Rec 2/24/12 Porton BARTS -2(24/12 (43)

RAC2 TECHNICAL STATUS REPORT

December 31, 2011 to January 27, 2012

WORK ASSIGNMENT NUMBER:	132-LRLR-05WE
SITE NAME:	Penta Wood Products – OU1, WI
ACTIVITY:	Long-term Response Action
CH2M HILL JOB NUMBER:	419801
PREPARED BY:	Mike Niebauer/MKE, Site Manager Shannon Olson/MKE, Assistant Site Manager

PERIOD ENDING:

January 27, 2012

COPIES:

RPM:Linda Martin, USEPA Region 5PM:Isaac H. Johnson, CH2M HILL, Milwaukee, WIRTL:Keli McKenna, CH2M HILL, Milwaukee, WIWDNR:Phil Richard, WDNR, Park Falls, WIWDNR:Diana Downes, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

<u>Task 1 (PP)</u>

• Monthly project management activities were performed.

Task 3 (PB)

- Procurement activities were completed for the following subcontracts:
 - A purchase order for the replacement of a neutralization tank mixer was completed from Liquid Process and Equipment.
 - The purchase order for Applied Air Systems, Inc., was amended to include the purchase of a replacement air compressor.
 - An advance notification letter was sent to USEPA on January 18 for the purchase of the air compressor.

Task 4 (MS)

• Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring.

Task 6 (AN)

• Performed monthly data validation on treatment system samples.

Task 8 (CV)

• The residential well memorandum and individual letters summarizing the results for each residence were prepared.

<u>Task 10 (PJ)</u>

- During the reporting period, an estimated 0.3 million gallons of groundwater were treated and discharged. To date, 144 million gallons of water have been treated. An estimated 304 gallons of liquid waste were recovered. The total volume of liquid waste recovered from March 2004 through the end of this reporting period is 44,766 gallons. Due to the shutdown of the treatment system due to failure and replacement of the air compressor, the amount of groundwater treated during the month was significantly reduced.
- Based on the potential for methane migration because of the snow cover, the biovent system was shut down on October 28 for the winter months, similar to the winter months of 2008–2009, 2009–2010, and 2010–2011. Based on the oxygen use observed during the 2010–2011 shutdown, it is not anticipated that the oxygen level will drop below the 5 percent minimum level for aerobic biodegradation during the shutdown period. The system will resume operation in the spring.
- Preparation of the 2011 Interim Long-Term Remedial Action Annual Report was started.
- Maurer Power was onsite on December 31 to repair the drive chain in the dissolved air floatation skimmer motor.
- On January 5, the air compressor failed causing the plant to shut down.
- On January 9, Applied Air Systems, Inc., assessed what parts were needed to repair the air compressor in the main building.
- North Shore Environmental Construction, Inc., was onsite on January 11 to pick up the filter cake, overflow from the underground storage tank, and debris for offsite disposal.
- On January 12 and January 23, the Town of Daniels was onsite to plow, sand, and salt the driveway.
- Applied Air Systems, Inc., was onsite on January 13 to install the necessary parts for the air compressor repair. On January 17, the two hoses that were repaired were installed.
- On January 13 and January 19, Hedlund Gas, Inc., delivered propane.
- Maurer Power was onsite on January 17 to install the filtrate tank sensor level transmitter.
- On January 27, Earth Energy was onsite to troubleshoot the heater in the main building.
- On January 27, Applied Air Systems, Inc., delivered the new air compressor and completed installation of the electrical components for the air compressor.

 The results of the Wisconsin Pollutant Discharge Elimination System (WPDES) discharge samples were summarized and are presented in the table located at the end of this report. The concentrations of analytes complied with the discharge criteria in WPDES Permit No. WI-0061531-01-0.

Task 11 (PC)

• None.

<u>Task 12 (CO)</u>

None.

		Summ	ary of Project	Status		
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1 (PP)	03/15/11	03/15/11	11/31/14		30	0
3 (PB)	03/15/11	03/15/11	08/31/14		33	0
4 (MS)	03/15/11	03/15/11	11/31/14		7	0
6 (AN)	04/01/11	04/01/11	11/31/14		11	0
7 (AI)	04/01/11	04/01/11	11/31/14		22	0
8 (CV)	05/01/11	05/01/11	08/31/14		28	0
10 (PJ)	03/15/11	03/15/11	08/31/14		27	0
11 (PC)			11/31/14		0	0
12 (CO)			11/31/14		0	0

2. Problems Resolved

On December 17, the variable frequency drive alarmed that the filtrate tank was empty but the treatment system continued to operate. To avoid burning out the pump, the system was shut down. The site operator cleaned the filter screen and restarted the system, but the filtrate pump continued to run. Maurer Power was onsite on December 20 to assist with troubleshooting. A new level sensor was installed and the unit was recalibrated, but the tank level continued to read full when the tank was empty. It was determined that the transmitter that reads the level in the tank needed to be replaced. The part was ordered on December 27 and was installed by Maurer Power on January 17. The pump has been operating normally since the installation.

On January 5, the main air compressor for the Penta Wood plant failed. Several gallons of oil were released in the area of the air compressor and upon initial inspection by Applied Air Systems, Inc. On January 9, it was recommended to replace several hoses that provide oil to the air compressor. All oil was cleaned up and there was not a release to the environment. The plant does have an older backup air compressor, but there was insufficient amount of pressure available to operate the treatment system with only the back-up air compressor. The custom hoses were ordered and replaced on January 17. Once the repairs were completed and the compressor was tested, it was determined that further damage occurred (the bearings and shaft were damaged), at that point it was determined that a full replacement was required. The air compressor was ordered on January 19, was

delivered on January 27 after being delayed by weather out of Georgia, and was fully operational by January 30.

On January 27, the site operator arrived onsite to find no heat in the main building. The unit was restarted but the blower would not operate. Earth Energy arrived onsite to troubleshoot the unit. One fan belt was broken and there was no electrical signal being detected to the blower. A bucket truck was needed to complete the repairs. The unit will remain shut down until the truck is onsite and the necessary repairs can be completed. Several smaller heaters in the building are being used temporarily to prevent any piping to freeze.

3. Problem Areas and Recommended Solutions

During the routine inspections performed as part of the recent carbon changeout, significant rusting of the internal header system on the GAC vessel was found. The vessel manufacturer will be contacted to determine what action can be taken to refurbish the vessel. It is likely the GAC U-bracket and header will require replacement and the vessel relined. The efforts will have to be coordinated during the carbon changeout of this vessel.

There is currently no measurable flow from bioventing well, SG-22. The operator has tried various methods to dissolve or flush the white crystalline substance in the well; however, the crystals did not dissolve in water or in acid. Using a portable air compressor, air will be blown into the well in an attempt to unclog the screen in the spring.

4. Deliverables Submitted

The residential well memorandum was prepared and submitted on January 11. Individual letters summarizing the results found for each residence were prepared.

Signature page for the quality assurance project plan was submitted to USEPA.

5. Activities Planned Next Reporting Period

<u>Task 1 (PP)</u>

Monthly project management activities will be performed.

Task 3 (PB)

• A scope of work to install the GAC U-bracket and reline the vessel will be completed.

Task 4 (MS)

 Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring, will be performed.

<u>Task 6 (AN)</u>

• Monthly data validation on treatment system samples will be performed.

<u>Task 8 (CV)</u>

Data from the groundwater sampling event will be reviewed.

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Task 10 (PJ)

- Operation of the groundwater treatment system will continue.
- Preparation of the Tier II and Hazardous Waste Reports will completed and submitted by March 1.
- Preparation of the 2011 Interim Long-Term Remedial Action Annual Report will continue.

6. Key Personnel Changes

None.

7. Subcontractor Services

Electrical Service:	Northwestern Wisconsin Electric Co.
Telephone:	Siren Telephone Co.
Septic Service:	A-1 Septic Service and Installation
Nonhazardous Waste Disposal:	Allied Waste Services
Propane Tank and Gas:	Hedlunds Gas, Inc.
DE Supplier:	Alar Chemical Sales, Inc.
Polymer:	U.S. Water Services
Treatment System Chemicals:	Glacier Pure, Inc.
Hazardous Waste Disposal:	North Shore Environmental Construction, Inc.
Carbon Changeout:	Siemens Water Technologies, Inc.
Analytical Laboratory Services:	TestAmerica, Inc.
Air Compressor Services:	Applied Air Systems, Inc.

8. Travel

Michael Niebauer traveled to Chicago on December 5 for a client meeting.

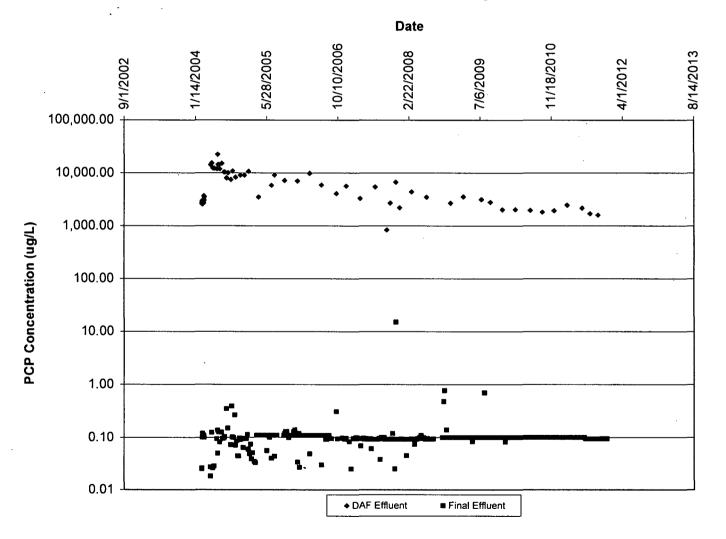
9. Laboratories

System monitoring samples were submitted to TestAmerica, Inc., of North Canton, Ohio, for analysis. It is a Wisconsin-certified laboratory with the subcontract for analytical services for 2011 to 2014.

10. Project Performance

The groundwater extraction and treatment system was not in operation for most of the month due to an inoperable air compressor.

Treatment system effluent sampling results met the discharge criteria in WPDES Permit No. WI-0061531-01-0.



Penta Wood PCP Summary

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
4-Jan-11		6.5			-		•				0.10U	-	-	-			-	-			-	-		9
11-Jan-11		6.5		-	0.10U	,				_	0.10U		1.0U	-			-	-		-				
25-Jan-11		6.5									0.10U	-								-	-	-		
1-Feb-11		6.5		-	-					-	0.10U	-					-			-				
10-Feb-11		6.5		_	0.10U					-	0.10U	-	1.0U	-			_	_				-		
15-Feb-11		6.5			_					-	0.10U	-		-			-	-		-			-	
1-Mar-11		6.5			-						0.10U	-		-			-	-		-		-		
8-Mar-11	2,470	6.5		18.4	0.10U					1.0U	0.10U	5.0U	1.0U	0.10U	0.4U	0.4U	1.0U	10U	19	48	210	652		
15-Mar-11	-	6.5		-	-				L		0.10U		-					-		-	-			
22-Mar-11		6.5		_						-	0.10U	-			-			-			-	_		
29-Mar-11		6.5		-	-					_	0.10U	-		-	-			-	-	-				
5-Apr-11		6.5		_						-	0.10U	-	_				_			-	-		•	
14-Apr-11		6.5		-	0.10U					-	0.10U	-	1.0U	-	~		-			-		-		
19-Apr-11		6.5	ļ	-	-	L					0.10U		-	-			-	_		-		-		
26-Apr-11		6.5								-	0.10U		-					_						
3-May-11		6.5				L					0.10U										-	-		
10-May-11		6.5	<u> </u>		-	· ·			ļ	-	0.10U		-	-				-		-		-		ļi
17-May-11		6.5	ļ	-	0.10U	·	Ľ.			-	0.10U		1.0U	-				-				-		<u> </u>
24-May-11		6.5		_	-					-	0.10U	-	_				<u> </u>	-		-				

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1.2.4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
31-May-11		6.5		-	_					-	0.10U	1	-											
7-Jun-11		6.5				_					0.10U	-			-		-	-				-		
21-Jun-11	2,170	6.5		17.7	0.10U			.;		-	0.10U		1.0U					10.1	6.7J	58	846	719		
28-Jun-11		6.5			-					-	0.10U	-	-	-						-	-	-		
6-Jul-11	-	6.5			-					-	0.10U		-	-						-	-	-		
15-Jul-11		6.5		-	-	_				-	0.094U		-	-	-					-	-	-		
20-Jul-11		6.5		-	0.07UB	•					0.094U		0.2U	-			-			· ·		-		
27-Jul-11	-	6.5		-	-					-	0.094U		-	-			-	-		-		-		
11-Aug-11	-	6.5		-							0.094U		-		-	-	-	-		-		-		
16-Aug-11	1,700	6.5		21	0.04UB					-	0.094U	-	0.2U	-				0.66J	9.1J	74U	50U	770		
23-Aug-11		6.5		-	-					1	0.094U			-	-		-	-		-	-	-		
31-Aug-11		6.5			-					-	0.094U	-		-	-	+	-	-				-		
8-Sep-11		6.5		-	-					1	0.094U	-	1	-	-	-	-	1		-	-	-		
13-Sep-11		6.5			0.10U					1	0.094U	-	0.2U	-			-	-		-	-	-		
20-Sep-11		6.5		-	-					1	0.094U	-	-	-	-		-	-			-	-		
27-Sep-11		6.5		-						-	0.094U		-					-		-		-		, i
7-Oct-11		6.5			-	į					0.094U	-		-	-		-	-						
11-Oct-11	1,600	6.5		36	0.10U					-	0.032J		0.2U	-	-		-	9.1	2.6	71	1,000	870		•
18-Oct-11		6.5		-						-	0.094U		-	-						-	-	-		
25-Oct-11		6.5		-							0.094U	-	-		_					-	-	-		· · l
1-Nov-11		6.5		-							0.094U	_	-	-				-		-	-	-		
8-Nov-11		6.5		-	0.10U			•		-	0.095U	_	0.2U	-	-		_	-				-		

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (hg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
15-Nov-11		6.5			-					-	0.094U	-	-	1	1	-		-		-	-			
22-Nov-11		6.5		-	-						0.095U	_	-	-			-		-	-	-			
29-Nov-11		6.5		-	-					ł	0.094U	-	-	-	-		-	1		-		-		
6-Dec-11		6.5		-	0.10U					-	0.095U	-	0.2U	-				-				_		
13-Dec-11		6.5		-	-					-	0.094U	-		-				-		-		-		
20-Dec-11		6.5				;				-	0.096U	-	1	-			-				-	-		
27-Dec-11		6.5		-	-					1	0.096U	-	-	-	_ ·					-				
3-Jan-12		6.5			-					-	0.094U		-				-	-		-				

WPDES SAMPLING SUMMARY

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^a NA = Sample analysis was on hold and cancelled based on the results of the quick turnaround time samples. ^b NR = Sample results are not yet available from the taboratory.

^cND = Compound was not detected in sample.

- = Not sampled.

mg/L = milligrams per liter

 $\mu g/L = micrograms per liter$

pg/L= picograms per liter

Qualifiers:

UB = Analyte found in the method blank.

J = Estimated value.

R = Result is rejected due to quality control issues.

U = Analyte was not detected at or above the stated limit.

* = Result is suspect. Refer to discussion of WPDES monitoring in Technical Status Report text.

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REPORT 1

Work Assignment -- Task Level Specific Detail Report

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Work Assignment Number: Work Assignment Title: Contractor Name: Contract Number: SSID: State: Region:	132-LRLR-05WE PENTA WOOD PROD CH2M HILL INC EP-S5-06-01 05WE WI 5	DUCTS, WI	Action C Operable WA Form Type Site Type Fu Work As	e Unit: n: e:	LR LR 00 TERM Long Term Ro WA Funded ON-GOING No	esponse Action		Contract Period: WA Period of Perform WA Period of Perform Reporting Period Fror Reporting Period To: Invoice Date: Invoice Number: Invoice Purpose:	ance End:	OPTION 3/15/11 11/30/14 12/31/11 1/27/12 2/23/12 B107 Monthly Progress
Task Number: 1	Ta	ask Title:	PROJECT P	LANNING AND SU	PPORT		Task Catego	ory Code: PP		
				urrent		ulative	Appro	ved Budget		
Name		Job Classification	LOE/Hours	Dollars	LOE/Hours	Dollars	LOE/Hours	Dollars		
PRIME CONTRACTOR										
			•							
Direct Labor										
GERRISH, THERESA A		P-4			3.50					
JOHNSON, ISAAC H			2.00		30.00					
ARPS, PAUL		P-3			8.00					
DAVIS, JONATHAN J					1.00					
DICKENS, THURMAN WARD)				2.00					
MC KENNA, ELIZABETH A			1.00		165.00					
SNYDER, RICHARD BORDE	N				2.00					
GRIGNON, CHRISTINA		P-2			12.60					
NIEBAUER, MICHAEL P			10.00		84.00					
POSTON, GAILA J			4.00		48.00					
TIBERII, NEAL A					4.00					
JOMMEN DAVELEY, LISA KI	RIS	P-1			0.80					
OLSON, SHANNON			4.00		77.00					
SCHLEI, REBECCA		T-2	0.50		5.10					
STEARNS, SARA					0.20					
STREHLOW, ROBERT W					0.80					
WILSON, CHERYL L		T-1	0.60		13.70					
TOTAL, PROFESSIONAL	·		22.10	742.12	457.70	16,883.63	1,227.99	9 51,084.46		•
Clerical										
AJIBOLA, STEPHEN OLAYIV	VOL	Clerical			2.10					
COHEN, KEVIN W		0.0.1041	1.50		44.10					
DOWNEY, TRACY T.					5.80					
DUBEY, JOAN			2.70		12.40					
GAUGER, ELAINE A			0.50		5.60					
GLENNA, TARA E.					1.00					
JOSHI, PUSHPA			0.30		0.80					

This report contains confidential business information.

Voucher No. Standard Form 1035 PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL B107 Sheet No. 30 Contract No. EP-S5-06-01 U.S. ENVIRONMENTAL PROTECTION AGENCY RTP-FINANCIAL MANAGEMENT CENTER CH2M HILL, INC. MAIL CODE-D143-02 1300 S.W. 5th Ave. RESEARCH TRIANGLE PARK, NC 27711 Portland, OR 97201 CURRENT AND CUMULATIVE COSTS, BASE FEE AND PERFORMANCE FEE Term Form Penta Wood Products, WI Work Assignment 132-LRLR-05WE For the month of JANUARY, 2012 Period: OPTION ----- Hours ----- Amount Claimed -----Major Cost Element Current Cumulative Current Cumulative 4,436.00 LOE 278.40 7,526.72 128,804.75 143.60 Clerical 11.30 282.21 3,327.11 ----- -----7,808.93 1. HOURS/DIRECT LABOR 289.70 4,579.60 132,131.86 2. FRINGE BENEFITS 2,912.75 48,357.64 3. OVERHEAD 2,155.20 34,830.43 4. GENERAL AND ADMINISTRATIVE 3,974.75 64,872.75 ----------280,192.68 5. SUBTOTAL LABOR 16,851.63 6. OTHER DIRECT COSTS 9,712.76 90,759.55 7. COMPUTER 0.00 0.00 8. TRAVEL 203.69 7,779.96 9. EQUIPMENT 600.00 13,157.06 -----10. SUBTOTAL 10,516.45 111,696.57 11. TEAM SUBCONTRACTS AND SUBCONTRACT POOL SUBCONTRACT POOL 109,645.07 522,890.66 12. SUBTOTAL SUBCONTRACTS 522,890.66 914,779.91 109,645.07 13. TOTAL COSTS 137,013.15 ----------14. BASE FEE' 0.00 0.00 15. PERFORMANCE (AWARD) FEE 0.00 0.00 45,341.10 6,751.88 16. FIXED FEE ----------17. TOTAL VOUCHER LESS PLI 960,121.01 143,765.03 1,614.59 **18. POLLUTION LIABILITY INSURANCE** 0.00 **19. LABORATORY SERVICES** 0.00 0.00 ----------20. AMOUNT CLAIMED THIS VOUCHER 143,765.03 961,735.60 21. LESS PRIOR PAYMENTS 731,224.73 -----22. TOTAL AMOUNT DUE 230,510.87 -------

Rec 42/12 put ON BRADS 4/2/12 (43)

RAC2 TECHNICAL STATUS REPORT

January 28, 2012 to February 24, 2012

WORK ASSIGNMENT NUMBER:	132-LRLR-05WE
SITE NAME:	Penta Wood Products – OU1, WI
ACTIVITY:	Long-term Response Action
CH2M HILL JOB NUMBER:	419801
PREPARED BY:	Mike Niebauer/MKE, Site Manager Shannon Olson/MKE, Assistant Site Manager

PERIOD ENDING:

February 24, 2012

02-07-000 552

COPIES:

RPM:Linda Martin, USEPA Region 5PM:Isaac H. Johnson, CH2M HILL, Milwaukee, WIRTL:Keli McKenna, CH2M HILL, Milwaukee, WIWDNR:Phil Richard, WDNR, Park Falls, WIWDNR:Diana Downes, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

Task 1 (PP)

• Monthly project management activities were performed.

Task 3 (PB)

- Procurement activities were initiated for the following subcontract:
 - A scope of work to install the granulated activated carbon (GAC) U-bracket and reline the vessel was written.

Task 4 (MS)

- Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring.
- Received \$400,000 expenditure increase on February 16 and incorporated the increase into current budgets.

Task 6 (AN)

• Performed monthly data validation on treatment system samples.

Task 8 (CV)

None.

<u>Task 10 (PJ)</u>

• During the reporting period, an estimated 1.4 million gallons of groundwater were treated and discharged. To date, 145 million gallons of water have been treated. An estimated 206 gallons of liquid waste were recovered. The total volume of liquid waste recovered from March 2004 through the end of this reporting period is 44,971 gallons.

- Based on the potential for methane migration because of the snow cover, the biovent system was shut down on October 28 for the winter months, similar to the winter months of 2008-2009, 2009-2010, and 2010-2011. Based on the oxygen use observed during the 2010-2011 shutdown, it is not anticipated that the oxygen level will drop below the 5 percent minimum level for aerobic biodegradation during the shutdown period. The system will resume operation in the spring.
- Preparation of the 2011 Interim Long-Term Remedial Action Annual Report was continued.
- Maurer Power and Applied Air Systems, Inc., were onsite on January 30 to complete the installation of the air compressor in the main building.
- On January 30, Earth Energy was onsite to repair the heater in the main building.
- C3D Testing Company was onsite on January 30 to perform the annual check on the backflow preventer.
- On February 1, Northland Fire & Safety, Inc., was onsite to service the fire extinguishers.
- The Town of Daniels was onsite to sand and salt the driveway on February 1.
- Maurer Power was onsite on February 4 to troubleshoot the level sensor in the dissolved air floatation (DAF) tank.
- On February 7, Alar Engineering delivered two pallets of diatomaceous earth.
- Glacier Pure delivered ferric sulfate on February 7.
- On February 8, Jasper Engineering was onsite to troubleshoot the GAC tank transducer.
- Hedlund Gas, Inc., delivered propane on February 9 and 23.
- On February 9, Maurer Power was onsite to replace light bulbs in the rotary drum vacuum filter (RDVF) room and the main building.
- US Water Services delivered polymer on February 10.
- Maurer Power was onsite on February 21 to troubleshoot the programmable logic controller (PLC) for groundwater pumps 2, 3, 4 and 5. A new card was installed on February 23.
- On February 23, Pound and Pour Construction, Inc., was onsite to inspect the leaks from the skylights in the GAC room.
- The results of the Wisconsin Pollutant Discharge Elimination System (WPDES) discharge samples were summarized and are presented in the table located at the end of this report. The concentrations of analytes complied with the discharge criteria in WPDES Permit No. WI-0061531-01-0.

Task 11 (PC)

• None.

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Task 12 (CO)

None.

•		Summ	ary of Project	Status		
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1 (PP)	03/15/11	03/15/11	11/31/14		30	0
3 (PB)	03/15/11	03/15/11	08/31/14		35	0
4 (MS)	03/15/11	03/15/11	11/31/14		8	0
6 (AN)	04/01/11	04/01/11	11/31/14		10	0
7 (AI)	04/01/11	04/01/11	11/31/14		24	0
8 (CV)	05/01/11	05/01/11	08/31/14		29	0
10 (PJ)	03/15/11	03/15/11	08/31/14		28	0
11 (PC)			11/31/14		0	0
12 (CO)			11/31/14		0	0

2. Problems Resolved

After attempts to repair the air compressor failed, a new air compressor was ordered on January 19 and was delivered on January 27 after being delayed by weather out of Georgia. The air compressor was fully operational by January 30.

On January 27, the site operator arrived onsite to find no heat in the main building. The unit was restarted but the blower would not operate. Earth Energy arrived onsite to troubleshoot the unit. One fan belt was broken and there was no electrical signal being detected to the blower. A bucket truck was needed to complete the repairs. The belts and heating sensor were repaired on January 30 and the unit has been operating normally since the repair.

3. Problem Areas and Recommended Solutions

During the routine inspections performed as part of the recent carbon changeout, significant rusting of the internal header system on the GAC vessel was found. The vessel manufacturer will be contacted to determine what action can be taken to refurbish the vessel. It is likely the GAC U-bracket and header will require replacement and the vessel relined. The efforts will have to be coordinated during the carbon changeout of this vessel.

There is currently no measurable flow from bioventing well, SG-22. Air will be blown into the well in the spring in an attempt to unclog the screen.

4. Deliverables Submitted

The Tier II Report was prepared and submitted to the Wisconsin Department of Natural Resources (WDNR) on February 24. Copies of this report were distributed to local emergency agencies on February 24.

The Annual Hazardous Waste Report was submitted electronically to WDNR on February 13; a signed copy of the report was later submitted by USEPA.

5. Activities Planned Next Reporting Period

<u>Task 1 (PP)</u>

• Monthly project management activities will be performed.

Task 3 (PB)

• A scope of work to install the GAC U-bracket and reline the vessel will be completed.

Task 4 (MS)

• Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring, will be performed.

Task 6 (AN)

• Monthly data validation on treatment system samples will be performed.

Task 8 (CV)

• Data from the groundwater sampling event will be reviewed.

Task 10 (PJ)

- Operation of the groundwater treatment system will continue.
- Preparation of the 2011 Interim Long-Term Remedial Action Annual Report will continue.

6. Key Personnel Changes

None.

7. Subcontractor Services

Northwestern Wisconsin Electric Co.
Siren Telephone Co.
A-1 Septic Service and Installation
Allied Waste Services
Hedlunds Gas, Inc.
Alar Chemical Sales, Inc.
U.S. Water Services
Glacier Pure, Inc.
North Shore Environmental Construction, Inc.
Siemens Water Technologies, Inc.
TestAmerica, Inc.
Applied Air Systems, Inc.

8. Travel

None.

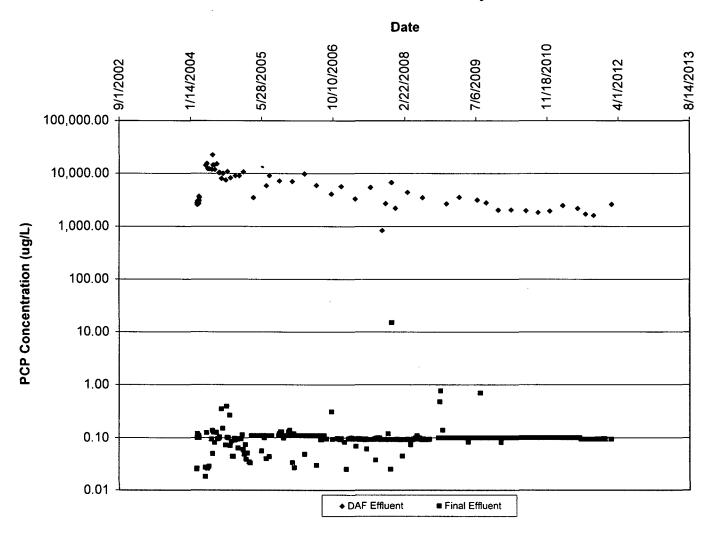
9. Laboratories

System monitoring samples were submitted to TestAmerica, Inc., of North Canton, Ohio, for analysis. TestAmerica, Inc., is a Wisconsin-certified laboratory with the subcontract for analytical services for 2011 to 2014.

10. Project Performance

The groundwater extraction and treatment system operated continuously with only temporary shutdowns for routine maintenance.

Treatment system effluent sampling results met the discharge criteria in WPDES Permit No. WI-0061531-01-0.



Penta Wood PCP Summary

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
1-Mar-11		6.5		-	-						0.10U			-							-			
8-Mar-11	2,470	6.5		18.4	0.10U					1.0U	0.10U	5.0U	1.0U	0.10U	0.4U	0.4U	1.0U	10U	19	48	210	652		
15-Mar-11		6.5		-						-	0.10U			-			-					-		
22-Mar-11		6.5		-	-						0.10U				-			-		-		_		
29-Mar-11		6.5		_	-						0.10U	-	-	_			-				-	-		
5-Apr-11		6.5		_							0.10U	-	_		-		-	-		-	_			
14-Apr-11		6.5		-	0.10U					-	0.10U	-	1.0U	-				-		-	-			
19-Apr-11		6.5		-				•		-	0.10U	-		1	-		-		-	-		-		
26-Apr-11		6.5		-						-	0.10U	-	-	-			-	-		-	-	_		
3-May-11		6.5			-						0.10U	_	_					-		_		-		
10-May-11		6.5									0.10U	_		-	_			-		-		-		
17-May-11		6.5		_	0.10U					-	0.10U		1.0U	-	_			-				_	-	
24-May-11		6.5		_							0.10U		-	-			-	-						
31-May-11		6.5		-							0.10U			_				_						
7-Jun-11		6.5		_	-					-	0.10U			-			-	-				_		
21-Jun-11	2,170	6.5		17.7	0.10U						0.10U		1.0U	-	-	-		10.1	6.7J	58	846	719		
28-Jun-11		6.5			_					-	0.10U				-			-					,	
6-Jul-11		6.5			-	L					0.10U		-	_				-			-	_		
15-Jul-11		6.5				<u> </u>				-	0.094U	-	-	_				-		-		-		

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
20-Jul-11		6.5			0.07UB					-	0.094U		0.2U	-			_	-		-				
27-Jul-11		6.5	:	-							0.094U	-	-	-						-	-	-		
11-Aug-11		6.5		-	-						0.094U		-	-		-	-	-	·	-	-	-		
16-Aug-11	1,700	6.5		21	0.04UB				· · ·		0.094U		0.2U				-	0.66J	9.1J	74U	50U	770		
23-Aug-11		6.5		-	-	_				-	0.094U	-			-					-	-	-		
31-Aug-11		6.5			-					-	0.094U		-	-	-		-	-			-	-		$\neg \neg$
8-Sep-11		6.5								-	0.094U	-		-	-		-	-			-	-		
13-Sep-11		6.5		-	0.10U						0.094U	-	0.2U			1		-		-	-			
20-Sep-11		6.5			-					-	0.094U		-	-	-			-		-		-		
27-Sep-11		6.5		-	-			7		-	0.094U	-	-	-			-	-		-	-	1		
7-Oct-11		6.5		-						-	0.094U	-	-	-		1		-		-	-	-		
11-Oct-11	1,600	6.5		36	0.10U					1	0.032J	-	0.2U	-	-	-	-	9.1	2.6	71	1,000	870		
18-Oct-11		6.5								-	0.094U	-	-	-				-		-	-	1		
25-Oct-11		6.5			-					-	0.094U			-	-	-		-			-			
1-Nov-11		6.5		-	-					-	0.094U	-		-	-			-			-			
8-Nov-11		6.5		-	0.10U					-	0.095U		0.2U	-			-	-		-	-			
15-Nov-11		6.5		-				-		-	0.094U		-	-	-		-	-		-	-			
22-Nov-11	-	6.5		-	-					-	0.095U	-	-	-	-	-	-				+	-		
29-Nov-11		6.5		-	-	_				1	0.094U			1			_			-	-	-		
6-Dec-11		6.5			0.10U						0.095U	-	0.2U							-	_	_		
13-Dec-11		6.5	L							_	0.094U	-	-	-				_		-	-	-		
20-Dec-11		6.5		_	-						0.096U		-	-			-	-		-	-	-		

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Totuene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Total R	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
27-Dec-11		6.5		-	-					-	0.096U	-	-	-	-		-	-		-	-	-		
3-Jan-12		6.5		-	-						0.094U		-					-		-		-		
9-Feb-12		6.5		-	0.10U					-	0.094U	-	0.2U	-	-		-	- ·		-	-	-		
14-Feb-12	2,600	6.5		19	-	- :					0.094U	-	-	-	-		-	0.62J	1.3J	32	50U	680		
21-Feb-12		6.5		1	-					1	NR		-	-	-		-	-		-	-	-		

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^aNA = Sample analysis was on hold and cancelled based on the results of the quick turnaround time samples. ^bNR = Sample results are not yet available from the laboratory.

"ND = Compound was not detected in sample.

- = Not sampled.

mg/L = milligrams per liter

µg/L = micrograms per liter

pg/L= picograms per liter

Qualifiers:

UB = Analyte found in the method blank.

J = Estimated value.

R = Result is rejected due to quality control issues.

U = Analyte was not detected at or above the stated limit.

* = Result is suspect. Refer to discussion of WPDES monitoring in Technical Status Report text.

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Rec 4/27/12 Rot ON BRIATS 4/27/12 (43)

RAC2 TECHNICAL STATUS REPORT February 25, 2012 to March 30, 2012

WORK ASSIGNMENT NUMBER:	132-LRLR-05WE
SITE NAME:	Penta Wood Products – OU1, WI
ACTIVITY:	Long-term Response Action
CH2M HILL JOB NUMBER:	419801
PREPARED BY:	Mike Niebauer/MKE, Site Manager Shannon Olson/MKE, Assistant Site Manager
PERIOD ENDING	March 30, 2012

PERIOD ENDING:

March 30, 2012

COPIES:

RPM: Linda Martin, USEPA Region 5 PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI RTL: Keli McKenna, CH2M HILL, Milwaukee, WI WDNR: Phil Richard, WDNR, Park Falls, WI WDNR: Diana Downes, WDNR, Cumberland, WI

1. **Progress Made This Reporting Period**

Task 1 (PP)

Monthly project management activities were performed.

Task 3 (PB)

- Procurement activities were initiated for the following subcontract:
 - -Bids were received to repair the granulated activated carbon (GAC) vessels at the site including relining the vessels.

Task 4 (MS)

Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring.

Task 6 (AN)

Performed monthly data validation on treatment system samples.

Task 8 (CV)

None.

Task 10 (PJ)

During the reporting period, an estimated 2.75 million gallons of groundwater were treated and discharged. To date, 148 million gallons of water have been treated. An estimated 109 gallons of liquid waste were recovered. The total volume of liquid waste recovered from March 2004 through the end of this reporting period is 45,080 gallons.

- Based on the potential for methane migration because of the snow cover, the biovent system was shut down on October 28 for the winter months, similar to the winter months of 2008–2009, 2009–2010, and 2010–2011. Based on the oxygen use observed during the 2010–2011 shutdown, it is not anticipated that the oxygen level will drop below the 5 percent minimum level for aerobic biodegradation during the shutdown period. The system will resume operation in the spring.
- Preparation of the 2011 Interim Long-Term Remedial Action Annual Report was continued.
- The Town of Daniels was onsite to sand and salt the driveway on March 1.
- Applied Air Systems, Inc., was onsite on March 7 to perform the 500-hour maintenance and oil change on the new air compressor in the main building.
- Hedlund Gas, Inc., delivered propane on March 8.
- US Water Services delivered polymer on March 14.
- On March 21 and 22, Siemens Water Technology, Inc., completed a carbon changeout on the small (2,500-pound) and large (10,000-pound) GAC vessels.
- Applied Air Systems, Inc., was onsite on March 28 to troubleshoot and reset the alarm on the new air compressor in the main building.
- A power failure occurred on March 27 because of a storm. Northwestern Wisconsin Electric Co. was onsite to make the necessary repairs.
- On March 29, the site operator received training on the new USEPA sample management program, Scribe.
- Burnett County Cooperative delivered diesel for the bobcat on March 30.
- The results of the Wisconsin Pollutant Discharge Elimination System (WPDES) discharge samples were summarized and are presented in the table located at the end of this report. The concentrations of analytes complied with the discharge criteria in WPDES Permit No. WI-0061531-01-0.

Task 11 (PC)

• None.

Task 12 (CO)

• None.

Summary of Project Status													
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance							
1 (PP)	03/15/11	03/15/11	11/31/14		31	0							
3 (PB)	03/15/11	03/15/11	08/31/14		33	0							
4 (MS)	03/15/11	03/15/11	11/31/14		9	0							
6 (AN)	04/01/11	04/01/11	11/31/14		11	0							
7 (AI)	04/01/11	04/01/11	11/31/14		25	0							

	Summary of Project Status														
Task No.∕ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance									
8 (CV)	05/01/11	05/01/11	08/31/14		30	0									
10 (PJ)	03/15/11	03/15/11	08/31/14		31	0									
11 (PC)			11/31/14		0	0									
12 (CO)			11/31/14		0	0									

2. Problems Resolved

None.

3. Problem Areas and Recommended Solutions

During the routine inspections performed as part of the recent carbon changeout, significant rusting of the internal header system was discovered on the second GAC vessel. Both GAC vessels will require repair of the lateral bracket holding the header or drainage systems; after repairs are completed a full relining of the vessels will occur. The efforts will be coordinated during the carbon change out of each vessel.

There is currently no measurable flow from bioventing well, SG-22. Air will be blown into the well in the spring in an attempt to unclog the screen.

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

<u>Task 1 (PP)</u>

• Monthly project management activities will be performed.

<u>Task 3 (PB)</u>

• The subcontract for installing the GAC U-bracket and relining the vessel will be executed.

Task 4 (MS)

• Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring, will be performed.

Task 6 (AN)

Monthly data validation on treatment system samples will be performed.

Task 8 (CV)

Data from the groundwater sampling event will be reviewed.

<u>Task 10 (PJ)</u>

- Operation of the groundwater treatment system will continue.
- Preparation of the 2011 Interim Long-Term Remedial Action Annual Report will continue.

- 6. Key Personnel Changes None.
- 7. Subcontractor Services

Electrical Service:	Northwestern Wisconsin Electric Co.
Telephone:	Siren Telephone Co.
Septic Service:	A-1 Septic Service and Installation
Nonhazardous Waste Disposal:	Allied Waste Services
Propane Tank and Gas:	Hedlunds Gas, Inc.
DE Supplier:	Alar Chemical Sales, Inc.
Polymer:	U.S. Water Services
Treatment System Chemicals:	Glacier Pure, Inc.
Hazardous Waste Disposal:	North Shore Environmental Construction, Inc.
Carbon Changeout:	Siemens Water Technologies, Inc.
Analytical Laboratory Services:	TestAmerica, Inc.
Air Compressor Services:	Applied Air Systems, Inc.

8. Travel

None.

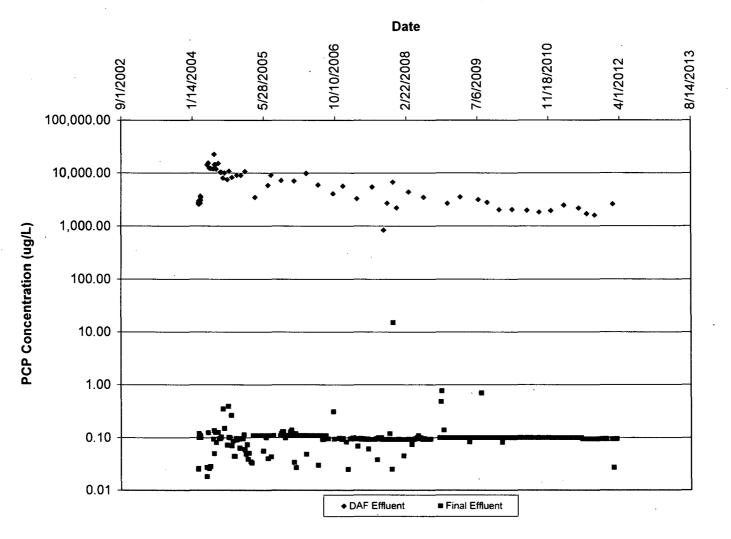
9. Laboratories

System monitoring samples were submitted to TestAmerica, Inc., of North Canton, Ohio, for analysis. TestAmerica, Inc., is a Wisconsin-certified laboratory with the subcontract for analytical services for 2011 to 2014.

10. Project Performance

The groundwater extraction and treatment system operated continuously with only temporary shutdowns for routine maintenance.

Treatment system effluent sampling results met the discharge criteria in WPDES Permit No. WI-0061531-01-0.



Penta Wood PCP Summary

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (Jug/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
29-Mar-11		6.5								-	0.10U	1	-	-		-	-			-				i
5-Apr-11		6.5			_						0.10U	-	-	-	_		-	-		-	-	-		
14-Apr-11		6.5			0.10U					-	0.10U	-	1.0U	-		ł		-		-	-	-		
19-Apr-11		6.5			-						0.10U	1	-	-	_	-	1	-		-	-			
26-Apr-11		6.5			-					-	0.10U	1				-	-				-			
3-May-11		6.5			-						0.10U	1		1	-			-		-	-	-		
10-May-11		6.5		-						-	0.10U	1	-	-			-	-		-		-		
17-May-11		6.5			0.10U					1	0.10U	1	1.0U	1	-	-	-	-			-	-		
24-May-11		6.5			-					1	0.10U	-	-	-	-	1	-	-			-	-		
31-May-11		6.5		-						-	0.10U	_		-	-	-		-		-	-	_		
7-Jun-11		6.5			-						0.10U		-					-				-		
21-Jun-11	2,170	6.5		17.7	0.10U					-	0.10U		1.0U					10.1	6.7J	58	846	719		
28-Jun-11		6.5		_						-	0.10U	-						-		-	-			
6-Jul-11		6.5		-	_					-	0.10U			-	-			-						
15-Jul-11		6.5			-					_	0.094U			-				-				-		
20-Jul-11		6.5			0.07UB					-	0.094U	-	0.2U		-			-		-	-			
27-Jul-11		6.5	ļ	-	_	'				-	0.094U							-		-	-			
11-Aug-11		6.5		-							0.094U		-	-						-	-	_		
16-Aug-11	1,700	6.5		21	0.04UB	L					0.094U		0.2U	-				0.66J	9.1J	74U	50U	770		

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (Jug/L; 8.0 Jug/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (Jug/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
23-Aug-11		6.5		-	-	Ŀ					0.094U							-		-	_			
31-Aug-11		6.5			-					-	0.094U			-						-	-			
8-Sep-11		6.5			-					-	0.094U	-		-				-		-		_		
13-Sep-11		6.5		-	0.10U						0.094U	_	0.2U	-			-	-			-	-		
20-Sep-11		6.5			-					_	0.094U		-	-				_	-			_		
27-Sep-11		6.5			-					-	0.094U	_	_					-		-	-	-		
7-Oct-11		6.5				1				-	0.094U	_	-	-	-		_	-		-	_	-		, ·
11-Oct-11	1,600	6.5		36	0.10U					-	0.032J		0.2U				_	9.1	2.6	71	1,000	870		
18-Oct-11		6.5			-	,	·	•			0.094U				-					-	-	-		
25-Oct-11		6.5			_						0.094U	_	-				-	-			-			
1-Nov-11		6.5		-						-	0.094U	_			-		-			-	_	-		
8-Nov-11		6.5		-	0.10U					+	0.095U	-	0.2U	-				_		-		_		
15-Nov-11		6.5	-	-	_	,				-	0.094U	-	-				_	-		-	-			•
22-Nov-11		6.5									0.095U		-				-	-		-	-	-		
29-Nov-11	-	6.5		-						-	0.094U		-	-	-		-			-	-	-		
6-Dec-11		6.5	-		0.10U					-	0.095U		0.2U		-		+					-		
13-Dec-11		6.5			-					-	0.094U		-				-	-		-				. I
20-Dec-11		6.5			-					-	0.096U	-			-		-				_			
27-Dec-11		6.5		-	-					-	0.096U		-	-	-		1					-		
3-Jan-12		6.5			_					-	0.094U			_	-		-			-	-	-		
9-Feb-12	-	6.5		-	0.10U	÷					0.094U		0.2U	1	-		-			-		-		
14-Feb-12	2,600	6.5		19	-					-	0.094U	-		-	-			0.62J	1.3UB	32UB	50U	680		

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											T DES SAM												
Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
21-Feb-12		6.5		1	-					-	0.027J		-	-	-		-	-	 -	-	-		
28-Feb-12	2,600	6.5		I	-					_	0.094U	-	-	-	-			-	 -	-	-		
6-Mar-12	2,600	6.5		-	0.06UB	1				-	0.095UJ		0.2U	-					 -	-			
13-Mar-12	2,600	6.5		-	-						0.095U			-	-			_	 		-	·	
28-Mar-12	2,600	6.5		-	-						NR	_	-	-	_	+	-	1	 -	-	_		· ·

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^a NA = Sample analysis was on hold and cancelled based on the results of the quick turnaround time samples.
 ^b NR = Sample results are not yet available from the laboratory.
 ^c ND = Compound was not detected in sample.

- = Not sampled.

mg/L = milligrams per liter

µg/L = micrograms per liter

pg/L= picograms per liter

Qualifiers:

UB = Analyte found in the method blank.

J = Estimated value.

R = Result is rejected due to quality control issues.

U = Analyte was not detected at or above the stated limit. * = Result is suspect. Refer to discussion of WPDES monitoring in Technical Status Report text.

REPORT 1

TIBERII, NEAL A

OLSON, SHANNON

SCHLEI, REBECCA

WILSON, CHERYL L

STREHLOW, ROBERT W

TOTAL, PROFESSIONAL

STEARNS, SARA

JOMMEN DAVELEY, LISA KRIS

Work Assignment -- Task Level Specific Detail Report

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Work Assignment Number:	132-LRLR-05WE	Work Area Code:	LR	Contract Period:	OPTION
Work Assignment Title:	PENTA WOOD PRODUCTS, WI	Action Code:	LR	WA Period of Performance Start:	3/15/11
Contractor Name:	CH2M HILL INC	Operable Unit:	00	WA Period of Performance End:	11/30/14
Contract Number:	EP-S5-06-01	WA Form:	TERM	Reporting Period From:	2/25/12
SSID:	05WE	Type Site:	Long Term Response Action	Reporting Period To:	3/30/12
State:	WI	Type Funding:	WA Funded	Invoice Date:	4/26/12
Region:	5	Work Assignment Status:	ON-GOING	Invoice Number:	B109
		Performance Based:	No	Invoice Purpose:	Monthly Progress

Task Number: 1	Task Title:	PROJECT PL	ANNING AND	SUPPORT		Task Categor	ry Code: PP
<u>,</u>	······································	C	urrent	Cum	ulative	Approv	ed Budget
Name	Job Classification	LOE/Hours	Dollars	LOE/Hours	Dollars	LOE/Hours	Dollars
PRIME CONTRACTOR							
Direct Labor							
GERRISH, THERESA A	P-4			3.50			
JOHNSON, ISAAC H		2.00		34.00			
WATKINS, TIMOTHY J				2.00			
ARPS, PAUL	P-3			8.00			
DAVIS, JONATHAN J				1.00			
DICKENS, THURMAN WARD				2.00			•
MC KENNA, ELIZABETH A		1.00		166.00			
SNYDER, RICHARD BORDEN				2.00			
GRIGNOŃ, CHRISTINA	P-2			12.60			
NIEBAUER, MICHAEL P.		19.00		109.00			
POSTON, GAILA J		4.00		56.00			

4.00

0.80

91.00

5.90

0.20

0.80

13.70

18,675.97

1,227.99

51,084.46

512.50

Clerical		
AJIBOLA, STEPHEN OLAYIWOL	Clerical	2.10
COHEN, KEVIN W	1.60	47.20
DOWNEY, TRACY T.		5.80
DUBEY, JOAN	0.40	15.20
GAUGER, ELAINE A	0.10	6.00
GLENNA, TARA E.		1.00

P-1

T-2

T-1

6.00

0.40

32.40

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This report contains confidential business information.

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REPORT 1

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Work Assignment -- Task Level Specific Detail Report

4

Work Assignment Number:	132-LRLR-05WE	Work Area Code:	LR	Contract Period:	OPTION
Work Assignment Title:	PENTA WOOD PRODUCTS, WI	Action Code:	LR	WA Period of Performance Start:	3/15/11
Contractor Name:	CH2M HILL INC	Operable Unit:	00	WA Period of Performance End:	11/30/14
Contract Number:	EP-S5-06-01	WA Form:	TERM	Reporting Period From:	2/25/12
SSID:	05WE	Type Site:	Long Term Response Action	Reporting Period To:	3/30/12
State:	WI	Type Funding:	WA Funded	Invoice Date:	4/26/12
Region:	5	Work Assignment Status:	ON-GOING	Invoice Number:	B109
		Performance Based:	No	Invoice Purpose:	Monthly Progress

Task Number: 1	Task Title:	PROJECT PLA	NNING AND SU	PPORT		Task Category	Code: PP	
······································		Cur	rent	Cum	ulative	Approved	Budget	
Name	Job Classification	LOE/Hours	Dollars	LOE/Hours	Dollars	LOE/Hours	Dollars	
PRIME CONTRACTOR	· · · · · ·	•		<u> </u>				
JOSHI, PUSHPA				0.80				
KAUR, NAVDEEP		0.20		8.30				
KERN, KENNETH				1.50				
KOHLMAN, MONICA				8.30				
LARSON, SHEILA K				5.10				
LAURENT, SHARON M		1.00		8.90				
REMOND, CHERYL A		1.00		22.10				
WHARTON, WILL				5.10				
WILSON, CHERYL L		0.30		5.20				
WONG, KWOK		0.70		8.50		t		
TOTAL, CLERICAL		5.30	130.97	151.10	3,530.49	290.00	7,265.70	
TOTAL, PRIME DIRECT LABOR		· 37.70	1,187.07	663.60	22,206.46		58,350.16	
TOTAL, PRIME DIRECTS		37.70	4,316.94	663.60	77,776.09	,	260,766.44	

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tandard Form 1035 PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL				Voucher No. B109 Sheet No. 29
U.S. ENVIRONMENTAL PROTEC RTP-FINANCIAL MANAGEMENT (MAIL CODE-D143-02 RESEARCH TRIANGLE PARK, N(ct No. EP-S5-06-01 ILL, INC. .W. 5th Ave. nd, OR 97201			
	Ter Penta Wood Work Assignme	S, BASE FEE om Form d Products, ent 132-LRLR	-05WE	
For the	month of MAR(CH, 2012 P	eriod: OPTION	
Major Cost Florest	Hou	rs	Amount	Claimed
Major Cost Element	Current	Cumulative	Current	Cumulative
LOE Clerical			150.65	
1. HOURS/DIRECT LABOR	514.80	5,418.00		154,395.01
 FRINGE BENEFITS OVERHEAD GENERAL AND ADMINIS SUBTOTAL LABOR OTHER DIRECT COSTS COMPUTER TRAVEL EQUIPMENT SUBTOTAL TEAM SUBCONTRACTS AN CRITIGEN LLC SUBCONTRACT POOL 	ND SUBCONTRACT	r Pool	3,776.85 6,993.37 29,795.57 5,309.26 0.00 0.00 72.00 5,381.26 166.66 34,139.66	76,119.77 328,072.16 112,583.67 0.00 7,779.96 13,577.06 133,940.69 166.66 600,454.86
12. SUBTOTAL SUBCONTRACTS 13. TOTAL COSTS			34,306.32 69,483.15	600,621.52 1,062,634.37
14. BASE FEE 15. PERFORMANCE (AWARD) 16. FIXED FEE	FEE		0.00 0.00 3,394.45	0.00
17. TOTAL VOUCHER LESS 18. POLLUTION LIABILITY 19. LABORATORY SERVICES			72,877.60 0.00 0.00	
20. AMOUNT CLAIMED THIS 21. LESS PRIOR PAYMENTS	VOUCHER		72,877.60	1,116,706.29 961,735.60
22. TOTAL AMOUNT DUE				154,970.69

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Coc 5/25/12 Puton BARTS 5/25/12 (43)

RAC2 TECHNICAL STATUS REPORT

March 31, 2012 to April 27, 2012

WORK ASSIGNMENT NUMBER:	132-LRLR-05WE				
SITE NAME:	Penta Wood Products – OU1, WI				
ACTIVITY:	Long-term Response Action				
CH2M HILL JOB NUMBER:	419801				
PREPARED BY:	Mike Niebauer/MKE, Site Manager Shannon Olson/MKE, Assistant Site Manager				

PERIOD ENDING:

April 27, 2012

COPIES:

RPM: Linda Martin, USEPA Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Keli McKenna, CH2M HILL, Milwaukee, WI
WDNR: Phil Richard, WDNR, Park Falls, WI

1. Progress Made This Reporting Period

Task 1 (PP)

- Monthly project management activities were performed.
- Attended a teleconference to discuss site transition of the site from USEPA to the Wisconsin Department of Natural Resources (WDNR), including preparations for a site walk and presentation on May 23.
- Received Statement of Work Revision No. 3 on April 24.

Task 3 (PB)

- The subcontract for installing the granular activated carbon (GAC) U-bracket and relining the vessel was executed.
- Procurement activities were extended for the following subcontracts:
 - On-call electrical service: Maurer Power
 - Chemical supply: Glacier Pure, Inc.
 - Landscaping services: Austin Lake Landscaping

Task 4 (MS)

• Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring.

Task 6 (AN)

• Performed monthly data validation on treatment system samples.

Task 8 (CV)

• The semiannual groundwater field sampling instructions were completed.

<u>Task 10 (PJ)</u>

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- During the reporting period, an estimated 2.59 million gallons of groundwater were treated and discharged. To date, 150 million gallons of water have been treated. An estimated 50 gallons of liquid waste were recovered. The total volume of liquid waste recovered from March 2004 through the end of this reporting period is 45,131 gallons.
- The bioventing system was shut down on October 28, 2011, and restarted on April 10, 2012. The bioventing system operated for 5 days and was shut down again on April 14 in accordance with the current operating strategy for the biovent system. Soil gas monitoring was performed and compared to historical measurements (see the table on page 6). Soil gas readings collected on the same day of startup (April 10) were compared to samples collected before system shutdown in October 2011. The results indicated there has been oxygen use during the winter months, primarily in the intermediate and deep zones. The sampling on April 10 indicated that oxygen saturation was achieved in all locations except the two locations located in the wood chip areas (SG-22 and SG-07S). The two wells continue to have low oxygen levels that are consistent with past years of operations (less than 2 percent).
- Preparation of the 2011 Interim Long-Term Remedial Action Annual Report continued.
- On April 2, North Shore Environmental Construction, Inc., picked up filter cake and spent carbon for offsite disposal.
- Maurer Power was onsite on April 3 to install the electrical outlet for the turbidity meter.
- On April 4, Alar Engineering delivered two pallets of diatomaceous earth.
- U.S. Water Services delivered polymer on April 9.
- The free product pumps were adjusted on April 19. Pumps 4, 12, 13, and 14 were not operating. Troubleshooting of the pumps will occur during the semiannual groundwater event.
- Maurer Power was onsite on April 26 and 27 to troubleshoot the communication failure of the programmable logic controller (PLC) and to install a new PLC card.
- On April 27, North Shore Environmental Construction, Inc., picked up light nonaqueous phase liquid (LNAPL) for offsite disposal.
- Jasper Engineering was onsite on April 27 to calibrate three level sensors including one for the LNAPL tank.
- The results of the Wisconsin Pollutant Discharge Elimination System (WPDES) discharge samples were summarized and are presented in the table on page 8. The concentrations of analytes complied with the discharge criteria in WPDES Permit No. WI-0061531-01-0.

Task 11 (PC)

None.

<u>Task 12 (CO)</u>

None.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1 (PP)	03/15/11	03/15/11	11/31/14		32	0
3 (PB)	03/15/11	03/15/11	08/31/14		34	0
4 (MS)	03/15/11	03/15/11	11/31/14		9	0
6 (AN)	04/01/11	04/01/11	11/31/14		11	0
7 (AI)	04/01/11	04/01/11	11/31/14		29	0
8 (CV)	05/01/11	05/01/11	08/31/14		30	0
10 (PJ)	03/15/11	03/15/11	08/31/14		33	0
11 (PC)			11/31/14		0	0
12 (CO)			11/31/14		0	0

2. Problems Resolved

The bioventing system was restarted on April 10. Monitoring of the soil gas wells was completed and there is now a measurable flow from bioventing well, SG-22 on April 11. The well will be monitored again next month to determine if any additional actions are needed to improve flow.

On April 25, the mixers alarmed due to a thunderstorm that shut down the treatment system. The operator tried unsuccessfully to clear the alarms and restart the system. Maurer Power was onsite on April 26 to troubleshoot the issue. There appeared to be a communication error between the treatment system and the PLC. A power surge may have corrupted the PLC card that operates the mixers and ventilation system. Control input and output cards were evaluated, and a new PLC card was installed by Maurer Power on April 27. The PLC programming was able to be reset, and the treatment system has been operating since the installation.

3. Problem Areas and Recommended Solutions

During the routine inspections performed as part of the recent carbon changeout, significant rusting of the internal header system was discovered on the second GAC vessel. Both GAC vessels will require repair of the lateral bracket holding the header or drainage systems; after repairs are completed, a full relining of the vessels will occur. The efforts will be coordinated during the carbon changeout of the vessels.

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

<u>Task 1 (PP)</u>

Monthly project management activities will be performed.

• A work plan revision request will be prepared for extending operation of the treatment system to full time for the next 2 years.

Task 3 (PB)

• The purchase order for Alar Engineering to supply diatomaceous earth will be extended.

Task 4 (MS)

• Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring, will be performed.

Task 6 (AN)

• Monthly data validation on treatment system samples will be performed.

Task 8 (CV)

- Data from the groundwater sampling event will be reviewed.
- The semiannual groundwater sampling event is tentatively scheduled for May 21. The Scribe database will be created, and the tags and chain-of-custody forms will be printed.
- A site walk-through will occur on May 22 with USEPA and WDNR.

Task 10 (PJ)

- Operation of the groundwater treatment system will continue.
- A health and safety audit will be performed on April 30.
- The non-operating free product pumps will be troubleshooted on May 21.
- A quality audit will be performed during the semiannual groundwater monitoring event May 21-24.
- The operations and maintenance plan will be revised and updated to include the new extraction wells.
- The health and safety plan will be updated for 2011.
- Preparation of the 2011 Interim Long-Term Remedial Action Annual Report will continue.
- 6. Key Personnel Changes

None.

7. Subcontractor Services

Electrical service:	Northwestern Wisconsin Electric Co.
Telephone:	Siren Telephone Co.
Septic service:	A-1 Septic Service and Installation
Nonhazardous waste disposal:	Allied Waste Services
Propane tank and gas:	Hedlunds Gas, Inc.

Alar Chemical Sales, Inc. DE supplier: **U.S. Water Services** Polymer: Glacier Pure, Inc. Treatment system chemicals: Hazardous waste disposal: Carbon changeout: Analytical laboratory services: TestAmerica, Inc. Applied Air Systems, Inc. Air compressor services:

North Shore Environmental Construction, Inc. Siemens Water Technologies, Inc.

8. Travel

None.

9. Laboratories

System monitoring samples were submitted to TestAmerica, Inc., of North Canton, Ohio, for analysis. TestAmerica, Inc., is a Wisconsin-certified laboratory with the subcontract for analytical services for 2011 to 2014.

10. **Project Performance**

The groundwater extraction and treatment system operated continuously with only temporary shutdowns for routine maintenance.

The bioventing system operated for 5 days this month, in accordance with the modified operation schedule. Therefore, the bioventing system met the performance standard for this period.

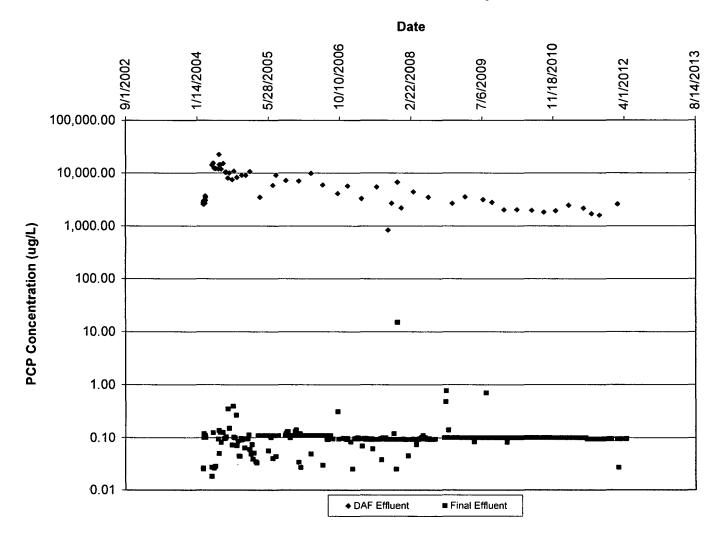
Treatment system effluent sampling results met the discharge criteria in WPDES Permit No. WI-0061531-01-0.

				Pe	nta Wood Prod	lucts Site - B	ioventing Sys	tem				
		02 (%)			CO2 (%)			СН4 (%)			LEL	
Well ID	10/24/2011	2 hours after startup (4/10/2012)	4/11/2012	10/24/2011	2 hours after startup (4/10/2012)	4/11/2012	10/24/2011	2 hours after startup (4/10/2012)	4/11/2012	10/24/2011	2 hours after startup (4/10/2012)	4/11/2012
						Shallow						
SG-22	21.5	15.9	2.4	0.0	5.0	23.5	0.0	0.0	8.8	0.0	0.0	100.0
SG-04S	20.7	20.9	NM	0.6	0.1	NM	0.1	0.0	NM	0.0	0.0	NM
SG-07S	9.8	2.9	0.4	14.0	21.7	25.3	5.1	13.0	16.5	100.0	100.0	100.0
SG-05S	20.3	19.9	NM	0.9	0.3	NM	0.0	0.0	NM	0.0	0.0	NM
SG-06S	20.7	20.8	NM	0.0	0.0	NM	0.0	0.0	NM	0.0	0.0	NM
						Intermediate						
SG-041	20.3	11.0	NM	0.3	3.2	NM	0.0	0.0	NM	0.0	0.0	NM_
SG-071	20.0	16.8	NM	0.4	2.0	NM	0.0	0.0	NM	0.0	0.0	NM
SG-051	20.7	19.8	NM	0.2	0.0	NM	0.0	0.0	NM	0.0	0.0	NM
SG-06I	20.8	20.7	NM	0.0	0.0	NM	0.0	0.0	NM	0.0	0.0	NM
						Deep						
SG-04D	20.1	20.9	NM	0.2	3.2	NM	0.0	0.0	NM	0.0	0.0	NM
SG-07D	20.0	18.6	NM	0.3	1.2	NM	0.0	0.0	NM	0.0	0.0	NM
SG-05D	20.5	19.9	NM	0.1	0.0	NM	0.0	0.0	NM	0.0	0.0	NM
SG-06D	20.7	19.7	NM	. 0.1	0.3	NM	0.0	0.0	NM	0.0	0.0	NM
_						Perimeter					-	
SG-23 (3')	21.0	21.3	NM	0.1	0.0	NM	0.0	0.0	NM	0.0	0.0	NM
SG-24 (5')	20.8	21.1	NM	0.2	0.0	NM	0.0	0.0	NM	0.0	0.0	NM
SG-25 (5')	20.8	21.1	NM	0.0	0.0	NM	0.0	0.0	NM	0.0	0.0	NM
SG-26 (5')	21.1	21.2	NM	0.0	0.0	NM	0.0	0.0	NM	0.0	0.0	NM

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NM = Not Monitored



Penta Wood PCP Summary

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (hg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
19-Apr-11		6.5		-	-					-	0.10U	-	-		-			-		-		-		
26-Apr-11		6.5		-	-					-	0.10U	-	-	-	-	1	-	1		-		-		
3-May-11		6.5		1						-	0.10U	-	_	-				-				-		
10-May-11		6.5		-	-						0.10U	1	-	-	-		-	-		-		-		
17-May-11		6.5		-	0.10U					1	0.10U	1	1.0U	-	-		-			-	-	-		
24-May-11		6.5			-					-	0.10U	-	-	-		-	-	-		-	-	-		
31-May-11		6.5		-	-					-	0.10U	ł	-	-	-		-	-			-	-		
7-Jun-11		6.5			-						0.10U	-	-		-	+	-	-		-		-		
21-Jun-11	2,170	6.5		17.7	0.10U						0.10U	-	1.0U	-				10.1	6.7J	58	846	719		
28-Jun-11		6.5			_						0.10U	-		-				_		-		-	\square	
6-Jul-11		6.5		-						-	0.10U		-	-				-		-		-		
15-Jul-11		6.5									0.094U			-				_			-			
20-Jul-11		6.5			0.07UB					-	0.094U	-	0.2U	-			-	-		-	-	-	ļ'	
27-Jul-11		6.5									0.094U	-	-	-	-						-		'	
11-Aug-11		6.5		-	-						0.094U	-			-	-				-		-	ļ'	L
16-Aug-11	1,700	6.5		21	0.04UB					-	0.094U	-	0.2U	-			-	0.66J	9.1J	74U	50U	770	ļ'	ļ
23-Aug-11		6.5		-	-	L					0.094U	-						-			-	-	<u> </u>	<u> </u>
31-Aug-11		6.5				L			·	-	0.094U							-		-		-	<u> </u>	<u> </u>
8-Sep-11		6.5		-							0.094U	-	-	-	-			-		-	-	-		

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	Pentachlorophenol (µg/L) Influent	p	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Totuene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
Date	Pentach Influent	pH Field	Total	Chlor	Diese	Total	1,3,5-	1,2,4-	Total	Dioxir	Penta month	Pheno	Napht avera	Benze avera	Ethylt	Tolue	Xylen	Arsen 5.0 µç	Coppe	Zinc,	Iron,	Mang	Acid	Dioxir
13-Sep-11		6.5		-	0.10U					-	0.094U	-	0.2U		-		-	-		-	-	-		
20-Sep-11		6.5			-					-	0.094U	-		-	-	-	-	-		-	-	1		
27-Sep-11	-	6.5		-	-					-	0.094U		-	-	-		-	-		-	-	1		
7-Oct-11	-	6.5		-						-	0.094U	-		-				-		-	-	-		
11-Oct-11	1,600	6.5		36	0.10U					-	0.032J	-	0.2U	-	-		-	9.1	2.6	71	1,000	870		
18-Oct-11	-	6.5		-	-						0.094U	-	-	-	-			-		-	-	-		
25-Oct-11	-	6.5			-					-	0.094U		-	-	-		-	-		-		-		
1-Nov-11		6.5			-					-	0.094U	-	-	-		ł		-	-		-	-		
8-Nov-11	-	6.5			0.10U			-		-	0.095U	-	0.2U	-		-	-	-	-	-		-		
15-Nov-11	-	6.5	,	-	-					-	0.094U	-	-	-				-		-				
22-Nov-11		6.5		-	-						0.095U	-	-	-	- '	-	-			-		-		
29-Nov-11		6.5		_							0.094U	-	-	-	-		+	-			-	-		
6-Dec-11		6.5		-	0.10U					-	0.095U	-	0.2U	-	-			· <u>-</u>		-	-			
13-Dec-11		6.5		-						-	0.094U	-	-	-			-			-	-	-		
20-Dec-11		6.5			-					-	0.096U									_	-	-		
27-Dec-11		6.5		_		•				-	0.096U			-			· -	-	-+	_	-	-		
3-Jan-12		6.5					,			-	0.094U	-		-				-		-		<u> </u>		
9-Feb-12		6.5			0.10U						0.094U		0.2U	+						-	-			
14-Feb-12	2,600	6.5		19	-						0.094U		_	1	-			0.62J	1.3UB	32UB	50U	680		
21-Feb-12		6.5			-					_	0.027J			+				-			-			
28-Feb-12'		6.5		-							0.094U	-	-	-		-								
6-Mar-12		6.5		-	0.06UB						0.095UJ	-	0.2U	-			-	-			-			

WPDES SAMPLING SUMMARY

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	hlorophen y average	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (Jug/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Total Re	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
13-Mar-12		6.5			-					-	0.095U	_		-				-		-	-	-		
28-Mar-12		6.5			-					-	0.095U	-		-			-	-		-	-	-		
3-Apr-12		6.5		-	0.05UJ					-	0.095UJ	-	0.2U				-	_		-	-	-		
10-Apr-12		6.5			-					-	0.095U	-	-	-			-		-	-	-	-		
17-Apr-12		6.5									0.096U	-	-		-					-	-	-		

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^aNA = Sample analysis was on hold and cancelled based on the results of the quick turnaround time samples.

^bNR = Sample results are not yet available from the laboratory. ^cND = Compound was not detected in sample.

-- = Not sampled.

mg/L = milligrams per liter -

µg/L = micrograms per liter

pg/L= picograms per liter

Qualifiers:

UB = Analyte found in the method blank.

J = Estimated value.

R = Result is rejected due to quality control issues.

U = Analyte was not detected at or above the stated limit. * = Result is suspect. Refer to discussion of WPDES monitoring in Technical Status Report text.

Standard Form 1035 Voucher No. PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL B110 Sheet No. 27 U.S. ENVIRONMENTAL PROTECTION AGENCY Contract No. EP-S5-06-01 RTP-FINANCIAL MANAGEMENT CENTER CH2M HILL, INC. MAIL CODE-D143-02 1300 S.W. 5th Ave. RESEARCH TRIANGLE PARK, NC 27711 Portland, OR 97201 CURRENT AND CUMULATIVE COSTS, BASE FEE AND PERFORMANCE FEE Term Form Penta Wood Products, WI Work Assignment 132-LRLR-05WE For the month of APRIL, 2012 Period: OPTION ----- Hours ----- Amount Claimed -----Major Cost Element Current Cumulative Current Cumulative LOE 346.10 5,595.90 9,641.90 160,099.43 179.80 Clerical 11.60 261.92 4,199.40 ----- -----1. HOURS/DIRECT LABOR 357.70 5,775.70 9,903.82 164,298.83 2. FRINGE BENEFITS 3,691.06 60,339.87 3. OVERHEAD 2,717.66 43,626.23 4. GENERAL AND ADMINISTRATIVE 5,020.95 81,140.72 -----349,405.65 118,667.07 5. SUBTOTAL LABOR 21,333.49 6,083.40 6. OTHER DIRECT COSTS 7. COMPUTER 0.00 0.00 8. TRAVEL 7,779.96 0.00 9. EQUIPMENT 14,062.75 485.69 -----10. SUBTOTAL 6,569.09 140,509.78 11. TEAM SUBCONTRACTS AND SUBCONTRACT POOL CRITIGEN LLC 0.00 166.66 SUBCONTRACT POOL 35,589.65 636,044.51 ------35,589.65636,211.1763,492.231,126,126.60 12. SUBTOTAL SUBCONTRACTS 13. TOTAL COSTS ------14. BASE FEE 0.00 0.00 0.00 0.00 3,106.68 55,564.01 15. PERFORMANCE (AWARD) FEE 16. FIXED FEE ----------17. TOTAL VOUCHER LESS PLI 66,598.91 1,181,690.61 1,614.59 18. POLLUTION LIABILITY INSURANCE 0.00 0.00 **19. LABORATORY SERVICES** 0.00 ---------20. AMOUNT CLAIMED THIS VOUCHER 66,598.91 1,183,305.20 21. LESS PRIOR PAYMENTS 1,043,828.69 -----22. TOTAL AMOUNT DUE 139,476.51 ------------

RAC2 TECHNICAL STATUS REPORT

02-07-000532

10/1/12

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July 28, 2012 to August 31, 2012

WORK ASSIGNMENT NUMBER:	132-LRLR-05WE
SITE NAME:	Penta Wood Products-OU1, WI
ACTIVITY:	Long-term Response Action
CH2M HILL JOB NUMBER:	419801
PREPARED BY:	Mike Niebauer/MKE, Site Manager Shannon Olson/MKE, Assistant Site Manager
PERIOD ENDING:	August 31, 2012

COPIES:

RPM: Linda Martin, USEPA Region 5 PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI RTL: Keli McKenna, CH2M HILL, Milwaukee, WI WDNR:

Phil Richard, WDNR, Park Falls, WI

1. **Progress Made This Reporting Period**

Task 1 (PP)

Monthly project management activities were performed. •

Task 3 (PB)

- The purchase order for Environmental Field Services to complete the . refurbishing of the granular activated carbon (GAC) vessels was completed.
- The purchase order for Siemens to provide changeout services through 2014 was . executed.

Task 4 (MS)

Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring.

Task 6 (AN)

Performed monthly data validation on treatment system samples.

Task 8 (CV)

The residential well memorandum and individual letters summarizing the results for each residence were prepared.

Task 10 (PJ)

. Preparation for the scheduled shutdown in September was completed. The GAC was removed for disposal from both vessels the last week in August and repairs will begin the first week of September and will continue throughout the month. The epoxy coating that will line the vessel will require a minimum of ten days to cure before operations can resume.

- During the reporting period, an estimated 2.21 million gallons of groundwater were treated and discharged. To date, 160 million gallons of water have been treated. An estimated 286 gallons of liquid waste were recovered. The total volume of liquid waste recovered from March 2004 through the end of this reporting period is 46,365 gallons.
- The bioventing system operated for 5 days starting on August 22 and was shut down again on August 26 in accordance with the current operating strategy for the bioventing system. Soil gas readings collected on the day of startup (August 22) were compared to historical reading (see the table on page 6) and indicated saturation of oxygen in all the locations.
- Austin Lake Landscaping was onsite on July 31, August 10, and August 24 to mow and trim tall weeded areas to allow the operator access to the extraction and monitoring wells.
- Northwestern Wisconsin Electric and Siren Telephone were onsite to mark the underground utilities near the building entrance where an overhead awning was set to be installed.
- On August 10, Anderson Construction was onsite to build an awning for the main site entrance door. The awning was installed to reduce the risk of falling ice during the winter. All of the items on the internal CH2M HILL health and safety audit have now been addressed.
- On August 8, DR Tech was onsite to replace the wash down tank pump and the backflow valve on the mixing tank for the rotary drum vacuum filter (RDVF) unit.
- Maurer Power was onsite on August 8 to troubleshoot the dissolved air flotation (DAF) skimmer.
- On August 22, North Shore Environmental Construction, Inc., picked up the filter cake for offsite disposal.
- Siemens Water Technology, Inc., removed the carbon from the small (2,500-pound) and large (10,000-pound) GAC vessels on August 27 and 28, in preparation for the GAC refurbishing.
- On August 29, Applied Air Systems was onsite to perform routine maintenance on the air compressors.
- The results of the Wisconsin Pollutant Discharge Elimination System (WPDES) discharge samples were summarized and are presented in the table on page 8. The concentrations of analytes complied with the discharge criteria in WPDES Permit No. WI-0061531-01-0.

Task 11 (PC)

• None.

Task 12 (CO)

• None.

		Sumn	nary of Project	Status		
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete*	Schedule Variance
1 (PP)	03/15/11	03/15/11	11/31/14		34	0
3 (PB)	03/15/11	03/15/11	08/31/14		36	0
4 (MS)	03/15/11	03/15/11	11/31/14		10	0
6 (AN)	04/01/11	04/01/11	11/31/14		12	0
7 (AI)	04/01/11	04/01/11	11/31/14		28	0
8 (CV)	05/01/11	05/01/11	08/31/14		42	0
10 (PJ)	03/15/11	03/15/11	08/31/14		35	0
11 (PC)	05/01/14		11/31/14		0	0
12 (CO)			11/31/14		0	0

*Includes work plan revision budget approved in July.

2. Problems Resolved

On August 8, the float within the DAF tank began to build up and the skimmer seized up, ceasing operations. The coupling on the GAC feed pump snapped and the treatment system was shut down. Maurer Power troubleshooted the skimmer and determined that the gear motor valve was loose. The motor was reset and new coupling was installed on the GAC feed pump. The DAF unit has been operational since the installation.

3. Problem Areas and Recommended Solutions

During the routine inspections performed as part of the recent carbon changeout, significant rusting of the internal header system was discovered on the second GAC vessel. Both GAC vessels will require repair of the lateral bracket holding the header or drainage systems; after repairs are completed, a full relining of the vessels will occur. The repairs are scheduled to be completed in early September.

The polymer dosing pump and motor shut down the treatment system on August 23. A new motor was ordered and will be installed during the next reporting period.

The bioventing system was restarted on April 10. Monitoring of the soil gas wells was completed in April, May, and June, and there appeared to be a measurable flow from bioventing well, SG-22. During the monitoring in July and August, it appears that the well no longer has a flow. The well will be monitored again next month to determine if any additional actions are needed to improve flow.

4. Deliverables Submitted

The residential well memorandum was prepared and submitted on August 8. Individual letters summarizing the results found for each residence were also prepared.

5. Activities Planned Next Reporting Period

Task 1 (PP)

• Monthly project management activities will be performed.

Task 3 (PB)

• Extension of the subcontract for Hedlunds Gas, Inc., for propane.

Task 4 (MS)

• Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring, will be performed.

<u>Task 6 (AN)</u>

• No data will be collected during September during shutdown.

<u>Task 8 (CV)</u>

• None.

Task 10 (PJ)

- Operation of the groundwater treatment system will cease for up to 5 weeks while the scheduled maintenance is occurring during September.
- Repairs to the GAC tanks will be started at the beginning of September; the treatment plant will be idle for 4 to 5 weeks while repairs are completed.

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6. Key Personnel Changes

None.

7. Subcontractor Services

Electrical service:	Northwestern Wisconsin Electric Co.
Telephone:	Siren Telephone Co.
Septic service:	A-1 Septic Service and Installation
Nonhazardous waste disposal:	Allied Waste Services
Propane tank and gas:	Hedlunds Gas, Inc.
Diatomaceous earth supplier:	Alar Chemical Sales, Inc.
Polymer:	U.S. Water Services
Treatment system chemicals:	Glacier Pure, Inc.
Hazardous waste disposal:	North Shore Environmental Construction, Inc.
Carbon changeout:	Siemens Water Technologies, Inc.
Analytical laboratory services:	TestAmerica, Inc.
Air compressor services:	Applied Air Systems, Inc.
GAC vessel repairs:	Environmental Field Services, Inc.

8. Travel

None.

9. Laboratories

System monitoring samples were submitted to TestAmerica, Inc., of North Canton, Ohio, for analysis. TestAmerica, Inc., is a Wisconsin-certified laboratory with the subcontract for analytical services for 2011 to 2014.

10. **Project Performance**

The groundwater extraction and treatment system operated continuously with only temporary shutdowns for routine maintenance.

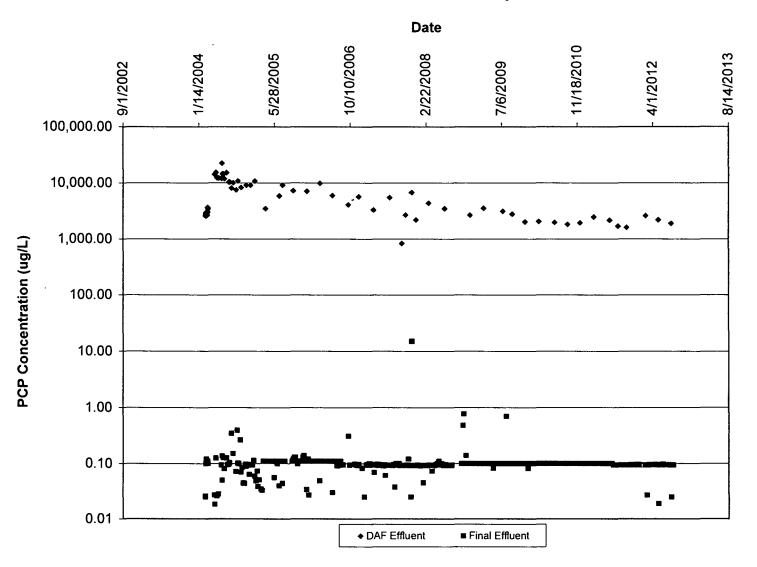
The bioventing system operated for 5 days this month, in accordance with the modified operation schedule. Therefore, the bioventing system met the performance standard for this period.

Treatment system effluent sampling results met the discharge criteria in WPDES Permit No. WI-0061531-01-0.

			······································	Pe	nta Wood Prod	ucts Site—B	ioventing Sys	tem				
		O ₂ (%)			CO ₂ (%)			CH₄ (%)	· ·		LEL	
Well ID	10/24/2011	2 hours after startup (4/10/2012)	8/22/2012	10/24/2011	2 hours after startup (4/10/2012)	8/22/2012	10/24/2011	2 hours after startup (4/10/2012)	8/22/2012	10/24/2011	2 hours after startup (4/10/2012)	8/22/2012
						Shallow						
SG-22	21.5	15.9	20.4	0.0	5.0	0.2	0.0	0.0	1.0	0.0	0.0	20.0
SG-04S	20.7	20.9	20.4	0.6	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0
SG-07S	9.8	2.9	1.8	14.0	21.7	26.1	5.1	9.6	10.8	100.0	100.0	100.0
SG-05S -	20.3	19.9	19.7	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SG-06S	20.7	20.8	20.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
•						Intermediate						
SG-04I	20.3	11.0	19.9	0.3	3.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0
SG-07I	20.0	16.8	19.3	0.4	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
SG-05I	20.7	19.8	19.4	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
SG-06I	20.8	20.7	20.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
				<u> </u>		Deep					_	
SG-04D	20.1	20.9	19.1	0.2	3.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0
SG-07D	20.0	18.6	19.6	0.3	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
SG-05D	20.5	19.9	19.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SG-06D	20.7	19.7	19.8	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						Perimeter						
SG-23 (3')	21.0	21.3	20.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SG-24 (5')	20.8	21.1	21.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SG-25 (5')	20.8	21.1	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SG-26 (5')	21.1	21.2	21.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NM = Not Monitored



Penta Wood PCP Summary

Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (Jug/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
23-Aug-11		6.5									0.094U									-	-	-		
31-Aug-11		6.5									0.094U													
8-Sep-11		6.5									0.094U			-		[`]								
13-Sep-11	-	6.5			0.10U						0.094U		0.2U								-			
20-Sep-11	-	6.5				4					0.094U													
27-Sep-11		6.5									0.094U			-										
7-Oct-11		6.5									0.094U									-				
11-Oct-11	1,600	6.5		36	0.10U					-	0.032J		0.2U					9.1	2.6	71	1,000	870		
18-Oct-11	-	6.5									0.094U										-			
25-Oct-11		6.5									0.094U													
1-Nov-11		6.5									0.094U													
8-Nov-11		6.5			0.10U						0.095U		0.2U								_			
15-Nov-11		6.5								-	0.094U			-										
22-Nov-11		6.5				,					0.095U	-					-	-						
29-Nov-11		6.5									0.094U													
6-Dec-11		6.5			0.10U						0.095U		0.2U											
13-Dec-11		6.5			-						0.094U			-							-		<u> </u>	
20-Dec-11		6.5									0.096U							-					<u> </u>	
27-Dec-11		6.5				L					0.096U						-				-			

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethyłbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (Jug/L; 8.0 µg/L monthly average limit)	Benzene (μg/L; 0.5 μg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
3-Jan-12		6.5									0.094U	, 										-		
9-Feb-12		6.5			0.10U						0.094U		0.2U				-	-		-	-			
14-Feb-12	2,600	6.5		19	-						0.094U	-				·		0.62J	1.3UB	32UB	50U	680		
21-Feb-12		6.5									0.027J										I	1		
28-Feb-12		6.5									0.094U			-		-	-				1			
6-Mar-12		6.5			0.06UB						0.095UJ		0.2U			1		-			-	-		
13-Mar-12		6.5									0.095U			1							-	1		
28-Mar-12		6.5			-						0.095U			t										
3-Apr-12		6.5		-	0.05UJ						0.095UJ		0.2U	-		-						-		
10-Apr-12		6.5									0.095U			-				-						
17-Apr-12		6.5									0.096U		-	-										
1-May-12		6.5									0.095U					-	-			-				
8-May-12	2,200	6.5		20	0.031J					1.0U	0.019J	1.0U	0.2U	1.0U	1.0U	1.0U	2.0U	0.54J	3.5JB	19JB	50U	870		
15-May-12		6.5		-							0.094U						-	-						
22-May-12		6.5									0.094U			-				-						
29-May-12		6.5									0.095U													
5-Jun-12		6.5									0.097U									-	_	_		
26-Jun-12		6.5			0.095U	,					0.095U		0.2U											
5-Jul-12		6.5							·		0.095U									-				
17-Jul-12		6.5								-	0.095U													
24-Jul-12		6.5									0.094U				-									
31-Jul-12	1,900	6.5		21	0.095U						0.025J		0.2U					0.48J	16	46	50U	860		

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	loropl	Phenol (µg/L)	Naphthalene (Jug/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)		Zinc, Total Recoverable (µg/L)	Iron, Total Recoverabte (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
7-Aug-12		6.5									0.094UJ		-	1					-					
14-Aug-12		6.5									0.094U							-						
21-Aug-12		6.5			NR						NR		NR				-						·	

^aNA = Sample analysis was on hold and cancelled based on the results of the quick turnaround time samples. ^bNR = Sample results are not yet available from the laboratory. ^cND = Compound was not detected in sample.

-- = Not sampled.

mg/L = milligrams per liter

µg/L = micrograms per liter

pg/L= picograms per liter

Qualifiers:

UB = Analyte found in the method blank.

J = Estimated value.

R = Result is rejected due to quality control issues.

U = Analyte was not detected at or above the stated limit.

* = Result is suspect. Refer to discussion of Wisconsin Pollutant Discharge Elimination System (WPDES) monitoring in Technical Status Report text.

Standard Form 1035

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PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL Voucher No. B118 Sheet No. 27

U.S. ENVIRONMENTAL PROTECTION AGENCY RTP-FINANCIAL MANAGEMENT CENTER MAIL CODE-D143-02 RESEARCH TRIANGLE PARK, NC 27711 Contract No. EP-S5-06-01 CH2M HILL, INC. 1300 S.W. 5th Ave. Portland, OR 97201

CURRENT AND CUMULATIVE COSTS, BASE FEE AND PERFORMANCE FEE

Term Form Penta Wood Products, WI Work Assignment 132-LRLR-05WE For the month of MICHST 2012 Poriod: OPTION

For the month of AUGUST, 2012 Period: OPTION

		Но	ours	Amount	Claimed
	Major Cost Element	Current	Cumulative	Current	Cumulative
	LOE	378.40	7,303.10	10,265.53	209,092.62
	Clerical	10.00	225.40		5,273.84
1.	HOURS/DIRECT LABOR	388.40	7,528.50		214,366.46
2.	FRINGE BENEFITS			4,013.77	79,848.04
3.	OVERHEAD			. 3,014.42	58,229.78
4.	GENERAL AND ADMINISTR	ATIVE		5,246.21	79,848.04 58,229.78 105,638.90
5.	SUBTOTAL LABOR			22,761.91	458,083.18
	OTHER DIRECT COSTS				162,735.18
	COMPUTER			. 0.00	0.00
8.	TRAVEL			0.00	0.00 11,482.43
9.	EQUIPMENT			/64.00	19,865.63
	SUBTOTAL TEAM SUBCONTRACTS AND	SUBCONTRAC	CT POOL	11,877.26	194,083.24
	CRITIGEN LLC		-	0.00	1,916.46
	SUBCONTRACT POOL				809,934.80
	SUBTOTAL SUBCONTRACTS				811,851.26
13.	TOTAL COSTS			72,311.65	1,464,017.68
	BASE FEE			0.00	0.00
15.	PERFORMANCE (AWARD) F	EE		0.00	0.00
16.	FIXED FEE				72,147.89
17.	TOTAL VOUCHER LESS PL	I		75,860.67	1,536,165.57
18.	POLLUTION LIABILITY I	NSURANCE			1,614.59
19.	LABORATORY SERVICES			0.00	0.00
20.	AMOUNT CLAIMED THIS V	OUCHER		75,860.67	1,537,780.16
	LESS PRIOR PAYMENTS			,	1,460,696.09
22.	TOTAL AMOUNT DUE				77,084.07

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Rec 2/11/13 Put on SKRTS 2/1/13

RAC2 TECHNICAL STATUS REPORT December 1, 2012 to December 28, 2012

WORK ASSIGNMENT NUMBER:	132-LRLR-05WE
SITE NAME:	Penta Wood Products – OU1, WI
ACTIVITY:	Long-term Response Action
CH2M HILL JOB NUMBER:	419801
PREPARED BY:	Mike Niebauer/MKE, Site Manager Shannon Olson/MKE, Assistant Site Manager
PERIOD ENDING:	December 28, 2012

PERIOD ENDING:

COPIES:

RPM: Linda Martin, USEPA Region 5 PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI RTL: Keli McKenna, CH2M HILL, Milwaukee, WI WDNR: Phil Richard, WDNR, Park Falls, WI

1. **Progress Made This Reporting Period**

Task 1 (PP)

Monthly project management activities were performed.

Task 3 (PB)

A scope of work is being drafted to troubleshoot groundwater extraction well 2.

Task 4 (MS)

Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring.

Task 6 (AN)

- Performed monthly data validation on treatment system samples.
- The residential wells were resampled on December 5 for pentachlorophenol (PCP) to determine if the original samples were contaminated during the extraction process. The results were received on December 19 and all of the results were non-detect, confirming that the residential wells are currently free of contamination.

Task 8 (CV)

None.

Task 10 (PJ)

During the reporting period, an estimated 2.59 million gallons of groundwater were treated and discharged. To date, 170 million gallons of water have been treated. An estimated 128 gallons of liquid waste were recovered. The total volume of liquid waste recovered from March 2004 through the end of this reporting period is 47,124 gallons.

- Based on the potential for methane migration because of the snow cover, the biovent system was shut down on October 28 for the winter months, similar to the shutdowns that have occurred from 2008 to 2012. Based on the oxygen use observed during the 2011–2012 shutdown, it is not anticipated that the oxygen level will drop below the 5 percent minimum level for aerobic biodegradation during the shutdown period. The system will resume operation in the spring.
- US Water Services delivered polymer on December 3 and December 28.
- On December 5, C3D was onsite to perform the annual inspection on the backflow preventer.
- North Shore Environmental Construction, Inc., picked up the nonhazardous sand from the granular activated carbon (GAC) refurbishing on December 6 and filter cake on December 21 for offsite disposal.
- On December 7, Maurer Power installed a new pH probe in the neutralization tank, a knife advance motor on the rotary drum vacuum filter (RDVF) and light bulbs with the bucket truck.
- Town of Daniels plowed the site driveway on December 10 and 12.
- On December 12, Maurer Power installed a gear box and pump for the dissolved air floatation (DAF) unit.
- Hedlund Gas, Inc., delivered propane on December 18.
- On December 21, North Shore Environmental Construction, Inc., drained and cleaned the pre-filter and neutralization tanks.
- Maurer Power was onsite to troubleshoot the oil/water separator piping on December 28.
- The results of the Wisconsin Pollutant Discharge Elimination System (WPDES) discharge samples were summarized and are presented in the table on page 7. The concentrations of analytes complied with the discharge criteria in WPDES Permit No. WI-0061531-01-0.

Task 11 (PC)

None.

<u>Task 12 (CO)</u>

None.

	Summary of Project Status														
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Sche'dule Variance									
1 (PP)	03/15/11	03/15/11	11/31/14		43	0									
3 (PB)	03/15/11	03/15/11	08/31/14		42	0									
4 (MS)	03/15/11	03/15/11	11/31/14		16	0									
6 (AN)	04/01/11	04/01/11	11/31/14		14	0									
7 (AI)	04/01/11	04/01/11	11/31/14		32	0									

	Summary of Project Status														
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance									
8 (CV)	05/01/11	05/01/11	08/31/14		57	0									
10 (PJ)	03/15/11	03/15/11	08/31/14		48	0									
11 (PC)	05/01/14		11/31/14		0	0									
12 (CO)			11/31/14		0	0									

2. Problems Resolved

After Siemens Water Technology filled the small GAC vessel with carbon on September 25, sand was found in the laterals. The sand was traced back to the potable well, sand has been known to flow into the plumbing. Following discussions with the project team, it was determined that the mixer should be shut off during the backwashing of the vessels, which will allow the sand to settle to the bottom. When the vessel is drained, the sand will be captured with a bag filter. This process was followed during the reporting period, but the laterals continued to become blocked with sand and solids from the neutralization tank, which increases the pressures in the vessels and could cause the system to shut down. A large amount of material build up was then discovered in the neutralization tank, which was falling off the sides of the tank and plugging the pre-filter. North Shore Environmental Construction, Inc., assisted the site operator with draining and power washing the neutralization tank on December 21. The wastewater was disposed of through the treatment system, the power washing of the neutralization tank has appeared to solve lateral plugging issue and the system has been operating normally. A Y-strainer was also installed to filter out solids before they are distributed to the laterals. Several samples of the material within the tank were collected and different types of acid (hydrochloric acid, nitric acid, and calcium lime rust) were applied to determine if the material would dissolve. If the problem persists in the future an acid wash may be required to cleanse the tanks.

3. Problem Areas and Recommended Solutions

During the system startup in the fall, groundwater extraction well 2 stopped operating. Maurer Power inspected the electrical components on October 12 and found that the pump was working in the programmable logic controller (PLC). A driller will be selected during the next reporting period to determine if the motor or pump needs to be replaced.

On December 27, the site operator observed that the contents in the oil/water separator would not pump into the product storage tank. The air lines and piping were inspected and it was determined that the line going from the oil/water separator to the product storage tank was frozen. The heat tracer appeared to be operational. The piping outside of the building to the product storage tank and the stinger inside of the tank were frozen. The piping and stinger were thawed with a hand held heater. Flow was returned to the tank but the lines froze again the next day. A permanent solution to avoid the freezing of the piping will be determined during the next reporting period.

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

Task 1 (PP)

• Monthly project management activities will be performed.

<u>Task 3 (PB)</u>

• A driller will be procured to pull the pump in groundwater extraction well 2 to determine the problem.

Task 4 (MS)

• Monthly financial and subcontractor management, including review and approval of invoices and cost monitoring, will be performed.

Task 6 (AN)

• Monthly data validation on treatment system samples will be performed.

Task 8 (CV)

• Data from the groundwater and residential sampling event will be reviewed and submitted for validation.

Task 10 (PJ)

• Operation of the groundwater treatment system will continue.

6. Key Personnel Changes

None.

7. Subcontractor Services

Electrical service:	Northwestern Wisconsin Electric Co.
Telephone:	Siren Telephone Co.
Septic service:	A-1 Septic Service and Installation
Nonhazardous waste disposal:	Allied Waste Services
Propane tank and gas:	Hedlunds Gas, Inc.
Diatomaceous earth supplier:	Alar Chemical Sales, Inc.
Polymer:	U.S. Water Services
Treatment system chemicals:	Glacier Pure, Inc.
Hazardous waste disposal:	North Shore Environmental Construction, Inc.
Carbon changeout:	Siemens Water Technologies, Inc.
Analytical laboratory services:	TestAmerica, Inc.
Air compressor services:	Applied Air Systems, Inc.
GAC vessel repairs:	Environmental Field Services, Inc.

8. Travel

Travel for Crispin Ngoma and Dave Shekoski was reported in the October Technical Status Report.

9. Laboratories

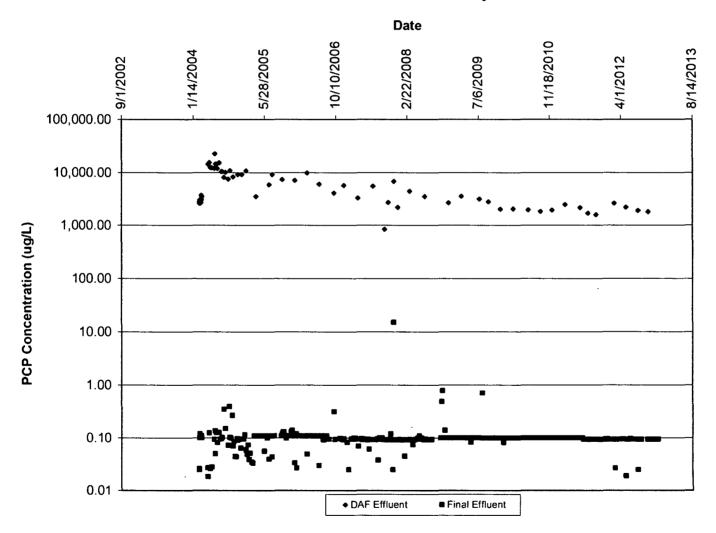
System monitoring samples were submitted to TestAmerica, Inc., of North Canton, Ohio, for analysis. TestAmerica, Inc., is a Wisconsin-certified laboratory with the subcontract for analytical services for 2011 to 2014.

10. Project Performance

The groundwater extraction and treatment system operated continuously with only temporary shutdowns for routine maintenance.

The bioventing system was shut down on October 28 for the winter due to the health and safety concern of methane migration. The bioventing system can remain off throughout the winter without appreciably affecting the biodegradation of PCP in the subsurface and will provide cost savings on energy consumption. Therefore, the bioventing system met the performance standard for this period.

Treatment system effluent sampling results met the discharge criteria in WPDES Permit No. WI-0061531-01-0.



Penta Wood PCP Summary

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenoi (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
27-Dec-11		6.5									0.096U													
3-Jan-12		6.5								-	0.094U													
9-Feb-12		6.5			0.10U						0.094U		0.2U		-									
14-Feb-12	2,600	6.5		19							0.094U							0.62J	1.3UB	32UB	50U	680		
21-Feb-12		6.5						J			0.027J													
28-Feb-12		6.5									0.094U				_			-						
6-Mar-12		6.5			0.06UB						0.095UJ		0.2U		-				_					
13-Mar-12		6.5									0.095U												_	
28-Mar-12		6.5	•								0.095U				-			-						
3-Apr-12		6.5			0.05UJ					-	0.095UJ		0.2U	-							-			
10-Apr-12		6.5									0.095U				-				-					
17-Apr-12		6.5									0.096U													
1-May-12		6.5									0.095U								-					
8-May-12	2,200	6.5		20	0.031J					1.0U	0.019J	1.0U	0.2U	1.0U	1.0U	1.0U	2.0U	0.54J	3.5JB	19JB	50U	870		
15-May-12		6.5									0.094U													
22-May-12		6.5									0.094U													
29-May-12		6.5									0.095U													
5-Jun-12		6.5		-						-	0.097U								-					
26-Jun-12		6.5			0.095U						0.095U		0.2U											

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Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenoi (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)
5-Jul-12		6.5								-	0.095U								_					
17-Jul-12		6.5							•	-	0.095U													
24-Jul-12		6.5									0.094U													
31-Jul-12	1,900	6.5		21	0.095U						0.025J		0.2U			-		0.48J	16	46	50U	860		
7-Aug-12		6.5								-	0.094UJ					-		-						
14-Aug-12	-	6.5									0.094U													
21-Aug-12	_	6.5			0.032UJ						0.094U		0.2U							_				
5-Oct-12		6.5				-				-	0.094U							-						
9-Oct-12	1,800	6.5		20	0.095UJ					1	0.094UJ		0.2U	-				1.7J	1.7UB	46	190	870		
16-Oct-12		6.5								I	0.095U									-				
23-Oct-12		6.5		-							0.095U								-					
30-Oct-12		6.5		1						1	0.094U							-	-					
6-Nov-12	-	6.5								1	0.095U							_	-					
13-Nov-12	-	6.5			0.033UB						0.094U		0.2U						-					
19-Nov-12		6.5								-	0.094U				_			-						
27-Nov-12		6.5								-	0.095U				-			-						
4-Dec-12	-	6.5									0.094UJ													
11-Dec-12		6.5			0.095UJ					-	0.094U		0.2U											
18-Dec-12		6.5								-	0.095U													
26-Dec-12	-	6.5								-	NR							-						

WPDES SAMPLING SUMMARY

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								_		W	PDES SA	MPLING S	UMMARY							-				
Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (mg/L)	Chloride (mg/L)	Diesel Range Organics (mg/L)	Total Organic Carbon (mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 µg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	hylben	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (µg/L); 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins and Furans (all cogeners)

*NA = Sample analysis was on hold and cancelled based on the results of the quick turnaround time samples.

^bNR = Sample results are not yet available from the laboratory.

^cND = Compound was not detected in sample.

-- = Not sampled.

mg/L = milligrams per liter

µg/L = micrograms per liter

pg/L= picograms per liter

Qualifiers:

UB = Analyte found in the method blank.

R = Result is rejected due to quality control issues.

U = Analyte was not detected at or above the stated limit.

* = Result is suspect. Refer to discussion of Wisconsin Pollutant Discharge Elimination System (WPDES) monitoring in Technical Status Report text.

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J = Estimated value.

Voucher No. Standard Form 1035 PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL B124 Sheet No. 22 Contract No. EP-S5-06-01 U.S. ENVIRONMENTAL PROTECTION AGENCY RTP-FINANCIAL MANAGEMENT CENTER CH2M HILL, INC. MAIL CODE-D143-02 1300 S.W. 5th Ave. RESEARCH TRIANGLE PARK, NC 27711 Portland, OR 97201 _____ CURRENT AND CUMULATIVE COSTS, BASE FEE AND PERFORMANCE FEE Term Form Penta Wood Products, WI Work Assignment 132-LRLR-05WE For the month of DECEMBER, 2012 Period: OPTION ----- Hours ----- ----- Amount Claimed -----Major Cost Element Current Cumulative Current Cumulative 350.60 8,911.90 2.90 244.20 10,111.53 66.38 LOE 256,480.14 5,699.02 Clerical -----353.50 9,156.10 10,177.91 1. HOURS/DIRECT LABOR 262,179.16 2. FRINGE BENEFITS 3,778.15 97,998.13 3. OVERHEAD 71,720.66 2,853.58 4,840.88 129,052.24 4. GENERAL AND ADMINISTRATIVE -----24,222.56 0.00 2 105 5. SUBTOTAL LABOR 6. OTHER DIRECT COSTS 7. COMPUTER 2,160.52 15,231.44 1,009.70 24,629.45 15,231.44 24,629.45 8. TRAVEL 9. EQUIPMENT 27,392.78 10. SUBTOTAL 261,122.14 11. TEAM SUBCONTRACTS AND SUBCONTRACT POOL CRITIGEN LLC 351.81 2,268.27 51,451.91 1,140,072.56 SUBCONTRACT POOL ------51,803.72 1,142,340.83 100,847.02 1,964,413.16 12. SUBTOTAL SUBCONTRACTS 13. TOTAL COSTS _____ 0.00 0.00 0.00 0.00 4,697.73 96,151.82 14. BASE FEE 15. PERFORMANCE (AWARD) FEE 16. FIXED FEE _____ ______ 17. TOTAL VOUCHER LESS PLI 105,544.75 2,060,564.98 2,837.29 0.00 **18. POLLUTION LIABILITY INSURANCE** 0.00 0.00 **19. LABORATORY SERVICES** ------20. AMOUNT CLAIMED THIS VOUCHER 105,544.75 2,063,402.27 21. LESS PRIOR PAYMENTS 1,957,857.52 -----22. TOTAL AMOUNT DUE 105,544.75 ______

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