LINGINEERING ARCHITECTURE ENVIRONMENTAL





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

10

\* Results indicate

Vices Migsering a response evens trigsering a response even 4/12/10

December 22, 2010

Ms. Sue Olson City of Appleton 100 North Appleton Street Appleton, WI 54911

RE: Documentation of the excavation of petroleum contaminated soil from the right-of-way at ten locations along STH 96 (Wisconsin Ave.), Appleton.

Dear Ms. Olson:

During the 2010 road construction season, OMNNI coordinated the excavation and proper disposal of petroleum contaminated soil from ten sites, as part of the STH 96 (Wisconsin Ave.) reconstruction project in Appleton. The project involves a two-mile urban section of Wisconsin Ave., from Erb St. on the west end to Ballard Rd. on the east end. (See Map of Sites of Interest, Appendix 1.) The first phase of the project, involving utility work, took place in 2010. The reconstruction of the roadway will take place in 2011. al a the distance of

This stretch of Wisconsin Ave. has a long history as a major east-west arterial in Appleton. Many of its intersections contained multiple gas stations, and a number of auto repair shops and dry cleaning establishments were also located along the roadway.

A 2006 Phase 1 hazardous materials assessment identified 36 known and potential sources of environmental impact along the project corridor. Phase 2 subsurface investigations were carried out in 2007 on 16 sites, many of them uninvestigated former gas stations. As a result of Phase 1 and Phase 2 activities, 28 sites of environmental interest to the road reconstruction project were identified.

In the fall of 2009, OMNNI submitted an application for pre-approval of disposal of contaminated soils at the Outagamie County Landfill (1419 Holland Rd., Appleton, WI 54911). Test results from prior investigations and from the 2007 Phase 2 boring program were submitted to the landfill for review. A soils staging protocol was also submitted for approval. The Outagamie County Landfill approved the application and staging procedure. (See materials in Appendix 2.) Approval was contingent on two conditions:

- 1. OMNNI would screen the soils in the field to make sure that any contaminated soils encountered were contaminated at levels consistent with previously known levels, and
- 2. The soils would first be staged at the landfill and tested, with final acceptance dependent on test results meeting landfill acceptance criteria.

Over the course of the utility phase of the project, OMNNI provided field services at 17 sites. A photoionization detector (PID) was utilized to aid in segregating clean from contaminated soils as utility excavation proceeded.

Contamination was encountered at ten sites:

- 1. 307 W. Wisconsin Ave. (Garvey Parking Lot)
- 2. 111 W. Wisconsin Ave. (Open Pantry)
- 3. 100 W. Wisconsin Ave. (Christy's Service)
- 4. 104 E. Wisconsin Ave. (J&B Trophy)
- 5. 516 E. Wisconsin Ave. (Schoenbohm)
- 6. 800 E. Wisconsin Ave. (Pizza King)
- 7. 1216 E. Wisconsin Ave. (Moose Lodge)
- 8. 1302 E. Wisconsin Ave. (Red Cross)
- 9. 1322 E. Wisconsin Ave. (Wash Basket)
- 10. 1336 E. Wisconsin Ave. (Haviland Hearing Aid)

The depth and extent of contaminated soil was noted in the field. (See the field sheets in Appendix 3.) Contaminated soils were segregated and transported to the Outagamie County Landfill by Van Straten Construction Co. (2117 South Oneida St., Green Bay, WI 54304) or Jossart Brothers Construction (1682 Swan Rd., De Pere, WI 54115), the excavation contractors for the utility project. Contaminated soils were staged on plastic at the landfill, sampled, covered with plastic, and placarded. Soil samples were tested at Synergy Environmental Lab, Inc. (1990 Prospect Ct., Appleton, WI 54914) for gasoline range organics (GRO), diesel range organics (DRO), petroleum volatile organic compounds (PVOCs), and lead. Since the Red Cross site was formerly a dry cleaning establishment, full volatile organic compounds (VOCs) were analyzed. PVOCs were not analyzed at the Pizza King site.

Analytical test results were submitted to the Outagamie County Landfill, and were reviewed by the landfill's consultant. All test results met landfill acceptance criteria, and all staged soils were accepted for disposal at the landfill.

and the state of the state of the state of

าร์ และสู้สารกร้างมายได้กระวัติ (สามาร์) การศึกษาที่สารกร้าง (มองกรร้าง) เป็นสารกร

ſ

ener i servici qu'i de l'instante prese

Laboratory results are found in Appendix 4. Landfilled volumes are found in Appendix 5.

Sincerely,

Brittmacher

Don Brittnacher, P.G., P.E. Hydrogeologist

cc: Mr. Tom Sturm, WDNR, 647 Lakeland Road, Shawano, WI 54166 (without laboratory sheets or landfill tickets)

Appendix 1:Map of Sites of InterestAppendix 2:Landfill Approval MaterialsAppendix 3:Field SheetsAppendix 4:Laboratory ResultsAppendix 5:Landfilled Volumes

## Sterling Dry Cleaners 302 W. Wisconsin Ave.

308		ECT (SEE PLA EXIST R/W	NS) <u>25'R</u> 218+( 302 RAMP, TYP	D3.67 R/ E 3.	- 48.00'LT	X X X X X X X X X X X X X X X X X X X	<b>X X X</b>	S S S X
	9,5'	5'	X X X X X	C X	X X XX		// ·	
217+00	11" • 11"			c	218+00	T		
	11'	STH 96 R	(2 720 NO			······································		

Date	Sample	Description	Contamination Depths	PID	Truck
7/9/10		brown, silty clay		С	-

Note: C = clean, non-contaminated soil

## Phase 2 Subsurface Investigation

at

Sterling Dry Cleaners Property, 304 W. Wisconsin Ave. Appleton, Wisconsin

for

DOT Project Design ID #4075-17-00 Wisconsin Ave. (STH 96) Richmond St. to Ballard Rd., Appleton Outagamie County

December 12, 2007

OMNNI Project #E1715B07

#### ENGINEERING • ARCHITECTURE • ENVIRONMENTAL



Don Brittnacher OMNNI Associates One Systems Dr. Appleton, WI 54914

Ph.: 920/735-6900 Fax: 920/830-6100 Email: don.brittnacher@omnni.com

## TABLE OF CONTENTS

Executive Summary	1
Introduction/Background	1
Geology and Hydrogeology	2
Field Activities	2
Field and Analytical Results	2
Conclusions/Recommendations	4
Standard of Care	4

## LIST OF APPENDICES

## Appendix

Photos, Views, and Figures	1
Site Location Map Environmental History Photo and Plan View of Site, Showing Boring Locations	
DNR Forms	2
Soil Boring Log Information Forms 4400-122 Well/Drillhole/Borehole Abandonment Forms 3300-5B	
Handbook of Field Procedures	3
Laboratory Analysis Results And Chain Of Custody Documentation	4

## Page

#### **EXECUTIVE SUMMARY**

OMNNI Associates has completed a subsurface investigation on the Wisconsin Ave. (STH 96) right-of-way adjacent to the Sterling Dry Cleaners property, 304 W. Wisconsin Ave., Appleton, Outagamie County, Wisconsin. The property is located on the northwest corner of the intersection of Superior St. and Wisconsin Ave. The area investigated was identified as a potentially contaminated site within the area of planned reconstruction of Wisconsin Ave. (STH 96). In a Phase 1 hazardous materials assessment report dated March 29, 2006, OMNNI recommended Phase 2 borings, based on the long-time use of the site as a dry cleaning establishment.

For this Phase 2 investigation, two geoprobe soil borings were installed to a depth of 10 feet. Soil samples were tested for volatile organic compounds (VOCs). There was no field or analytical evidence of soil contamination at the sampled locations.

Temporary wells were installed in the borings, and groundwater samples were taken and sampled for VOCs. Very minor contamination was found in temporary well TW6. There was no evidence of groundwater contamination in temporary well TW5.

Contamination does not pose a potential hazard to project activities. OMNNI recommends no further investigative activity near the right-of-way at the site.

#### INTRODUCTION/BACKGROUND

The Phase 2 services were performed in conjunction with the planned reconstruction of Wisconsin Avenue (STH 96) between Richmond St. and Ballard Rd. in the City of Appleton. The site of the boring project is located in the SE ¼ of the SW ¼ of section 23, T21N, R17E, in the City of Appleton, Outagamie County, Wisconsin. (See Site Location Map, Appendix 1.)

The existing roadway in the project area is in poor condition and deteriorating. Project activities will include the replacement of utilities, road reconstruction, the addition of turn lanes where appropriate, and aesthetic streetscape improvements.

In a Phase 1 hazardous materials assessment report dated March 29, 2006, OMNNI recommended Phase 2 borings at the Sterling Dry Cleaners site. (See Environmental History, Appendix 1.) Dry cleaning operations have occurred at the site for many years, and no record of subsurface investigation at the site was found.

The following are the primary contacts for the project:

- Client: WisDOT Northeast Region, 944 Vanderperren Way, Green Bay, WI 54304-5344; (920) 492-7175. Contact: Kathy Van Price.
- Consultant: OMNNI Associates, One Systems Drive, Appleton, WI 54914; (920) 735-6900. Contacts: Peggy Hawley, Don Brittnacher.
- Geoprober: On-Site Environmental Services, Inc., P.O. Box 280, Sun Prairie, WI 53590; (608) 837-8992. Contact: Joanne Austin.

#### Laboratory: Synergy Environmental Lab, 1990 Prospect Ct., Appleton, WI 54914; (920) 830-2455.

### GEOLOGY AND HYDROGEOLOGY

Surface deposits in the vicinity of the site consist of glacial lake deposits formed during the Pliestocene period. United States Geological Survey maps (<u>Water Resources of</u> <u>Wisconsin - Fox-Wolf River Basin</u>, by Perry G. Alcott, 1968) indicate that the deposits in the area are composed of clay, silt, and sand. The deposits overlie the Platteville, Decorah, and Galena dolomite.

Soil samples collected during geoprobing activities at the site consisted of clay, with a sandy clay seam at six feet below the surface. Bedrock was not encountered in the borings, and is anticipated to be over 50 feet from the surface

Topography on-site is flat. During geoprobing activities, groundwater was encountered at approximately 5.2 feet below the ground surface. The groundwater flow direction is unknown, but is anticipated to be in a southeasterly direction, based on investigative work done on the property across Wisconsin Avenue to the south of the subject property.

The soils on-site consist primarily of Kewaunee silt loam soils, which are gently sloping, moderately well drained and well drained soils.

#### **FIELD ACTIVITIES**

On July 10, 2007, OMNNI coordinated the installation of two geoprobe soil borings (B5 and B6) at the site. The borings were installed in street right-of-way. (See Photo and Plan View of Site, Showing Boring Locations, Appendix 1.)

The borings were drilled to a depth of 10 feet. (See soil boring log information forms, Appendix 2.) Soil samples were obtained continuously for field screening with a photoionization detector (PID). At each sampling interval, a representative portion of the soil was also collected for possible laboratory analysis. (See Handbook of Field Procedures, Appendix 3.) Soil samples were chosen from each boring for laboratory analysis based on Department of Transportation protocol.

Temporary monitoring wells were installed in the borings. The wells were allowed to recover prior to testing.

Approximately two gallons of soil cuttings were collected during the geoprobe activities. The soil cuttings were contained until return of the laboratory results, and are being disposed of properly.

#### FIELD AND ANALYTICAL RESULTS

Headspace screening results from the two soil borings were 0.0 ppm (isobutylene equivalents). (See soil boring logs for headspace data, Appendix 2.) Field headspace results did not show evidence of contamination in the borings. No staining or odors were evident.

The soil samples collected from the borings were tested for volatile organic compounds (VOCs). The analytical samples were collected from the 7.5 – 10 feet interval in boring B6 and the 5 – 7.5 feet interval in boring B7. Laboratory analysis revealed no evidence of contamination. (See Table 1 – Summary of Laboratory Analysis - Soil Samples, <u>below</u>, and Laboratory Analysis Results and Chain of Custody Documentation, Appendix 4.)

### TABLE 1

#### SUMMARY OF LABORATORY ANALYSIS

#### SOIL SAMPLES

Sterling Dry Cleaners - 304 W. Wisconsin Ave.

PARAMETER	NR 720.09 RCLs based on protection of groundwater	B5-3 (TW5)	B6-4 (TW6)
SAMPLE DEPTH (feet)		5 - 7.5	7.5 - 10
SAMPLE DATE		7/10/07	7/10/07
PID LEVEL (ppm - isobutylene equivalents)		0	0
VOCs (µg/kg)	-	ND	ND

RCL = residual contaminant level

ND = all parameters < 25 ug/l, except m&p-xylene, which is < 50 ug/l.

## TABLE 2 SUMMARY OF LABORATORY ANALYSIS GROUNDWATER SAMPLES Sterling Dry Cleaners - 304 W. Wisconsin Ave.

PARAMETER (µg/L)	ES	PAL	TW5 (B5)	TW6 (B6)
SAMPLE DATE	7/13/07	7/13/07		
DETECTED VOCs				
TOLUENE	< 0.46	1.14 "J"		

ES = enforcement standard

PAL = preventive action limit

1.14 "J" = detected between the limit of detection and the limit of quantitation.

The groundwater samples collected from the temporary wells were tested for VOCs. (See Table 2 – Summary of Laboratory Analysis, Groundwater Samples, <u>above</u>, and Laboratory Analysis Results and Chain of Custody Documentation, Appendix 4.) Toluene was detected at 1.14 ug/L in temporary well TW6. There was no evidence of groundwater contamination in temporary well TW5.

All boreholes were properly abandoned. (See borehole abandonment forms, Appendix 2.)

#### CONCLUSIONS/RECOMMENDATIONS

Based on field testing and laboratory analysis results, contamination was not found at high enough concentrations and at elevations close enough to the surface to pose a potential hazard to project activities. OMNNI recommends no further investigative activity near the right-of-way at the site.

#### STANDARD OF CARE

¥

The conclusions presented in this investigation were arrived at using generally accepted hydrogeologic and engineering practices. The conclusions presented herein represent our professional opinions, based on the data collected at the time of the investigation, at the specific boring and sampling locations discussed in this report. Conditions at other locations on the property may be different than described in this investigation. The scope of this report is limited to the specific project and location described herein.

**Prepared By:** 

Don Brittnacher, P.G., P.E. Hydrogeologist, Engineer

(Professional Geologist)

BRITTNACHE G-462

"I, Don Brittnacher, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all



## **APPENDIX 1**

Site Location Map; Environmental History; Photo and Plan View of Site, Showing Boring Locations



Source: Mapquest, 2007



Ν

Site Location Map Sterling Dry Cleaners, 304 W. Wisconsin Ave.

Project: Wisconsin Avenue (STH 96) Richmond Street to Ballard Road Appleton, Outagamie County, Wisconsin



Project Number: N1715B07

Date: October 15, 2007

One Systems Drive, Appleton, Wisconsin 54914-1654 Phone: (920) 735-6900 Fax: (920) 830-6100

## Environmental History Sterling Dry Cleaners, 304 W. Wisconsin Ave.





## **APPENDIX 2**

### **DNR Forms**

State of Wisconsin Department of Natural Resources

SOIL BORING L	OG INFORMATION
Form 4400-122	Rev. 7-98

				Rou	<u>te To:</u> Water Reme	shed/Wastewater	Waste Ma Other	nageme	nt 🔲 Wis (	OT							
	Ster Facili	rling ty/Pubj	We cci Na	st b	oring;	DOT 1D 4075	5-17-00 [Lie	) <u>30</u> cense/Pe	/ W. ( zmit/M	Wisco onitoria	0 <u>0 5/ P</u> 18 Nun	n Ave	Borin	Page g Num	 ber	_of	<u></u>
	Wisconsin Ave, /STH 96: Richmond-Ballard:								<u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u>_</u> <u>_</u> <u>_</u> <u></u>								
	First)	ame;	a by:	IVALU	Last Name:		ľ	7,10	ng 5000 ク, 20	007	7	, 10	,20	07	00	പ്പാ	he
	Firm:	On	<u>- Sit</u>	<u>e En</u>	vironment	g	m Fin	m d	d y y	y y	m m Surfa	d d	y y	ÿÿ	J. Bornh	Je Di	mater
		·					<b></b>		_Feet ]	MSL	-	· .	_Feet	MSL	2 inches		
	Local State J	Grid C Jane	rigin	<b>(</b> e	timated: D) o N.	Boring Location E	C/N	Lat_	0	• ••	Local	Grid L	ocatio	n I NI			
	SE	1/4 of	SW	1/4 of	Section 23	. T_21_N, R_17_	E <b>/W</b>	Long_	0	• •••		F		IS		Feet	
	Facili	y ID			County	Outagamie	Count 4	y Code	Civil	Town/	City) o	r Villa	<sup>ge</sup> A	pple	etor	1	
	Sam	ple		(ace)		J			1				Soil	Prope	rties		
-	mber I Type	ngth Att. 8 sovered (in	ow Counts	pth in Feet ow ground sur	, S Ал	oil/Rock Description d Geologic Origin For Each Major Unit		scs	phic	ell agram	D/FID	npressive ength	oisture ntent	ruid	sticity lex	8	D/ inments
	นี้ รื	Rev Le	BI	Åě				Þ	8.3	}≯⊼	ā	S S S S	žð	ĒČ	ឌី ភ្ម	P2	23
				Ë.	gray tops	soil ()							1				
33	5-1				gray-bro	own silt					0		d				
				E2													
				F										:			
				E3	aray bro	wn clau				[			4.				
ß	5-2			E,	July-Di						0		14				
-	~	:		E '	2			1					võ				
				<u>E-</u> 5										·			
				E								:					
33	-3			Ē۴	red brow	un sand, cla	P			ŀ	0		w				
ں۔ د	4			E7		of sundy only		1									1997 - E. S.
				E	red.brow	wn clau			1								
				E-8	1. S. S. S.				1								
25	4			E			•			1.							
بر	-1			Fî									Ŵ				
				E,							:						
			-	E	e.o.b.			ľ	1.								
			-	E I		•			1							. 1	
				E				1									
-	]		-	<b>F</b>			;										
I	hereb	y cert	ify th	at the	information on	this form is true and	correct to	o the be	st of n	iy kno	wledg	e. 					
3	-Kuam	1C (	Do	J	rittnach	er		"	MNN	JI A	550	cìat	es				

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

State of Wisconsin Department of Natural Resources

Signature

Jon.

SOIL BORING	LOG INFORMATION
Form 4400-122	Rev. 7-98

			Rou	<u>te To:</u>	Watershed/Waster Remediation/Reve	water 🔲 Waste clopment 🔆 Oth	Manag ner D	gement	$\square$	OT_							
<u>S4</u> Facil	er line	, E	ast me	Bori	ngj DOT	ID 4075-17	-00 : Licen	<u>304</u> sc/Pen	W. U nit/Mo	<u>);sco</u> nitorin	n Sik	Ave	2 . Boring	Page g Num	/	_of _	<u> </u>
Wisconsin Ave, STH 96: Richmond-Ballard:						a llard '	Bata Drilling Started Data Drilling Completed Drilling Started										
First	Name:	~ <i>D</i> J.	Jacobi	Last]	Name:		7	,10	,20	07	7	nining v ( ()	20	07	080	8 MGU	he
Firm	<u>On</u>	<u>- Sit</u>	<u>e En</u>	VITON	mental	News	mm	d d	ÿÿ	ÿÿ	108 108 Same		y y	ÿ ÿ	<u>ycc</u>		<i>PC</i>
wit	mque	wen N	io.	DINK		I I VALINC			Feet M	ISL	501 Iac	C Elev	_Feet ]	MSL	DOTEN	2 in	nches
Loca	I Grid (	Drigin	□ (es	stimated	D) or Boring L	E SICAL		at	0,		Local	Grid L	ocatio	n			
State	1/4 of	SW	1/4 of	Sectio	n 23 T 2/ N		lo		0 '			F		N S		Feet	O E N w
Facil	ity ID		_ +/ 1 //		County	<u> </u>	unty C	ode	Civil '	Fown/	City) or	r Villa	ge v	<u> </u>			
		<b>.</b>			Outage	amie –	<u> </u>	<u></u>					A	pple	2+01	)	· · · · · · · · · · · · · · · · · · ·
वा	જે દે		Line Line		Soil/Rock De	scription							3011	Tope	ues		
nber Type	gth Att.	v Count	th in Fee v ground :		And Geologic Each Majo	Origin For r Unit		CS	hic	ll grann	/FID	pressive ngth	sture tent	itid	ticity x		)/ menu
n n N	Re L	Blo	<b>0</b>	1				D.	មិនី	Diag	PID	S S S S S S S S S S S S S S S S S S S	C Moi	۲. ۲.	Plas Inde	P 20	No. No. No. No. No. No. No. No. No. No.
	1			cov	ncrete/base	course											
B6-1	1		F	<b> </b>							0		d				
			E_2	no	recovery				5								•
B6-2						-					O		m				
				red	-brown cla	Ý											
B6-3			16								Ø		ω				
			E-7													•	
		-	8		÷.	• •											
B6 -4			-9		•.	· ·					0		W				
*-			E ,														
			E"	e,0,	<u>b.</u>											, ,	
			E														
			E														- -
			ΕI														
I here	by cert	ify that	at the i	inform	ation on this form i	is true and corre	ct to th	e best	tofmy	y knov	ledge	<b>-</b>					<u> </u>

Brittmacher Firm OMNNI Associates

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

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

### Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 12/04)

Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:	
Drinking Water Watershed/Wastewater Waste Managem	ent Remediation/Redevelopment Other: Wis D07
1. General Information	2. Facility / Owner Information
WI Unique Well No. DNR Well ID No. County	Facility Name
<u> </u>	STH 96 (Wisconsin Ave.) R.O.W.
Common Well Name Gov't Lot # (#applicable)	Facility ID License/Permit/Monitoring No.
	Sterling, west baring
Val Va Section Township Range	E Street Address of Well
SE SW 23 21 N 17	W SUG WI WISCONSIN IVE,
Well Location [ft.]/M (Local Grid ) Datum	A a la face [1]
N/SE/W	Present Well Owner Original Well Owner
Zor	City of Appleton City of Appleton
	Street Address of Route of Present Owner
	100 N, Appleton St.
N,E//WZor	City State ZIP Code
WTM- UTM- Latitude/Longitude- State Plane- State	Hppleton WI 349//
Reason For Abandonment WI Unique Well No. of Replacemer	4. Pump, Liner, Screen, Casing & Sealing Material
no longer needed	Pump and piping removed?
3. Well / Drillhole / Borehole Information	Liner(s) removed?
Original Construction Date	Screen removed?
Monitoring Well 7/10/07	Casing left in place?
Water Well If a Well Construction Report is available	ble, Was casing cut off below surface?
Borehole / Drillhole please attach.	Did sealing material rise to surface? Xes No N/A
Construction Type:	Did material settle after 24 hours? $\Box$ Yes $\Delta$ No $\Box$ N/A
Drilled Driven (Sandpoint) Dug	If yes, was hole retopped?
X Other (specify): <u>qeoprobe</u>	If bentonite chips were used, were they hydrated with water from a known safe source? $\Box_{Yes} \Box_{No} \Box_{N/A}$
Formation Type:	Required Method of Placing Sealing Material
Unconsolidated Formation Bedrock	Conductor Pipe-Gravity Conductor Pipe-Pumped
Total Well Depth From Groundsurface (ft.) Casing Diameter (in.)	(Bentonite Chips)
10	Sealing Materials
Lower Drillhole Diameter (in.) Casing Depth (ft.)	Neat Cement Grout Clay-Sand Slurry (11 lb./gal. wt.)
	Sand-Cement (Concrete) Grout Bentonite-Sand Slurry " "
Was well annular space grouted? Yes No Unkr	hown For Monitoring Wells and Monitoring Well Boreholes Only:
If yes, to what depth (feet)? Depth to Water (feet)	Bentonite Chips Bentonite - Cement Grout
5.4	Granular Bentonite Bentonite - Sand Slurry
5. Material Used To Fill Well / Drillhole	From (IL) To (IL) No. Yards (Sacks Bealant Mix Ratio or Mud Weight -
topsoil	Surface 0,5
bentonite	0.5 10 1/3
6. Comments	

7. Supervision of Work				DA	IR Use Only
Name of Person or Firm Doing Sealing Work		Date of Ab	andonment	Date Received	Noted By
OMNNI Associates		7/	13/07		
Street or Route		Telephone	Number	Comments	
One Systems Dr.		(920)	135-6900		
City	State Z	IP Code	Signature of Pers	on Doing Work	Date Signed
Appleton	W/	54914	Non O,	rittnacher	7-20-07
		. •		· · · · · · · · · · · · · · · · · · ·	

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

Well / Drillhole / Bo	rehole Abandonment
-----------------------	--------------------

Form 3300-005 (R 12/04)

Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:	
Drinking Water Watershed/Wastewater Waste Management	Remediation/Redevelopment Cother: Wis D07
1. General Information	2. Facility / Owner Information
WI Unique Well No. DNR Well ID No. County	Facility Name
B6 Outagamie	STH 96 (Wisconsin Ave.) R.O.W.
Common Well Name Gov't Lot # (# applicable)	Facility ID License/Permit/Monitoring No.
	Sterling, east boring
1/4 / 1/4 Section Township Range K E	Street Address of Well
SE   SW   23   21 N 17 1 W	304 W. Wisconsin Ave.
Well Location ft. / M (Local Grid ) Datum	City, Village or Town
	Appleton, WI
Zone	C'i a Calada
WTMUTMLatitude/LongitudeState PlaneSCN	City of Appleton City of Appleton
Local Grid Origin ft. / M Datum	100 Al Appleton St
N. EI/W	City State ZIP Code
Zone	Appleton WI 54911
WTM UTM Latitude/Longitude State Plane S C N	A. Dump Liner Screen Casing & Soding Material
Reason For Abandonment WI Unique Well No. of Replacement Well	
no longer needed	Pump and piping removed?
3. Well / Drillhole / Borehole Information	Liner(s) removed?
Original Construction Date	Screen removed?
7/10/07	Casing left in place?
If a Well Construction Report is available,	Was casing cut off below surface?
Borehole / Unilhole please attach.	Did sealing material rise to surface?
Construction Type:	Did material settle after 24 hours?
Drilled Driven (Sandpoint) Dug	If yes, was hole retopped?
Other (specify):	If bentonite chips were used, were they hydrated with water from a known safe source?
Formation Type:	Required Method of Placing Sealing Material
Unconsolidated Formation Bedrock	Conductor Pipe-Gravity
Total Well Depth From Groundsurface (ft.) Casing Diameter (in.)	Bentonite Chins)
	Sealing Materials
Lower Drillhole Diameter (in.) Casing Depth (ft.)	Neat Cement Grout Clay-Sand Slurry (11 lb./gal. wt.)
2 10	Sand-Cement (Concrete) Grout Bentonite-Sand Sturry "
Was well annular space grouted? Yes No Unknown	Concrete Bentonite Chips
If yes, to what depth (feet)? Depth to Water (feet)	Bentonite Chips Bentonite - Cement Grout
5.1	Granular Bentonite
5. Material Used To Fill Well / Drillhole	From (ft.) To (ft.) No. Yards (Sacks Sealant Mix Ratio or Mud Weight
concrete	Surface 0,5
bentonite	0.5 10 1/3
6. Comments	
7. Supervision of Work	DNR Use Only

7. Supervision of Work			5	. DN	R Use Only
Name of Person or Firm Doing Sealing Work		Date of Aba	andonment	Date Received	loted By
OMNNI Associates		7/1	3/07		
Street or Route		Telephone	Number	Comments	
One Systems Dr.		(920) 7	35-6900		
City	State	ZIP Code	Signature of Per	son Doing Work	Date Signed
Appleton	WI	54914	Non O	rittnacher	7-20-07
11		•			

## APPENDIX 3

## Handbook of Field Procedures

HANDBOOK OF FIELD PROCEDURES

## TABLE OF CONTENTS

Personnel Qualifications	1
Soil Boring Installation Procedures	2
Soil Sampling Procedures Minimum Sample Headspace Equilibration Time Instrument Specifications	2 3 3
Monitoring Well Installation and Development Procedures	4
Groundwater Sampling Procedures and Volatile Organic Compound (VOC) Sampling Notes	4
Decontamination Procedures Drilling	7 7
Table 1 – Soil Sample Preparation Guide*	8
Table 2 – Soil Sample Analysis Guide for Petroleum Contamination	9
Table 3 – Groundwater Sample Preparation Guide*	.10

## PERSONNEL QUALIFICATIONS

	Completed 40-hour hazardous waste training.			
	Bachelors Degree in Electrical Engineering from University of Wisconsin-Milwaukee.			
Brian D. Wayner:	Masters Degree in Environmental Engineering from University of New Haven.			
	PECFA Consultant Registration #47551.			
	Licensed Professional Engineer (no. 35304), State of Wisconsin			
	Completed 40-hour hazardous waste training.			
	Bachelors Degree in Geology from University of Notre Dame.			
Don Brittnacher:	Masters Degree in Environmental Health Engineering from University of Notre Dame.			
	Licensed Professional Geologist (no. 462), State of Wisconsin			
	Licensed Professional Engineer (no. 30286), State of Wisconsin			
	PECFA Consultant Registration/Certified Site Assessor-42127.			
	Completed 40-hour hazardous waste training.			
	Bachelors Degree in Geology from Lawrence University, Appleton, WI.			
David L. Fries:	Masters Degree in Environmental Science from University of Wisconsin-Green Bay.			
	Licensed Professional Geologist (no. 192), State of Wisconsin			
	PECFA Consultant Registration/Certified Site Assessor-42009.			
	Certified Hazardous Materials Manager (no. 10226)			
	Completed 40-hour hazardous waste training.			
lason C. Weist	Bachelors Degree in Civil Engineering from University of Wisconsin-Platteville.			
	Masters Degree in Environmental Engineering from University of Wyoming.			
	Licensed Professional Engineer (no. 36681), State of Wisconsin			
	Completed 40-hour hazardous waste training.			
Deanna L. Drum:	Associate Degree in Mechanical Design, Fox Valley Technical College.			

## SOIL BORING INSTALLATION PROCEDURES

A number of different drilling and Geoprobing<sup>®</sup> firms are used for environmental investigations. Borings intended to be converted to monitoring wells are advanced using 7 5/8" outside diameter (O.D.) x 4.5" inside diameter (I.D.) hollow stem augers or 6.25" O.D. solid stem augers powered by a truck-mounted drill rig. If bedrock drilling is required, borings are advanced using either air or mud-rotary drilling techniques. Soil borings not intended for monitoring wells are typically advanced using 4" O.D. solid stem augers. The Geoprobe<sup>®</sup> typically advances a 2" diameter hole. All soil borings that are not converted to permanent or temporary groundwater monitoring wells are properly abandoned per chapter NR 141, Wisconsin Administrative Code.

Samples are typically obtained from each boring at 2.5' intervals by split-spoon sampling according to American Society for Testing and Materials (ASTM) Standard D 1586. A portion of each sample is screened with a photoionization detector (PID). At each sampling interval, a representative portion of the soil is also collected for possible laboratory analysis. Soil samples are chosen from each boring for laboratory analysis based on headspace screening data, and visual and olfactory observations. In general, the sample from each boring that exhibits the highest PID reading is chosen for analysis. See the Soil Sampling Procedures below for further information pertaining to field headspace analysis and sample collection procedures.

## SOIL SAMPLING PROCEDURES

All soil sampling is performed in accordance with the Wisconsin Department of Natural Resources (WDNR) publication PUBL-SW-127, <u>Soil Sampling Requirements for LUST Site</u> <u>Investigations and Excavations</u> and chapter COMM 10, <u>Flammable and Combustible</u> <u>Liquids</u>, Wis. Adm. Code. The soil samples are collected and analyzed in accordance with methods described in Table C-3 in Appendix C of WDNR PUBL-RR-614, <u>Interim</u> <u>Guidance On Natural Attenuation For Petroleum Releases</u>, 1999. Our standard instruments and sample collection procedures are as follows:

- 1. Soil samples are collected from a split-spoon sampler or a polyethylene tube during environmental drilling.
- 2. Sample collector wears new latex exam gloves when collecting samples to decrease the risk of personal exposure and cross contamination.
- 3. A portion of the sample is collected in a sampling syringe and placed in an appropriate container (see Table 1), immediately placed on ice, and later delivered to a WDNR-certified laboratory for analysis. This procedure is discussed in more detail later in this report.

4. The remaining portion of the sample is placed in a clean 4 oz. jar (approx. halffilled), and sealed with aluminum foil and a teflon-lined lid. The headspace sample is then agitated for a minimum of 30 seconds and allowed to equilibrate. Minimum equilibration time will correspond to the following specifications:

### Minimum Sample Headspace Equilibration Time

Ambient Outside Air Temperature at the Time of Sample Collection:	Minimum Amount of Time Sample Must equilibrate at 70° F or Greater Temperature:
< 40 °F	40 minutes
41 – 55 °F	20 minutes
56 – 69 °F	10 minutes
> 70 °F	5 minutes

### Instrument Specifications

When the sample has completed equilibration, it is promptly field analyzed with a portable PID. OMNNI uses either a Photovac Inc. Microtip HL-200 or ML-1000 or a Thermo Environmental Instruments Model 580A organic vapor monitor (OVM), both equipped with an 11.2 ev lamp. A background reading is first taken. The PID probe is then inserted into the jar through a single hole in the aluminum foil. The instrument reading is measured at one-half the distance between the foil seal and the sample surface. The measured reading is then recorded.

Isobutylene at a concentration of 100 ppm is used for field calibration gas. The PID meter is field calibrated at the following times:

- At the beginning of each day
- After any significant change in temperature or humidity
- Every three hours
- After any repairs to the instrument are performed

All samples are returned to the laboratory as soon as possible, usually the day the sample was collected. All samples are returned to the laboratory under chain-of-custody protocol, using form #4400-151. Time of sample collection and sample PID reading are listed. Care is taken to ensure that the chain-of-custody form is properly and fully completed before submitting to the laboratory. The samples are sent to a laboratory certified by the WDNR.

Table 2 on page 9 outlines the required WDNR laboratory analysis for specific contaminants. Soil analyses, other than those in Table 2, will be conducted in accordance with methods approved by the WDNR.

F:\ENVIRO\HANDBOOK\procedures.doc rev. 3/11/05 3

## MONITORING WELL INSTALLATION AND DEVELOPMENT PROCEDURES

The permanent monitoring wells are typically constructed of two-inch, schedule 40, flushthread polyvinyl chloride (PVC) casings and slotted well screens. Temporary wells are constructed of one-inch diameter, schedule 40 PVC casings and slotted screens. Prior to use, well parts are individually wrapped in plastic.

Permanent wells are installed and developed according to chapter NR 141, Wis. Adm. Code. The monitoring wells are installed with five to fifteen-foot screens which are placed in the borings to intersect the water table. Piezometers are installed with five-foot screens sealed beneath the water table. Filter pack and annular space seal material are installed by gravity as the augers are withdrawn from the hole. Wells are cut to the required height using a PVC pipe cutter.

An as-constructed well and boring survey is performed by OMNNI once field work is complete. Elevations are either based on a local datum of 100 feet, or a United States Geological Survey (USGS) elevation, assigned to a mark on a reference point located at the site. Ground elevation is surveyed to the nearest 0.1 foot, and the top of the well casing to the nearest 0.01 foot.

A horizontal grid system is established at the site with the origin of the grid set on the reference point. Wells and borings are located with respect to this grid system.

To properly develop each permanent monitoring well, water is removed until a consistent water quality is obtained. This is done by removing 10 times the water volume in the well and filter pack, removing water until it is free of sediment, or removing the water until the well is purged dry. Water is removed from the wells by bailing the water with as little agitation as possible. If the water level is unaffected by bailing and large amounts of water are to be removed, the well is developed by using the surge and purge method with a centrifugal pump. No water is added to the well during development. Temporary wells may be developed by allowing the peristaltic pump to run until the water is as clear as possible.

The development water is drummed, pending the results of analytical testing. If the well is suspected to be clean and small volumes of water are to be removed, the water may be spread on pavement to volatilize any possible contaminants. If the water is contaminated, it is properly disposed.

## GROUNDWATER SAMPLING PROCEDURES AND VOLATILE ORGANIC COMPOUND (VOC) SAMPLING NOTES

A. Devices used to measure water elevation, purge wells and retrieve samples:

- 1. Groundwater levels are measured with a fiberglass reel tape with a weighted stainless steel "sounder" at the end.
- 2. In wells that have free product on top of the water surface, depth to water and depth to product are measured with a fiberglass reel tape with an interface probe at the end.
- 3. Wells are purged and samples are collected by one of the following methods:
  - a) Wells are purged with a disposable bailer.
  - b) Alternate purging and sampling equipment consisting of a peristaltic groundwater sampling pump.
- B. Procedures for calculating purge volumes, purging wells and sampling:
  - 1. Wells are normally sampled starting from the upgradient area and progressing toward the downgradient area of the site. When the degree of contamination is known, least contaminated wells are sampled first, the more contaminated wells sampled last.
  - 2. All the wells are opened before the depth to groundwater is determined to allow groundwater to equilibrate.
  - 3. Wells are purged with a bailer by removing four water volumes within a casing or all the water until the well runs dry. When using a peristaltic pump, water is removed for 10 to 20 minutes.
  - 4. Once all the wells have been purged, the samples are drawn using equipment mentioned above. (See Table 3 Water Sample Preparation Guide)
  - 5. Sample odor, turbidity, temperature, conductivity, dissolved oxygen (DO) and pH are determined on the unfiltered portions of the sample and recorded on the well specific field sheet.
  - 6. When the sample requires filtering, the sample is filtered with a hand pump or an in-line pump (as soon after collection as possible).
  - 7. Quality Assurance/Quality Control Samples
    - a) Trip and field blanks each consist of three new 40 milliliter (ml) vials filled with deionized water. These are sent to the laboratory for petroleum volatile organic compound (PVOC) or VOC analysis.

- b) One field blank should be analyzed for every 10 samples collected. At least one trip blank is taken per site visit. Trip blanks are poured, labeled, and sealed, then taken out in the field. Field blanks are poured, labeled, and sealed at the site. Trip blanks are kept with all samples collected until reaching the field. If there is a possibility for field cross-contamination of samples, field blanks may be taken at the sample collector's discretion.
- c) One temperature blank may be collected per batch of samples.
- d) One duplicate sample may be collected with every 10 samples.
- 8. Samples are refrigerated, then transported to a WDNR-certified laboratory for testing as soon as possible.
- 9. A chain-of-custody form is filled out, listing all samples collected, requested laboratory analysis, date and time of collection, and the name of the sample collector. This document remains with the samples at all times and bears the names of all persons handling the samples until they are received at the laboratory.
- C. Procedures for cleaning equipment:
  - 1. In the field, sampling equipment is rinsed with a 10% methanol solution and then flushed three times with deionized water between each well sampled.
  - 2. Equipment that is still contaminated after field cleaning will be rinsed with tap water, washed off with detergent, rinsed with a 10% methanol solution, and flushed three times with deionized water.
- D. Transporting samples to laboratory:
  - 1. Filtered, preserved, labeled, and sealed samples are placed on ice and transported to the laboratory for analysis as soon as possible.
  - 2. The laboratory will be notified by the sample collector when courier service is required.
- E. The above procedures constitute normal groundwater sampling procedures for permanent groundwater monitoring wells. Modifications to each of the outlined items may be applicable for site specific conditions or special volatile organic sampling considerations. Methods used are consistent with WDNR's <u>Groundwater</u> <u>Sampling Field Manual</u>, Publ. DG-038 96, September 1996 and WDNR's <u>Groundwater Sampling Desk Reference</u>, Publ. DG-037 96, September 1996.

## **DECONTAMINATION PROCEDURES**

Decontamination is the process of removing and/or neutralizing contaminants that may have accumulated on personnel protective equipment (PPE) and equipment. Proper decontamination is a critical element in the control of hazards which helps ensure the health and safety of workers. Proper decontamination also contains the contamination to the site, thus preventing further environmental problems.

## Drilling

The following decontamination procedures should be used when completing borings, installing monitoring wells, and/or installing remediation systems.

- A. Between samples, the split spoon will be cleaned in a multiple rinse, surfactant solution (soap and water or Alconox solution.)
- B. The sample will be collected while wearing new latex exam gloves.
- C. The surface upon which the sample is collected is cleaned between samples.
- D. The latex exam gloves are changed between samples.
- E. Soil which has accumulated around the boring will either be stockpiled or drummed. If the soil is stockpiled, it will be placed on and covered with plastic. The stockpiled or drummed soil will later be disposed in compliance with the WDNR regulations.
- F. Upon completion of the boring, the augers will be decontaminated by drilling contractors before they are used again. The following procedures will be followed when decontaminating drilling equipment:
  - 1. A decontamination basin lined with plastic is set up near the work area.
  - 2. All contaminated equipment is placed in the decontamination basin.
  - 3. A pressurized steam cleaner is used to clean all contaminated equipment.
  - 4. Following steam cleaning, the auger is removed from the decontamination basin.
  - 5. Upon completion of the job, the accumulated water in the decontamination basin is pumped out and placed in a drum. Wash water used for cleaning the split spoons is also added to the drum. The drum will be disposed in compliance with all regulatory agencies. The plastic used in the decontamination basin is disposed in compliance with all regulatory agencies.

## TABLE 1 – SOIL SAMPLE PREPARATION GUIDE\*

TEST	CONTAINER SIZE**	SAMPLE SIZE	PRESERVATIVE	HOLDING TIME
<b>GRO</b> Gasoline Range Organics	2 oz. wide mouth glass jar or 40 ml vial (2 per sample)	25 g – jar 13 g – vial	25 ml Methanol (purge & trap grade) – jar none required – vial	4 days
<b>DRO</b> Diesel Range Organics	2 oz. wide mouth glass jar or 40 ml vial (2 per sample)	25 g – jar 13 g – vial None		4 days
Total Lead/ or all RCRA Metals	4 oz. wide mouth plastic jar (2 per sample)	4 oz.	None	6 months
<b>VOC / PVOC</b> Volatile Organic Compounds	2 oz. wide mouth glass jar or 40 ml vial (2 per sample)	25 g – jar 13 g – vial	25 ml Methanol (purge & trap grade) – jar none required – vial	4 days preserved , 48 hours non- preserved
<b>PCB</b> Polychlorinated Biphenyls	4 oz. wide mouth glass jar (2 per sample)	4 oz.	None	14 days
<b>PAH</b> Polynuclear Aromatic Hydrocarbons	4 oz. wide mouth glass jar (2 per sample)	4 oz.	None	14 days

\* All samples will be sealed, labeled, and placed on ice immediately after collection.

\*\* To ensure a proper seal between the sample container and the cap, no soil shall remain on the jar or cap threads. When samples are collected with the syringe, a 40 ml vial is used and the sample is preserved by the laboratory.

## TABLE 2 - SOIL SAMPLE ANALYSIS GUIDE FOR PETROLEUMCONTAMINATION

PETROLEUM SUBSTANCE	CLOSURE ASSESSMENT	SOLID WASTE PRO./LANDFILLS	SITE INVESTIGATIONS
Gasoline Aviation Fuel	GRO	Free Liquids GRO Benzene Haz. Waste Det.	GRO PVOC/VOC Pb
Diesel Jet Fuel No.'s 1, 2, 4 Fuel Oil	DRO	Free Liquids GRO Benzene Haz. Waste Det.	DRO PVOC PAH
Crude Oil Lubricat. Oil No. 6 Fuel Oil	DRO	Free Liquids DRO Haz. Waste Det.	DRO PAH
Unknown Petroleum	GRO and DRO	Free Liquids GRO and DRO Pb, Cd, CN, S Haz Waste Det.	GRO and DRO VOC/PVOC PAH Pb, Cd
Waste Oil	DRO	Free Liquids DRO VOC Pb, Cd, CN, S Haz. Waste Det.	DRO VOC/PVOC PAH PCB Pb, Cd

## **TABLE 3 – GROUNDWATER SAMPLE PREPARATION GUIDE\***

TEST	SAMPLE SIZE / CONTAINER	PRESERVATIVE	HOLDING TIME
<b>VOC</b> / <b>PVOC</b> Volatile Organic Compounds	3 - 40 ml vials filled with no headspace	0.5 ml of 1:1 HC1	14 days
<b>DRO</b> Diesel Range Organics	1 - 1 liter amber glass bottles	5 ml of 1:1 HC1	7 days
<b>GRO</b> Gasoline Range Organics	3 - 40 ml vials filled with no headspace	0.5 ml of 1:1 HC1	14 days
<b>PAH</b> Polynuclear Aromatic Hydrocarbons	1 - 1 liter amber glass bottles	None	7 days
<b>PCB</b> Polychlorinated Biphenyls	1 - 1 liter amber glass bottle	None	7 days
LEAD / RCRA metals **	1 - 250 ml plastic bottle	2 ml of HNO <sub>3</sub> or to a pH of <2	6 months

\* All samples will be sealed, labeled, and placed on ice immediately after collection.

\*\* When testing for dissolved metals, the sample will be field filtered before preservation.

## **APPENDIX 4**

Laboratory Analysis Results and Chain of Custody Documentation

#### WIS AVE. RICHMOND TO BALLARD Project Name

E1715B07

Invoice # E15669

5015669D Lab Code Sample ID B4-1

Project #

Sample Matrix Soil 7/10/2007 Sample Date

•	Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
1,4-Dichlorobenzene	< 25	ug/kg	15	47	. 1	8260B	7/17/2007	СЛ	1
1,3-Dichlorobenzene	< 25	ug/kg	15	48	1	8260B	7/17/2007	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	18	57	1	8260B	7/17/2007	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	20	62	1	8260B	7/17/2007	CJR	1
1,2-Dichloroethane	< 25	ug/kg	19	60	1	8260B	7/17/2007	СЛ	1
1,1-Dichloroethane	< 25	ug/kg	20	62	1	8260B	7/17/2007	СJR	1
1,1-Dichloroethene	< 25	ug/kg	24	76	1	8260B	7/17/2007	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	19	60	1	8260B	7/17/2007	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	20	62	1	8260B	7/17/2007	CJR	1
1,2-Dichloropropane	< 25	ug/kg	23	73	1	8260B	7/17/2007	CJR	1
2,2-Dichloropropane	< 25	ug/kg	21	66	1	8260B	7/17/2007	CJR	1
1,3-Dichloropropane	< 25	ug/kg	23	73	. 1	8260B	7/17/2007	CJR	1
Di-isopropyl ether	< 25	ug/kg	18	58	1	8260B	7/17/2007	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	22	69	1	8260B	7/17/2007	CJR	1
Ethylbenzene	< 25	ug/kg	17	54	1	8260B	7/17/2007	CJR	1
Hexachlorobutadiene	< 25	ug/kg	23	74	- 1	8260B	7/17/2007	CJR	1
Isopropylbenzene	< 25	ug/kg	17	53	1	8260B	7/17/2007	CJR	1
p-Isopropyitoluene	< 25	ug/kg	14	44	1	8260B	7/17/2007	CJR	1
Methylene chloride	< 25	ug/kg	19	60	1	8260B	7/17/2007	CJR	1
Methyl tert-butyl ether (MTBE)	< 25	ug/kg	15	47	1	8260B	7/17/2007	CJR	1
Naphthalene	< 25	ug/kg	20	65	1	8260B	7/17/2007	CJR	1
n-Propylbenzene	< 25	ug/kg	13	43	1	8260B	7/17/2007	CJR	. 1
1,1,2,2-Tetrachioroethane	< 25	ug/kg	21	68	ł	8260B	7/17/2007	CJR	1
1,1,1,2-Tetrachloroethane	< 25	ug/kg	23	72	1	8260B	7/17/2007	СJR	1
Tetrachloroethene	< 25	ug/kg	21	67	1	8260B	7/17/2007	CJR	1
Toluene	< 25	ug/kg	21	68	1	8260B	7/17/2007	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	25	78	1	8260B	7/17/2007	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	24	76	1	8260B	7/17/2007	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	23	73	1	8260B	7/17/2007	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	24	7 <b>8</b>	1	8260B	7/17/2007	CJR	1
Trichloroethene (TCE)	< 25	ug/kg	17	54	1	8260B	7/17/2007	CJR	1
Trichlorofluoromethane	< 25	ug/kg	25	81	1	8260B	7/17/2007	CJR	- 1
1,2,4-Trimethylbenzene	< 25	ug/kg	20	63	1	8260B	7/17/2007	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	16	52	1	8260B	7/17/2007	CJR	1
Vinyl Chloride	< 25	ug/kg	19	62	1	8260B	7/17/2007	CJR	1
m&p-Xylene	< 50	ug/kg	40	129	1	8260B	7/17/2007	CJR	1
o-Xylene	< 25	ug/kg	23	72	1	8260B	7/17/2007	CJR	1
Lab Code 5015669E									
Sample ID (B5-3)									
Sample Matrix Soil									
Sample Date 7/10/2007									
- · ·	Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
General									

C VII VII WI									
General									
Solids Percent	89.6	%			1	5021	7/13/2007	DJB	1
Organic									
VOC's									
Benzene	< 25	ug/kg	20	65	1	8260B	7/17/2007	CJR	1
Bromobenzene	< 25	ug/kg	14	44	1	8260B	7/17/2007	CJR	1
Bromodichloromethane	< 25	ug/kg	24	76	1	8260B	7/17/2007	CJR	1

#### WIS AVE. RICHMOND TO BALLARD **Project Name** E1715B07

**Project #** Lab Code

5015669E

(B5-3)

Sample ID	B5-3
Sample Matrix	Soil

Sample Date	7/10/2007									
		Result	Unit	LOD	LOQ	Dil	Method	<b>Run Date</b>	Analyst	Code
Bromoform		< 25	ug/kg	10	33	1	8260B	7/17/2007	CJR	1
tert-Butylbenzene		< 25	ug/kg	14	46	1	8260B	7/17/2007	СЛ	1
sec-Butylbenzene		< 25	ug/kg	17	55	I	8260B	7/17/2007	CJR	1
n-Butylbenzene		< 25	ug/kg	16	50	1	8260B	7/17/2007	СЛ	1
Carbon Tetrachlori	de	< 25	ug/kg	23	72	1	8260B	7/17/2007	CЛ	1
Chlorobenzene		< 25	ug/kg	21	68	1	8260B	7/17/2007	СJR	1
Chloroethane		< 25	ug/kg	19	60	1	8260B	7/17/2007	СJR	1
Chloroform		< 25	ug/kg	20	63	1	8260B	7/17/2007	CJR	1
Chloromethane		< 25	ug/kg	17	54	1	8260B	7/17/2007	CJR	1
2-Chlorotoluene		< 25	ug/kg	18	58	1	8260B	7/17/2007	СЛ	1
4-Chlorotoluene		< 25	ug/kg	16	51	1	8260B	7/17/2007	CJR	1
1.2-Dibromo-3-chl	oropropane	< 25	ug/kg	23	72	1	8260B	7/17/2007	СЛ	1
Dibromochloromet	hane	< 25	ug/kg	23	74	1	8260B	7/17/2007	СЛ	1
1.4-Dichlorobenze	ne	< 25	ug/kg	15	47	1	8260B	7/17/2007	CJR	1
1.3-Dichlorobenzer	ne	< 25	ug/kg	15	48	1	8260B	7/17/2007	CJR	1
1.2-Dichlorobenze	ne	< 25	ug/kg	18	57	1	8260B	7/17/2007	СJR	1
Dichlorodifluorom	ethane	< 25	ug/kg	20	62	1	8260B	7/17/2007	CJR	1
1.2-Dichloroethane		< 25	ug/kg	19	60	1	8260B	7/17/2007	CJR	1
1.1-Dichloroethane		< 25	ug/kg	20	62	1	8260B	7/17/2007	CJR	1
1.1-Dichloroethene		< 25	ug/kg	24	76	ł	8260B	7/17/2007	CJR	1
cis-1.2-Dichloroeth	nene	< 25	ug/kg	19	60	1	8260B	7/17/2007	CJR	1.
trans-1.2-Dichloro	ethene	< 25	ug/kg	20	62	1	8260B	7/17/2007	CJR	1
1.2-Dichloropropa	ne	< 25	ug/kg	23	73	1	8260B	7/17/2007	CJR	1
2.2-Dichloropropa	ne	< 25	ug/kg	21	66	1	8260B	7/17/2007	CJR	1
1,3-Dichloropropa	ne	< 25	ug/kg	23	73	1	8260B	7/17/2007	CJR	1
Di-isopropyl ether		< 25	ug/kg	18	58	1	8260B	7/17/2007	CJR	1
EDB (1.2-Dibromo	ethane)	< 25	ug/kg	22	69	1	8260B	7/17/2007	СЛ	1
Ethylbenzene		< 25	ug/kg	17	54	1	8260B	7/17/2007	CJR	1
Hexachlorobutadie	ne	< 25	ug/kg	23	74	1	8260B	7/17/2007	CJR	1
Isopropylbenzene		< 25	ug/kg	17	53	1	8260B	7/17/2007	CJR	1
p-Isopropyltoluene		< 25	ug/kg	14	44	1	8260B	7/17/2007	CJR	1
Methylene chloride		< 25	ug/kg	19	60	1	8260B	7/17/2007	СЛК	1
Methyl tert-butyl e	ther (MTBE)	< 25	ug/kg	15	47	1	8260B	7/17/2007	СЛ	1
Naphthalene		< 25	ug/kg	20	65	1	8260B	7/17/2007	CJR	1
n-Propylbenzene		<25	ug/kg	13	43	1	8260B	7/17/2007	СJR	1
1,1,2,2-Tetrachloro	ethane	< 25	ug/kg	21	68	1	8260B	7/17/2007	CJR	1
1,1,1,2-Tetrachloro	ethane	< 25	ug/kg	23	72	1	8260B	7/17/2007	СЛ	1
Tetrachloroethene		< 25	ug/kg	21	67	1	8260B	7/17/2007	СЛ	1
Toluene		< 25	ug/kg	21	68	1	8260B	7/17/2007	СJR	1
1.2.4-Trichloroben	zene	< 25	ug/kg	25	78	1	8260B	7/17/2007	СЛ	1
1.2.3-Trichloroben	zene	< 25	ug/kg	24	76	1	8260B	7/17/2007	CJR	1
1.1.1-Trichloroetha	me	< 25	ug/kg	23	73	1	8260B	7/17/2007	CJR	1.
1.1.2-Trichloroetha	ne	< 25	ug/kg	24	78	1	8260B	7/17/2007	CJR	1
Trichloroethene (T	CE)	< 25	ug/kg	17	54	1	8260B	7/17/2007	CJR	1
Trichlorofluoromet	hane	< 25	ug/kg	25	81	1	8260B	7/17/2007	CJR	1
1,2,4-Trimethylben	zene	< 25	ug/kg	20	63	1	8260B	7/17/2007	CJR	1
1,3,5-Trimethylben	zene	< 25	ug/kg	16	52	1	8260B	7/17/2007	СJR	1
Vinyl Chloride		< 25	ug/kg	19	62	1	8260B	7/17/2007	CJR	I
m&p-Xylene		< 50	ug/kg	40	129	1	8260B	7/17/2007	CJR	1
o-Xylene		< 25	ug/kg	23	72	1	8260B	7/17/2007	CJR	1
-			<b>U U</b>							

**Project Name** WIS AVE. RICHMOND TO BALLARD E1715B07

Invoice # E15669

**Project #** 

5015669F Lab Code

B6-4)

Sample ID

Sample Matrix Soil

7/10/2007 Sample Date

•	Result	Unit	LOD	LOQ	Dil	Method	<b>Run Date</b>	Analyst	Code
General				-					
General									
Solids Percent	85 9	%			1	5021	7/13/2007	DIB	1
Organia	03.9	<i>,</i> ,,				5021	//15/2007	202	
VOC'a									
VOCS		~			1			<b>A</b> 10	
Benzene	< 25	ug/kg	20	65	1	8260B	7/17/2007	CJR	1
Bromobenzene	< 25	ug/kg	14	44	1	8260B	7/17/2007	CJR	1
Bromodichloromethane	< 25	ug/kg	24	76	1	8260B	7/17/2007	CJR	I
Bromoform	< 25	ug/kg	10	33	1	8260B	7/17/2007	CJR	1
tert-Butylbenzene	< 25	ug/kg	14	46	1	8260B	7/17/2007	CJR	1
sec-Butylbenzene	< 25	ug/kg	17	55	1	8260B	7/17/2007	CJR	1
n-Butylbenzene	< 25	ug/kg	16	50	1	8260B	7/17/2007	CJR	1
Carbon Tetrachloride	< 25	ug/kg	23	72	1	8260B	7/17/2007	CJR	1
Chlorobenzene	< 25	ug/kg	21	68	1	8260B	7/17/2007	CJR	I
Chloroethane	< 25	ug/kg	19	60	1	8260B	7/17/2007	CJR	1
Chloroform	< 25	ug/kg	20	63	1	8260B	7/17/2007	CJR	1
Chloromethane	< 25	ug/kg	17	54	1	8260B	7/17/2007	CJR	1
2-Chlorotohuene	< 25	ug/kg	18	58	1	8260B	7/17/2007	CJR	1
4-Chlorotoluene	< 25	ug/kg	16	51	1	8260B	7/17/2007	CJR	1
1,2-Dibromo-3-chloropropane	<25	ug/kg	23	72	1	8260B	7/17/2007	CJR	1
Dibromochloromethane	< 25	ug/kg	23	74	1	8260B	7/17/2007	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	15	47	1	8260B	7/17/2007	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	15	48	1	8260B	7/17/2007	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	18	57	1	8260B	7/17/2007	CJR	1.
Dichlorodifluoromethane	< 25	ug/kg	20	62	1	8260B	7/17/2007	CJR	1
1,2-Dichloroethane	< 25	ug/kg	19	60	1	8260B	7/17/2007	CJR	1
1,1-Dichloroethane	< 25	ug/kg	20	62	1	8260B	7/17/2007	CJR	1
1,1-Dichloroethene	< 25	ug/kg	24	76	1	8260B	7/17/2007	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	19	60	1	8260B	7/17/2007	CJR	}
trans-1,2-Dichloroethene	< 25	ug/kg	20	62	1	8260B	7/17/2007	CJR	1
1,2-Dichloropropane	< 25	ug/kg	23	73	1	8260B	7/17/2007	CJR	1
2,2-Dichloropropane	< 25	ug/kg	21	66	1	8260B	7/17/2007	CJR	1
1,3-Dichloropropane	< 25	ug/kg	23	73	- 1	8260B	7/17/2007	CJR	1
Di-isopropyl ether	<25	ug/kg	18	58	- 1	8260B	7/17/2007	CJR	1
EDB (1,2-Dibromoethane)	<25	ug/kg	22	69	1	8260B	7/17/2007	CJR	. 1
Ethylbenzene	< 25	ug/kg	17	54	1	8260B	7/17/2007	CJR	1
Hexachlorobutadiene	< 25	ug/kg	23	74	1	8260B	7/17/2007	CJR	1
Isopropylbenzene	< 25	ug/kg	17	53	1	8260B	7/17/2007	СЛ	1
p-Isopropyltoluene	< 25	ug/kg	14	44	1	8260B	7/17/2007	CJR	1
Methylene chloride	< 25	ug/kg	19	60	1	8260B	7/17/2007	CJR	1
Methyl tert-butyl ether (MTBE)	< 25	ug/kg	15	47	1	8260B	7/17/2007	CJR	1
Naphthalene	< 25	ug/kg	20	65	1	8260B	7/17/2007	CJR	1
n-Propylbenzene	< 25	ug/kg	13	43	1	8260B	7/17/2007	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	21	68	1	8260B	7/17/2007	CJR	1
1,1,1,2-Tetrachloroethane	< 25	ug/kg	23	72	1	8260B	7/17/2007	CJR	1
Tetrachloroethene	< 25	ug/kg	21	67	1	8260B	7/17/2007	CJR	. 1
Toluene	< 25	ug/kg	21	68	1	8260B	7/17/2007	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	25	78	1	8260B	7/17/2007	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	24	76	1	8260B	7/17/2007	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	23	73	1	8260B	7/17/2007	CJR	I
1,1,2-Trichloroethane	< 25	ug/kg	24	78	1	8260B	7/17/2007	CJR	1

Project Name Proiect #	WIS AVE. R E1715B07	ICHMOND TO	BALLARD				Invoice #	E15669		
Lab Code Sample ID Sample Matrix Sample Date	5015669F B6-4 Soil 7/10/2007									
		Result	Unit	LOD	100	Dil	Method	Run Date	Analyst	Code
Trichloroethene (1	CE)	< 25	ug/kg	17	54	1	8260B	7/17/2007	CJR	1
Trichlorofluorome	thane	< 25	ug/kg	25	81	1	8260B	7/17/2007	CJR	1
1,2,4-Trimethylbe	nzene	< 25	ug/kg	20	63	1	8260B	7/17/2007	CJR	1
1,3,5-Trimethylbe	nzene	< 25	ug/kg	16	52	1	8260B	7/17/2007	CJR	1
Vinyl Chloride		< 25	ug/kg	19	62	1	8260B	7/17/2007	CJR	1
m&p-Xylene		< 50	ug/kg	40	129	1	8260B	7/17/2007	CJR	1
o-Xylene		< 25	ug/kg	23	72	1	8260B	7/17/2007	СЈК	1
Lab Code	5015669G									
Sample ID	B7-3									
Sample Matrix	Soil									
Sample Date	7/10/2007									
<b>-</b>		Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
General										
General										
Solids Percent		87.0	%			1	5021	7/13/2007	DJB	1
Organic										
General										
Diesel Range Orga	nics	< 10	mg/kg	0.62	2	1	DRO95	7/13/2007	MJR	1
GRO/PVOC +	· Naphthalene		0.0							
Gasoline Range Or	ganics	< 10000	nø/kø	1700	5400	ł	GR095/8021	7/18/2007	CJR	1
Benzene		< 25	ug/kg	25	79	1	GR095/8021	7/18/2007	CJR	1
Ethylbenzene		< 25	ug/kg	21	67	1	GR095/8021	7/18/2007	CJR	1
Methyl tert-butyl e	ther (MTBE)	< 25	ug/kg	14	43	1	GRO95/8021	7/18/2007	CJR	1
Naphthalene		< 25	ug/kg	18	56	1	GRO95/8021	7/18/2007	CJR	1
Toluene		< 25	ug/kg	22	71	1	GRO95/8021	7/18/2007	СJR	1
1,2,4-Trimethylber	nzene	< 25	ug/kg	23	72	1	GRO95/8021	7/18/2007	CJR	1
1,3,5-Trimethylber	izene	< 25	ug/kg	16	52	1	GRO95/8021	7/18/2007	CJR	1
m&p-Xylene		< 50	ug/kg	17	53	1	GRO95/8021	7/18/2007	CJR	I
o-Xylene		< 25	ug/kg	16	50	1	GRO95/8021	7/18/2007	CJR	I
Lab Code	5015669H									
Sample ID	B8-3									
Sample Matrix	Soil									
Sample Date	7/10/2007									
		Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
General										
General										
Solids Percent		90.7	%			1	5021	7/13/2007	DJB	1
Organic										
General										
Diesel Range Orga	nics	< 10	mg/kg	0.62	2	1	DR095	7/13/2007	MIR	1
GRO/PVOC +	Naphthalene			0.04	4	•				•
Gasoline Range Or	ganics	< 10000	nø/kø	1700	5400	1	GR095/8021	7/18/2007	CIR	1
Benzene	0	< 25	~&^^6 110/ko	25	70	1	GR095/8021	7/18/2007	CIR	1
Ethylbenzene		< 25		23	67	1	GRO95/8021	7/18/2007	CIR	1
Methyl tert-butyl e	ther (MTBE)	< 25	ug/kg	14	43	1	GRO95/8021	7/18/2007	CJR	1
Naphthalene	/	< 25	ug/kg	18	56	1	GRO95/8021	7/18/2007	СJR	1
Toluene		< 25	ug/kg	22	71	1	GRO95/8021	7/18/2007	CJR	1
1,2,4-Trimethylber	izene	< 25	ug/kg	23	72	1	GRO95/8021	7/18/2007	CJR	1

IJ

Project Name Proiect #	WIS AVE. RI E1715B07	CHMOND TO	BALLARD				Invoice #	E15669		
Lab Code Sample ID Sample Matrix Sample Date	515669KK TW4 Water 7/11/2007									
		Result	Unit	LOD	LOQ	Dil	Method	<b>Run Date</b>	Analyst	Code
Toluene		56	ug/l	0.46	1.5	· 1	8260B	7/18/2007	CJR	1
1,2,4-Trichlorober	nzene	< 1.5	ug/l	1.5	4.6	1	8260B	7/18/2007	CJR	1
1,2,3-Trichlorober	izene	< 1.6	ug/l	1.6	5	1	8260B	7/18/2007	CJR	1
1,1,1-Trichloroeth	ane	< 0.5	ug/l	0.5	1.6	1	8260B	7/18/2007	CJR	1
1,1,2-Trichloroeth	ane	< 0.5	ug/l	0.5	1.6	1	8260B	7/18/2007	CJR	1
Trichloroethene (1	CE)	< 0.44	ug/l	0.44	1.4	ł	8260B	7/18/2007	CJR	1
Trichlorofluorome	thane	< 0.61	ug/l	0.61	1.9	1	8260B	7/18/2007	CJR	1
1,2,4-Trimethylbe	nzene	< 1.2	ug/l	1.2	3.8	I	8260B	7/18/2007	CJR	1
1,3,5-Trimethylbe	nzene	< 0.37	ug/l	0.37	1.2	I	8260B	7/18/2007	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.63	1	8260B	7/18/2007	CJR	1
m&p-Xylene		3.7	ug/l	0.67	2.1	1	8260B	7/18/2007	CJR	1
o-Xylene		1.35	ug/l	0.32	1	1	8260B	7/18/2007	CJR	1
Lab Code Sample ID Sample Matrix Sample Date	515669LL TW5 Water 7/11/2007									
		Result	Unit	LOD	LOQ	Dil	Method	<b>Run Date</b>	Analyst	Code
Organic										
VOC's										
VUUS		< 0.47		0.47	1.5		827.015	7/20/2007	CID	
Benzene		< 0.47	ug/I	0.47	1.5	1	8200B	7/20/2007	CIR	1
Bromobenzene	1	< 0.36	ug/I	0.36	1.1	1	8200B	7/20/2007	CIR	1
Bromodicniorome	tnane	< 0.5	ug/i	0.5	1.0	1	8200B	7/20/2007	CIR	1
Bromotorm		< 0.38	ug/I	0,38	1.2	1	8200B	7/20/2007	CIR	1
an-Butylbenzene		< 0.34	ug/1	0.34	1.1	1	8200D	7/20/2007	CIR	1
n Datalhangana		< 0.30	ug/l	0.50	1.2	1	8200D	7/20/2007	CIR	1
Carbon Tetrachlor	ide	< 0.52	ug/1	0.32	1.0	1	8200D 8260B	7/20/2007	CIR	1
Chlorobenzene	iuc -	< 0.40	ug/i	0.40	1.5	1	8260B	7/20/2007	CIR	1
Chloroethane		< 0.51	ug/1	0.31	15	1	8260B	7/20/2007	CIR	1
Chloroform		< 0.47	ug/l	0.47	1.5	1	\$260B	7/20/2007	CIR	1
Chloromethane		< 1	ug/l	0.40	33	1	8260B	7/20/2007	CIR	2
2-Chlorotoluene		< 0.49	ug/1	0 49	16	1	8260B	7/20/2007	CJR	1
4-Chlorotoluene		< 0.38	ug/l	0.38	1.2	1	8260B	7/20/2007	CJR	1
1.2-Dibromo-3-ch	loropropane	< 1.4	ug/l	1.4	4.5	1	8260B	7/20/2007	CJR	1
Dibromochlorome	thane	< 0.32	ug/l	0.32	1	1	8260B	7/20/2007	CJR	1
1,4-Dichlorobenze	ene	< 0.33	ug/l	0.33	1.1	1	8260B	7/20/2007	CJR	1
1,3-Dichlorobenze	ne	< 0.3	ug/l	0.3	0.95	1	8260B	7/20/2007	CJR	1
1,2-Dichlorobenze	ne	< 0.35	ug/l	0.35	1.1	1	8260B	7/20/2007	CJR	1
Dichlorodifluorom	ethane	< 0.46	ug/l	0.46	1.5	1	8260B	7/20/2007	CJR	1
1,2-Dichloroethan	e	< 0.45	ug/l	0.45	1.4	1	8260B	7/20/2007	CJR	34
1,1-Dichloroethan	e	< 0.56	ug/l	0.56	1.8	1	8260B	7/20/2007	CJR	1
1,1-Dichloroethen	e	< 0.64	ug/l	0.64	2	1	8260B	7/20/2007	CJR	1
cis-1,2-Dichloroet	hene	< 0.68	ug/l	0.68	2.2	1	8260B	7/20/2007	СJR	1
trans-1,2-Dichloro	ethene	< 0.95	ug/l	0.95	3	1	8260B	7/20/2007	CJR	1
1,2-Dichloropropa	ne	< 0.47	ug/l	0.47	1.5	1	8260B	7/20/2007	СЛК	1
2,2-Dichloropropa	ne	< 0.98	ug/l	0.98	3.1	1	8260B	7/20/2007	CJR	1
1,3-Dichloropropa	ne	< 0.39	ug/l	0.39	1.3	1	8260B	7/20/2007	CJR	1
Di-isopropyl ether		< 1.3	ug/l	1.3	4.1	1	8260B	7/20/2007	CJR	1
EDB (1,2-Dibrom	oethane)	< 0.49	ug/l	0.49	1.5	1	8260B	7/20/2007	CJR	1
Ethylbenzene		< 0.38	ug/l	0.38	1.2	1	8260B	7/20/2007	CJR	1

,

4.9

1

1.5

ug/l

8260B

< 1.5

Hexachlorobutadiene

3

CJR

7/20/2007

Project NameWIS AVE. RICHMOND TO BALLARDProject #E1715B07

Invoice # E15669

Lab Code 515669LL Sample ID TW5

Sampic	LD I	
Sample	Matrix	Water

Sample Date 7/11/2007

	Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
Isopropylbenzene	< 0.48	ug/l	0.48	1.5	1	8260B	7/20/2007	CJR	1
p-Isopropyltoluene	< 0.35	ug/l	0.35	1.1	1	8260B	7/20/2007	CJR	1
Methylene chloride	< 0.69	ug/l	0.69	2.2	1	8260B	7/20/2007	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.52	ug/l	0.52	1.6	I	8260B	7/20/2007	CJR	1
Naphthalene	< 1.8	ug/l	1.8	5.6	1	8260B	7/20/2007	CJR	1
n-Propylbenzene	< 0.38	ug/l	0.38	1.2	1	8260B	7/20/2007	CJR	1
1,1,2,2-Tetrachloroethane	< 0.75	ug/l	0.75	2.4	1	8260B	7/20/2007	CJR	1
1,1,1,2-Tetrachloroethane	< 0.65	ug/I	0.65	2.1	1	8260B	7/20/2007	CJR	1
Tetrachloroethene	< 0.52	ug/l	0.52	1.6	1	8260B	7/20/2007	CJR	1
Toluene	< 0.46	ug/l	0.46	1.5	1	8260B	7/20/2007	CJR	1
1,2,4-Trichlorobenzene	< 1.5	ug/l	1.5	4.6	1	8260B	7/20/2007	CJR	1
1,2,3-Trichlorobenzene	< 1.6	ug/l	1.6	5	1	8260B	7/20/2007	CJR	1
1,1,1-Trichloroethane	< 0.5	ug/l	0.5	1.6	1	8260B	7/20/2007	CJR	1
1,1,2-Trichloroethane	< 0.5	ug/l	0.5	1.6	1	8260B	7/20/2007	CJR	1
Trichloroethene (TCE)	< 0.44	ug/l	0.44	1.4	1	8260B	7/20/2007	CJR	1
Trichlorofluoromethane	< 0.61	ug/l	0.61	1.9	ł	8260B	7/20/2007	CJR	1
1,2,4-Trimethylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B	7/20/2007	CJR	1
1,3,5-Trimethylbenzene	< 0.37	ug/l	0.37	1.2	1	8260B	7/20/2007	CJR	1
Vinyl Chloride	< 0.2	ug/l	0.2	0.63	1	8260B	7/20/2007	CJR	1
m&p-Xylene	< 0.67	ug/l	0.67	2.1	1	8260B	7/20/2007	CJR	1
o-Xylene	< 0.32	ug/l	0.32	1	1	8260B	7/20/2007	CJR	1

Lab Code

Sample ID

ix Water

Sample Matrix Sample Date

7/1	1/2007
-----	--------

515669MM

	Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
Organic									
VOC's									
Benzene	< 0.47	ug/l	0.47	1.5	1	8260B	7/18/2007	CJR	1
Bromobenzene	< 0.36	ug/l	0.36	1.1	1	8260B	7/18/2007	СJR	1
Bromodichloromethane	< 0.5	ug/l	0.5	1.6	1	8260B	7/18/2007	CJR	1
Bromoform	< 0.38	ug/l	0.38	1.2	1	8260B	7/18/2007	CJR	1
tert-Butylbenzene	< 0.34	ug/l	0.34	1.1	1	8260B	7/18/2007	CJR	1
sec-Butylbenzene	< 0.36	ug/l	0.36	1.2	1	8260B	7/18/2007	CJR	1
n-Butylbenzene	< 0.52	ug/l	0.52	1.6	I	8260B	7/18/2007	CJR	1
Carbon Tetrachloride	< 0.46	ug/l	0.46	1.5	1	8260B	7/18/2007	CJR	1
Chlorobenzene	< 0.31	ug/l	0.31	1	1	8260B	7/18/2007	CJR	1
Chloroethane	< 0.47	ug/l	0.47	1.5	1	8260B	7/18/2007	CJR	1
Chloroform	< 0.48	ug/l	0.48	1.5	]	8260B	7/18/2007	CJR	1
Chloromethane	< 1	ug/l	1	3.3	1	8260B	7/18/2007	СJR	1
2-Chlorotoluene	< 0.49	ug/l	0.49	1.6	1	8260B	7/18/2007	CJR	Ì
4-Chlorotoluene	< 0.38	ug/l	0.38	1.2	1	8260B	7/18/2007	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B	7/18/2007	CJR	1
Dibromochloromethane	< 0.32	ug/l	0.32	1	1	8260B	7/18/2007	CJR	1
1,4-Dichlorobenzene	< 0.33	ug/l	0.33	1.1	1	8260B	7/18/2007	СЛ	1
1,3-Dichlorobenzene	< 0.3	ug/l	0.3	0.95	1	8260B	7/18/2007	CJR	1
1,2-Dichlorobenzene	< 0.35	ug/l	0.35	1.1	1	8260B	7/18/2007	CJR	1
Dichlorodifluoromethane	< 0.46	ug/l	0.46	1.5	1	8260B	7/18/2007	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.4	ł	8260B	7/18/2007	CJR	1
1,1-Dichloroethane	< 0.56	ug/l	0.56	1.8	1	8260B	7/18/2007	CJR	1
1,1-Dichloroethene	< 0.64	ug/l	0.64	2	1	8260B	7/18/2007	CJR	1

Project NameWIS AVE. RICHMOND TO BALLARDProject #E1715B07

**Invoice #** E15669

Lab Code 515669MM

Sample ID (TW6)

Sample Matrix Water

-		
Sample	Date	7/11/2007

		Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
cis-1,2-Dichloroeth	ene	< 0.68	ug/l	0.68	2.2	1	8260B	7/18/2007	CJR	1
trans-1,2-Dichloroe	ethene	< 0.95	ug/l	0.95	3	1	8260B	7/18/2007	CJR	1
1,2-Dichloropropar	ne	< 0.47	ug/l	0.47	1.5	1	8260B	7/18/2007	CJR	1
2,2-Dichloropropar	ne	< 0.98	ug/l	0.98	3.1	1	8260B	7/18/2007	CJR	1
1,3-Dichloropropar	ne	< 0.39	ug/l	0.39	1.3	1	8260B	7/18/2007	CJR	1
Di-isopropyl ether		< 1.3	ug/l	1.3	4.1	1	8260B	7/18/2007	CJR	]
EDB (1,2-Dibromo	ethane)	< 0.49	ug/l	0.49	1.5	1	8260B	7/18/2007	CJR	1
Ethylbenzene		< 0.38	ug/l	0.38	1.2	1	8260B	7/18/2007	CJR	1
Hexachlorobutadie	ne	< 1.5	ug/l	1.5	4.9	1	8260B	7/18/2007	СJR	1
Isopropylbenzene		< 0.48	ug/l	0.48	1.5	1	8260B	7/18/2007	CJR	1
p-Isopropyltoluene		< 0.35	ug/l	0.35	1.1	1	8260B	7/18/2007	CJR	1
Methylene chloride	:	< 0.69	ug/l	0.69	2.2	1	8260B	7/18/2007	CJR	1
Methyl tert-butyl et	her (MTBE)	< 0.52	ug/l	0.52	1.6	1	8260B	7/18/2007	CJR	1
Naphthalene		< 1.8	ug/l	1.8	5.6	1	8260B	7/18/2007	CJR	1
n-Propylbenzene		< 0.38	ug/l	0.38	1.2	1	8260B	7/18/2007	CJR	1
1,1,2,2-Tetrachloro	ethane	< 0.75	ug/l	0.75	2.4	1	8260B	7/18/2007	CJR	1
1,1,1,2-Tetrachloro	ethane	< 0.65	ug/l	0.65	2.1	1	8260B	7/18/2007	CJR	1
Tetrachloroethene		< 0.52	ug/l	0.52	1.6	1	8260B	7/18/2007	CJR	1
Toluene		1.14 "J"	ug/l	0.46	1.5	1	8260B	7/18/2007	CJR	1
1,2,4-Trichlorobenz	zene	< 1.5	ug/l	1.5	4.6	1	8260B	7/18/2007	CJR	1
1,2,3-Trichloroben	zene	< 1.6	ug/l	1.6	5	1	8260B	7/18/2007	CJR	1
1,1,1-Trichloroetha	ine	< 0.5	ug/l	0.5	1.6	1	8260B	7/18/2007	CJR	1
1,1,2-Trichloroetha	ne	< 0.5	ug/l	0.5	1.6	1	8260B	7/18/2007	CJR	1
Trichloroethene (T	CE)	< 0.44	ug/l	0.44	1.4	1	8260B	7/18/2007	CJR	1
Trichlorofluoromet	hane	< 0.61	ug/l	0.61	1.9	1	8260B	7/18/2007	CJR	1
1,2,4-Trimethylben	zene	< 1.2	ug/l	1.2	3.8	1	8260B	7/18/2007	CJR	1
1,3,5-Trimethylben	zene	< 0.37	ug/l	0.37	1.2	1	8260B	7/18/2007	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.63	1	8260B	7/18/2007	CJR	1
m&p-Xylene		< 0.67	ug/l	0.67	2.1	1	8260B	7/18/2007	CJR	1
o-Xylene		< 0.32	ug/l	0.32	1	1	8260B	7/18/2007	CJR	1
Lab Code	515669NN									
Sample ID	TW7									
Sample Matrix	Water									
Sample Data	7/11/2007									
Sample Date	//11/2007	Docuit	Unit		100	Dil	Method	Run Data	Anglyct	Code
Organia		Kesun	Onn	LOD	LUQ	Un	Meenou	Run Date	maiyst	Couc
PVOC + Naph	thalene									
Benzene		< 0.22	ng/l	0.22	0.60	,	GR005/8021	7/23/2007	CIR	1
Ethylhenzene		< 0.22	ug/1	0.22	1 30	1	GR095/8021	7/23/2007	CIR	1
Methyl tert_hutyl of	her (MTRE)	< 0.52	ug/i na/i	0.57	17	1	GR095/8021	7/23/2007	CIR	1
Nanhthalene	not (MITDE)	< 0.55	no/i	0.55	1.7	1	GR095/8021	7/23/2007	CR	1
Toluene		0 35 "1"	no/l	0.00	0.83	1	GR095/8021	7/23/2007	CIR	1
1 2 4-Trimethylben	zene	< 0.45	ω <sub>Ε</sub> /1 11σ/1	0.25	1 43	1	GR095/8021	7/23/2007	CIR	3 64
13 S_Trimethulben	7686	< 0.75	ng/l	0.75	07	1	GR095/8021	7/23/2007	CIR	1
m&n_Yvlene		< 0.22 < 0.68	ug/I na/l	0.22	218	1	GR095/8021	7/23/2007	CIR	23.64
o-Xvlepe		< 0.53	na/ł	0.00 A 52	1 69	1	GR095/8021	7/23/2007	CIP	3 64
0-71910100		- 0.00	u£/1	0.55	1.00	,	511075/0021	112312001	0.11	2 04

Lab Code Sample Marin Source         515609FF Source         Source         Number of the sourc	Project Name Project #	WIS AVE. RI E1715B07	ICHMOND TO	BALLARE	)			Invoice #	E15669		
Result         Unit         LOD         LOD         Dil         Method         Rus Date         Analyst         Code           mdp.Xylne         < 50         up/ks         20         10         5260B         7/18/2007         C/R         1           Lab Code         Sample Mirror         Marco         Sample Mirror         Note	Lab Code Sample ID Sample Matrix Sample Date	515669FF B32-1 Soil 7/11/2007								·	
mdp. Xylene           100         110         110         120         11         4260B         7/18/2007         C/R         1           Lab Code         \$15569GG           3         72         1         \$260B         7/18/2007         C/R         1           Sample Matrix         Water         Sample Matrix         W	-		Result	Unit	LOD	100	Dil	Method	Run Date	Analyst	Code
Date         Log         Log <thlog< th=""> <thlog< th=""></thlog<></thlog<>	m&n-Xviene		< 50	ne/ke	40	129	1	8260B	7/18/2007	CIR	1
Lab Code Sample Mark Sample Mark Sample Mark Network         Sistered Yar         Sistered Yar         Sistered Yar         Sistered Yar         Sistered Yar         Sistered Yar         Code Yar         Yar         Code Yar         Yar         Code Yar         Yar         Code Yar         Yar	o-Xylene		< 25	ug/kg	23	72	1	8260B	7/18/2007	CJR	1
Result         Unit         LOD         LOQ         Did         Method         Run Date         Analyst         Code           Organic         VOC's         Berzzene         < 0.47         ug/l         0.47         1.5         1         \$260B         7/18/2007         C/R         1           Bromohenzane         < 0.5         ug/l         0.5         1.6         1         \$260B         7/18/2007         C/R         1           Bromodichleromethane         < 0.5         ug/l         0.34         1.2         1         \$260B         7/18/2007         C/R         1           tert-Butylbezzne         < 0.34         ug/l         0.34         1.1         1         \$260B         7/18/2007         C/R         1           see-Butylbezzne         < 0.34         ug/l         0.36         1.2         1         \$260B         7/18/2007         C/R         1           Chicochenze         < 0.31         ug/l         0.31         1         1         \$260B         7/18/2007         C/R         1           Chicochenze         < 0.34         ug/l         0.48         1.5         1         \$260B         7/18/2007         C/R         1           Chicorothenze <th>Lab Code Sample ID Sample Matrix Sample Date</th> <th>515669GG TRIP Water 7/11/2007</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>~ .</th>	Lab Code Sample ID Sample Matrix Sample Date	515669GG TRIP Water 7/11/2007									~ .
Organic         VOC's           Bruzese         < 0.47			Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
VOCS         Serven           Serven           Serven             Serven           Serven          Serven          Serven          Serven         C/R         1           Bromoberzene         <0.36	Organic							-			
Benzene         -0.47         ug/l         0.47         1.5         1         8260B         7/18/2007         C/R         1           BromodeInJoronethane         <0.36	VOC's										
Bromobenzene         < 0.36         ug/l         0.36         1.1         I         82:00B         7/18/2007         C/R         1           Bromolichloromethane         < 0.5	Benzene		< 0.47	ug/l	0.47	1.5	1	8260B	7/18/2007	СJR	1
Bromodichloromethane         < 0.5         ug/l         0.5         1.6         1         8260B         7/18/2007         C/R         1           Bromodorn         < 0.38	Bromobenzene		< 0.36	ug/l	0.36	1.1	1	8260B	7/18/2007	CJR	1
Bromoform< 0.38ug/l0.381.218260B7/18/2007CIR1tet-Buythenzene< 0.34	Bromodichloromet	hane	< 0.5	ug/l	0.5	1.6	1	8260B	7/18/2007	CJR	1
tert-Buylbenzene< 0.34ug/l0.341.118260B7/18/2007C.R1see-Buylbenzene< 0.35	Bromoform		< 0.38	ug/l	0.38	1.2	1	8260B	7/18/2007	CJR	1
sec-Butylbenzene< 0.36ug/l0.361.2I8260B7/18/2007CJRIn-Butylbenzene< 0.52	tert-Butylbenzene		< 0.34	ug/l	0.34	1.1	1	8260B	7/18/2007	CJR	1
n-Butylenzene         < 0.52         ug/l         0.52         1.6         1         8260B         7/18/2007         C/R         1           Cahoro Tetrachloride         < 0.46	sec-Butylbenzene		< 0.36	ug/l	0.36	1.2	1	8260B	7/18/2007	CJR	1
Carbon Tetrachloride         <0.46         ug/l         0.46         1.5         1         8260B         7/18/2007         CJR         1           Chlorochenzane         <0.31	n-Butylbenzene		< 0.52	ug/l	0.52	1.6	1	8260B	7/18/2007	CJR	1
Chlorobenzene< 0.31ug/l0.31118260B7/18/2007CJR1Chlorochane< 0.47	Carbon Tetrachlori	de	< 0.46	ug/l	0.46	1.5	1	8260B	7/18/2007	CJR	1
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Chlorobenzene		< 0.31	ug/l	0.31	1	1	8260B	7/18/2007	CJR	1
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Chloroethane		< 0.47	ug/l	0.47	1.5	1	8260B	7/18/2007	CJR	1
Chloromethane<1ug/l13.31 $\& 260B$ 7/18/2007CJR12-Chlorotoluene<0.49	Chloroform		< 0.48	ug/l	0.48	1.5	1	8260B	7/18/2007	CJR	1
2-Chlorotoluene       < 0.49	Chloromethane		< 1	ug/l	1	3.3	1	8260B	7/18/2007	CJR	1 -
4-Chlorotoluene       < 0.38	2-Chlorotoluene		< 0.49	ug/l	0.49	1.6	ì	8260B	7/18/2007	CJR	1
1,2-Dibromo-3-chloropropane<1.4ug/l1.44.518260B7/18/2007CJR1Dibromochloromethane<0.32	4-Chlorotoluene		< 0.38	ug/l	0.38	1.2	1	8260B	7/18/2007	CJR	1
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,2-Dibromo-3-chl	oropropane	< 1.4	ug/l	1.4	4.5	1	8260B	7/18/2007	CJR	1
1,4-Dichlorobenzene       < 0.33	Dibromochloromet	hane	< 0.32	ug/l	0.32	1	1	8260B	7/18/2007	СJR	1
1,3-Dichlorobenzene       < 0.3	1,4-Dichlorobenzer	ne	< 0.33	ug/l	0.33	1.1	1	8260B	7/18/2007	СJR	1
1,2-Dichlorobenzene       < 0.35	1,3-Dichlorobenzer	ne	< 0.3	ug/l	0.3	0.95	1	8260B	7/18/2007	CJR	1
Dichlorodifluoromethane         < 0.46         ug/l         0.46         1.5         1         8260B         7/18/2007         CJR         1           1,2-Dichloroethane         < 0.45	1,2-Dichlorobenzer	ne	< 0.35	ug/l	0.35	1.1	1	8260B	7/18/2007	CJR	1
1,2-Dichloroethane< 0.45ug/l0.451.41 $8260B$ 7/18/2007CJR11,1-Dichloroethane< 0.56	Dichlorodifluorome	ethane	< 0.46	ug/l	0.46	1.5	1	8260B	7/18/2007	CJR	1
1,1-Dichloroethane< 0.56 $ug/1$ 0.561.818260B7/18/2007CJR11,1-Dichloroethene< 0.64	1,2-Dichloroethane	:	< 0.45	ug/l	0.45	1.4	1	8260B	7/18/2007	СЛ	1
1,1-Dichloroethene< 0.64 $ug/l$ 0.64218260B7/18/2007CJR1cis-1,2-Dichloroethene< 0.68	1,1-Dichloroethane	:	< 0.56	ug/l	0.56	1.8	1	8260B	7/18/2007	CJR	1
cis-1,2-Dichloroethene       < 0.68	1.1-Dichloroethene		< 0.64	ug/l	0.64	2	1	8260B	7/18/2007	СJR	1
trans-1,2-Dichloroethene $< 0.95$ ug/l $0.95$ $3$ I $8260B$ $7/18/2007$ CJRI1,2-Dichloroppane $< 0.47$ ug/l $0.47$ $1.5$ 1 $8260B$ $7/18/2007$ CJR12,2-Dichloroppane $< 0.98$ ug/l $0.98$ $3.1$ 1 $8260B$ $7/18/2007$ CJR11,3-Dichloroppane $< 0.39$ ug/l $0.39$ $1.3$ 1 $8260B$ $7/18/2007$ CJR1Di-isopropyl ether $< 1.3$ ug/l $1.3$ $4.1$ 1 $8260B$ $7/18/2007$ CJR1EDB (1,2-Dibromoethane) $< 0.49$ ug/l $0.49$ $1.5$ 1 $8260B$ $7/18/2007$ CJR1Ethylbenzene $< 0.38$ ug/l $0.38$ $1.2$ 1 $8260B$ $7/18/2007$ CJR1Isopropylbenzene $< 0.38$ ug/l $0.38$ $1.2$ 1 $8260B$ $7/18/2007$ CJR1Isopropylbenzene $< 0.48$ ug/l $0.48$ $1.5$ 1 $8260B$ $7/18/2007$ CJR1p-lsopropylboluene $< 0.35$ ug/l $0.35$ $1.1$ 1 $8260B$ $7/18/2007$ CJR1Methylene chloride $< 0.69$ ug/l $0.69$ $2.2$ 1 $8260B$ $7/18/2007$ CJR1Methylene (MTBE) $< 0.52$ ug/l $0.52$ 1.61 $8260B$ $7/18/2007$ CJR1Naphthalene $< 1.8$ ug/l $1.8$ $5.6$ 1	cis-1,2-Dichloroeth	ene	< 0.68	ug/l	0.68	2.2	1	8260B	7/18/2007	CJR	1
1,2-Dichloropropane       < 0.47	trans-1,2-Dichloroe	thene	< 0.95	ug/l	0.95	3	1	8260B	7/18/2007	CJR	1
2,2-Dichloropropane       < 0.98	1,2-Dichloropropar	ne	< 0.47	ug/l	0.47	1.5	1	8260B	7/18/2007	CJR	1
1,3-Dichloropropane       < 0.39	2,2-Dichloropropar	ne	< 0.98	ug/l	0.98	3.1	1	8260B	7/18/2007	CJR	1
Di-isopropyl ether       < 1.3	1,3-Dichloropropar	ie	< 0.39	ug/l	0.39	1.3	1	8260B	7/18/2007	CJR	1
EDB (1,2-Dibromoethane)< 0.49ug/l0.491.5I8260B $7/18/2007$ CJR1Ethylbenzene< 0.38	Di-isopropyl ether		< 1.3	ug/l	1.3	4.1	1	8260B	7/18/2007	CJR	1
Ethylbenzene< 0.38ug/l0.381.2l8260B7/18/2007CJR1Hexachlorobutadiene< 1.5	EDB (1,2-Dibromo	ethane)	< 0.49	ug/l	0.49	1.5	1	8260B	7/18/2007	CJR	1
Hexachlorobutadiene< 1.5ug/l1.54.918260B $7/18/2007$ CJR1Isopropylbenzene< 0.48	Ethylbenzene		< 0.38	ug/l	0.38	1.2	1	8260B	7/18/2007	CJR	1
Isopropylbenzene< $0.48$ ug/l $0.48$ $1.5$ 1 $8260B$ $7/18/2007$ $CJR$ 1p-Isopropyltoluene< $0.35$ ug/l $0.35$ $1.1$ 1 $8260B$ $7/18/2007$ $CJR$ 1Methylene chloride< $0.69$ ug/l $0.69$ $2.2$ 1 $8260B$ $7/18/2007$ $CJR$ 1Methyl tert-butyl ether (MTBE)< $0.52$ ug/l $0.52$ $1.6$ 1 $8260B$ $7/18/2007$ $CJR$ 1Naphthalene< $1.8$ ug/l $1.8$ $5.6$ 1 $8260B$ $7/18/2007$ $CJR$ 1n-Propylbenzene< $0.38$ ug/l $0.38$ $1.2$ 1 $8260B$ $7/18/2007$ $CJR$ 11,1,2,2-Tetrachloroethane< $0.75$ ug/l $0.75$ $2.4$ 1 $8260B$ $7/18/2007$ $CJR$ 11,1,1,2-Tetrachloroethane< $0.65$ ug/l $0.65$ $2.1$ 1 $8260B$ $7/18/2007$ $CJR$ 1Tetrachloroethane< $0.65$ ug/l $0.65$ $2.1$ 1 $8260B$ $7/18/2007$ $CJR$ 1Toluene< $0.46$ ug/l $0.46$ $1.5$ 1 $8260B$ $7/18/2007$ $CJR$ 1	Hexachlorobutadie	ne	< 1.5	ug/l	1.5	4.9	1	8260B	7/18/2007	CJR	1
p-lsopropyltoluene       < 0.35       ug/l       0.35       I.1       1       8260B       7/18/2007       CJR       1         Methylene chloride       < 0.69	Isopropylbenzene		< 0.48	ug/l	0.48	1.5	1	8260B	7/18/2007	CJR	1
Methylene chloride< 0.69ug/l0.692.218260B $7/18/2007$ CJR1Methyl tert-butyl ether (MTBE)< 0.52	p-lsopropyltoluene		< 0.35	ug/l	0.35	1.1	1	8260B	7/18/2007	CJR	1
Methyl tert-butyl ether (MTBE)< $0.52$ $ug/l$ $0.52$ $1.6$ $1$ $8260B$ $7/18/2007$ $CJR$ $1$ Naphthalene< $1.8$ $ug/l$ $1.8$ $5.6$ $1$ $8260B$ $7/18/2007$ $CJR$ $1$ n-Propylbenzene< $0.38$ $ug/l$ $0.38$ $1.2$ $1$ $8260B$ $7/18/2007$ $CJR$ $1$ $1,1,2,2$ -Tetrachloroethane< $0.75$ $ug/l$ $0.75$ $2.4$ $1$ $8260B$ $7/18/2007$ $CJR$ $1$ $1,1,1,2$ -Tetrachloroethane< $0.65$ $ug/l$ $0.65$ $2.1$ $1$ $8260B$ $7/18/2007$ $CJR$ $1$ Tetrachloroethane< $0.65$ $ug/l$ $0.65$ $2.1$ $1$ $8260B$ $7/18/2007$ $CJR$ $1$ Toluene< $0.46$ $ug/l$ $0.46$ $1.5$ $1$ $8260B$ $7/18/2007$ $CJR$ $1$	Methylene chloride	;	< 0.69	ug/l	0.69	2.2	1	8260B	7/18/2007	CJR	1
Naphthalene< 1.8ug/l1.85.618260B $7/18/2007$ CJR1n-Propylbenzene< 0.38	Methyl tert-butyl et	ther (MTBE)	< 0.52	ug/l	0.52	1.6	1	8260B	7/18/2007	CJR	1
n-Propylbenzene       < 0.38       ug/l       0.38       1.2       1       8260B       7/18/2007       CJR       1         1,1,2,2-Tetrachloroethane       < 0.75	Naphthalene	, -,	< 1.8	ug/l	1.8	5.6	1	8260B	7/18/2007	CJR	1
1,1,2,2-Tetrachloroethane       < 0.75       ug/l       0.75       2.4       1       8260B       7/18/2007       CJR       1         1,1,1,2-Tetrachloroethane       < 0.65       ug/l       0.65       2.1       1       8260B       7/18/2007       CJR       1         Tetrachloroethane       < 0.65       ug/l       0.65       2.1       1       8260B       7/18/2007       CJR       1         Tetrachloroethane       < 0.52       ug/l       0.52       1.6       1       8260B       7/18/2007       CJR       1         Toluene       < 0.46       ug/l       0.46       1.5       1       8260B       7/18/2007       CJR       1	n-Propylbenzene		< 0.38	ug/l	0.38	1.2	1	8260B	7/18/2007	CJR	1
1,1,2-Tetrachloroethane       < 0.65       ug/l       0.65       2.1       1       8260B       7/18/2007       CJR       1         Tetrachloroethene       < 0.52       ug/l       0.52       1.6       1       8260B       7/18/2007       CJR       1         Toluene       < 0.46       ug/l       0.46       1.5       1       8260B       7/18/2007       CJR       1	1.1.2.2-Tetrachloro	ethane	< 0.75	ug/l	0.75	2.4	1	8260B	7/18/2007	CJR	1
Tetrachloroethene         < 0.52         ug/l         0.52         1.6         1         8260B         7/18/2007         CJR         1           Toluene         < 0.46	1,1,1.2-Tetrachloro	ethane	< 0.65	ug/l	0.65	2.1	1	8260B	7/18/2007	CJR	1
Toluene         < 0.46         ug/l         0.46         1.5         1         8260B         7/18/2007         CJR         1	Tetrachloroethene	-	< 0.52	ug/l	0.52	1.6	1	8260B	7/18/2007	CJR	1
	Toluene		< 0.46	ug/l	0.46	1.5	1	8260B	7/18/2007	CJR	1

Project NameWIS AVE. RICHMOND TO BALLARDProject #E1715B07

**Invoice #** E15669

Lab Code	515669GG
Sample ID	TRIP
Sample Matrix	Water
Sample Date	7/11/2007

		Result	Unit	LOD	LOQ	Dil	Method	Run Date	Analyst	Code
1,2,4-Trichloroben	zene	< 1.5	ug/l	1.5	4.6	1	8260B	7/18/2007	CJR	1
1,2,3-Trichloroben	zene	< 1.6	ug/l	1.6	5	1	8260B	7/18/2007	CJR	1
1,1,1-Trichloroetha	ine	< 0.5	ug/l	0.5	1.6	1	8260B	7/18/2007	CJR	1
1,1,2-Trichloroetha	me	< 0.5	ug/l	0.5	1.6	1	8260B	7/18/2007	CJR	1
Trichloroethene (T	CE)	< 0.44	ug/l	0.44	1.4	1	8260B	7/18/2007	СJR	1
Trichlorofluoromet	hane	< 0.61	ug/I	0.61	1.9	1	8260B	7/18/2007	CJR	1
1,2,4-Trimethylben	zene	< 1.2	ug/l	1.2	3.8	1	8260B	7/18/2007	CJR	1
1.3.5-Trimethylben	zene	< 0.37	ug/l	0.37	1.2	1	8260B	7/18/2007	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.63	1	8260B	7/18/2007	CJR	1
m&n-Xvlene		< 0.67	ug/1	0.67	2.1	1	8260B	7/18/2007	CJR	1
o-Xylene		< 0.32	ug/l	0.32	1	1	8260B	7/18/2007	CJR	1
Lab Code	515669HH									
Sample ID	TW1									
Sample Matrix	Water									
Sample Date	7/11/2007									
Sample Date	//11/2007	Descritt	¥ 1 #4		100	n:	M . 41 . 3	D D. 4-	Amalanat	<b>C</b>
<b>~</b> •		Result	UAR	LOD	LUQ	DII	Methoa	Run Date	Auaiyst	Coue
Organic										
PVOC + Naph	thalene									
Benzene		< 0.22	ug/l	0.22	0.69	1	GRO95/8021	7/23/2007	CJR	ł
Ethylbenzene		< 0.44	ug/l	0.44	1.39	1	GRO95/8021	7/23/2007	CJR	1
Methyl tert-butyl et	ther (MTBE)	< 0.53	ug/l	0.53	1.7	1	GRO95/8021	7/23/2007	CJR	1
Naphthalene		< 0.53	ug/l	0.53	1.7	1	GRO95/8021	7/23/2007	CJR	1
Toluene		< 0.26	ug/l	0.26	0.83	1	GRO95/8021	7/23/2007	CJR	1
1,2,4-Trimethylben	zene	< 0.45	ug/l	0.45	1.43	1	GRO95/8021	7/23/2007	CJR	3 64
1,3,5-Trimethylben	zene	< 0.22	ug/l	0.22	0.7	1	GRO95/8021	7/23/2007	CJR	1
m&p-Xylene		< 0.68	ug/l	0.68	2.18	1	GRO95/8021	7/23/2007	CJR	2364
o-Xylene		1.75	ug/l	0.53	1.68	1	GRO95/8021	7/23/2007	CJR	3 64
Lab Code	515669II									
Sample ID	TW2									
Sample Matrix	Water									
Sample Date	7/11/2007									
· · · · · · · · · · · · · · · · · · ·		Result	Unit	LOD	LOO	Dil	Method	Run Date	Analyst	Code
Organic					-					
PVOC + Naph	thalene									
Benzene		< 0.22	ug/ł	0.22	0.69	1	GRO95/8021	7/23/2007	СJR	1
Ethylbenzene		< 0.44	ug/l	0.44	1.39	1	GRO95/8021	7/23/2007	CJR	1
Methyl tert-butyl et	her (MTBE)	< 0.53	ug/l	0.53	1.7	1	GRO95/8021	7/23/2007	CJR	1
Naphthalene	. ,	< 0.53	ug/l	0.53	1.7	1	GRO95/8021	7/23/2007	CJR	1
Toluene		< 0.26	ug/l	0.26	0.83	1	GRO95/8021	7/23/2007	CJR	1
1,2,4-Trimethylben	zene	< 0.45	ug/l	0.45	1.43	1	GRO95/8021	7/23/2007	CJR	3 64
1,3,5-Trimethylben	zene	< 0.22	ug/l	0.22	0.7	1	GRO95/8021	7/23/2007	СЛ	1
m&p-Xvlene		< 0.68	ug/l	0.68	2.18	1	GRO95/8021	7/23/2007	СJR	2364
o-Xylene		< 0.53	ug/l	0.53	1.68	1	GRO95/8021	7/23/2007	CJR	3 64
-			~							

Page 31 of 56

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

 Code
 Comment

 1
 Laboratory QC within limits.

2 Relative percent difference failed for laboratory spiked samples.

3 The matrix spike not within established limits.

4 The continuing calibration standard not within established limits.

54 Possible gasoline contamination indicated outside DRO window.

64 Spike recovery failed due to matrix interference. Sample results unaffected.

Michael J. Ricker

Authorized Signature

## CHAIN C CUSTODY RECORD

Quote No.: 0 \$ C

Lab I.D. #

Account No. :

## Synergy

## Chain # Nº 3234 Page <u>1</u> of <u>4</u>

	Enviro	nmental	Lab,	Inc.	<b></b>
--	--------	---------	------	------	---------

Sample Handling Request Rush Analysis Date Required (Rushes accepted only with prior authorization)

Project #: E1715B07		_	1990	Prospect C	t. • Appleton,	, W	1 549	914					(R	ushe	es ac	ccep	ted o	oniy v	with	prio	r auti	bu _ horiz	ation	)
Sampler: (signature) Non Brittmacker			92	0-830-2455	• FAX 920-7	33-	063	1							ہ۔ <del></del>		Norr	nai		ו Ar	oun	a 		
Project (Name / Location): Wisconsin Ave.	(STH 96	)-R	ichmond	to Ball	ard					A	na	lysi	is Re	que	este	ed.								
Reports To: Don Brittnacher	Invoice	To: h	lis DOT										 			( (	Othe	ər A	nal	ysis	;			
Company OMNNI Associates	Compa	iny c	10 OMN	INI Asse	sciates																			
Address Ohe Systems Dr.	Addres	S	Squ	ле		p 95)	ep 95		5	į	lids								1					
City State Zip Appleton WI 54914	City Sta	ate Zip				0 Sel	SOS		524		20		2											
Phone 920/735-6900	Phone					l Bu	19 0 19 0 19 0	A 80					ale											
FAX 920/830-6100	FAX	1	1		No No	N N						44										Pl	D/	
Lab I.D. Sample I.D. Collection Date Time C	omp Grab	Filtered Y/N			DAH	Total	l ead	hap	•															
50 5667 Gt Trip 7/13/07 10:00	X_	N	3	Trip	HCI	1			$\langle$															
HA TUI 10:30			<u> </u> <sup> </sup>	GW			$\left  \right $	X-		_	+		K-		+			₋∔	_					
TU2 10:48			<u> </u>	<u> </u>				1		+	+		<u> </u>  -		+-+	┝─┼╸		+-+		+	+-			<u> </u>
KX TW4 11516								ľ	X		-				+-+	$\vdash$		$\uparrow \uparrow$		+	+			
- TW5 11:35									XJ_			1			$\square$	$\square$	$\square$	$\square$						
Mry TWG 11:50		┼─┼──	<u></u>	<b>├</b>			$\left  - \right $		<b>X</b> ]_	_				+-	+	$\left  - \right $		+-+						
NN TW7 (2:07		┼─┼──			+		+ +		+						++	┝╌┾		┼─┤						
P TW9 V 12:31			<u>├──</u> ↓			+		X			+		Ŕ	-	++			+			+			
Comments/Special Instructions (*Specify groundw	rater "GW",	Drinking	Water "DW", \	Waste Water	"WW", Soil "S	", A	ir "A'	', Oi	il, S	lud	ge	etc.	)					<u> </u>			i			
Sample Integrity - To be completed by receiving Method of Shipment : Temp. of Temp. Blank °C On Ice	lab. R 	Dor	hed By: (sigr -Orittn	1) acher	Time	]	Date		R	906	eive	ed E	Зу: (s	ign	)					Tim	e 	D	ate	
Cobier sear made upon receipt. — res No	F	?eeeived	l in Leborato	ry By: Al								Ţ	ime:	1	1.	,0	10.0	y	- <u>-</u>	<del>) oto</del>		7	1/	ר

77

5

## CHAIN C CUSTODY RECORD

## Synergy

Chain # Nº	<b>_)</b> 235
Page $\underline{2}$ of	4

Lab I.D. #		•	100							107	10 ST	,	57		88					1 4	Jo	0	·			
Account No. :		Quot	te No.:	U	ŧC_		E	nvīro	nme	nta		-a	b	9	In	C			<u>S</u>	amp	)le Ha	andli	ng l	Reque	<u>est</u>	
Project #: E1715	1 B07							1990	Prospect (	St • Annie	aton	WI 5	491	Δ				(Ru	nu	accer	pted o	niy wi	ith pr	ior auti	eu 1oriza	lion)
Sampler: (signature)	Don Bri	ttna	cher					920	0-830-2455	5 • FAX 92	20-73	3-06	531							_X!	Norn	nal T	urn A	Around	Ę	
Project (Name / Lo	cation): Wis	consi	n Ave	2. (5	TH 96	;)_	Rie	chmond t	o Balla	rd					F	Ana	ys	is Red	quest	ted		<u></u> 61	<u></u>			
Reports To: Do	n Brith	ach	er	1	nvoice	e To:	U	Jis DOT					Τ			Τ	T				Othe	er An	alys	is		
Company OM	NNI ASS	acia	tes		Compa	any	c,	6 OMN	N1	<u></u>																
Address		<u></u>			ddres				<u>[¥-</u> ]			95) 0 95)			2	۴	3									
City State Zip				-	City St	ate Zi	p					Sep O Se			524.	120										
Phone	<u></u>			F	Phone							DHO	A 80	8260	A			en								
FAX				F	AX							pow Wo	EP	EPA	N N	A line	2	tha								PIC
Lab I.D.	Sample I.D.	Colle Date	ection Time	Comp	Grab	Filter Y/N	red N	No. of Containers	Sample Type (Matrix)*	Preserva	ation	DRO (	PVOC	NOC (	L OOL	Total S	Lead	ngph								FIC
Saisle QQ T	TWIO	7/13/0	12:50		X	N	)	3	GW	HCI			X					X								
<u> </u>	Γωιι		1:43										Ŕ			_		X_				┼╌┼╸		_		
	<u>TW12</u>	+-+-	1:56	 		+							枌					$ \mathbf{x} $	$\left  \cdot \right $	+		┝┼╴	+			
49	TWIZ TWIU	+-{	2:24		+ - + -	+							Ŕ				+	X	┼┼╴			+-+-	+			
<u>vv</u>	TW15	1	2:39										X					X								
i wus	TWIG		2:50										X					X								
XX -	TW18		3:15			↓							1	X					$\downarrow$		<b> </b>	$\downarrow$				ļ
77.	TWI9	+	3:34			+				<u> </u>			-	Ķ				+	$\left  - \right $			┝┼╌				
#17	1020		3:45	L		<u><u></u></u>	<u></u>	V		<b>v</b>										1						<u> </u>
Comments/Special	TW20 Instructions (*	Specify	<i>3:45</i> / ground	dwater	"GW"	, Drink	ing	₩ Water "DW", \	Vaste Wate		bil "S",	, Air '	'A",	Oil,	Sluc	dge	etc.	)								•
	_				6	ieling	uist	ed By: (sigr	) <sub>A</sub>	Time	 )	Da	te	F	Rec	eive	d E	By: (sig	gn)				 Ti	 me	 Da	 te
Sample Integrity - Melhod of Shi	io be comple	ller	receivi	ng lab	\(	Nos	nĺ	Srittna	her												• • • • • • • • •	<del>سبب سن</del>		<del></del>		-
Temp. of Temp	o. Blank	°C On	Ice:	<b>,</b>	-																	<del></del>	<del></del>			
Cooler seal intact up	con receipt:	≤ Yes	اا	No		Receiv	hav	in Laborator	v By:								т	ime:	41.	0	M				<u>,</u>	. `
	8					160GIV	veu	III LAUVIAIVI	y uy. ///	للرس //	$\sim$							111 <b>0</b> .	7.1	va fr	11		Ua	10. //	1611	s٦

7

	CUSTODY	RECO	ORD				SVI	ner	<b>67</b> '	V							Cha	ain #	NS	>	€€_	236	i
Lab I.D. #							~		IJ.	<b>y</b>							Pa	ge	<u>3</u> d	>f <u>4</u>			
Account No. :		Quote N	lo.: U	/# C		Inviro	nme	ental	<b>l</b>	ak	),	[	nc	~~ # 2		S	amp	ole H	and	ing	Requ	iest	]
Project #: E17	15 B07					1000	Dreenaat	Di a Amminian	. 1A/		044				(R	KL ushes	isn A accej	Analy pted o	/SIS L only w	)ate vith p	Requi rior au	red _ thoriz	ation)
Sampler: (signature	Don Br	Harre	las			92	0-830-2455	5 • FAX 920-7	1, vv 733-	063	914 1						×	Nor	mal 1	Furn	Arour	nd	
Project (Name / I	ocation): Wis	sconsin	Aue.	(STH	96) -	Richmond	1 fr Bal	land				_	Ana	alvs	s Re	anez	ted						Marine and Andrewson and Andrews
Reports To: D	Reitha	cher		Invoic	e To:	W: DOT	10 -1	[4] 01		Π						4.00		Oth	er Ai	naly	 sis		
Company On	UALL Accord	inter		Comp	any C	MULI			-						$\square$					T		Π	
Address	VIUL HSSUC	iures		Addre	ss				35)	95)				হ									
City State Zin				City S	tate Zip				Sep -	Sep		24.2		Sei Sei									
Phone				Phone	· · · · · · · · · · · · · · · · · · ·				- 02	GRO	802	PA 5	3270)	ded	ens			ļ					
FAX		<u></u>		FAX						Pow	EPA PA 8	<u>N (El</u>	ΡA	Inder	ha								PID/
Lab I.D.	Sample I.D.	Collectic Date Tir	n ne Cor	mp Grat	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation		GRO (I		VOC DI	PAH (E	Total Su	hapht								FID
Sksugara	Twal	7/13/07 4:0	05	X	N	3	GW	НСІ			X				X								
BBB	TW22	4,	16							- 2	χľ				X_		_		$\downarrow$		<u></u>	$\downarrow$	
<u> </u>	TW23	45	30		+-+-					┼╌┼	$-\!$	}	┝─┼		┼╌┽╾		┽┥		+		+-+-	┼┼	
505	Tw24	4.	50		+	+				┼╌┼	ТK	-	$\left  \right $		┼╌┼╴				++		+	++	
EEE	TW26	5	03							$\uparrow \uparrow$	5	1			$\uparrow \uparrow$	+-+-	-		+		+	+	
666	TW27	5:	17								X											++-	
нин	TW30	5:	38									1											
III	TW31	6:	02				<u> </u>					<u>_</u>			<u> </u>  _								
<u> 23</u> 2	TW32	4 6.	:1/			Ψ	<u>v</u>					5											
Comments/Speci	al Instructions (*	Specify gro	oundwa	ter "GW"	', Drinkin	g Water "DW",	Waste Wate	r "WW", Soil "	S", A	\ir "A'	", Oi	I, Slu	udge	etc.	)								
Sample Integrity Method of S Temp. of Tel Cooler seal intact	• To be comple Shipment : np, Blank, upon receipt:	ted by rec (C On Ice: Yes	eiving l	ab	Deningui	Butty	icher				;  				by. (S	igir )				ا 		 	
		·····	<del></del>		Receive	d in Laborato	ny By:		$\gamma$	١				T	ime:	(4)	20	RN	2	D	ate: 🕻	<i>רע</i> ר	<u>ィ/〜</u> ン

	)	Syı	nerg	<i>J</i> y	ŗ						1	Cha Pao	ain #	⊧N u	of		23	3
Account No. : Quote No.: (	Jŧc En	nvironme	ntal	La	ь,		n	C.	Γ		<u>Sa</u> Rus	mp sh A	le H	lanc /sis	<u>Jling</u> Date	-7   <b>Re</b> 9 Red	ques juire	<u>st</u> d
Sampler: (signature) Don Spittmachen		1990 Prospect C 920-830-2455	t. • Appleton • FAX 920-7	, WI 5 33-06	6491 631	4				(Rusi	hes ad 7	ccep X	Nor	only mal	with Turr	prior ר Aro	autho und	orization)
Project (Name / Location): Wisconsin Ave.	(STH 96) - Rich	hmoud to Balla	rd				An	aly	sis F	Requ	este	d						
Reports To: Don Brittnacher	Invoice To: Wi	SDOT											Oth	er A	Analy	ysis		
Company OMNNI Associates	Company c/1	D OMNNI																
Address	Address	<u></u>		95) 0 95)		6		spi										
City State Zip	City State Zip	na <u>teka , a</u>	· · · · · · · · · · · · · · · · · · ·	Sep O Se	E.	) 524 :		d Sol										
Phone	Phone			DRO	A 802	8260 -PA	827(	ende										
FAX	FAX			Do W	(EP/	N R A	PA	orspe										PID/
Leb I.D. Sample I.D. Collection Date Time Co	omp Grab Filtered Y/N C	No. of Sample Type (Matrix)*	Total S	Lead									FID					
Stobby Loka Trip 2 7/10/07 3:15	XN	3 trip	HCI			X												
LL TW17 " 3:30		2 GW	HCL			X_									$\vdash$			
					+			-+-						-	┼╌┼╴			+
															┥──┼-		<u> </u>	
							+			$\left  \cdot \right $					┝─┼╸			+
Comments/Special Instructions (*Specify groundw	ater "GW", Drinking Wa	ater "DW", Waste Water	"WW", Soil "S	", Air "	'A", C	Dil, SI	ludge	e etc	>.) 									
Sample Integrity - To be completed by receiving Method of Shipment : C On Ice:	lab: Retinquisher	d By: (sign) Prettnacher	Time	Da	te 	Re		/ed	By: (	(sign	)					Time		Date
Cooler seal infact upon receipt: X Yes No	Received in	Laboratory By:	hilp						Time	): (	4!2	20/	5		D	ate:	<u>ק</u> ל	16/=>

	CUSTODY	RECO	RD				SVI	nor	<b>B</b> ZY							(	Chair	ז # מ	12	ંા	231	
Lab I.D. #							~y -		<b>J</b> ,	<b>y</b>						I	Page		_ of _	4		
Account No. :		Quote No	o.:			Enviro	nme	ental	l. i	al	2,	Ir	IC	#		Sa	mple	Han	dling	Requ	iest	
Project #: E(7/	5807					1000				1	<b>1</b> 4				(Rus	_ HUS hes ac	n An cepte	alysis ed onl	s Date y with	Field Required Prior au	red thorizat	tion)
Sampler: (signature)	Don Bre	ttnache	2.			92	20-830-245	5 • FAX 920-	1, VV 733-	-063	914 1						ХN	lorma	al Tur	n Arour	۱d	,
Project (Name / L	ocation): Wis	sconsin	Ave	(STH	96)-	Richmond	1 to Ball	ard					Anal	ysis	Req	ueste	d					
Reports To: D.	Britthache	er		Invoic	e To:	Nis DOT			-	Π				ÍТ	•		0	ther	Anal	ysis		
Company OM	JNI Associa	ates		Comp	any c	6 OMNNI	Associat	פש														
Address One	Sustems D	)r.		Addre	SS	Sam	e	<u> </u>	95)	p 95)			sp									
City State Zip A	opleton WI	54914		City S	tate Zip				Sep	0 Sel	Ē	524.	L Soli									
Phone				Phone	)					GR(	\ 802 3260	A	8270 ndec		CHE							
FAX				FAX					- poy	Mod	EPA PA	N (E	PA		<u>На</u>							PID/
Lab I,D,	Sample I.D.	Collection Date Tim		mp Grat	Filtere Y/N	d No. of Containers	Sample Type (Matrix)*	Preservation	DRO	GRO (	PVOC (F	VOC D	PAH (E Total S	Lead	haphy u							FID
5315669A	B1-4	7/10/07 9:0	20	X	N	4	soil	none	X	X	X				ХX							
B	<u>B2-4</u>	95	20			<i>n</i>	<u> </u>		X	X	×				XX						┼╌┼╼╴	<u></u>
C N	<u>133-4</u> RJ_1	2:	<u>s</u>		+	<del>-</del> - <del>-</del> - <del>-</del> - <del>-</del>			+			•						┼╌┼╸	+-+		┼╌┼╼╴	
D F	B5-3	9:1	55			n				$\uparrow \uparrow$	X			+								
F	B6-4	10:1	10			И					X				X							
G	<u> 87-3</u>	10:	30			4			<u> </u>	X	x				XX							<u> </u>
H	<u>B8-3</u>	11:0	<u>25</u>			И	ļ		X	X	<u>r</u>	$\left  \right $			xx							ļ
Ţ	<u>B9-3</u>		10		+				K	K	<u>x</u>	+			XX						+	
Comments/Specia	al Instructions (*	Specify grou	undwa	iter "GW"	', Drinkin	g Water "DW",	Waste Wate	r "WW", Soil "	<u>- r v</u> S", A	Air "A	", Oil	, Slu	dge (	etc.)			<b>I</b>		<b>-</b>	I		7206
Sample Integrity Method of S Temp. of Ter	- To be comple Shipment : np. Blank	ted by rece ( <u>; e</u> °C On Ice:	living I	ab: 	Relinqui	ished By: (sig <u>Gruttna</u>	n) eler	Time 5:2576	17/	Date	, 2_ 	Rec	eive	d B	/: (sig	n )				Time	Dat	te
	upon receipt.				Receim	ed in Loborate	Ry:	Relat						Ti	ne:	<u>۱ `` ۱</u>	μη_(	<u> </u>		ל :ate	Lula	2

~

	USTODY					Sh	<b>/</b>	ne	<b>rc</b>		V	,							(	Cha	ւin #	N	<b>o</b>	و	22	8			
Lab I.D. #							torector							y								F	۶ag	ie	2	of	L		
Account No. :		Quo	te No.:				E	nviro	nn	ne	enta	al l	Ĺ	al	2,		m	C,	8			Sa	mp	le Ha	and	ling	Rec	uest	
Project #: E1715	RD7	J							_						• •					(B	ush	Rusi es ac	n Ai ceo	nalys	sis ( Inly 1	Date with p	Req: rior a	uired	ization)
Sampler: (signature)	hon Br	.H.	acho	4				1990 92	Prosp 0-830-	ect C 2455	л. • Ар • FAX	920-7	wi 33-0	1 54 063	914 1	1				Ì		X	X.	Norn	nal	Turn	Arou	Ind	
Project (Name / Lo	cation): W;	SCON	sin F	Jun (	STH	96)		Richman	dto	Bal	lacol						Δ	nalv	/sia	Re		este	Ä					<u></u>	
Reports To: Do	Ritting	lar	-		voic	e To:	1	R-DAT	-							1					qui		<u> </u>	Othe	er A	nalv	sis		
Company Araa	N/ Ama	lata		+	comp	anv	<u></u>	La AMAN	a)/										ŀ		Τ	TT	Τ	Π	Π		$\square$		
Address	NI MSCI	ures	>		ddro	<u>ee</u>	<u> </u>	0 0/011					(2)	95)				s											
City State Zip							'in				- <u> </u>		Sep S	Sep		010	<u>.</u>	Solid											
Phone					hone		<b>.</b>						ROS	0HG	8021			ded		Ene									
													D pc	o pol	PA	28 A	<sup>8</sup> آ	spen	Ī	44	÷								
		Coll				Filte	rod	No. of	Sarr	ole	1		W)	N) (N				I Su	-	440	4 E						<i>.</i>		FID/
Lab I.D. S	Sample I.D.	Date	Time	Comp	Grab	P Y	N	Containers	Tyj (Mat	ce rix)*	Prese	rvation	DR(	GR	ă	Š Š	A A	Tota	Lea	NA	5								
5=15669 K	B11-3	7/10/0	7 12:40		X	1	)	ų	50	il	n	one	X	x	x			1		xx	c						$\vdash$		
۷	B12-3	1	(7:15					n					X	X	X					хX			$\square$						
<u> </u>	B13-2		1:05										x	X	X			ļ		<u>x   x</u>				!	$\square$		$\square$		
<u> </u>	B14-2		1:30					<u>и</u>	i 				X	X	X					<u>X X</u>	<u>-</u>	+		<u> </u>	┝──┤		$\square$		
	<u>BI5-7</u>	$\left  - \right _{-}$	1:55					<u> </u>					X		X	_	_			ΧĶ	$\leq$	++		'	+		╞──┾╸		
<u> </u>	<u>BI6-7</u>		2:15		⊢/						+		X	<u>×</u>	4					ᄵ		+-+		'	┝╍┦		╉┯╌┠╴		
<u> </u>	<u>BI7-2</u>	11110	7 9:45					2								Э́Н-				-4	<u></u>	┼╌┼	$\rightarrow$		┝─┤		╞─┼╴		
<u> </u>	B18-2		10:05		-{			и				· · · · · · · · · · · · · · · · · · ·		$\left  - \right $	-+	<u>X</u>		+		-(	+	┼┈┼			┝╌┤		++		
<u> </u>	B19-3	$\left  \cdot \right _{\tau}$	2:35					h		,				$\left  \right $						-{	<u>}</u>	++			++		╄╌┼		
	1320-1		12:00		<u>"011</u>							0.11.60	<u> </u>		k	$\Delta $					<u> </u>						L		
		opecii	y ground	iwater	GVV	, Unn	king '	Waler DW,	waste t	valer	vvvv ,	5011 5	, AI		., <b>L</b>	/II, O	iuuį	Je e											
Sample Integrity - Method of Shi Temp. of Temp	To be complet pment : . Blank	led by	receivin	ng lab. 	-	Relind	uist か	ned By: (sigr Brittni	" icher	2	اتا ریسر 	ne J.T.M.	ם יר	Date ////	, /2)	R	ece	ivec	i By	/: (s	ign	)				Ti	ime		Date
Cooler seal intact up	on receipt:2	∑ Ye	<del>سر۔</del> ۸ه	10		Recei	ved	in Laborator	у Ву:	1	ſL.	lf	]		·				Tir	ne:	ر	<u>,</u> ,2	. <u>.</u>	P,M		De	ite:	<u>-//</u> .	1/07

	Y RECORD	•			Svr	1era	2		7							С	hai	n#	N:		ي ا	22	9
Lab I.D. #			]		⊌y∎		I ,	J			-					Ρ	age		<u>3</u> ,	of 4	, 		
Account No. :	Quote No.:		]	nviro	nme	ntal	l	al	b,	2	n	C	<b>8</b> 7		 	San	npl	e Ha	and	ing	Req	uest	
Project #: E1715 B07				1000	Brosport C	t e Annioton			101	1				(R	ushe	(USN s acc	1 Ar cept	ialys ed o	3IS L nly v	Jate vith p	rior a	lired uthor	ization)
Sampler: (signature) Don B	rettnacher			920	0-830-2455	• FAX 920-7	733-	-06	31	+						2	× r	Norn	nal T	Furn	Arou	nd	
Project (Name / Location): W	lisconsin Ave.	(STH90	() - R	ichmond	to Ball	ard					A	naly	ysis	s Re	que	stec	d						
Reports To: Don Britty	acher	Invoice	To: V	Vis DOT			1					Τ					C	Othe	r A	naly	sis		
Company OMNNIAS	sociates	Compa	ny c/	OMNI	)]		1																
Address		Address	 S		<u>•</u>		95)	0.95)			-	sp											
City State Zip		City Sta	te Zip				Sep	Sel	<del>,</del>	101	024.	l Soli											
Phone		Phone					18	GRC	802	3260	A270	nded		ene									
FAX	· · · · ·	FAX		*******		······································	] pov	Mod	(EPA	PA		adsn		104	÷								PID/
Lab I.D. Sample I.D.	Collection Date Time Co	mp Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (N	GRO (	PVOC			Total S	Lead	Happe	* 								FID
5=156694 B21-3	7/11/07 3:00	X	N	4	soil	houe	X	x	X					x	c								107
U B22-2	1 3:15			4			X	X	x					XX				_	_∔				
D23-1 X B21-1	1:45			<i>d</i> <i>n</i>			+	-	$\left  - \right $	X V				-					┝╼┥		┼╌┼╴		
Y B25-1	1225			9			+	+		$\mathbf{x}$	+	+	$\left  - \right $	-f		-+-	-		┝──╋		┼╌┼╴	+	
Z B26-1	10:49			4			+		Ī	X				x	1		$\top$				$\square$	+	
515669 AA 827-3	11:05			ч						X				$\mathbf{\lambda}$	1								
3B B28-3	11:20			4						X					$\sim$								
CC B29-3	11:55			"	<u> </u> ,				┝	X		_		X					$\square$				<u>                                     </u>
DD B30-2	12:15									<u>X </u>					٢								
Comments/Special Instructions	("Specily groundwa	ater Gw,	Dunking	water Dw,	waste water	www, aoir a	<b>с</b> , м	AIF 7	۹, ۷	л, с	siuu	ige e	nc.)										
							•																
Sample Integrity - To be com	bleted by receiving	lab. 👌		hed By: (sigr	1)	Time	7/	Dat	ر» 6	R	ece	eive	d By	y: (s	ign )	1				Т	ime	1	Date
Method of Shipment :	ANEX -			, v v i un p	<u>~</u>		<u> </u>		́					· · · · · · · · ·					****	<u>.</u>			
Temp. of Temp. Blank.			:																****** <u>*</u>	~			
Cooler seal intact upon receipt:		R		i indentiorate	ny ₽y: Al	K. +)					_		Ti	me:	i	<u> </u>	5	<u>a</u>	7	ית	nte:	<u>7</u> ר	<u>_/_</u>

ナ

# CHAIN G. CUSTODY RECORD Synergy

Chain # Nº	J230
Page _ Page _ of	4

Lab I.D. #		14 a. 1					1 10		NT 57	57	5	9	83			-			•	ugu	, <u> </u>		·	-		
Account No. :	ß	Quo	te No.	;			nvīro	nme	ntal	<b>l</b> ;	al	9,		n	C.	,		-	Sar	nple	<u>e Ha</u>	indli	ng	Requi	est rod	
Project #: E17	15 07						1990		t • Annieton	· \//	11 54	914					(R	ushe	s ac	cepte	ed or	nly wi	ith pr	ior au	ihoriza	ation)
Sampler: (signature	Don Bre	tha	cher			7	92	0-830-2455	• FAX 920-7	733	-063	31							4	XN	lorm	nal T	urn A	Aroun	ıd	
Project (Name / I	Location): Wi	scons	sin A	ve. (S	TH 9	() - R	ichmond	to Balla	rd					Ar	naly	sis	Re	que	ste	d						
Reports To: Do	n Brittnac	cher		1	nvoice	To: V	Vis DOT		······											0	the	r An	alys	is		
Company OM	NNI Assoc	iate	s	(	Compa	iny c	lo OMN	NI																		
Address				1	Addres	s			<u></u>	95)	p 95)		6		ids											
City State Zip					City Sta	ate Zip				Sep	0 Se	E .	524.		d Sol											
Phone				F	Phone						I GR	A 802		827(	ende											
FAX				F	=AX					Pow	Мо М	Ц Ш Ц		EPA	guspe	-	3									PID/
Lab I.D.	Sample I.D.	Colle Date	ection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (	GRO	PVOC		PAH (I	Total S	Lead	dry 1	, . , .								FID
515669EE	B31-2	7/11/0	4:00		X	N	2	soil	none			· )	٢			)	X									
FF	B32-1	L	4:15			N	2		noue		$\left  - \right $		<u>x </u>				×				╄┻		+		┝─┼╸	
	<u> </u>															-+					+					
					<u> </u>							_									$\square$					
						 			1						$\left  \cdot \right $			-	-		+		+		┝─┝╴	
																									$\square$	
Commente/Seesi	al Instructions //				"G\\/"	Drinking						" 이														
Comments/Specia	ai instructions (	Shecul	y groun	luwater	GW,	Diliking	water Dw,	vasie valei	www.,30ii C	, ,		.,0	n, O	luuy	le el	0.)										
										•																
									<u></u>																	
Sample Integrity	/ - To be comple	eted by	receiv	ing lab	. R	elinquis	hed By; (sigr	1) 	Time	ן / רי ו	Date	•	Re	ecei	ved	By	: (si	gn)					Tir	me	Da	ate
Method of S	Shipment : 🧲	<u>نر عن ا</u>	<u>٦</u>			Oni	Juma	ner		4	<u>[']</u> *	-2-			<del></del>			<u></u>								
Temp, of Ter	mp. Blank.	°C On	Ice:	<u></u>																		<del></del>	<u> </u>			
Cooler seal intact	upon receipt:	¥_Yes	3 <u></u>	No	F	Received	in Laborato	Muly	$\overline{)}$						Tim	ne:	5:	25	- <i>p</i>	M		Da	 te: 7	Tota		
• • • • • • • • • • • • • • • • • • •								· · · · · ·	/														<del>(</del>			