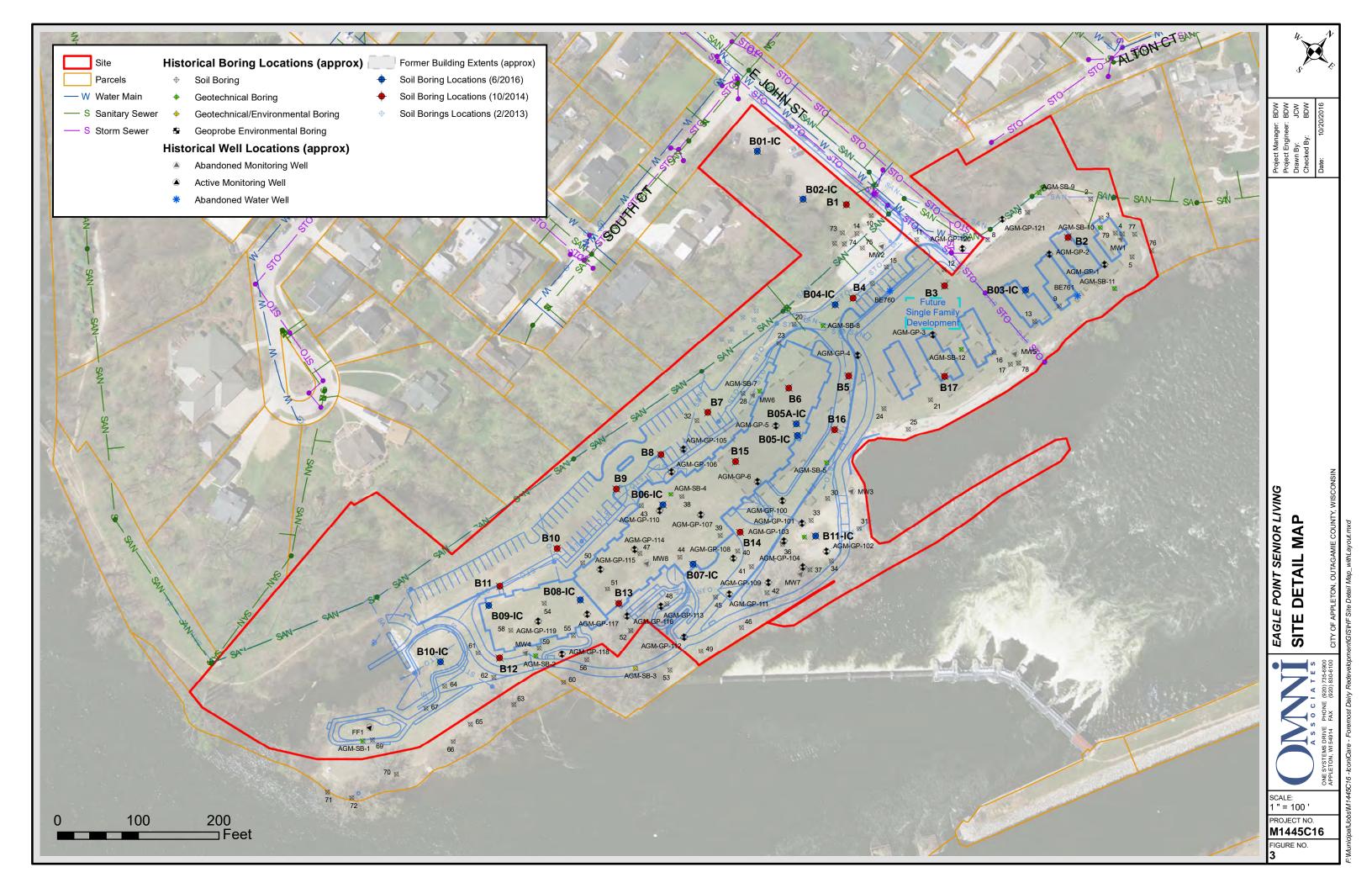


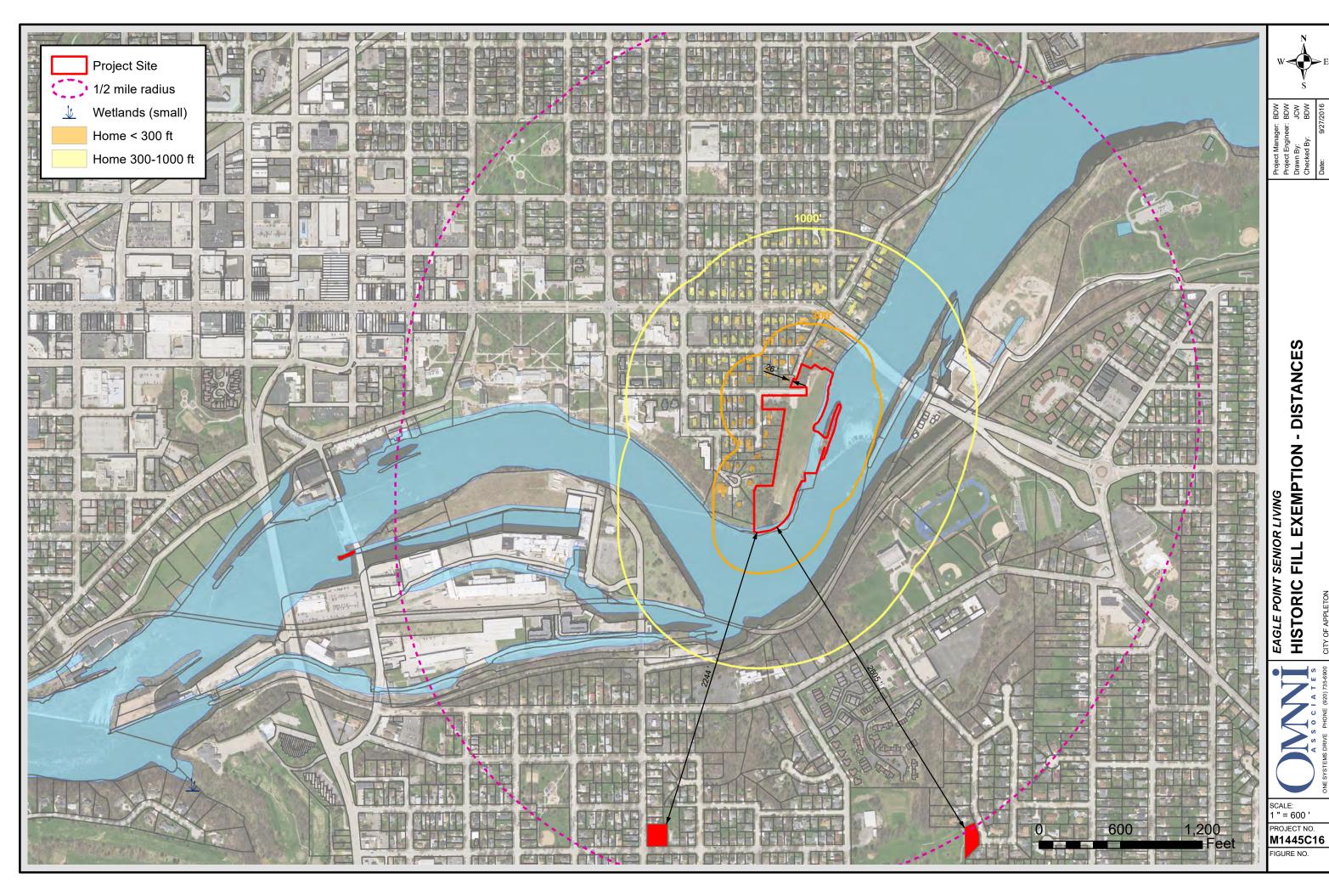
# EAGLE POINT SENIOR LIVING LOCATION MAP

935 E JOHN STREET CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN

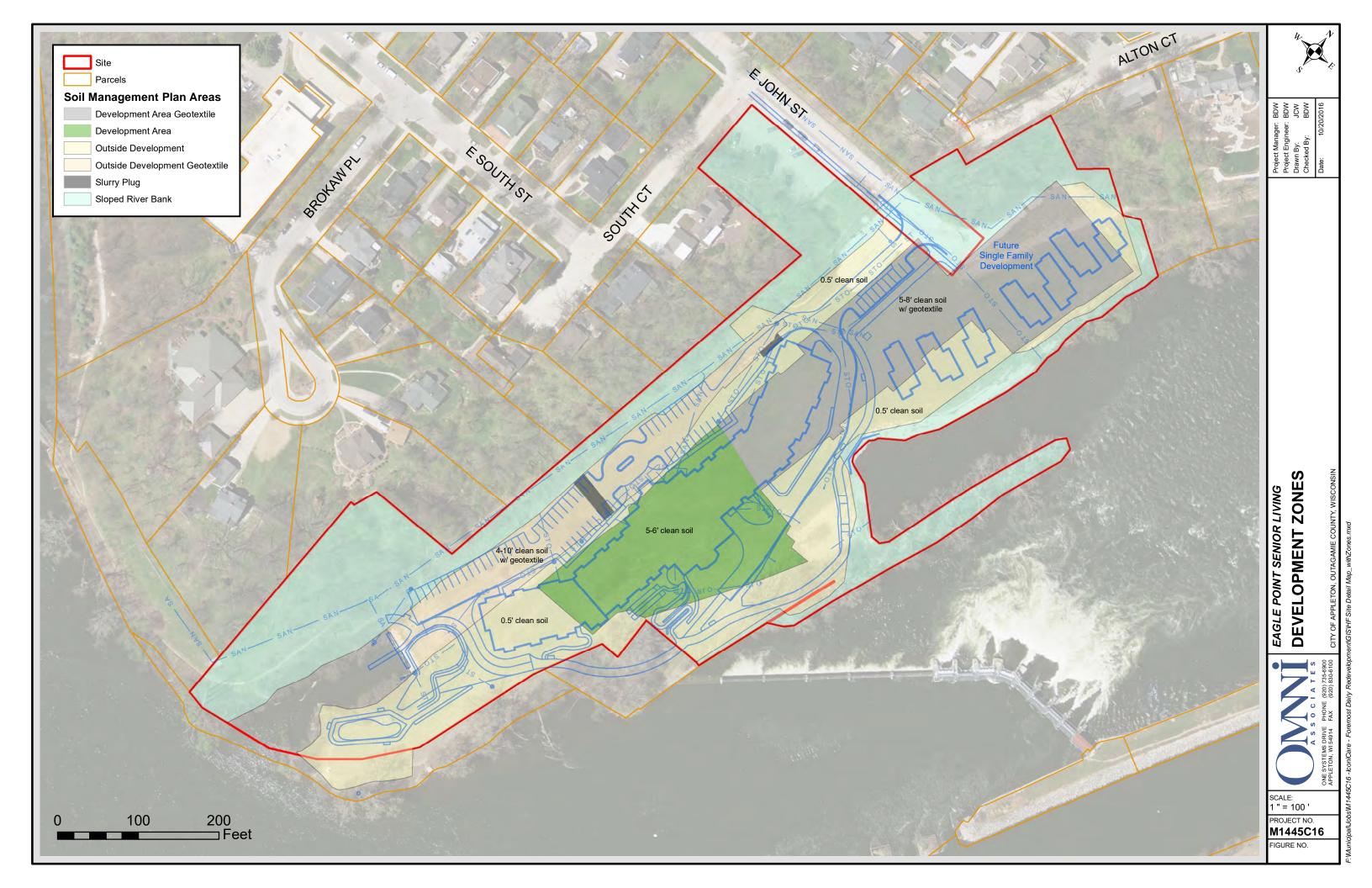
SCALE:			BRRTS NO.
AS SHO	NWN		0245530084
Drawn By:	JC	CW	OMNNI PROJECT NO.
Checked B	y: BI	OW	M1445C16
Date:	10/20/20	16	FIGURE NO.
			1

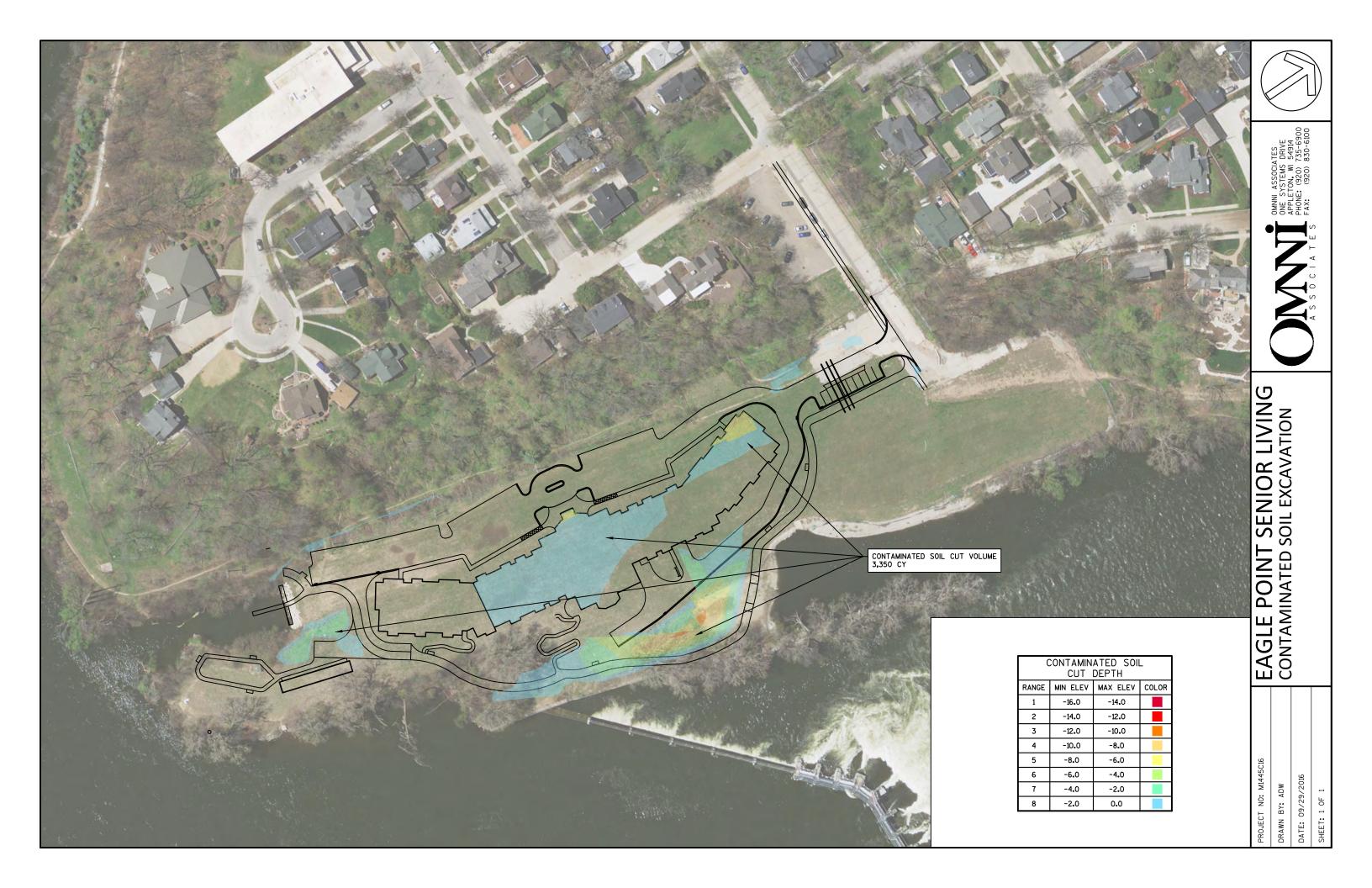


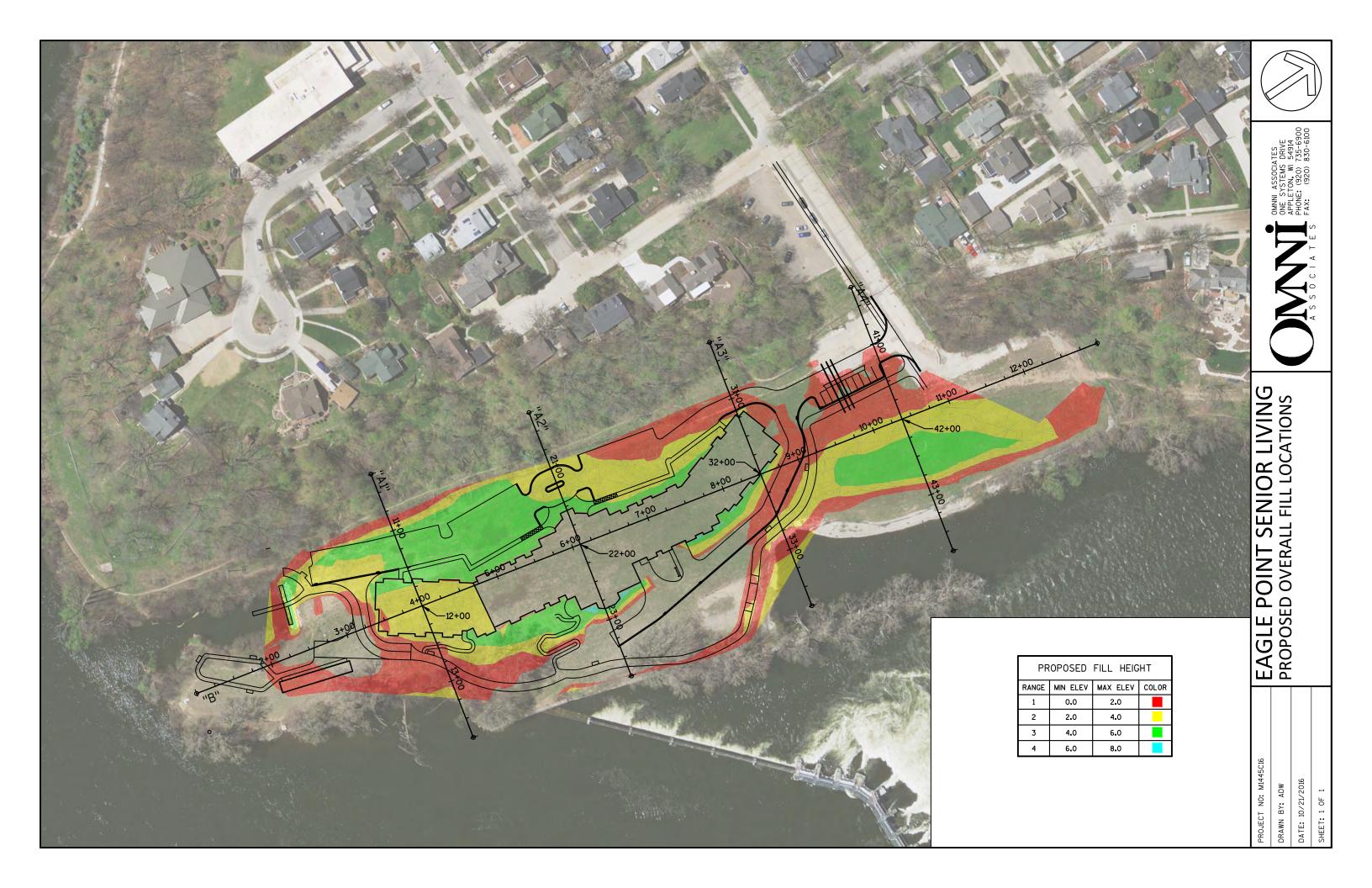




ONE SYSTEMS DRIVE PHONE (920) 735-6900 CITY OF APPLETON
APPLETON, WI 54914 FAX (920) 830-6100 OUTAGAMIE COUNTY, WIS
spallJobsW1445C16 - Foremost Dairy Redevelopment/GISHF Distances.mxd

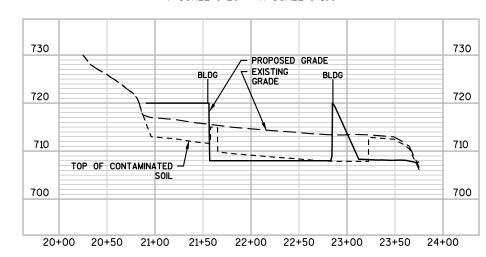




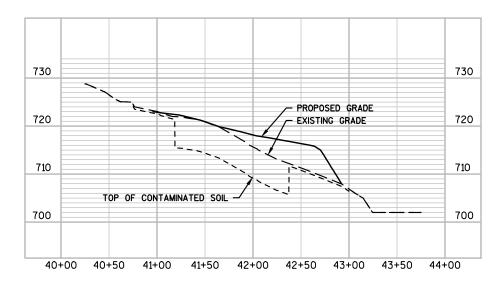


M14450

"A2" STA 20+00 TO STA 24+00 V SCALE: 20 H SCALE: 100



"A4"
STA 40+00 TO STA 44+00
V SCALE: 20 H SCALE: 100



"A3"
STA 30+00 TO STA 34+00
V SCALE: 20 H SCALE: 100

12+00

TOP OF CONTAMINATED SOIL

11+50

11+00

"A1" STA 10+00 TO STA 14+00

V SCALE: 20 H SCALE: 100

PROPOSED GRADE EXISTING GRADE

12+50 13+00 13+50 14+00

730

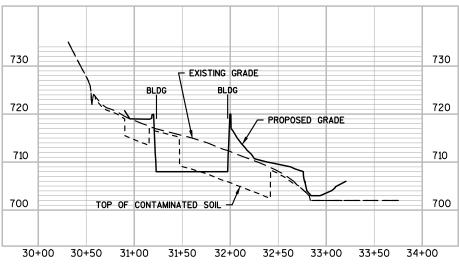
720

710

705

10+00

10+50



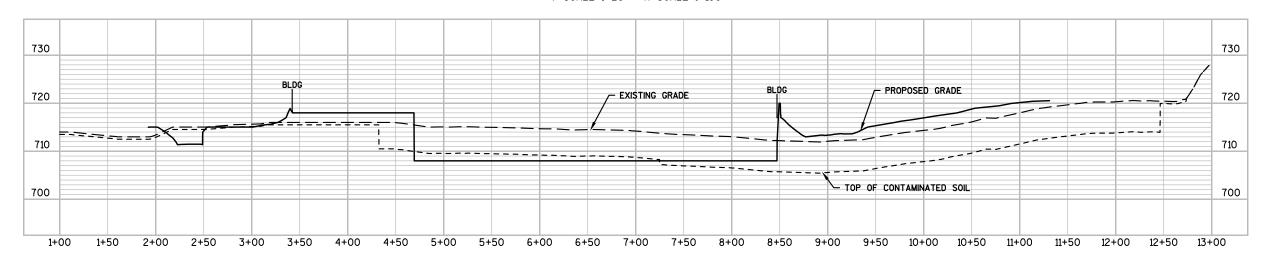
"B"
STA 1+00 TO STA 13+00
V SCALE: 20 H SCALE: 100

730

720

710

705



# **Tables**

ARCADIS Table 3. Summary of Analytical Results for Soil Located Outside of the Development Area,
Former FFUSA Site

Location				AGM-0	3P-100	AGM-	GP-101	AGM-0	GP-102	AGM-0	3P-105
Sample Date	NR 720	NR 720	GW	10/20/11	10/20/11	10/17/11	10/17/11	10/17/11	10/17/11	10/18/11	10/18/11
Depth Range <sup>1</sup>	IND DC	NON-IND DC <sup>2</sup>	Pathway <sup>3</sup>	2 - 4	4 - 6	2 - 4	6 - 8	2 - 4	8 - 10	2 - 4	6 - 8
GRO (mg/kg)			100	NA							
Anions (mg/kg)											
Sulfate				NA							
Metals (mg/kg)											
Arsenic	1.6	0.039		11.2	7	3.9	29.9	3.9	8.7	3.6	2.8
Barium	4,500	344	330	78.4	117	11.8	39.3	74.1	77.4	68.3	54.2
Cadmium	510	8	1.5	0.19	0.25	0.095	0.48	0.14	0.25	0.12	0.068
Chromium	33,700	16,000	200,000	17.7	23	12	11.9	26.4	20.3	25.1	18
Lead	500	50		57.5	35.4	10	29.3	16.4	47.6	8.1	4.5
Mercury	6,880	4,920	0.21	0.083	0.11	0.13	0.78	0.031	0.055	0.025	0.0068
Selenium	11.2	8.6	1	0.77	0.67	<2.1	<2.4	<2.4	<2.2	<2.0	<2.1
Silver	11.2	8.6	1.67	0.16	0.2	<1.1	0.11	0.15	0.15	0.11	0.096
VOCs (µg/kg)											
Benzene		1,100	5.5	NA							
N-Butylbenzene				NA							
Cymene				NA							
1,2-Dichlorobenzene				NA							
Ethylbenzene			2,900	NA							
Isopropylbenzene				NA							
Naphthalene	110,000	20,000	400	NA							
2-Phenylbutane				NA							
N-Propylbenzene				NA							
Tetrachloroethene				NA							
Toluene			1,500	NA							
1,1,1-Trichloroethane				NA							
1,2,4-Trimethylbenzene			83,000	NA							
1,3,5-Trimethylbenzene			11,000	NA							
m,p-Xylene				NA							
o-Xylene				NA							
Xylenes (total)			4,100	NA							
SVOCs (µg/kg)											
Acenaphthene	60,000,000	900,000	38,000	<21.9	<21.7	2.9	12.7	35.4	15.4	13.4	<19.5
Acenaphthylene	360,000	18,000	700	4.8	4.3	4.7	9.6	41.5	34.7	23.5	<19.5

Footnotes on Page 2.

Table 3. Summary of Analytical Results for Soil Located Outside of Development Area, Former FFUSA Site, 935 E. John Street, Appleton, Wisconsin.
--

Table 3. Summary of A	naiyucai Kesu	its for Soil Loca	ieu Outside O	•	•		•				
Location				AGM-C	SP-100	AGM-0	3P-101	AGM-0	3P-102	AGM-G	SP-105
Sample Date	NR 720	NR 720	GW	10/20/11	10/20/11	10/17/11	10/17/11	10/17/11	10/17/11	10/18/11	10/18/11
Depth Range <sup>1</sup>	IND DC	NON-IND DC <sup>2</sup>	Pathway <sup>3</sup>	2 - 4	4 - 6	2 - 4	6 - 8	2 - 4	8 - 10	2 - 4	6 - 8
SVOCs (µg/kg) (continu	ued)										
Anthracene	300,000,000	5,000,000	3,000,000	<21.9	<21.7	8.2	35.9	159	70.2	<19.5	<19.5
Benzo(a)Anthracene	3,900	88	17,000	7.7	15.5	22.8	36.9	291	184	75.4	<19.5
Benzo(a)Pyrene	390	8.8	48,000	9.4	14.1	29.6	30.7	276	236	90.5	<19.5
Benzo(b)fluoranthene	3,900	88	360,000	8.6	11.9	23.8	19.7	211	197	75.8	<19.5
Benzo(g,h,i)Perylene	39,000	1,800	6,800,000	27.9	12.3	34.9	21.8	195	255	79.4	<19.5
Benzo(k)Fluoranthene	39,000	880	870,000	8.5	11.5	20.8	22.1	217	164	70.1	<19.5
Benzoic Acid				NA							
Carbazole				NA							
Chrysene	390,000	8,800	37,000	9	20.8	27.6	45.7	311	230	94.4	<19.5
Dibenzo(a,h)Anthracene	390	8.8	38,000	9.8	8.7	12.3	11.7	67.4	74	21.2	<19.5
Dibenzofuran				NA							
Di-N-Butyl Phthalate				NA							
Fluoranthene	40,000,000	600,000	500,000	12.6	24.2	43.9	65.6	612	307	172	<19.5
Fluorene	40,000,000	600,000	100,000	<21.9	<21.7	<18.0	12.7	63.3	17.7	5.7	<19.5
Indeno(1,2,3-cd)Pyrene	3,900	88	680,000	20.3	14	27.2	18	165	188	59.8	<19.5
1-Methylnaphthalene	70,000,000	1,100,000	23,000	8	14.4	10.8	169	203	24.8	29.6	<19.5
2-Methylnaphthalene	40,000,000	600,000	20,000	10.5	20.3	13.2	210	261	36.9	37.1	<19.5
Naphthalene	110,000	20,000	400	10.9	19.5	10.4	142	214	56.5	34.8	<19.5
Phenanthrene	390,000	18,000	18,00	11.5	17.1	41.3	187	829	186	110	<19.5
Pyrene	30,000,000	500,000	8,700,000	16.2	29.1	51.2	91.4	718	372	174	<19.5

1 Based on existing grade, final grade will be 6-inches below a clean soil vegetative cap.

2 WDNR NR 720 Generic Non-Industrial Direct Contact RCLs or NR 746 Direct Contact RCLs.

3 WDNR NR 720 RCLs for protection of groundwater or NR 746 residual product (whichever is lesser).

Generic regulatory criteria not established.

Underline Value exceeds NR 720 residual contaminant levels (RCLs) for protection of groundwater.

**Bold** Value exceeds the generic NR 720 industrial direct contact RCLs.

Box Value exceeds the generic NR 720 non-industrial direct contact RCLs.

DRO Diesel Range Organics. μg/kg Micrograms per kilogram. mg/kg Milligrams per kilogram.

NA Not analyzed.

NR 720 IND DC WDNR NR 720 Generic Industrial Direct Contact RCLs.

NR 720 NON-IND DC WDNR NR 720 Generic Non-Industrial Direct Contact RCLs.

Location	AGM-0			GP-118	AGM-	GP-119		AGM-121		GP-2	GP-3
Sample Date	10/20/11	10/20/11	10/18/11	10/18/11	10/18/11	10/18/11	10/17/11	10/17/11	10/17/11	04/26/04	04/26/04
Depth Range <sup>1</sup>	0 - 2	4 - 6	2 - 4'	6 - 8'	2 - 4'	8 - 10'	0 - 2'	2 - 4'	6 - 8'	2 - 4	0 - 2
GRO (mg/kg)	NA										
Anions (mg/kg)											
Sulfate	NA	29	320								
Metals (mg/kg)											
Arsenic	5.6	6	4.0	2.4	2.4	2.5	3.5	3.6	2.9	1.8	2.4
Barium	69	81.7	67.5	67.0	43.0	35.0	67.7	64.1	61.0	8.6	63
Cadmium	0.23	0.36	0.38	0.092	0.10	0.075	0.098	0.098	0.096	0.47	1.1
Chromium	18.6	10.5	19.9	21.0	17.7	16.9	24.1	26.0	22.4	4.5	25
Lead	45.7	98.9	17.7	9.9	5.6	4.2	5.2	5.2	4.9	2.7	3.5
Mercury	0.16	0.32	0.074	0.095	0.047	0.018	0.0075	0.0099	0.0073	<0.0200	< 0.0200
Selenium	0.5	0.55	0.52	<2.3	<2.2	<2.2	<2.3	<2.2	<2.3	13	<u>10</u>
Silver	0.17	0.16	<1.1	<1.2	<1.1	<1.1	0.14	0.12	0.10	0.34	0.36
VOCs (μg/kg)											
Benzene	NA	<4.80	<4.80								
N-Butylbenzene	NA	<5.80	<5.80								
Cymene	NA	<8	<8								
1,2-Dichlorobenzene	NA	<8.80	<8.80								
Ethylbenzene	NA	<3.60	<3.60								
Isopropylbenzene	NA	<6.70	<6.70								
Naphthalene	NA	<17	<17								
2-Phenylbutane	NA	<5.10	<5.10								
N-Propylbenzene	NA	<8.10	<8.10								
Tetrachloroethene	NA	<8.70	<8.70								
Toluene	NA	<4.30	<4.30								
1,1,1-Trichloroethane	NA	<12	<12								
1,2,4-Trimethylbenzene	NA	<9.80	<9.80								
1,3,5-Trimethylbenzene	NA	<3.80	<3.80								
m,p-Xylene	NA	<10	<10								
o-Xylene	NA	<6.10	<6.10								
Xylenes (total)	NA	<16.10	<16.10								
SVOCs (µg/kg)											
Acenaphthene	44.2	1,360	4.3	3.4	<18.8	<19.5	<19.5	<19.7	<20.1	<28	<28
Acenaphthylene	64.9	319	4.3	3.8	<18.8	<19.5	<19.5	<19.7	<20.1	<32	<32

Footnotes on Page 4.

Location	AGM-G			3P-118		P-119	I I OOA OIL	AGM-121		GP-2	GP-3
Sample Date	10/20/11	10/20/11	10/18/11	10/18/11	10/18/11	10/18/11	10/17/11	10/17/11	10/17/11	04/26/04	04/26/04
Depth Range <sup>1</sup>	0 - 2	4 - 6	2 - 4'	6 - 8'	2 - 4'	8 - 10'	0 - 2'	2 - 4'	6 - 8'	2 - 4	0 - 2
SVOCs (µg/kg) (continue	d)										
Anthracene	193	3,350	10.1	26.3	<18.8	<19.5	<19.5	<19.7	<20.1	<46	<46
Benzo(a)Anthracene	491	4,050	15.3	38.0	3.4	<19.5	<19.5	<19.7	<20.1	<33	<33
Benzo(a)Pyrene	518	3,920	13.5	29.4	3.3	<19.5	<19.5	<19.7	<20.1	<43	<43
Benzo(b)fluoranthene	378	3,240	12.5	18.6	<18.8	<19.5	<19.5	<19.7	<20.1	<42	<42
Benzo(g,h,i)Perylene	354	2,870	11.0	16.7	<18.8	<19.5	<19.5	<19.7	<20.1	<32	<32
Benzo(k)Fluoranthene	394	3,010	10.7	24.2	<18.8	<19.5	<19.5	<19.7	<20.1	<45	<45
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	110	120
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	<57	<57
Chrysene	528	4,380	22.0	36.2	<18.8	<19.5	<19.5	<19.7	<20.1	<46	<46
Dibenzo(a,h)Anthracene	129	1,030	<21.4	10.9	<18.8	<19.5	<19.5	<19.7	<20.1	<47	<47
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	<39	<39
Di-N-Butyl Phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	31	110
Fluoranthene	1,090	11,000	34.4	75.2	<18.8	<19.5	<19.5	<19.7	<20.1	<30	<30
Fluorene	67.1	1,650	<21.4	7.5	<18.8	<19.5	<19.5	<19.7	<20.1	<32	<32
Indeno(1,2,3-cd)Pyrene	321	2,530	8.5	20.4	<18.8	<19.5	4.5	<19.7	4.4	<56	<56
1-Methylnaphthalene	25.8	621	63.0	14.9	<18.8	<19.5	<19.5	<19.7	<20.1	<47	<47
2-Methylnaphthalene	27.9	778	84.0	22.0	<18.8	<19.5	<19.5	<19.7	4.3	<22	<22
Naphthalene	33.7	<u>1,240</u>	59.0	11.8	<18.8	<19.5	<19.5	<19.7	5.2	<39	<39
Phenanthrene	739	<u>15,200</u>	76.4	59.0	<18.8	<19.5	<19.5	<19.7	<20.1	<36	<36
Pyrene	1,020	11,800	36.6	113	4.5	<19.5	<19.5	<19.7	<20.1	<39	<39

1 Based on existing grade, final grade will be 6-inches below a clean soil vegetative cap.

2 WDNR NR 720 Generic Non-Industrial Direct Contact RCLs or NR 746 Direct Contact RCLs.

3 WDNR NR 720 RCLs for protection of groundwater or NR 746 residual product (whichever is lesser).

Generic regulatory criteria not established.

Underline Value exceeds NR 720 residual contaminant levels (RCLs) for protection of groundwater.

**Bold** Value exceeds the generic NR 720 industrial direct contact RCLs.

Box Value exceeds the generic NR 720 non-industrial direct contact RCLs.

DRO Diesel Range Organics.

µg/kg Micrograms per kilogram.

mg/kg Milligrams per kilogram.

NA Not analyzed.

NR 720 IND DC WDNR NR 720 Generic Industrial Direct Contact RCLs.

NR 720 NON-IND DC WDNR NR 720 Generic Non-Industrial Direct Contact RCLs.

Location	GP-4	GP-5	GP-8	GP-10	GP-12		-14	GP-15		P-16	GP-17	GP-18	GP-19	GP-20
Sample Date	04/26/04	04/26/04	04/27/04	04/27/04	04/27/04	04/27/04	04/27/04	04/27/04	04/2	26/04	04/26/04	04/27/04	04/27/04	04/27/04
Depth Range <sup>1</sup>	12 - 14	2 - 4	2 - 4	4 - 6	8 - 10'	8 - 10	12 - 14	0 - 2	2 - 4	12 - 14	4 - 6	10 - 12	0 - 2	2 - 4
GRO (mg/kg)	NA	NA	NA	NA	NA	16	<2.90	NA	NA	NA	NA	NA	NA	NA
Anions (mg/kg)														
Sulfate	300	130	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)														
Arsenic	5.6	5	2.1	1.3	3.3	1.5	NA	3.3	2.2	2.1	2.1	1.4	1.9	1.7
Barium	340	32	55	52	50	57	NA	42	11	19	39	65	52	8
Cadmium	3.6	<u>1.8</u>	1.1	1	0.43	1.2	NA	0.98	0.39	0.46	0.97	0.58	0.66	< 0.25
Chromium	10	9.8	17	18	16	21	NA	3.8	3.7	4.2	110	24	6.3	3.4
Lead	490	22	17	3.7	7.1	3.6	NA	21	4	12	67	4.5	28	6.7
Mercury	0.078	0.031	<0.0200	<0.0200	0.022	<0.0200	NA	<0.0200	0.03	0.23	3.7	<0.0200	0.077	<0.0200
Selenium	34	18	<u>7.8</u>	<u>8.2</u>	<u>7.8</u>	11	NA	10	14	5.6	11	12	3.9	13
Silver	0.46	0.27	< 0.25	< 0.25	< 0.25	<0.25	NA	<0.25	0.34	< 0.25	0.25	<0.25	< 0.25	<0.25
VOCs (µg/kg)														
Benzene	<48	<3.60	<4.80	<4.80	<4.80	<4.80	NA	<3.60	<4.80	<4.80	<4.80	<4.80	<3.60	<3.60
N-Butylbenzene	<58	<9.80	<5.80	<5.80	<5.80	134	NA	<9.80	<5.80	<5.80	<5.80	<5.80	<9.80	<9.80
Cymene	<80	<6.70	<8	<8	<8	58	NA	<6.70	<8	<8	<8	<8	<6.70	<6.70
1,2-Dichlorobenzene	<88	<5.80	<5.80	<8.80	<8.80	38	NA	<5.80	<8.80	<8.80	<8.80	<8.80	<5.80	<5.80
Ethylbenzene	<36	<17	<3.60	<3.60	<3.60	48	NA	<17	<3.60	<3.60	<3.60	<3.60	34	<17
Isopropylbenzene	<67	<5.10	<6.70	<6.70	<6.70	172	NA	<5.10	<6.70	<6.70	<6.70	<6.70	<5.10	<5.10
Naphthalene	23,500	<4.30	36	<17	<17	388	NA	<4.30	<17	63	<17	<17	<4.30	<4.30
2-Phenylbutane	<51	<8	<5.10	<5.10	<5.10	62	NA	<8	<5.10	<5.10	<5.10	<5.10	<8	<8
N-Propylbenzene	<81	<3.80	<8.10	<8.10	<8.10	337	NA	<3.80	<8.10	<8.10	<8.10	<8.10	<3.80	<3.80
Tetrachloroethene	<87	<6.10	<6.10	<8.70	<8.70	<8.70	NA	<6.10	<8.70	<8.70	<8.70	<8.70	<6.10	<6.10
Toluene	<43	<16.10	<4.30	<4.30	<4.30	<4.30	NA	<16.10	<4.30	25	<4.30	<4.30	<16.10	<16.10
1,1,1-Trichloroethane	<120	<12	<12	<12	<12	<12	NA	<12	<12	<12	<12	<12	<12	<12
1,2,4-Trimethylbenzene	<98	<4.80	<9.80	<9.80	<9.80	809	NA	<4.80	<9.80	<9.80	<9.80	<9.80	<4.80	<4.80
1,3,5-Trimethylbenzene		<6.20	<3.80	<3.80	<3.80	303	NA	<6.20	<3.80	<3.80	<3.80	<3.80	<6.20	<6.20
m,p-Xylene	<100	<8.10	<10	<10	<10	110	NA	<8.10	<10	<10	<10	<10	<8.10	<8.10
o-Xylene	<61	<10	<6.10	<6.10	<6.10	<6.10	NA	<10	<6.10	<6.10	<6.10	<6.10	<10	<10
Xylenes (total)	<161	<18.10	<16.10	<16.10	<16.10	<116.10	NA	<18.10	<16.10	<16.10	<16.10	<16.10	<18.10	<18.10
SVOCs (µg/kg)														
Acenaphthene	6,500	33	<28	<28	<28	<28	NA	<112	<28	1,200	29	<28	<32	<32
Acenaphthylene	19,000	95	89	<32	<32	<32	NA	<128	<32	390	73	<32	<46	<46

Footnotes on Page 6.

Table 3. Summary of Analytical Results for Soil Located Outside of Development Area, Former FFUSA Site, 935 E. John Street, Appleton, Wisconsin.
--

Location	GP-4	GP-5	GP-8	GP-10	GP-12	GP		GP-15	GP-		GP-17	GP-18	GP-19	GP-20
Sample Date	04/26/04	04/26/04	04/27/04	04/27/04	04/27/04	04/27/04	04/27/04	04/27/04	04/26	6/04	04/26/04	04/27/04	04/27/04	04/27/04
Depth Range <sup>1</sup>	12 - 14	2 - 4	2 - 4	4 - 6	8 - 10'	8 - 10	12 - 14	0 - 2	2 - 4 1	12 - 14	4 - 6	10 - 12	0 - 2	2 - 4
SVOCs (µg/kg) (conti	nued)		_											
Anthracene	54,000	180	100	<46	<46	<46	NA	<184	<46	1,500	146	<46	<46	<46
Benzo(a)Anthracene	110,000	190	380	<33	<33	<33	NA	150	<33	2,500	570	<33	<33	<33
Benzo(a)Pyrene	110,000	270	490	<43	<43	<43	NA	210	<43	2,000	680	<43	<43	<43
Benzo(b)fluoranthene	150,000	80	700	<42	<42	<42	NA	<168	<42	2,400	890	<42	<42	<42
Benzo(g,h,i)Perylene	44,000	110	150	<32	<32	<32	NA	210	<32	900	190	<32	<32	<32
Benzo(k)Fluoranthene	50,000	130	320	<45	<45	<45	NA	<180	<45	750	470	<45	<45	<45
Benzoic Acid	<8000	120	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	65,000	180	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	<u>110,000</u>	<47	440	<46	<46	<46	NA	230	<46	2,400 _	610	<46	<46	<46
Dibenzo(a,h)Anthracer	15,000	39	51	<47	<47	<47	NA	<188	<47	<470	60	<47	<47	<47
Dibenzofuran	19,000	33	47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-N-Butyl Phthalate	<4200	530	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	280,000	37	1000	<30	<30	<30	NA	<120	<30	4,700	1,050	<30	<30	<30
Fluorene	24,000	79	45	<32	<32	<32	NA	<128	<32	850	46	<32	<32	<32
Indeno(1,2,3-cd)Pyren	46,000	<47	150	<56	<56	<56	NA	<224	<56	790	180	<56	<56	<56
1-Methylnaphthalene	<9400	32	50	<47	<47	<47	NA	<188	<47	650	<47	<47	<47	<47
2-Methylnaphthalene	8,500	<39	78	<22	<22	<22	NA	<88>	<22	550	<22	<22	<22	<22
Naphthalene	<u>21,000</u>	510	77	<39	<39	68	NA	<156	<39	<390	<39	<39	<39	<39
Phenanthrene	<u>270,000</u>	440	830	<36	<36	<36	NA	<144	<36	<u>4,600</u>	540	<36	<36	<36
Pyrene	230,000	440	930	<39	<39	<39	NA	1300	<39	480	1,100	<39	<39	<39

1 Based on existing grade, final grade will be 6-inches below a clean soil vegetative cap.

2 WDNR NR 720 Generic Non-Industrial Direct Contact RCLs or NR 746 Direct Contact RCLs.

3 WDNR NR 720 RCLs for protection of groundwater or NR 746 residual product (whichever is lesser).

Generic regulatory criteria not established.

Underline Value exceeds NR 720 residual contaminant levels (RCLs) for protection of groundwater.

**Bold** Value exceeds the generic NR 720 industrial direct contact RCLs.

Box Value exceeds the generic NR 720 non-industrial direct contact RCLs.

DRO Diesel Range Organics. μg/kg Micrograms per kilogram. mg/kg Milligrams per kilogram.

NA Not analyzed.

NR 720 IND DC WDNR NR 720 Generic Industrial Direct Contact RCLs.
NR 720 NON-IND DC WDNR NR 720 Generic Non-Industrial Direct Contact RCLs.

Location	GP-23	GP-24	GP-25	GP-28	GP-30	GP-31	GP-32	GP-33	GP-34	GP-42	GP-46	GP-49
Sample Date	04/27/04	04/26/04	04/26/04	04/27/04	04/29/04	04/29/04	04/27/04	04/29/04	04/29/04	04/29/04	04/28/04	04/28/04
Depth Range <sup>1</sup>	6 - 8	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	4 - 6	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4
GRO (mg/kg)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anions (mg/kg)												
Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)												
Arsenic	2.6	3.6	3.8	2.9	8.5	6.9	2.8	<0.5	2.9	2.2	3.8	11
Barium	42	260	18	37	200	16	56	61	38	39	7.2	54
Cadmium	0.34	0.92	0.34	0.26	1.3	0.42	0.46	1	0.44	0.46	< 0.25	0.54
Chromium	15	5	7.5	3.7	3.6	10	19	10	13	14	3.8	9.9
Lead	3.5	65	110	25	43	18	4	21	13	6.6	7.8	69
Mercury	<0.0200	0.44	0.11	0.075	0.11	<0.0200	<0.0200	0.027	0.041	0.031	0.021	0.035
Selenium	<u>6.5</u>	14	14	15	19	22	8.9	17	11	<u>8.5</u>	16	10
Silver	< 0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	< 0.25	<0.25	<0.25
VOCs (μg/kg)												
Benzene	<3.60	<4.80	<48	<3.60	380	<4.80	<6.70	<4.80	<4.80	<u>47</u>	<4.80	<4.80
N-Butylbenzene	<9.80	<5.80	<58	95	29	<5.80	<8.80	<5.80	<5.80	< <u>5.8</u> 0	351	<5.80
Cymene	<6.70	<8	<80	<6.70	<8	<8	<10	<8	<8	<8	46	<8
1,2-Dichlorobenzene	<5.80	<8.80	<88	49	<8.80	<8.80	<8.10	<8.80	<8.80	<8.80	<8.80	<8.80
Ethylbenzene	<17	<3.60	<36	903	130	<3.60	<5.80	<3.60	<3.60	94	<3.60	<3.60
Isopropylbenzene	<5.10	<6.70	<67	< <u>5.1</u> 0	37	<6.70	<4.80	<6.70	<6.70	51	<6.70	<6.70
Naphthalene	<4.30	56	<170	33	245	<17	<4.80	46	<17	165	137	<17
2-Phenylbutane	<8	<5.10	<51	<8	<5.10	<5.10	<3.60	<5.10	<5.10	<5.10	133	<5.10
N-Propylbenzene	<3.80	<8.10	<81	48	52	<8.10	<5.10	<8.10	<8.10	58	<8.10	<8.10
Tetrachloroethene	<6.10	<8.70	<87	48	102	<8.70	<8.70	<8.70	<8.70	<8.70	<8.70	<8.70
Toluene	<16.10	54	<43	99	1,360	<4.30	<25.70	170	<4.30	257	<4.30	<4.30
1,1,1-Trichloroethane	<12	<12	<120	<12	84	<12	<12	<12	<12	<12	<12	<12
1,2,4-Trimethylbenzene	<4.80	26	<98	<4.80	247	<9.80	<6.20	65	<9.80	140	49	<9.80
1,3,5-Trimethylbenzene	<6.20	<3.80	<38	<6.20	48	<3.80	<8	<3.80	<3.80	28	295	<3.80
m,p-Xylene	<8.10	58	<100	<8.10	751	<10	<6.10	71	<10	251	<10	<10
o-Xylene	<10	43	<61	51	399	<6.10	<17	60	<6.10	217	<6.10	<6.10
Xylenes (total)	<18.10	<101	<161	<59.10	1,150	<16.10	<23.10	131	<16.10	468	<16.10	<16.10
SVOCs (µg/kg)												
Acenaphthene	<32	<28	260	<32	<28	<28	<320	<28	<28	<28	<560	<28
Acenaphthylene	<46	76	93	<46	<32	<32	1,700	<32	<32	<32	<640	35

Footnotes on Page 8.

Table 3, Summary of Analytical Results for Soil Located Outside of Development Area, Former FFUSA Site, 935 E. John Street, Appleton, Wisconsin,

Location	GP-23	GP-24	GP-25	GP-28	GP-30	GP-31	GP-32	GP-33	GP-34	GP-42	GP-46	GP-49
Sample Date	04/27/04	04/26/04	04/26/04	04/27/04	04/29/04	04/29/04	04/27/04	04/29/04	04/29/04	04/29/04	04/28/04	04/28/04
Depth Range <sup>1</sup>	6 - 8	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	4 - 6	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4
SVOCs (µg/kg) (continue	SVOCs (µg/kg) (continued)										_	
Anthracene	<46	<46	290	<46	77	<46	<46	<46	<46	80	<920	62
Benzo(a)Anthracene	<33	490	270	<33	120	<33	2,200	<33	49	220	720	200
Benzo(a)Pyrene	<43	640	<43	<43	100	<43	2,100	<43	65	200	1,200	230
Benzo(b)fluoranthene	<42	1,500	200	<42	170	<42	1,900	<42	95	310	<840	300
Benzo(g,h,i)Perylene	<32	230	<32	<32	<32	<32	920	<32	<32	76	<640	130
Benzo(k)Fluoranthene	<45	570	64	<45	47	<45	<450	<45	<45	120	<900	80
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	<40	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	<57	NA	NA	NA	NA
Chrysene	<46	620	280	<46	140	<46	3,200	<46	55	220	1,400	220
Dibenzo(a,h)Anthracene	<47	110	<47	<47	<47	<47	<470	<47	<47	<47	<940	<47
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	45	NA	NA	NA	NA
Di-N-Butyl Phthalate	NA	NA	NA	NA	NA	NA	NA	53	NA	NA	NA	NA
Fluoranthene	<30	170	510	<30	260	<30	2,200	44	92	370	<600	410
Fluorene	<32	<32	220	<32	<32	<32	1,200	<32	<32	<32	<640	<32
Indeno(1,2,3-cd)Pyrene	<56	250	62	<56	<56	<56	<560	<56	<56	56	<1,120	110
1-Methylnaphthalene	<47	170	410	<47	150	<47	<390	<47	<47	140	<940	<47
2-Methylnaphthalene	<22	210	430	<22	210	<22	1,900	76	<22	180	<440	<22
Naphthalene	<39	130	140	<39	130	<39	470	70	<39	100	<780	<39
Phenanthrene	<36	250	570	<36	310	<36	<u>11,000</u>	110	<36	310	<720	240
Pyrene	<39	230	87	<39	230	<39	17,000	<39	91	350	<780	380

1 Based on existing grade, final grade will be 6-inches below a clean soil vegetative cap.

2 WDNR NR 720 Generic Non-Industrial Direct Contact RCLs or NR 746 Direct Contact RCLs.

3 WDNR NR 720 RCLs for protection of groundwater or NR 746 residual product (whichever is lesser).

Generic regulatory criteria not established.

Underline Value exceeds NR 720 residual contaminant levels (RCLs) for protection of groundwater.

**Bold** Value exceeds the generic NR 720 industrial direct contact RCLs.

Box Value exceeds the generic NR 720 non-industrial direct contact RCLs.

DRO Diesel Range Organics. μg/kg Micrograms per kilogram. mg/kg Milligrams per kilogram.

NA Not analyzed.

NR 720 IND DC WDNR NR 720 Generic Industrial Direct Contact RCLs. NR 720 NON-IND DC WDNR NR 720 Generic Non-Industrial Direct Contact RCLs.

Table 3. Summary of Analytical Results for Soil Located Outside of Development Area, Former FFUSA Site, 935 E. John Street, Appleton, Wisconsin, Location **GP-52 GP-54 GP-55 GP-58 GP-59 GP-61 GP-62 GP-64 GP-67 GP-69 Sample Date** 04/28/04 04/28/04 04/28/04 04/28/04 04/28/04 04/28/04 04/28/04 04/27/04 04/27/04 04/27/04 Depth Range<sup>1</sup> 4 - 6' 2 - 4' 0 - 2' 2 - 4' 8 - 10' 2 - 4 2 - 4 10 - 12 8 - 10 0 - 2 4 - 6 GRO (mg/kg) NA Anions (mg/kg) NA Sulfate NA Metals (mg/kg) Arsenic <0.5 < 0.5 < 0.5 6.3 2.2 3.6 1.7 4 38 1.9 2 90 26 19 140 18 48 34 20 30 28 26 Barium Cadmium 1.2 0.26 < 0.25 0.68 < 0.25 0.41 1.1 0.3 0.53 0.78 0.74 8.2 6.8 12 8.2 10 8.4 Chromium 11 12 9.5 11 7.5 Lead 73 2.5 9.3 240 3.4 34 58 2.6 2.6 3.6 3.4 Mercurv 0.25 < 0.0200 < 0.0200 0.42 < 0.0200 0.079 0.44 <0.0200 < 0.0200 0.05 < 0.0200 Selenium 18 5.0 14 9.9 10 14 27 6.4 <u>4.2</u> 13 13 <0.25 Silver <0.25 <0.25 <0.25 <0.25 <0.25 <0.25 < 0.25 < 0.25 0.28 0.3 VOCs (ua/ka) <4.80 <4.80 <4.80 <4.80 <4.80 <4.80 Benzene <4.80 <4.80 <4.80 <4.80 <4.80 N-Butylbenzene <5.80 <5.80 <5.80 <5.80 <5.80 <5.80 < 5.80 <5.80 <5.80 <5.80 <5.80 93 16,300 14,000 <8 <8 <8 Cymene <8 112 25 <8 <8 1,2-Dichlorobenzene <8.80 <8.80 <8.80 <8.80 <8.80 <8.80 <8.80 <8.80 <8.80 <8.80 <8.80 Ethylbenzene 29 29 < 3.60 < 3.60 < 3.60 < 3.60 < 3.60 < 3.60 < 3.60 < 3.60 < 3.60 Isopropylbenzene <6.70 <6.70 <6.70 <6.70 <6.70 <6.70 <6.70 <6.70 <6.70 <6.70 <6.70 Naphthalene <17 <17 90 <17 116 <17 <17 <17 <17 <17 <17 2-Phenylbutane <5.10 <5.10 <5.10 <5.10 <5.10 <5.10 <5.10 <5.10 <5.10 <5.10 <5.10 N-Propylbenzene <8.10 <8.10 <8.10 <8.10 <8.10 <8.10 <8.10 <8.10 <8.10 <8.10 <8.10 Tetrachloroethene <8.70 <8.70 <8.70 <8.70 <8.70 <8.70 <8.70 <8.70 <8.70 <8.70 <8.70 Toluene 111 <4.30 <4.30 26 45 27 <4.30 <4.30 <4.30 <4.30 <4.30 1.1.1-Trichloroethane <12 <12 <12 <12 <12 <12 <12 <12 <12 <12 <12 <9.80 1,2,4-Trimethylbenzen <9.80 <9.80 <9.80 49 <9.80 72 <9.80 <9.80 <9.80 <9.80 1,3,5-Trimethylbenzen <3.80 <3.80 <3.80 <3.80 26 <3.80 <3.80 <3.80 <3.80 <3.80 <3.80 m,p-Xylene <10 <10 <10 <10 <10 77 <10 <10 <10 <10 <10 o-Xylene <6.10 <6.10 <6.10 53 <6.10 73 <6.10 <6.10 <6.10 <6.10 <6.10 Xylenes (total) <16.10 <16.10 <16.10 <63 <16.10 150 <16.10 <16.10 <16.10 <16.10 <16.10 SVOCs (µg/kg) <280 <28 <28 95 <28 <28 <28 <28 <28 <28 <28 Acenaphthene Acenaphthylene <320 <32 48 <32 <32 <32 <32 <32 <32 <32 <32

Footnotes on Page 10.

Table 3. Summary of Analytical Results for Soil Located Outside of Development Area, Former FFUSA Site, 935 E. John Street, Appleton, Wisconsin.

Location	GP-52	GP-54	GP-55	GP-58	GP-59	GP-61		P-62	GP-64	GP-67	GP-69	VISCOIISIII.
Sample Date	04/28/04	04/28/04	04/28/04	04/28/04		04/28/04	04/28/04		04/27/04	04/27/04	04/27/04	
Depth Range <sup>1</sup>	4 - 6'	2 - 4'	0 - 2'	2 - 4'	8 - 10'	2 - 4	2 - 4	10 - 12	8 - 10	0 - 2	4 - 6	_
SVOCs (µg/kg) (conti	nued)										_	-
Anthracene	460	<46	150	350	<46	<46	<46	<46	<46	<46	<46	
Benzo(a)Anthracene	930	<33	320	630	<33	36	<33	<33	<33	<33	<33	
Benzo(a)Pyrene	820	<43	270	570	<43	<43	<43	<43	<43	<43	<43	
Benzo(b)fluoranthene	1,100	<42	470	1,100	<42	57	<42	<42	<42	<42	<42	
Benzo(g,h,i)Perylene	540	<32	63	120	<32	<32	<32	<32	<32	<32	<32	
Benzo(k)Fluoranthene	<450	<45	180	310	<45	<45	<45	<45	<45	<45	<45	
Benzoic Acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	900	<46	290	600	<46	<46	<46	<46	<46	<46	<46	
Dibenzo(a,h)Anthracer	<470	<47	<47	48	<47	<47	<47	<47	<47	<47	<47	
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Di-N-Butyl Phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	2,100	<30	610	1,400	<30	73	<30	<30	<30	<30	<30	
Fluorene	<320	<32	69	120	<32	<32	<32	<32	<32	<32	<32	
Indeno(1,2,3-cd)Pyren	<560	<56	63	120	<56	<56	<56	<56	<56	<56	<56	
1-Methylnaphthalene	<470	<47	67	<47	<47	<47	<47	<47	<47	<47	<47	
2-Methylnaphthalene	<220	<22	110	36	<22	<22	<22	<22	<22	<22	<22	
Naphthalene	<390	<39	49	42	<39	<39	<39	<39	<39	<39	<39	
Phenanthrene	1,600	<36	570	1,200	<36	41	<36	<36	<36	<36	<36	
Pyrene	1,800	<39	840	1,700	<39	83	<39	<39	<39	<39	<39	

1 Based on existing grade, final grade will be 6-inches below a clean soil vegetative cap.

2 WDNR NR 720 Generic Non-Industrial Direct Contact RCLs or NR 746 Direct Contact RCLs.

3 WDNR NR 720 RCLs for protection of groundwater or NR 746 residual product (whichever is lesser).

Generic regulatory criteria not established.

Underline Value exceeds NR 720 residual contaminant levels (RCLs) for protection of groundwater.

**Bold** Value exceeds the generic NR 720 industrial direct contact RCLs.

Box Value exceeds the generic NR 720 non-industrial direct contact RCLs.

DRO Diesel Range Organics. μg/kg Micrograms per kilogram.

mg/kg Milligrams per kilogram.
NA Not analyzed.

NR 720 IND DC WDNR NR 720 Generic Industrial Direct Contact RCLs.

NR 720 NON-IND DC WDNR NR 720 Generic Non-Industrial Direct Contact RCLs.

Table 3. Summary of Analytical Results for Soil Located Outside of Development Area, Former FFUSA Site, 935 E. John Street, Appleton, Wisconsin.

Location	GP-73	GP-74	GP-75	GP-76		-77	GP-78	GP-79
Sample Date	04/29/04	04/29/04	04/29/04	03/18/05	03/18/05	03/18/05	09/30/05	09/30/05
Depth Range <sup>1</sup>	8 - 10	12 - 14	8 - 10	12 - 14	10 - 12	12 - 14	2 - 4	2 - 4
GRO (mg/kg)	<2.90	<2.90	<2.90	NA	NA	NA	NA	NA
Anions (mg/kg)								
Sulfate	NA							
/letals (mg/kg)					_			
Arsenic	NA	NA	NA	<0.150	<0.150	0.27	<0.25	<0.25
Barium	NA	NA	NA	52	31	74	58	35
Cadmium	NA	NA	NA	0.48	0.3	0.62	NA	NA
Chromium	NA	NA	NA	23	10	23	NA	NA
Lead	NA	NA	NA	1.2	6.2	0.77	2.8	31
Mercury	NA	NA	NA	0.02	0.014	0.023	NA	NA
Selenium	NA	NA	NA	<0.210	<2.10	<0.210	NA	NA
Silver	NA	NA	NA	<0.0370	<0.0370	<0.0370	NA	NA
/OCs (μg/kg)								
Benzene	NA							
N-Butylbenzene	NA							
Cymene	NA							
1,2-Dichlorobenzene	NA							
Ethylbenzene	NA							
sopropylbenzene	NA							
Naphthalene	NA							
2-Phenylbutane	NA							
N-Propylbenzene	NA							
Tetrachloroethene	NA							
Гoluene	NA							
1,1,1-Trichloroethane	NA							
1,2,4-Trimethylbenzen		NA						
1,3,5-Trimethylbenzen		NA						
m,p-Xylene	NA							
o-Xylene	NA							
Xylenes (total)	NA							
SVOCs (µg/kg)								
Acenaphthene	NA	NA	NA	<41	<41	<41	<17	<17
Acenaphthylene	NA	NA	NA	<42	<42	<42	<19	<19

Footnotes on Page 11.



Table 3. Summary of Analytical Results for Soil Located Outside of Development Area, Former FFUSA Site, 935 E. John Street, Appleton, Wisconsin.

Location	GP-73	GP-74	GP-75	GP-76	GP	-77	GP-78	GP-79	
Sample Date	04/29/04	04/29/04	04/29/04	03/18/05	03/18/05	03/18/05	09/30/05	09/30/05	
Depth Range <sup>1</sup>	8 - 10	12 - 14	8 - 10	12 - 14	10 - 12	12 - 14	2 - 4	2 - 4	
SVOCs (µg/kg) (contin	nued)								
Anthracene	NA	NA	NA	<34	<34	<34	<46	29	
Benzo(a)Anthracene	NA	NA	NA	<54	<54	<54	<33	96	
Benzo(a)Pyrene	NA	NA	NA	<59	<59	<59	<43	97	
Benzo(b)fluoranthene	NA	NA	NA	<42	<42	<42	<42	150	
Benzo(g,h,i)Perylene	NA	NA	NA	<82	<82	<82	<32	89	
Benzo(k)Fluoranthene	NA	NA	NA	<79	<79	<79	<45	54	
Benzoic Acid	NA								
Carbazole	NA								
Chrysene	NA	NA	NA	<38	<38	<38	<46	157	
Dibenzo(a,h)Anthracer	NA	NA	NA	<76	<76	<76	<47	<11	
Dibenzofuran	NA								
Di-N-Butyl Phthalate	NA								
Fluoranthene	NA	NA	NA	<42	56	<42	<30	203	
Fluorene	NA	NA	NA	<41	<41	<41	<32	<95	
Indeno(1,2,3-cd)Pyreno	NA	NA	NA	<69	<69	<69	<56	59	
1-Methylnaphthalene	NA	NA	NA	<37	38	<37	<47	35	
2-Methylnaphthalene	NA	NA	NA	<72	<72	<72	<22	41	
Naphthalene	NA	NA	NA	<40	<40	<40	<39	28	
Phenanthrene	NA	NA	NA	<20	123	<20	<36	122	
Pyrene	NA	NA	NA	<58	<58	<58	<39	188	

1 Based on existing grade, final grade will be 6-inches below a clean soil vegetative cap.

2 WDNR NR 720 Generic Non-Industrial Direct Contact RCLs or NR 746 Direct Contact RCLs.

3 WDNR NR 720 RCLs for protection of groundwater or NR 746 residual product (whichever is lesser).

Generic regulatory criteria not established.

Underline Value exceeds NR 720 residual contaminant levels (RCLs) for protection of groundwater.

**Bold** Value exceeds the generic NR 720 industrial direct contact RCLs.

Box Value exceeds the generic NR 720 non-industrial direct contact RCLs.

DRO Diesel Range Organics. μg/kg Micrograms per kilogram. mg/kg Milligrams per kilogram.

NA Not analyzed.

NR 720 IND DC WDNR NR 720 Generic Industrial Direct Contact RCLs.
NR 720 NON-IND DC WDNR NR 720 Generic Non-Industrial Direct Contact RCLs.