

APPENDIX A - BORING LOGS

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works		License/Permit/Monitoring Number		Boring Number(s) PZ-160, PZ-16X	
Boring Drilled By: Name of crew chief (first, last) and Firm Harold Waddell Layne Christensen			Date Drilling Started 8/1/2001		Date Drilling Completed 8/14/2001
WI Unique Well No.		DNR Well ID No.	Common Well Name		Borehole Diameter 6.25 inches
			Final Static Water Level 628.65 Feet MSL		Surface Elevation 658.96 Feet MSL

Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>			Local Grid Location		
State Plane 532,207 N, 1,734,024 E S/C/N			Lat 46° 37' 17.2"		
NE 1/4 of SE 1/4 of Section 24, T 48 N, R 5 W			Long 90° 56' 27.1"		
			<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W		

Facility ID	County Bayfield	County Code 4	Civil Town/City/ or Village
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well	Diagram	PID/FID	Soil Properties						RQD/ Comments				
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200						
Air Rotary logged from cuttings	144		1	Loose, red, medium to coarse, silty, sandy GRAVEL (crushed granite fill)	GP															
			2	Moist, stiff, red, silty CLAY.																
			3																	
			4																	
			5																	
			6																	
			7																	
			8				Medium brown, fine grained SANDSTONE; weathered, very weak to stiff.													
			9																	
			10																	
			11																	
			12																	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm URS Corporation	Tel: Fax:
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This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number **PZ-16**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					P 200	RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index			
Air Rotary video logged	2016		13	Medium brown, fine grained SANDSTONE; weathered, very weak to stiff.											
			14												
			15												
			16												
			17												
			18												
			19												
			20												
			21												
			22												
			23		PZ-160 bentonite cement (0'-27.5')										
			24												
			25												
		26													
		27													
		28	PZ-160 bentonite seal (27.5'-30')												
		29													
		30	PZ-160 very fine sand (30'-31') PZ-160 sand filter												
		31													
		32													

Boring Number **PZ-16**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			33	Medium brown, fine grained SANDSTONE; weathered, very weak to stiff.										pack (31'-44')
			34	12" void.										PZ-16O slotted well screen (33'-43')
			35	Red - violet, fine grained SANDSTONE with white spots and bands; unweathered										
			36											
			37											
			38											
			39											
			40											
			41											
			42											
			43											
			44											
			45	Mildly contorted, medium brown, red and white, fine grained SANDSTONE banding. Slightly weathered.										
			46											
			47											
			48											
			49											
			50											
			51											
			52	1" zone of red SILTSTONE overlying 1" of white										PZ-16X bentonite cement (0'-54.5')

Boring Number **PZ-16**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments						
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200							
			53	leached sandstone bands.																
			54	hairline fracture then becoming lighter red - violet and light olive brown.																
			55																	
			56																	
			57																	
			58																	
			59																	
			60																	
			61																	
			62	Light olive brown, fine grained SANDSTONE.																
			63	5" dark violet, mildly contorted, SILTSTONE band. very white layer grading to light gray after 63.5'																
			64																	
			65																	
			66	Reddish brown to red - violet, slightly weathered, fine grained SANDSTONE with intermittent, thin, white and red banding and white spots.																
			67																	
			68																	
			69	more thin red bands																
			70																	
			71																	
			72																	

PZ-16X
bentonite
seal
(54.5'-57')

PZ-16X
very fine
sand
(57'-58')
PZ-16X
sand filter
pack
(58'-66')

PZ-16X
slotted well
screen
(60'-65')

PZ-16X
filter sand in
borehole
(66'-100')

Boring Number **PZ-16**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
				with occasional white spots and brown bands										
			113											
			114											
			115											
			116											
			117											
			118											
			119											
			120											
			121											
			122											
			123											
			124											
			125											
			126											
			127											
			128											
			129											
			130											
			131											
			132											

Boring Number **PZ-16**

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Page 8 of 15

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
				with occasional white spots and brown bands										
			133											
			134											
			135											
			136											
			137											
			138											
			139											
			140											
			141											
			142											
			143											
			144											
			145											
			146											
			147											
			148											
			149											
			150											
			151											
			152											

Boring Number PZ-16

Use only as an attachment to Form 4400-122.

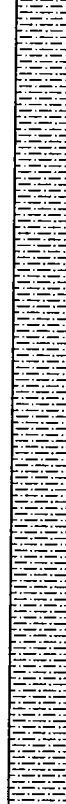
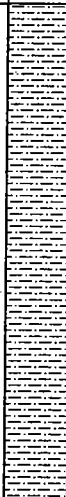

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
Air Rotary video logged	1224		173	Light reddish brown to medium brown, fine grained SANDSTONE										
		174	0.1-inch void infilled with dark red siltstone, edged by contorted red-brown and white bands above and below											
		175	Red-violet, fine grained SANDSTONE; with occasional white spots and brown bands											
		176												
		177												
		178												
		179	becoming more light brown											
		180												
		181												
		182	becoming less light brown more red-violet											
		183												
		184												
		185												
		186												
		187	more brown bands											
		188												
		189												
		190												
191														
192														

Boring Number **PZ-16**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			193	Red-violet, fine grained SANDSTONE; with occasional white spots and brown bands										
			194											
			195											
			196											
			197											
			198											
			199											
			200											
			201											
			202											
			203	Dark red-violet, fine grained SANDSTONE; with numerous gray and brown bands										
			204											
			205											
			206											
			207											
			208											
			209	Red-violet, fine grained SANDSTONE; with occasional white spots and brown bands										
			210											
			211											
			212											

Boring Number **PZ-16**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			213	Red-violet, fine grained SANDSTONE; with occasional white spots and brown bands										
			214											
			215											
			216	abrupt color change to more brown than violet										
			217	Dark red, laminated SILTSTONE Layered white and light brown bands										
			218	Light red-violet, fine grained SANDSTONE; few contorted white rimmed bedding planes										
			219											
			220											
			221											
			222	Dark red-violet, fine grained SANDSTONE; with numerous gently dipping white, gray, and brown bands										
			223											
			224											
			225											
			226											
			227											
			228											
			229											
			230	Reddish-brown fine grained SANDSTONE; with angular white bands and spots										
			231											
			232											

PZ-16R
 bentonite
 cement
 (0'-235')
 with 6"-ID
 steel outer

Boring Number **PZ-16**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			253	Reddish-brown fine grained SANDSTONE; with angular white bands and spots									PZ-16R sand filter pack (253'-283')	
			254											
			255											
			256											
			257											
			258											
			259											
			260											
			261											
			262											
			263											
			264											
			266		Dark red SILTSTONE									
			267											
			268											
			269											
			270											
			271											
			272											

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works		License/Permit/Monitoring Number		Boring Number(s) PZ-37R, PZ-37D	
Boring Drilled By: Name of crew chief (first, last) and Firm D.Gotto Philip Environmental Services Corp			Date Drilling Started 9/20/2002	Date Drilling Completed 10/8/2002	Drilling Method(s) 10" Drill&Drive (0-9) 9.875" Rotary (9-180) 5.875" Rotary (180-286)
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level 663.96 Feet MSL	Surface Elevation 662.30 Feet MSL	Borehole Diameter 5.88 inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 535,266 N, 1,735,294 E S/C(N)			Lat <u> </u> ° <u> </u> ' <u> </u> "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W
SE 1/4 of SE 1/4 of Section 13, T 48 N, R 5 W			Long <u> </u> ° <u> </u> ' <u> </u> "		Feet <input type="checkbox"/> S <input type="checkbox"/> W

Facility ID	County Bayfield	County Code 4	Civil Town/City/ or Village
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well	Diagram	PID/FID	Soil Properties					RQD/ Comments	
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
Air Rotary logged from cuttings	108		1	Moist, medium stiff, moderately plastic, brown to red, silty CLAY	CL										PZ-37D (6" steel pipe in grout 0-34) PZ-37R (2" pvc pipe in grout 0-252)	
			2													
Air Rotary w/video logging	2052		3													
			4	Light to medium brown, fine grained SANDSTONE.												
			5													
			6													
			7													
			8													
			9													
			10													
			11			0.75-inch void										
			12													

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm URS Corporation	Tel: Fax:
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Boring Number **PZ-37**

Use only as an attachment to Form 4400-122.

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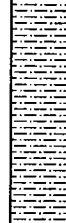

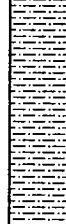
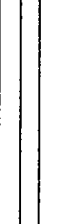




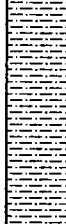
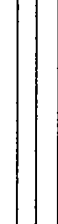
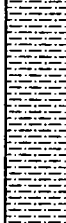





Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			13	Medium brown, fine grained SANDSTONE with white spots throughout; moderately weathered										
			14	12-inch void										
			15	0.5-inch void										
			16	0.75-inch void										
			17											
			18	0.5-inch void										
			19	7-inch void										
			20											
			21	3-inch void										
			22											
			23	4-inch void										
			24											
			25											
			26											
			27											
			28											
			29											
			30											
			31	0.75-inch void										
			32											

PZ-37D (6" steel casing set in grout 0-34)

Boring Number **PZ-37**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			33	0.75-inch void Red-violet, fine grained SANDSTONE with occasional white spots										
			34											
			35											
			36											
			37											
			38											
			39											
			40											
			41											
			42	dark brown and brown contorted laminations with numerous white spots and bands										
			43											
			44											
			45											
			46											
			47											
			48											
			49											
			50											
			51	dark brown and brown contorted laminations with numerous white spots and bands										
			52											

PZ-37D
(open
borehole)

Boring Number **PZ-37**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			113	White, fine grained SANDSTONE.										
			114											
			115											
			116											
			117											
			118											
			119	Reddish brown to red - violet fine grained SANDSTONE										
			120											
			121											
			122											
			123											
			124											
			125											
			126											
			127											
			128											
			129											
			130											
			131											
			132											

Boring Number **PZ-37**

Use only as an attachment to Form 4400-122.

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


















Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			173	White, fine grained SANDSTONE.										
			174											
			175											
			176											
			177											
			178		Reddish brown to red - violet fine grained SANDSTONE									
			179											
			180		white layer									
			181											
			182											
			183											
			184											
			185											
			186											
			187											
			188											
			189											
			190											
			191											
			192											

Air Rotary w/video logging 1272

Boring Number **PZ-37**

Use only as an attachment to Form 4400-122.

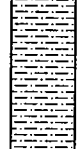





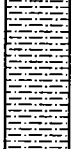
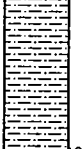
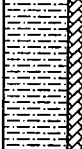

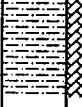

Page 12 of 15

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			213	White, fine grained SANDSTONE.										
			214											
			215	Reddish brown to red - violet fine grained SANDSTONE										
			216											
			217											
			218											
			219											
			220											
			221											
			222											
			223											
			224											
			225											
			226											
			227											
			228											
			229											
			230											
			231											
			232											

Boring Number **PZ-37**

Use only as an attachment to Form 4400-122.

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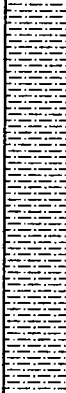







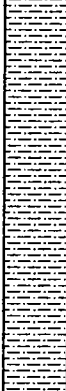



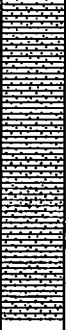

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Alt. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			233	Reddish brown to red - violet fine grained SANDSTONE										
			234	Dark reddish brown, very fine grained SANDSTONE										
			235											
			236											
			237											
			238											
			239											
			240	Red-violet to gray, fine grained SANDSTONE; very dense										
			241											
			242											
			243											
			244											
			245											
			246											
			247											
			248											
			249											
			250											
			251											
			252											

PZ-37R (2" pvc riser set in grout 0-252)

Boring Number **PZ-37**

Use only as an attachment to Form 4400-122.



























Page 14 of 15

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			253	Red-violet to gray, fine grained SANDSTONE; very dense										PZ-37R (betonite seal 252-257)
			254											
			255											
			256											
			257											PZ-37R (fine sand 257-259)
			258											
			259											
			260											PZ-37R (filter pack 259-286)
			261											
			262											
			263											
			264											
			265	White, fine grained SANDSTONE.										PZ-37R (pvc screen 263.6-283.6)
			266											
			267											
			268											
			269											
			270											
			271											
			272											

Boring Number **PZ-37**

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Page 15 of 15

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			273	White, fine grained SANDSTONE.										
			274	Red-violet to gray, fine grained SANDSTONE; very dense										
			275											
			276											
			277											
			278											
			279											
			280											
			281											
			282											
			283											
			284											
			285											
			286	End of Boring										PZ-37R (filter pack below screen)

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works		License/Permit/Monitoring Number		Boring Number(s) 72700 Hwy 13; Martinsen Well	
Boring Drilled By: Name of crew chief (first, last) and Firm Logged by E. Eaton Logged by Colog Inc.		Date Drilling Started 9/9/2002		Date Drilling Completed 9/9/2002	
Drilling Method(s) well logged only, drilling details unknown		WI Unique Well No.		DNR Well ID No.	
Common Well Name		Final Static Water Level 609.50 Feet MSL		Surface Elevation 616.00 Feet MSL	
				Borehole Diameter 3.75 inches	

Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		State Plane 533,396 N, 1,736,035 E S/C/N		Lat _____ ° _____ ' _____ "	
SW 1/4 of NW 1/4 of Section 19, T 48 N, R 4 W		Local Grid Location		Feet <input type="checkbox"/> N <input type="checkbox"/> E Feet <input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County Bayfield	County Code 4	Civil Town/City/ or Village
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
Downhole Video	125.48			Steel Casing										6" steel casing in grout
														3.75" steel casing in grout 1" ID pump piping

I hereby certify that the information on this form is true and correct to the best of my knowledge.

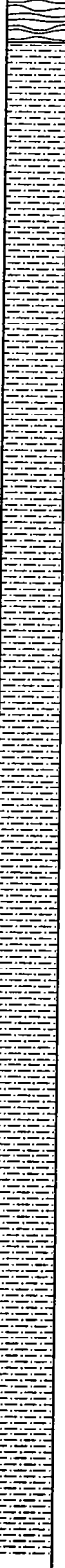

Signature 	Firm URS Corporation	Tel: Fax:
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Boring Number **73025BG**

Use only as an attachment to Form 4400-122.

Page 4 of 5


Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			53	mildly contorted, red - violet zone with red bands.										
			54											
			55											
			56											
			57											
			58											
			59											
			60											
			61											
			62											
			63											
			64											
			65											
			66											
			67											
			68											
			69											
			70											
			71											
			72											

pump

Boring Number **73025BG**

Use only as an attachment to Form 4400-122.

Page **5** of **5**

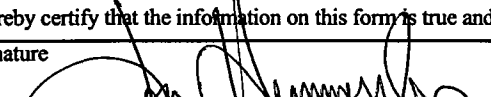
Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			73 74												
				End of Boring											

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works		License/Permit/Monitoring Number		Boring Number(s) 72920 Hwy 13; Stromberg Well	
Boring Drilled By: Name of crew chief (first, last) and Firm Logged by E. Eaton Logged by Colog Inc.			Date Drilling Started 9/11/2002	Date Drilling Completed 9/11/2002	Drilling Method(s) well logged only, drilling details unknown
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level 606.30 Feet MSL	Surface Elevation 620.00 Feet MSL	Borehole Diameter 5.88 inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 534,626 N, 1,736,883 E S/C(Ⓝ) NW 1/4 of NW 1/4 of Section 19, T 48 N, R 4 W			Local Grid Location Lat _____ ° _____ ' _____ " _____" Long _____ ° _____ ' _____ " _____" Feet <input type="checkbox"/> N _____ Feet <input type="checkbox"/> E Feet <input type="checkbox"/> S _____ Feet <input type="checkbox"/> W		
Facility ID		County Bayfield	County Code 4	Civil Town/City/ or Village	

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
Downhole Video	180.56		1 2 3 4 5 6 7 8 9 10 11 12	Steel Casing									6" ID steel casing in grout 0-33' 1.25" ID pump piping 6-47'	

I hereby certify that the information on this form is true and correct to the best of my knowledge.





















Signature  Firm **URS Corporation** Tel: _____ Fax: _____

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Boring Number **72920H**

Use only as an attachment to Form 4400-122.

Page 4 of 6

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			53	void with dark brown contorted edges infilled with med brown siltstone										
			54	0.1 inch void at bedding plane infilled with dark brown siltstone then sheared and infilled with red-violet sandstone										
			55	Red-violet, fine grained SANDSTONE with white spots and lines										
			56	Becoming medium-brown with occasional gray-violet laminations										
			57											
			58											
			59											
			60											
			61											
			62											
			63											
			64											
			65											
			66											
			67											
			68											
			69											
			70											
			71											
			72											

Boring Number **72920H**

Use only as an attachment to Form 4400-122.

Page **5** of **6**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			73	Red-violet, fine grained SANDSTONE with white spots and lines										
			74											
			75											
			76											
			77											
			78		Contorted 0.25-inch void infilled with tightly laminated gray siltstone, rimmed with dark brown stains above and yellowed, leached sandstone below									
			79											
			80											
			81											
			82											
			83											
			84											
			85											
			86											
			87											
			88											
			89											
			90											
			91											
			92											

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works		License/Permit/Monitoring Number		Boring Number(s) PZ-39D	
Boring Drilled By: Name of crew chief (first, last) and Firm J. Bignall Philip Environmental Services Corp			Date Drilling Started 11/18/2002	Date Drilling Completed 11/21/2002	Drilling Method(s) <small>4.25" HSA (0'-40') 6.0" Water Rotary (40'-72')</small>
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level 632.99 Feet MSL	Surface Elevation 656.27 Feet MSL	Borehole Diameter 5.88 inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 531,100 N, 1,732,757 E S/C(N)			Local Grid Location		
SE 1/4 of SW 1/4 of Section 24, T 48 N, R 5 W			Lat _____"	Feet <input type="checkbox"/> N	Feet <input type="checkbox"/> E
			Long _____"	Feet <input type="checkbox"/> S	Feet <input type="checkbox"/> W
Facility ID		County Bayfield	County Code 4	Civil Town/City/ or Village	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
Hollow Stem Auger logged from cuttings	480		1	Red brown silty GRAVEL with cinders	GM										PZ-01S bentonite grout (0'-53.35') with 6"-ID steel outer casing set in grout (0'-40')
			2	Layered, moist, stiff, non plastic, gray, yellow, red, violet, black and dark brown, SILT, ash, brick and cinders											
			6	Moist, stiff, moderately plastic, red brown, silty CLAY, trace gravel.	CL										
			10	Medium brown, fine grained SANDSTONE; weathered, very weak to stiff.											
			11	Void											
			12												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm URS Corporation	Tel: Fax:
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Boring Number **PZ-39**

Use only as an attachment to Form 4400-122.

Page 3 of 5

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			33											
			34											
			35	White and red layered, fine grained SANDSTONE; thinly to thickly bedded, moderately weathered, weak to stiff.										
			36											
			37											
			38											
			39											
			40											
			41											
			42											
			43											
			44											
			45											
			46											
			47											
			48											
			49											
			50											
			51											
			52											

Water Rotary logged from cuttings

384

Boring Number **PZ-39**

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Page 4 of 5

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			53	White and red layered, fine grained SANDSTONE; thinly to thickly bedded, moderately weathered, weak to stiff.											
			54												
			55												
			56												
			57												
			58												
			59												
			60												
			61												
			62												
			63												
			64												
			65												
			66												
			67												
			68												
			69												
			70												
			71												
			72												

PZ-01S
bentonite
seal
(53.35-58.35')

PZ-01S very
fine sand
(58.35-59.35')
PZ-01S sand
filter pack
(59.35-72')

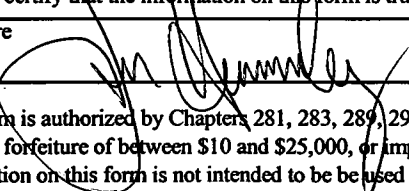
PZ-01S
slotted well
screen
(61.35-71.35')

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works		License/Permit/Monitoring Number		Boring Number(s) PZ-380, PZ-38D	
Boring Drilled By: Name of crew chief (first, last) and Firm J. Bignall Philip Environmental Services Corp			Date Drilling Started 11/15/2002	Date Drilling Completed 11/19/2002	Drilling Method(s) <small>4.25" HSA (0'-40') 6.0" Water Rotary (40'-71')</small>
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level 638.83 Feet MSL	Surface Elevation 666.45 Feet MSL	Borehole Diameter 5.88 inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 531,479 N, 1,732,336 E S/C/N			Lat _____ ° _____ ' _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W
NE 1/4 of SW 1/4 of Section 24, T 48 N, R 5 W			Long _____ ° _____ ' _____ "		Feet <input type="checkbox"/> S <input type="checkbox"/> W
Facility ID		County Bayfield	County Code 4	Civil Town/City/ or Village	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					P 200	RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index			
Hollow Stem Auger logged from cuttings	480		1	Moist, loose, poorly sorted medium-fine grained, dark brown, silty SAND.	SM									Two separate boreholes each with a PVC well: MW380 0-22', MW38d 0-52'	
			2	Moist, medium stiff, moderately plastic, brown to red, silty CLAY.	CL										
			3												
			4												
			5												
			6												
			7												
			8												
			9												
			10		Layered, fine to medium grained, red-brown, silty SAND with gravel AND moist, moderately stiff low plasticity, red to tan SILT with angular gravel fragments	SM/ML									
			11												
			12												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature:  Firm: **URS Corporation** Tel: _____ Fax: _____

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Boring Number **PZ-38**

Use only as an attachment to Form 4400-122.

Page 3 of 4

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			33	Layered, fine to medium grained, red-brown, silty SAND with gravel AND moist, moderately stiff low plasticity, red to tan SILT with angular gravel fragments	SM/ ML									
			34											
			35											
			36											
			37											
			38											
			39											
			40	Medium brown, fine grained SANDSTONE; weathered, very weak to stiff.										
			41											
			42											
			43											
			44											
			45											
			46											
			47											
			48											
			49											
			50											
			51											
			52											

Water Rotary logged from cuttings

372

PZ-38D
bentonite
grout
(0'-52.68')
with 6"-ID
steel outer
casing set in
grout
(0'-41')

Boring Number **PZ-38**

Use only as an attachment to Form 4400-122.

Page 4 of 4

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			53	White and red layered, fine grained SANDSTONE; thinly to thickly bedded, moderately weathered, weak to stiff.									PZ-38D bentonite seal (52.68'-57.68')	
			54											
			55											
			56											
			57											
			58											PZ-38D very fine sand (57.68-58.68') PZ-38D sand filter pack (58.68-71')
			59											
			60											
			61											PZ-38D slotted well screen (60.68-70.68')
			62											
			63											
			64											
			65											
			66											
			67											
			68											
			69											
			70											
			71	End of Boring										

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works			License/Permit/Monitoring Number		Boring Number(s) PZ-16PO; URS Office Potable Well	
Boring Drilled By: Name of crew chief (first, last) and Firm D.Gotto Philip Environmental Services Corp			Date Drilling Started 11/14/2002		Date Drilling Completed 12/3/2002	
Drilling Method(s) 12" Drill & Drive (0-26) 11.8" Rotary (26-181) 9.8" Rotary (181-260) 5.8" Rotary (260-303)			WI Unique Well No.		DNR Well ID No.	
Common Well Name			Final Static Water Level Feet MSL		Surface Elevation 657.83 Feet MSL	
Borehole Diameter 5.88 inches			Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>			
State Plane 532,182 N, 1,734,032 E S/C/N			Lat _____ ° _____ ' _____ "		Local Grid Location	
NE 1/4 of SE 1/4 of Section 24, T 48 N, R 5 W			Long _____ ° _____ ' _____ "		<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County Bayfield	County Code 4	Civil Town/City/ or Village
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
Air Rotary logged from cuttings	3636		1	Loose, red, medium to coarse, silty, sandy GRAVEL (crushed granite fill)	GP									12" steel driven 0-25.5 10" steel set in grout 0-180 6" steel set in grout 0-262
			2	Moist, stiff, red, silty CLAY; trace gravel	CL									
			3											
			4											
			5											
			6											
			7	Medium brown, fine grained SANDSTONE; weathered, very weak to stiff.										
			8											
			9											
			10											
			11											
			12											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

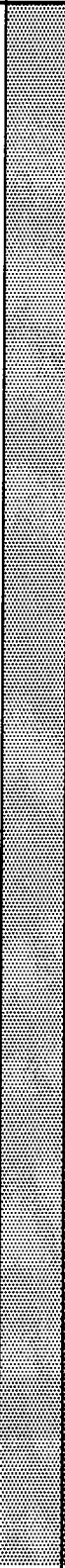

Signature: Firm: **URS Corporation** Tel: _____ Fax: _____

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000 or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

Page 2 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties					P 200	RQD/ Comments
Number and Type	Length Att. & Recovered (in)							Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index			
			13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32	Medium brown, fine grained SANDSTONE; weathered, very weak to stiff.										

end 12" ID casing

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

Page 4 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			53	Red - violet, fine grained SANDSTONE with white zones; unweathered										
			54											
			55											
			56											
			57											
			58											
			59											
			60											
			61											
			62											
			63											
			64											
			65											
			66											
			67											
			68											
			69											
			70											
			71											
			72											

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

Page 5 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			73	Red - violet, fine grained SANDSTONE with white zones; unweathered										
			74											
			75											
			76											
			77											
			78											
			79											
			80											
			81											
			82											
			83											
			84											
			85											
			86											
			87											
			88											
			89											
			90											
			91											
			92											

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

Page 6 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			93	Red - violet, fine grained SANDSTONE with white zones; unweathered										
			94											
			95											
			96											
			97											
			98											
			99											
			100											
			101											
			102											
			103											
			104											
			105											
			106											
			107											
			108											
			109											
			110											
			111											
			112											

pump

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

Page **7** of **16**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			113	Red - violet, fine grained SANDSTONE with white zones; unweathered										
			114											
			115											
			116											
			117											
			118											
			119											
			120											
			121											
			122											
			123											
			124											
			125											
			126											
			127											
			128											
			129											
			130											
			131											
			132											

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

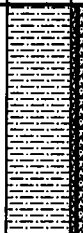



Page 8 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			133	Red - violet, fine grained SANDSTONE with white zones; unweathered										
			134											
			135											
			136											
			137											
			138											
			139											
			140											
			141											
			142											
			143											
			144											
			145											
			146											
			147											
			148											
			149											
			150											
			151											
			152											

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

Page 10 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			173	Light reddish brown to medium brown, fine grained SANDSTONE										
			174											
			175	Red-violet, fine grained SANDSTONE; with occasional white and brown zones										
			176											
			177											
			178											
			179											
			180											
			181											
			182											
			183											
			184											
			185											
			186											
			187											
			188											
			189											
			190											
			191											
			192											

end 10" ID casing

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

Page 11 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Art. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			193	Red-violet, fine grained SANDSTONE; with occasional white and brown zones										
			194											
			195											
			196											
			197											
			198											
			199											
			200											
			201											
			202											
			203	Dark red-violet, fine grained SANDSTONE										
			204											
			205											
			206											
			207											
			208	Red-violet, fine grained SANDSTONE										
			209											
			210											
			211											
			212											

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.

Page 13 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			233	Reddish-brown fine grained SANDSTONE; with white zones										
			234											
			235											
			236											
			237											
			238											
			239											
			240											
			241											
			242											
			243											
			244											
			245											
			246											
			247											
			248											
			249											
			250											
			251											
			252											

Boring Number **PZ-16PO**

Use only as an attachment to Form 4400-122.


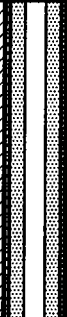

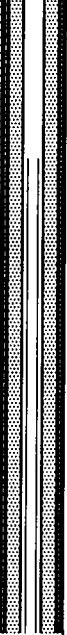
Page 14 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			253	Reddish-brown fine grained SANDSTONE; with white zones										
			254											
			255											
			256											
			257											
			258											
			259											
			260											
			261											
			262											
			263											
			264											
			265											
			266	Dark red SILTSTONE										
			267											
			268											
			269											
			270											
			271											
			272											
														open borehole

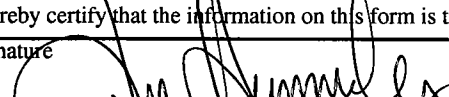
Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works			License/Permit/Monitoring Number		Boring Number(s) 30900 Nolander; Demes Well	
Boring Drilled By: Name of crew chief (first, last) and Firm D.Gotto Philip Environmental Services Corp			Date Drilling Started 10/15/2002		Date Drilling Completed 10/23/2002	
Drilling Method(s) 12" Drill & Drive (0-26) 11.8" Rotary (26-179) 9.8" Rotary (179-260) 5.8" Rotary (260-303)			WI Unique Well No.		DNR Well ID No.	
Common Well Name			Final Static Water Level 665.32 Feet MSL		Surface Elevation 662.83 Feet MSL	
Borehole Diameter 5.88 inches			Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>			
State Plane 535,249 N, 1,735,244 E S/C/N			Lat _____ "		Local Grid Location	
SE 1/4 of SE 1/4 of Section 13, T 48 N, R 5 W			Long _____ "		<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County Bayfield	County Code 4	Civil Town/City/ or Village ▼
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
Logged from cuttings	3636		1	Moist, medium stiff, moderately plastic, brown to red, silty CLAY	CL									6" ID steel set in grout 0-262 12" ID steel casing driven 0-26 10" ID steel set in grout 0-181
		2												
		3												
		4												
					5	Light- to medium-brown, fine grained SANDSTONE; highly weathered								1" pvc pump piping
		6												
		7												
		8												
		9												
		10												
		11												
		12												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

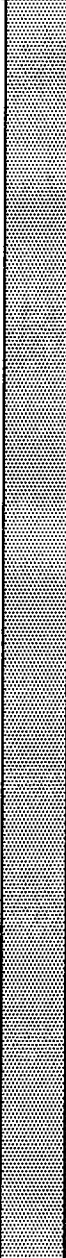
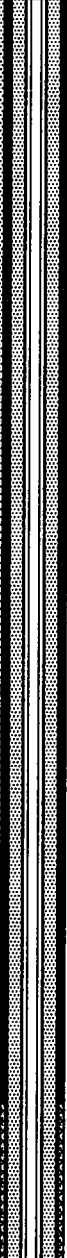


Signature 	Firm URS Corporation	Tel: Fax:
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This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number **30900N**

Use only as an attachment to Form 4400-122.

Page 2 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	Medium-brown, fine grained SANDSTONE; moderately weathered										
			28 29 30 31 32	Reddish brown to red - violet fine grained SANDSTONE										

end 12" ID casing

Boring Number **30900N** Use only as an attachment to Form 4400-122. Page 3 of 16









































Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments		
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200			
			33	Reddish brown to red - violet fine grained SANDSTONE												
			34													
			35													
			36													
			37													
			38													
			39													
			40													
			41													
			42		Light reddish-brown to pink fine grained SANDSTONE											
			43													
			44													
			45													
			46													
			47													
			48													
			49													
			50													
			51													
			52													

pump

Boring Number **30900N**

Use only as an attachment to Form 4400-122.

Page 4 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			53	Light reddish-brown to pink fine grained SANDSTONE										
			54	Medium- to olive-brown fine grained SANDSTONE										
			55											
			56	Light reddish-brown to pink fine grained SANDSTONE										
			57											
			58											
			59											
			60	Medium- to olive-brown fine grained SANDSTONE										
			61											
			62	Reddish brown to red - violet fine grained SANDSTONE										
			63											
			64											
			65											
			66											
			67											
			68											
			69											
			70											
			71											
			72											

Boring Number **30900N**

Use only as an attachment to Form 4400-122.

Page 5 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			73	Reddish brown to red - violet fine grained SANDSTONE										
			74											
			75											
			76											
			77											
			78											
			79											
			80											
			81											
			82											
			83											
			84											
			85											
			86											
			87											
			88											
			89											
			90											
			91											
			92											

Boring Number **30900N**

Use only as an attachment to Form 4400-122.

Page 6 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			93	Reddish brown to red - violet fine grained SANDSTONE										
			94											
			95											
			96											
			97											
			98											
			99											
			100											
			101											
			102											
			103											
			104											
			105											
			106	White, fine grained SANDSTONE.										
			107											
			108											
			109											
			110											
			111											
			112											

Boring Number **30900N**

Use only as an attachment to Form 4400-122.





















Page 8 of 16

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			133	Reddish brown to red - violet fine grained SANDSTONE										
			134											
			135											
			136											
			137											
			138											
			139											
			140											
			141											
			142											
			143											
			144											
			145											
			146											
			147											
			148											
			149											
			150											
			151											
			152											

Boring Number **30900N**

Use only as an attachment to Form 4400-122.

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































Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Art. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			173	Reddish brown to red - violet fine grained SANDSTONE										
			174	White, fine grained SANDSTONE.										
			175											
			176											
			177											
			178	Reddish brown to red - violet fine grained SANDSTONE										
			179											
			180	White, fine grained SANDSTONE.										
			181											
			182	Reddish brown to red - violet fine grained SANDSTONE										
			183											
			184											
			185											
			186											
			187											
			188											
			189											
			190											
			191											
			192											

end 10" ID casing

Boring Number **30900N**

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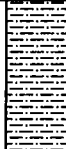
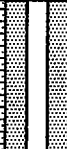











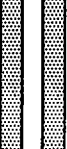

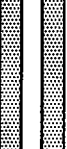








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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			213	White, fine grained SANDSTONE.										
			214											
			215	Reddish brown to red - violet fine grained SANDSTONE										
			216											
			217											
			218											
			219											
			220											
			221											
			222											
			223											
			224											
			225											
			226											
			227											
			228											
			229											
			230											
			231											
			232											

Boring Number **30900N**

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			233	Reddish brown to red - violet fine grained SANDSTONE										
			234	Dark reddish brown, very fine grained SANDSTONE										
			235											
			236											
			237											
			238											
			239											
			240											
			241											
			242											
			243											
			244											
			245	Red-violet to gray, fine grained SANDSTONE; very dense										
			246											
			247											
			248											
			249											
			250											
			251											
			252											

Boring Number **30900N**

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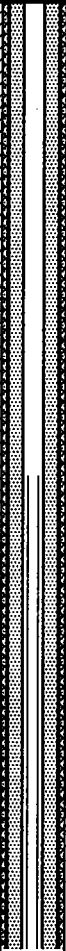
Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			253	Red-violet to gray, fine grained SANDSTONE; very dense										
			254											
			255											
			256											
			257											
			258											
			259											
			260											
			261											
			262											
			263											
			264											
			265		White, fine grained SANDSTONE.									
			266											
			267											
			268											
			269											
			270											
			271											
			272											

Open
borehole
262-303

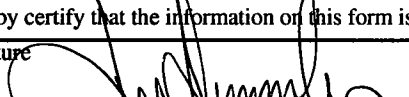
Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Former Barksdale Works			License/Permit/Monitoring Number		Boring Number(s) 29600 Nolander; Heitsch Well	
Boring Drilled By: Name of crew chief (first, last) and Firm D.Gotto Philip Environmental Services Corp			Date Drilling Started 10/31/2002		Date Drilling Completed 11/13/2002	
Drilling Method(s) 11.8" Rotary(0-59) 10" Drill&Drive(59-81) 9.8" Rotary(81-262) 5.8" Rotary(262-323)			WI Unique Well No.		DNR Well ID No.	
Common Well Name			Final Static Water Level 749.44 Feet MSL		Surface Elevation 762.43 Feet MSL	
Borehole Diameter 5.88 inches			Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>			
State Plane 536,118 N, 1,728,203 E S/C/N			Lat _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E	
SE 1/4 of SW 1/4 of Section 14, T 48 N, R 5 W			Long _____ "		Feet <input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County Bayfield	County Code 4	Civil Town/City/ or Village
-------------	---------------------------	-------------------------	-----------------------------

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
Logged from cuttings	3876		1 2 3 4 5 6 7 8 9 10 11 12	Moist to dry, stiff, red, silty CLAY; trace gravel	CL								6" ID steel set in grout 0-262 10" ID steel set in grout 0-114 1" pvc pump piping	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm URS Corporation	Tel: Fax:
--	--------------------------------	--------------

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number **29600N**

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Sample		Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			133	Light- to medium-brown, fine grained SANDSTONE; highly weathered										
			134											
			135											
			136											
			137											
			138											
			139											
			140		Red and white layered, fine grained SANDSTONE.									
			141											
			142											
			143											
			144											
			145											
			146											
			147											
			148											
			149											
			150											
			151											
			152											

Boring Number **29600N**

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


























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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			153	Red and white layered, fine grained SANDSTONE.										
			154											
			155											
			156	Very dark red										
			157											
			158											
			159											
			160											
			161											
			162	White										
			163											
			164	Light reddish-brown to pink										
			165											
			166	Very dark red										
			167											
			168											
			169											
			170											
			171											
			172											

Boring Number **29600N**

Use only as an attachment to Form 4400-122.









































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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			173	Very dark red										
			174											
			175											
			176											
			177	White										
			178	Light reddish-brown to pink										
			179											
			180	Dark red										
			181											
			182											
			183											
			184											
			185											
			186											
			187											
			188											
			189											
			190											
			191	Light red										
			192											

Boring Number **29600N**

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			193	Light red										
			194											
			195	Light reddish-brown to pink										
			196											
			197											
			198											
			199											
			200											
			201	Grey, fine grained SANDSTONE										
			202											
			203											
			204	Reddish brown to red - violet fine grained SANDSTONE										
			205											
			206											
			207											
			208											
			209											
			210											
			211											
			212											

Boring Number **29600N**

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			233	White										
			234											
			235											
			236											
			237											
			238											
			239											
			240											
			241											
			242											
			243											
			244											
			245											
			246											
			247											
			248											
			249											
			250											
			251											
			252											

Boring Number **29600N**

Use only as an attachment to Form 4400-122.

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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			253											
			254											
			255											
			256											
			257											
			258											
			259											
			260											
			261											
			262											
			263											
			264	White										
			265											
			266											
			267											
			268											
			269											
			270											
			271											
			272											

Open
borehole
262-323

