

2015 Progress Report

Environmental Remediation

of a

Petroleum Release

Site

Pap's General Store

1637 80th Street

Balsam Lake, WI 54810

Prepared for

Rick Scoglio

1637 80th St.

Balsam Lake, WI 54810

WDNR BRRTS #03-49-223213

PECFA # 54810-2432-37

Project S2880-003

November 20, 2015

Cedar Corporation

PECFA Participation No. 240179

GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM: Completion of this form is required under s. NR 724.13(3), Wis. Adm. Code. A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation of s. NR 724.13(3), Wis. Adm. Code, and is subject to the penalties in s. 292.99, Wis. Stats. This form must be submitted every six months for soil or groundwater remediation projects that report operation and maintenance progress in accordance with s. NR 724.13(3), Wis. Adm. Code.

Note: Long-term monitoring results submitted in accordance with s. NR 724.17(3), Wis. Adm. Code are required to be submitted within 10 business days of receiving sampling results and are not required to be submitted using this form. However, portions of this form require monitoring data summary information that may be based on information previously submitted in accordance with s. NR 724.17(3), Wis. Adm. Code.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if this form is required to be submitted at sites responded to under the Federal Comprehensive Environmental Response and Compensation Act (commonly known as Superfund) or an equivalent State lead Superfund response.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and obtain prior written approval for any omissions or changes.

Submittal of this form is not a substitute for reporting required by Department programs such as Waste Water or Air Management. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by the Bureau for Remediation and Redevelopment.

Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.). Unless otherwise noted, all citations refer to Wisconsin Administrative Code.

Note: There is a separate semi-annual report required under s. NR 700.11(1), Wis. Adm. Code. Reporting under that provision is through an internet-based form:

<http://dnr.wi.gov/topic/Brownfields/documents/regs/NR700progreport.pdf>

Section GI - General Site Information

A. General Information

1. Site name

Pap's General Store

2. Reporting period from: 11/01/2014 To: 11/25/2015 Days in period: 390

3. Regulatory agency (enter DNR, DATCP and/or other) 4. BRRS ID No. (2 digit program-2 digit county-6 digit site specific)
 DNR 03-49-223213

5. Site location

Region	County	Address					
Northern Region	Polk	1637 80th Street					
Municipality name	<input type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village	Township	Range	<input type="radio"/> E <input checked="" type="radio"/> W	Section	¼	¼ ¼
Balsam Lake		34 N	16		11	SW	NW

6. Responsible party Name	7. Consultant					
Rick Scoglio	<input type="checkbox"/> Select if the following information has changed since the last submittal					
Mailing address	Company name					
1637 80th Street, Balsam Lake, WI 54810						
Phone number	Mailing address			Phone number		
(715) 268-2108						

8. Contaminants
 benzene, toluene, ethylbenzene, xylenes, trimethylbenzenes

9. Soil types (USCS or USDA)
 sand

10. Hydraulic conductivity(cm/sec): 11. Average linear velocity of groundwater (ft/yr)
 9.2 x 10⁻⁵ cm/sec 2-6 ft /yr

12. If soil is treated ex situ, is the treatment location off site? Yes No

If yes, give location: Region County

Municipality name	<input type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village	Township	Range	<input type="radio"/> E <input checked="" type="radio"/> W	Section	¼	¼ ¼
		N					

Site name: Pap's General Store

Reporting period from: 11/01/2014 To: 11/25/2015

Days in period: 390

Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 11/14)

Page 2 of 28

B. Remediation Method

Only submit sections that apply to an individual site. Check all that apply:

- Groundwater extraction (submit a completed Section GW-1).
- Free product recovery (submit a completed Section GW-1).
- In situ air sparging (submit a completed Section GW-2).
- Groundwater natural attenuation (submit a completed Section GW-3).
- Other groundwater remediation method (submit a completed Section GW-4).
- Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- Soil natural attenuation (submit a completed Section IS-2).
- Other in situ soil remediation method (submit a completed Section IS-3).
- Biopiles (submit a completed Section ES-1).
- Landspreading/thinspreading of petroleum contaminated soil (submit a completed Section ES-2).
- Other ex situ remediation method (submit a completed Section ES-3).
- Site is a landfill (submit a completed Section LF-1).

C. General Effectiveness Evaluation for All Active Systems

If the remediation is active (not natural attenuation), complete this subsection.

1. Is the system operating at design rates and specifications? Yes No

If the answer is no, explain whether or not modifications are necessary to achieve the goal that was previously established in design.

2. Are modifications to the system warranted to improve effectiveness Yes No

If yes, explain:

3. Is natural attenuation an effective low cost option at this time? Yes No

4. Is closure sampling warranted at this time? Yes No

5. Are there any modifications that can be made to the remediation to improve cost effectiveness? Yes No

If yes, explain:

D. Economic and Cost Data to Date

1. Total investigation cost: _____

2. Implementation costs (design, capital and installation costs, excluding investigation costs): _____

3. Total costs during the previous reporting period: _____

4. Total costs during this reporting period: _____

5. Total anticipated costs for the next reporting period: _____

6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above? Yes No

If yes, explain:

7. If closure is anticipated within 12 months, estimated costs for project closeout: _____

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Reporting period from: 11/01/2014 To: 11/25/2015

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Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 11/14)

Page 3 of 28

E. Name(s), Signature(s) and Date of Person(s) Submitting Form

Legibly print name, date and sign. Only persons qualified to submit reports under ch. NR 712 Wis. Adm. Code are to sign this form for sites with any ongoing active remediation, monitoring or an investigation. Other persons may sign this form for sites with no response activities during the six month reporting period.

Registered Professional Engineers:

I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the 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 information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

Hydrogeologists:

I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

Scott E McCurdy
Scott E. McCurdy
Nov. 25, 2015

Scientists:

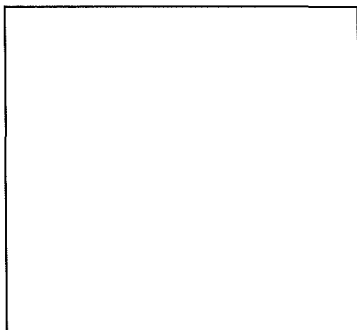
I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

Other Persons:

Print name	Title
Signature	Date

Professional Seal(s), if applicable:



Site name: Pap's General Store
Reporting period from: 11/01/2014 To: 11/25/2015
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Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 11/14)

Page 8 of 28

Section GW-4, Other Groundwater Remediation Methods

A. Effectiveness Evaluation

1. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in A.1.a.

a. Contaminant: benzene, toluene, ethylbenzene, xylenes, trimethylbenzenes

b. Percent reduction necessary: 99.5 %

c. Maximum contaminant concentration level in any monitoring well: 1,100 µg/L

2. Is the size of the plume: Increasing Stabilized Decreasing ?

3. Describe the method used to remediate groundwater at the site:
monitoring

4. List any additional information required by the DNR for this method for this site:

B. Additional Attachments

Attach the following:

- Groundwater contour map.
- Groundwater contaminant distribution map (may be combined with contour map).
- When contaminants are aerobically biodegradable, attach a dissolved oxygen in groundwater map (dissolved oxygen may be combined with the contaminant data on a single map).
- Graph of contaminant concentrations versus time for the contaminant listed in A.1.a. (above) for the monitoring point with the greatest level of contamination.
- Groundwater contaminant chemistry table.
- Groundwater elevations table.
- Any other attachments required by the DNR for this remediation method.

**TABLE 2
GROUNDWATER ELEVATIONS**

WELL	MW-1	MW-1R	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	P-8	MW-9	MW-10	MW-11
CASING ELEV.	1133.68	1133.95	1134.04	1133.07	1133.76	1131.49	1133.82	1134.5	1134.42	1131.26	1128.11	1132.24
GROUND ELEV.	1134.20	1134.45	1135.39	1133.78	1134.23	1132.14	1134.22	1134.96	1134.96	1131.78	1128.56	1132.70
SCREEN TOP ELEV.	1124.34	1125.65	1122.89	1124.83	1123.95	1121.97	1124.08	1125.53	1094.30	1123.46	1122.98	1123.99
SCREEN BOTTOM ELEV.	1114.34	1115.65	1112.89	1114.83	1113.95	1111.97	1114.08	1115.53	1089.30	1113.46	1112.98	1113.99
DATE												
10/31/2000	1120.76	1120.76	1119.82	1120.97								
01/19/2007	1119.36	1119.36	1119.29	1120.35	1120.84	1120.17	1121.80	1120.25	1120.97			
04/24/2007	1119.52	1119.52	1119.92	1120.54	1121.03	1120.15	1122.11	1120.48	1121.12			
07/10/2007	1119.78	1119.78	1119.37	1120.36	1120.86	1120.01	1121.77	1120.22	1120.88			
10/17/2007	1120.48	1120.48	1120.50	1121.96	1121.54	1120.97	1123.45	1120.96	1121.18			
01/24/2008	1119.89	1119.89	1119.25	1120.17	1120.81	1119.85	1122.39	1120.23	1120.61			
07/14/2009		1120.17	1119.40	1120.05	1120.55	1119.89	1121.79	1119.90	1120.45	1119.23	1119.26	1120.22
10/13/2009		1120.27	1119.71	1120.26	1120.67	1120.31	1121.86	1120.04	1120.52	1119.51	1119.74	1119.94
01/19/2010		1120.03	1119.23	1119.92	1120.49	1119.63	1121.83	1119.90	1120.32	1119.23	1119.01	1119.14
04/14/2010		1120.41	1120.28	1120.25	1120.84	1119.96	1122.69	1120.27	1120.51	1119.54	1119.89	1119.66
07/20/2010		1120.80	1120.74	1121.01	1121.42	1120.57	1123.32	1120.55	1120.71	1119.72	1119.98	1120.38
09/30/2010		1121.39	1121.10	1121.75	1122.03	1121.11	1124.25	1121.16	1121.17	1120.56	1120.97	1121.41
05/03/2011		1122.19	1121.84	1122.38	1123.31	1121.80	1124.98	1122.02	1121.62	1121.08	1121.26	1121.48
10/19/2011		1121.23	1121.19	1121.42	1121.77	1120.59	1123.15	1120.98	1121.41	1120.12	1120.07	1120.19
04/12/2012		1120.64	1120.90	1120.49	1121.01	1121.17	1122.50	1120.48	1121.00	1119.78	1120.24	1119.70
04/30/2013		1121.13	1121.09	1121.15	1121.23	1122.71	1123.26	1120.86	1121.31	1120.73	1121.68	1121.55
10/23/2013		1120.56	1120.49	1120.44	1120.94	1120.57	1122.77	1120.28	1120.80	1119.61	1120.52	1119.93
06/12/2014		1123.62	1123.49	1123.52	1124.41	1123.24	1125.91	1122.58	1122.07	1121.90	1122.66	1122.59
11/05/2014		1121.33	1121.24	1121.52	1121.93	1120.62	1123.23	1121.07	1121.56	1120.16	1120.41	1120.37
04/28/2015		1121.07	1121.02	1121.02	1121.48	1121.26	1123.01	1120.81	1121.37	1120.08	1121.21	1120.33
11/02/2015		1121.84	1121.79	1122.04	1122.49	1121.54	1123.91	1121.58	1122.03	1120.83	1122.09	1121.16

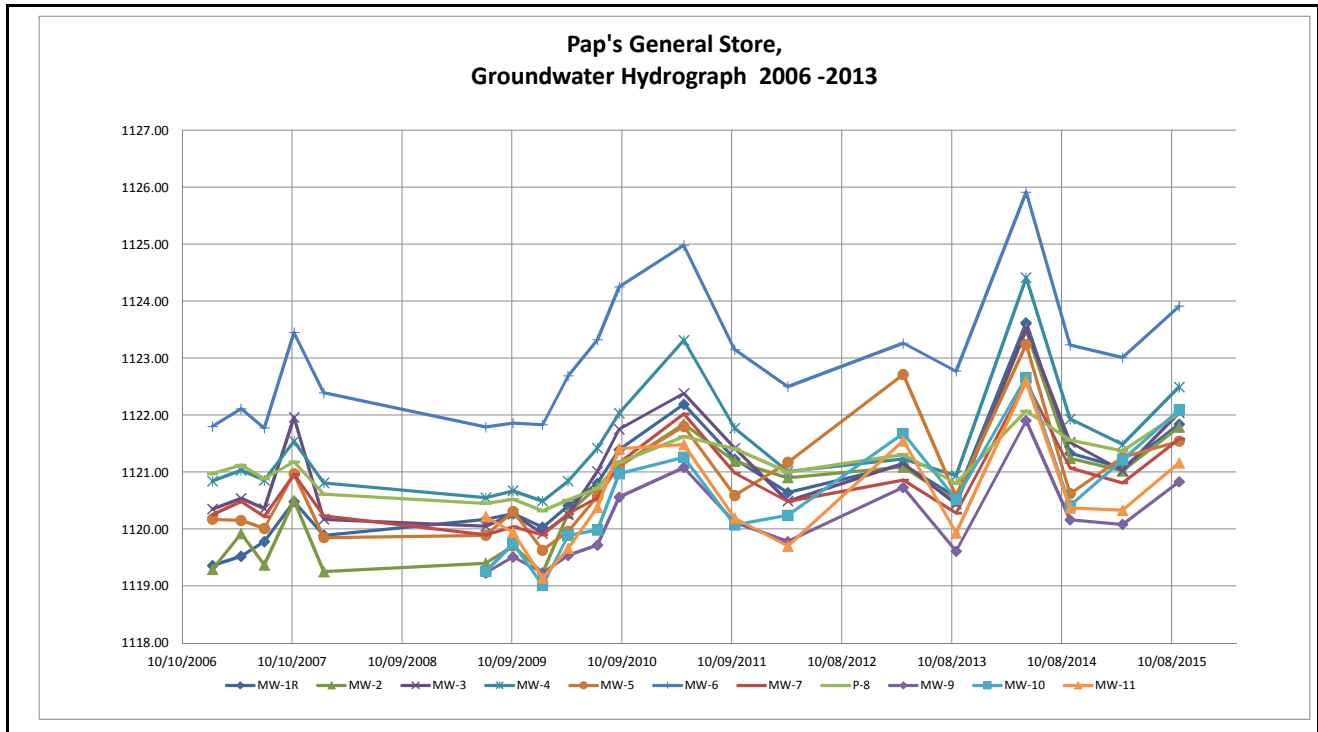


TABLE 2
Groundwater Elevations and Hydrograph



<http://www.epa.gov/Athens/learn2model/part-two/onsite/gradient.htm>

Last updated on Wednesday, October 31st, 2007.

Modeling Subsurface Petroleum Hydrocarbon Transport

You are here: [EPA Home](#) [Modeling Subsurface Petroleum Hydrocarbon Transport](#)

EPA On-line Tools for Site Assessment Calculation

[Module Home](#) [Objectives](#) [Table of Contents](#) [Previous <](#) [Next >](#)

Hydraulic Gradient

$$\text{Hydraulic Gradient } i = (h_2 - h_1)/d$$

i = Hydraulic Gradient [L/L]

h_1 = Upgradient Head [L]

h_2 = Downgradient Head [L]

d = Distance Between Wells [L]

[Example Data](#)

[Calculate](#)

[Clear](#)

[Save Data](#)

[Recall Data](#)

[Go Back](#)

Site Name	<input type="text" value="Pap's"/>	
Date	<input type="text" value="3/27/2008"/>	Current Date
Distance Unit	<input type="text" value="ft"/>	
Distance Between Wells	<input type="text" value="90.00"/>	
Head Unit	<input type="text" value="ft"/>	
Upgradient Water Level (h_1)	<input type="text" value="84.90"/>	
Downgradient Water Level (h_2)	<input type="text" value="84.85"/>	
Gradient (i)	<input type="text" value="-0.000556"/>	

[Previous](#) [Top ^](#) [Next](#)

[Home](#) | [Glossary](#) | [Notation](#) | [Links](#) | [References](#) | [Calculators](#)

TABLE 4
Groundwater Analytical Results
PVOC & Detected VOC (EPA 8020), DRO, GRO

PARAMETER	SAMPLE DATE	MW-1	MW-1R	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	P-8	MW-9	MW-10	MW-11	Olson	Strey	Paps	
GRO (ug / L)	10/31/00	47,000		FP	750												
DRO (mg / L)	10/31/00	4.7		FP	<0.10												
BENZENE (ug / L)	10/31/00	8,600		FP	150									<0.10		<0.10	
Enforcement Standard - 5.0 Preventive Action Limit - 0.5	1/19/07	FP		FP	2.5	<0.20	20	<0.20	1,300	<0.20				<0.20		<0.20	
	4/24/07	FP		FP	1.0	<0.25	120	<0.25	520	<0.25							
	7/10/07	FP		FP	130	<0.25	27	<0.25	1,800	<0.25							
	10/17/07	FP		FP	9.7	<0.25	<0.25	<0.25	370								
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.20		<0.20	
	7/14/09		4000	FP	25	<0.25	0.4	<0.25	1,200	<0.25	<0.20	<0.20	<0.20	<0.25	<0.20	<0.25	
	10/13/09		3700	FP	5.2	NS	<0.25	NS	1,600	NS	NS	NS	NS	NS	NS	NS	
	1/19/10		3900	FP	60	<0.25	0.54	<0.25	2,200	<0.25	<0.25	<0.20	<0.25	<0.25	NS	<0.25	
	4/14/10		2600	FP	19	NS	<0.25	NS	290	NS	NS	NS	NS	NS	NS	NS	
	7/20/10		3100	2,200	<0.25	<0.25	<0.25	<0.25	580	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	9/30/10		3500	FP	<0.25	NS	<0.25	NS	<0.25	NS	NS	NS	NS	NS	NS	NS	
	5/3/11		4300	1,700	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	10/19/11		4300	550	6.2	<0.20	30	<0.20	530	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
	4/12/12		3600	586	12.5	<0.25	164	<0.25	40.1	<0.25	<0.25	<0.25	<0.25	<0.25	NS	<0.25	
	4/30/13		1300	1,700	<0.36	<0.36	<0.36	<0.36	6.7	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36
	10/23/13		1400	380	20	<0.36	<0.36	<0.36	1,200	<0.36	<0.36	<0.36	<0.36	NS	NS	NS	
	6/12/14		1200	450	1		<0.36		<0.36		<0.36						
11/5/14		1400	360	<0.36	<0.36	98	<0.36	<0.36	<0.36	<0.36				<0.36	NS	<0.36	
4/28/15		1300	86	<0.36	<0.36	<0.36	<0.36	0.56	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	
11/2/15		1100	220	<0.36		<0.36		<0.36	<0.36	<0.36				<0.36	<0.36		
1,2 EDB (ug / L)	10/31/00	NS		NS	NS	NS	NS	NS	NS	NS				<0.25		<0.25	
Enforcement Standard - 0.05 Preventive Action Limit - 0.005	1/19/07	FP		FP	<0.20	<0.20	<0.20	0.23	<0.20					<0.20		<0.20	
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.20		<0.20	
	7/14/09		NS		NS	NS	NS	NS	NS	NS	<0.20	<0.20	<0.20	NS	<0.20	NS	
ETHYLBENZENE (ug / L)	10/31/00	1,900		FP	13									<0.25		<0.25	
Enforcement Standard - 700 Preventive Action Limit - 140	1/19/07	FP		FP	<0.22	<0.50	8.6	<0.50	640	<0.50				<0.50		<0.50	
	4/24/07	FP		FP	<0.22	<0.22	9.5	<0.22	320	<0.22							
	7/10/07	FP		FP	0.45	<0.22	0.47	<0.22	1300	<0.22							
	10/17/07	FP		FP	0.64	<0.22	<0.22	<0.22	230	<0.22							
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.50		<0.50	
	7/14/09		2,000	FP	2	<0.22	<0.22	<0.22	1900	<0.22	<0.50	<0.50	<0.50	<0.25	<0.50	<0.25	
	10/13/09		2,000	FP	<0.22	NS	<0.22	NS	1500	NS	NS	NS	NS	NS	NS	NS	
	1/19/10		2,200	FP	1	<0.22	0.34	<0.22	1900	<0.22	<0.22	<0.22	<0.22	<0.22	NS	<0.22	
	4/14/10		1,700	FP	2	NS	<0.22	NS	230	NS	NS	NS	NS	NS	NS	NS	
	7/20/10		2,100	3,600	<0.22	<0.22	<0.22	<0.22	640	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	
	9/30/10		2,100	FP	<0.22	NS	<0.22	NS	<0.22	NS	NS	NS	NS	NS	NS	NS	
	5/3/11		2,800	3,600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	10/19/11		2,900	3,200	4.1	<0.50	110	<0.50	470	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	4/12/12		3,020	2,640	<0.25	<0.25	1060	<0.25	505	<0.25	<0.25	<0.25	<0.25	<0.25	NS	<0.25	
	4/30/13		2,000	3,500	<0.37	<0.37	<0.37	<0.37	10	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	
	10/23/13		2,200	1,900	2.5	<0.37	<0.37	<0.37	980	<0.37	0.44	<0.37	<0.37	NS	NS	NS	
	6/12/14		2,000	2,700	<0.37		<0.37		<0.37		<0.37						
11/5/14		2,200	2,600	<0.37	<0.37	73	<0.37	3	<0.37	<0.37				<0.37	NS	<0.37	
4/28/15		2,400	1,700	<0.37	<0.37	<0.37	<0.37	10	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	
11/2/15		2,400	2,100	<0.37		<0.37		<0.37	<0.37	<0.37				<0.37	<0.37		

BOLD = ES Exceedance
Italic = PAL exceedance
FP = Free Product
NS = Not sampled

TABLE 4
Groundwater Analytical Results
PVOC & Detected VOC (EPA 8020), DRO, GRO

PARAMETER	SAMPLE DATE	MW-1	MW-1R	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	P-8	MW-9	MW-10	MW-11	Olson	Strey	Paps
METHYL TERT-BUTYL ETHER (ug / L) Enforcement Standard - 60 Preventive Action Limit - 12	7/20/10		<23	<23	<0.23	0.23	<0.23	0.29	<9.2	<0.23	<0.23	<0.23	<0.23	0.3	<0.23	<0.23
	5/3/11		<2.0	<40	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	10/19/11		<50	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	4/12/12		<25	1,090	0.41	<0.25	116	<0.25	191	<0.25	<0.25	<0.25	<0.25	<0.25	NS	<0.25
	4/30/13		150	470	<0.24	<0.24	<0.24	<0.24	5.9	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	10/23/13		98	67	<i>16.0</i>	<0.24	0.24	<0.24	<0.24	0.7	<0.24	<0.24	<0.24	NS	NS	NS
	6/12/14		48	120	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	11/5/14		150	49	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	NS	<0.24
	4/28/15		<2.4	63	<0.24	<0.24	<0.24	<0.24	1.3	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	11/2/15		65	270	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
NAPHTHALENE (ug / L) Enforcement Standard - 100 Preventive Action Limit - 10	10/31/00	300		FP	1.5									<0.25		<0.25
	1/19/07	FP		FP	<0.43	<0.25	1.0	<0.25	120	<0.25				<0.25		<0.25
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.25		<0.25
	7/14/09		270	FP	2.1	<0.25	<0.25	<0.25	420	<0.50	<0.25	<0.25	<0.25	<0.50	<0.25	<0.50
	10/13/09		290	FP	<0.50	NS	<0.50	NS	300	NS	NS	NS	NS	NS	NS	NS
	1/19/10		320	FP	0.65	<0.25	<0.50	<0.25	410	<0.50	<0.50	<0.50	<0.50	<0.50	NS	<0.50
	4/14/10		210	FP	2.8	NS	<0.25	NS	38	NS	NS	NS	NS	NS	NS	NS
	7/20/10		310	880	<0.50	<0.50	<0.50	<0.50	190	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	9/30/10		370	FP	<0.50	NS	<0.50	NS	<0.50	NS	NS	NS	NS	NS	NS	NS
	5/3/11		360	630	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	10/19/11		390	960	<0.25	<0.25	15	0.42	81	<0.25	0.3	<0.25	<0.25	<0.25	<0.25	<0.25
	4/12/12		545	1,030	<2.5	<2.5	263	<2.5	136	<2.5	<2.5	<2.5	<2.5	<2.5	NS	<2.5
	4/30/13		430	970	<2.4	<2.4	<2.4	<2.4	70	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4
	10/23/13		580	1,000	<2.4	<2.4	<2.4	<2.4	210	<2.4	<2.4	<2.4	<2.4	<2.4	NS	NS
6/12/14		390	710	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	NS	<2.4	
11/5/14		770	1200 J	<2.4	<2.4	23.0	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	NS	<2.4	
4/28/15		440	690	<2.4	<2.4	23.0	<2.4	2.9	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	
11/2/15		750	1,200	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	
n-PROPYLBENZENE (ug / L)	10/31/00	220		FP	1.7									<0.25		<0.25
	1/19/07	FP		FP		<0.50	0.89	<0.50	67	<0.50				<0.50		<0.50
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.50		<0.50
	7/14/09		NS		NS	NS	NS	NS	NS	NS	<0.50	<0.50	<0.50	NS	<0.50	NS

BOLD = ES Exceedance
Italic = PAL exceedance
FP = Free Product
NS = Not sampled

TABLE 4
Groundwater Analytical Results
PVOC & Detected VOC (EPA 8020), DRO, GRO

PARAMETER	SAMPLE DATE	MW-1	MW-1R	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	P-8	MW-9	MW-10	MW-11	Olson	Strey	Paps
TOLUENE (ug / L) Enforcement Standard - 800 Preventive Action Limit - 160	10/31/00	21000		FP	130									<0.10		<0.10
	1/19/07	FP		FP	<0.11	<0.20	7.8	<0.20	7,400	<0.20				<0.20		<0.20
	4/24/07	FP		FP	<0.11	<0.11	17	<0.11	2,900	<0.11						
	7/10/07	FP		FP	1.1	<0.11	0.44	<0.11	12,000	<0.11						
	10/17/07	FP		FP	0.19	<0.11	<0.11	<0.11	1,900	<0.11						
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.20		<0.20
	7/14/09		20,000	FP	3.2	<0.25	<0.25	<0.25	16,000	<0.25	<0.50	<0.50	<0.50	<0.25	<0.50	<0.25
	10/13/09		18,000	FP	<0.25	NS	<0.25	NS	14,000	NS	NS	NS	NS	NS	NS	NS
	1/19/10		20,000	FP	3.6	<0.25	<0.25	<0.25	19,000	<0.25	<0.25	16	<0.25	<0.25	NS	<0.25
	4/14/10		13,000	FP	5.9	NS	<0.25	NS	2,100	NS	NS	NS	NS	NS	NS	NS
	7/20/10		18,000	22,000	<0.25	<0.25	<0.25	<0.25	6,400	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	9/30/10		19,000	FP	<0.25	NS	<0.25	NS	<0.25	NS	NS	NS	NS	NS	NS	NS
	5/3/11		28,000	29,000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	10/19/11		25,000	14,000	<0.50	<0.50	300	<0.50	5,000	<0.50	0.99	0.64	<0.50	<0.50	<0.50	<0.50
	4/12/12		20,300	9,640	<0.25	<0.25	3240	<0.25	696	<0.25	<0.25	<0.25	<0.25	<0.25	NS	<0.25
	4/30/13		6,500	15,000	<0.33	<0.33	<0.33	<0.33	3.5	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
	10/23/13		8,600	6,000	0.91	<0.33	<0.33	<0.33	9,800	<0.33	<0.33	<0.33	<0.33	NS	NS	NS
	6/12/14		6,900	12,000	4.50		<0.33		<0.33		0.36					
	11/5/14		12,000	7,300	<0.33	<0.33	42	<0.33	31	<0.33	<0.33			<0.33	NS	<0.33
	4/28/15		7,000	3,200	<0.33	<0.33	<0.33	<0.33	22	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
11/2/15		8,600	5,800	<0.33		<0.33		<0.33	<0.33	<0.33			<0.33	<0.33		
1,2,4-TRIMETHYLBENZENE (ug / L) Combined 1,2,3- TMB & 1,3,5 TMB Enforcement Standard - 480 Preventive Action Limit - 96	10/31/00	1,800		FP	6.2									<0.10		<0.10
	1/19/07	FP		FP	<0.25	<0.20	3.2	<0.20	560	<0.20				<0.20		<0.20
	4/24/07	FP		FP	<0.25	<0.25	5.3	<0.25	280	<0.25						
	7/10/07	FP		FP	<0.25	<0.25	0.31	<0.25	1,100	<0.25						
	10/17/07	FP		FP	<0.25	<0.25	<0.25	<0.25	180	<0.25				<0.20		<0.20
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.20		<0.20
	7/14/09		1,400	FP	5.6	<0.25	<0.25	<0.25	1,500	<0.25	<0.20	<0.20	<0.20	<0.25	<0.20	<0.25
	10/13/09		1,400	FP	0.67	NS	<0.25	NS	1,200	NS	NS	NS	NS	NS	NS	NS
	1/19/10		1,600	FP	11	<0.25	0.36	<0.25	1,400	<0.25	<0.25	0.64	<0.25	<0.25	NS	<0.25
	4/14/10		1,200	FP	7.9	NS	<0.25	NS	160	NS	NS	NS	NS	NS	NS	NS
	7/20/10		1,500	6,000	<0.25	<0.25	<0.25	<0.25	440	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	9/30/10		1,500	FP	<0.25	NS	<0.25	NS	<0.25	NS	NS	NS	NS	NS	NS	NS
	5/3/11		2,300	4,300	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	10/19/11		2,400	6,200	0.59	<0.20	79	0.22	320	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	4/12/12		2,270	3,020	<0.25	<0.25	909	<0.25	525	<0.25	<0.25	<0.25	<0.25	<0.25	NS	<0.25
	4/30/13		1,900	4,900	0.4	<0.30	<0.30	<0.30	14	0.94	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
	10/23/13		1,900	3,400	2.8	<0.30	2	1.9	740	<0.30	2.7	<0.30	<0.30	NS	NS	NS
	6/12/14		2,100	3,700	<0.30		<0.30		<0.30		<0.30					
	11/5/14		2,400	5,600	<0.30	<0.30	63	<0.30	1.6	<0.30	<0.30			<0.30	NS	<0.30
	4/28/15		2,000	4,400	<0.30	<0.30	<0.30	<0.30	8.1	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
11/2/15		3,000	4,200	<0.30		<0.30		<0.30	<0.30	<0.30			<0.30	<0.30		

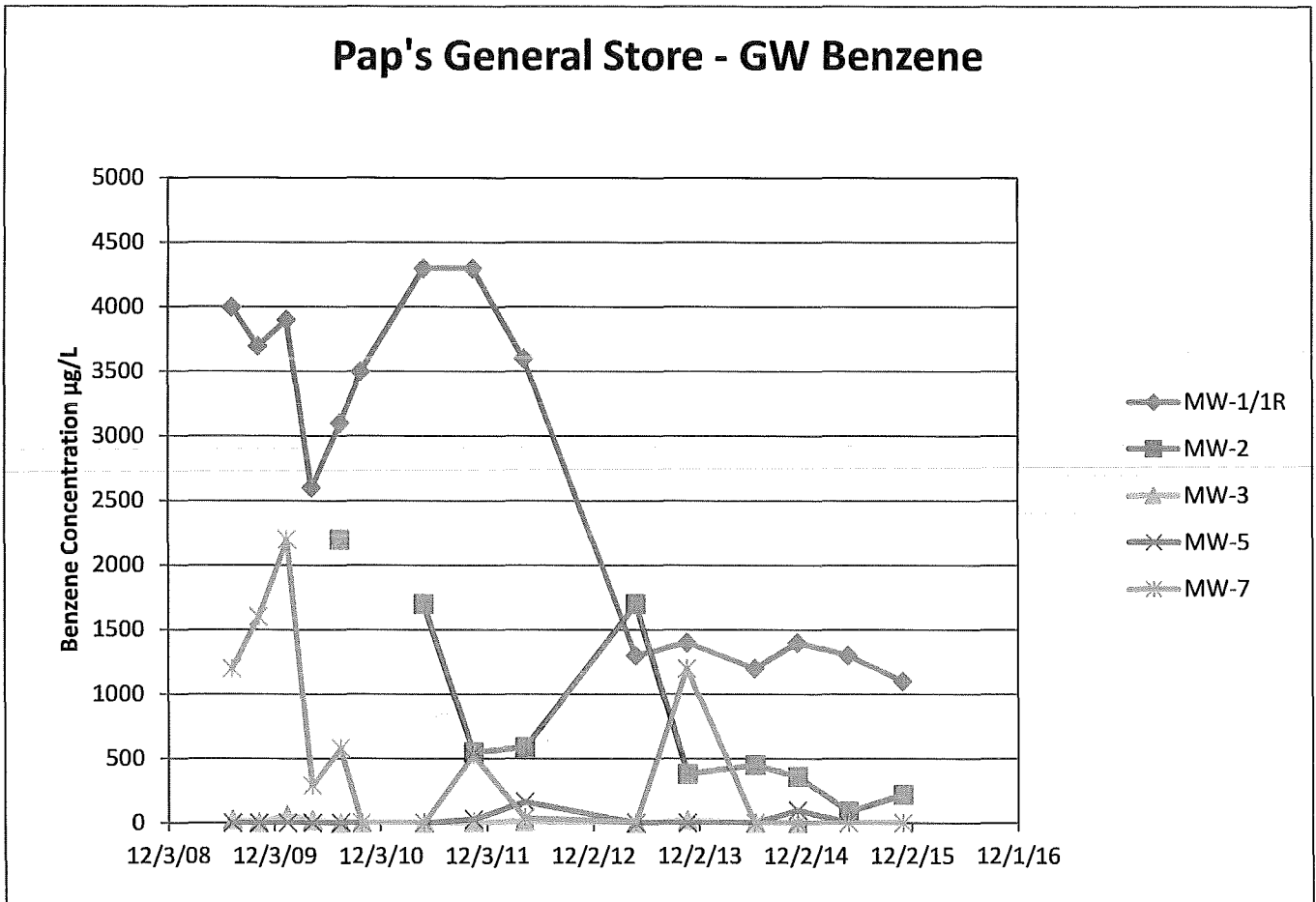
BOLD = ES Exceedance
Italic = PAL exceedance
FP = Free Product
NS = Not sampled

TABLE 4
Groundwater Analytical Results
PVOC & Detected VOC (EPA 8020), DRO, GRO

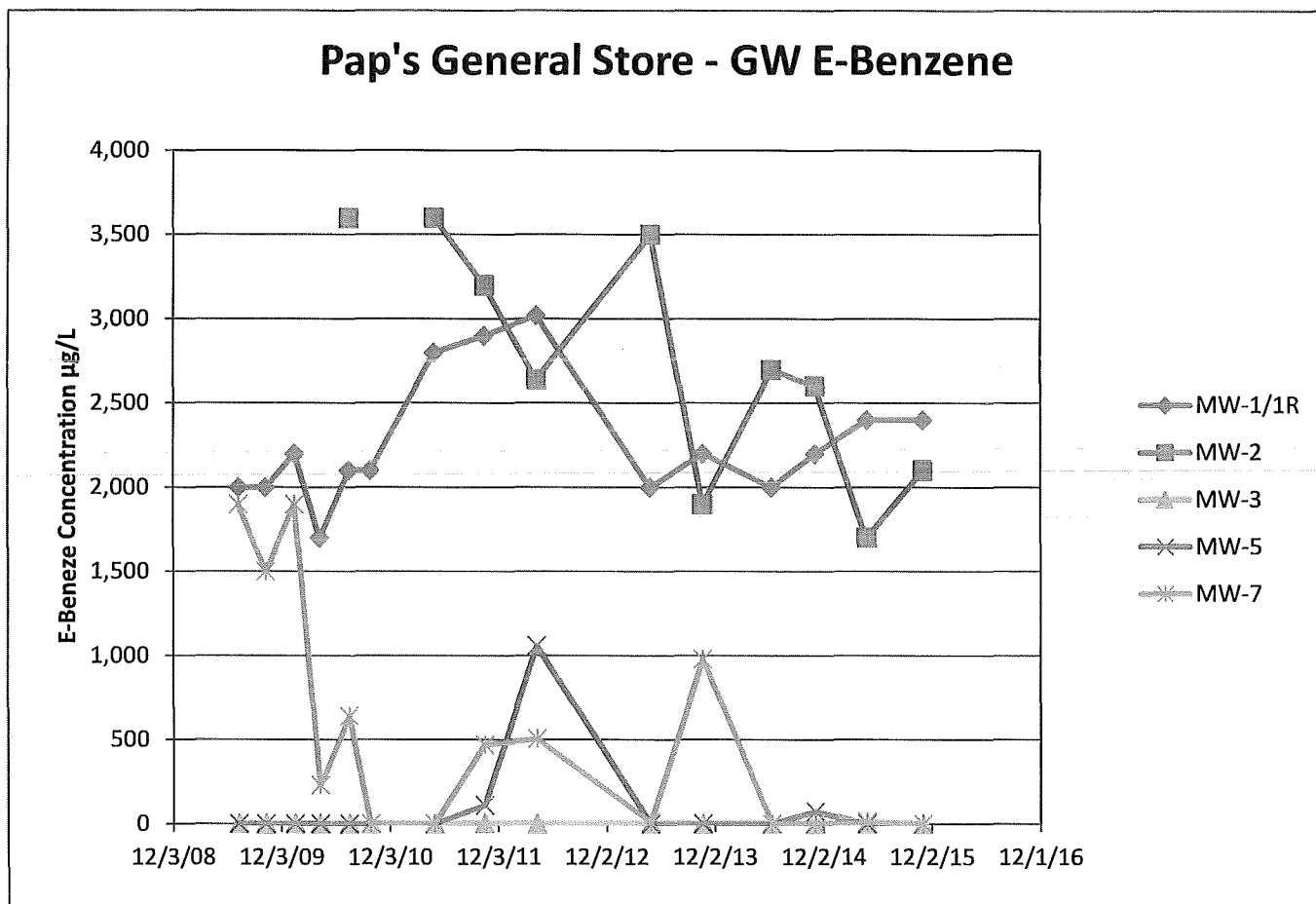
PARAMETER	SAMPLE DATE	MW-1	MW-1R	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	P-8	MW-9	MW-10	MW-11	Olson	Strey	Paps
1,3,5-TRIMETHYLBENZENE (ug / L)	10/31/00	440		FP	1.7									<0.10		<0.10
	1/19/07	FP		FP	<0.19	<0.20	1.4	<0.20	150	<0.20				<0.20		<0.20
	4/24/07	FP		FP	<0.19	<0.19	2.7	<0.19	75	<0.19						
	7/10/07	FP		FP	<0.19	<0.19	<0.19	<0.19	320	<0.19						
	10/17/07	FP		FP	<0.19	<0.19	<0.19	<0.19	54	<0.19						
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.20		<0.20
	7/14/09		390	FP	1.9	<0.19	<0.19	<0.19	430	<0.19	<0.20	<0.20	<0.20	<0.19	<0.20	<0.19
	10/13/09		390	FP	<0.19	NS	<0.19	NS	310	NS	NS	NS	NS	NS	NS	NS
	1/19/10		480	FP	2.6	<0.19	<0.19	<0.19	410	<0.19	<0.19	0.28	<0.19	<0.19	NS	<0.19
	4/14/10		330	FP	2.4	NS	<0.25	NS	42	NS	NS	NS	NS	NS	NS	NS
	7/20/10		410	1,900	<0.19	<0.19	<0.19	<0.19	120	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
	9/30/10		430	FP	<0.19	NS	<0.19	NS	<0.19	NS	NS	NS	NS	NS	NS	NS
	5/3/11		600	1,200	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	10/19/11		660	1,800	0.36	<0.20	30	<0.20	89	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	4/12/12		638	940	<0.25	<0.25	319	<0.25	151	<0.25	<0.25	<0.25	<0.25	<0.25	NS	<0.25
	4/30/13		570	1,300	<0.30	<0.30	<0.30	<0.30	8.7	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
	10/23/13		540	1,000	1.5	<0.30	2.3	1.1	190	3.2	0.76	<0.30	<0.30	NS	NS	NS
	6/12/14		560	1,000	<0.30		<0.30		<0.30		<0.30					
	11/5/14		700	1,800	<0.30	<0.30	22	<0.30	0.48	<0.30	<0.30			<0.30	NS	<0.30
	4/28/15		570	1,400	<0.30	<0.30	<0.30	<0.30	2.4	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
11/2/15		710	1,200	<0.30		<0.30		<0.30	<0.30	<0.30			<0.30	<0.30	<0.30	
XYLENES (ug / L)	10/31/00	9200		FP	42									<0.25		<0.25
	1/19/07	FP		FP	<0.39	<0.50	11	<0.50	3,900	<0.50				<0.50		
	4/24/07	FP		FP	<0.39	<0.39	23	<0.39	1,700	<0.39						
	7/10/07	FP		FP	0.67	<0.39	0.73	<0.39	7,500	<0.39						
	10/17/07	FP		FP	<0.39	<0.39	<0.39	<0.39	1,100	<0.39						
	1/24/08	FP		FP	NS	NS	NS	NS	NS	NS				<0.50		<0.50
	7/14/09		9,900	FP	19	<0.39	<0.39	<0.39	<0.39	<0.39	<0.50	<0.50	<0.50	<0.39	<0.50	<0.39
	10/13/09		9,500	FP	0.74	NS	<0.39	NS	8,200	NS	NS	NS	NS	NS	NS	NS
	1/19/10		11,000	FP	80	<0.39	<0.39	<0.39	1,100	<0.39	<0.39	5.5	<0.39	<0.39	NS	<0.39
	4/14/10		6,800	FP	28	NS	<0.39	NS	1,200	NS	NS	NS	NS	NS	NS	NS
	7/20/10		9,900	20,000	<0.39	<0.39	<0.39	<0.39	3,600	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39
	9/30/10		10,000	FP	<0.39	NS	<0.39	NS	<0.39	NS	NS	NS	NS	NS	NS	NS
	5/3/11		16,000	23,000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	10/19/11		16,000	23,000	13	<0.50	330	<0.50	2,700	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	4/12/12		14,000	13,600	<0.25	<0.25	3420	<0.25	2,400	<0.25	<0.25	<0.25	<0.25	<0.25	NS	<0.25
	4/30/13		9,700	19,000	<0.58	<0.58	<0.58	<0.58	26	0.72	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58
	10/23/13		10,000	12,000	22	<0.58	1.1	<0.58	5,500	<0.58	2.1	<0.58	<0.58	NS	NS	NS
	6/12/14		12,000	18,000	5		<0.58		<0.58		<0.58					
	11/5/14		14,000	19,000	<0.58	<0.58	210	<0.58	17	<0.58	<0.58			<0.58	NS	<0.58
	4/28/15		12,000	9,800	<0.58	<0.58	<0.58	<0.58	41	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58	<0.58
11/2/15		12,000	13,000	<0.58		<0.58		<0.58	<0.58	<0.58			<0.58	<0.58	<0.58	

BOLD = ES Exceedance
Italic = PAL exceedance
FP = Free Product
NS = Not sampled

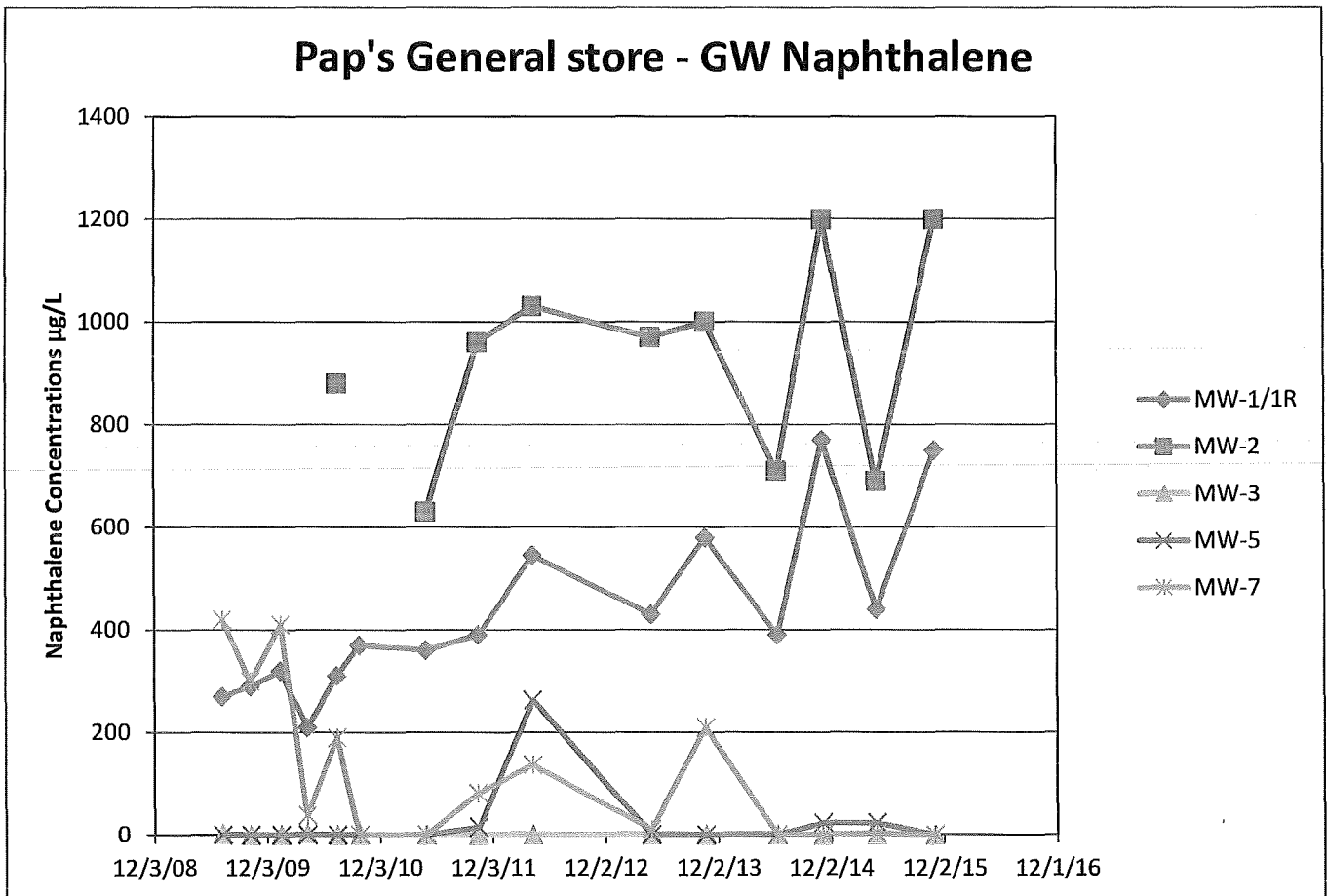
BENZENE CONCENTRATIONS VS TIME



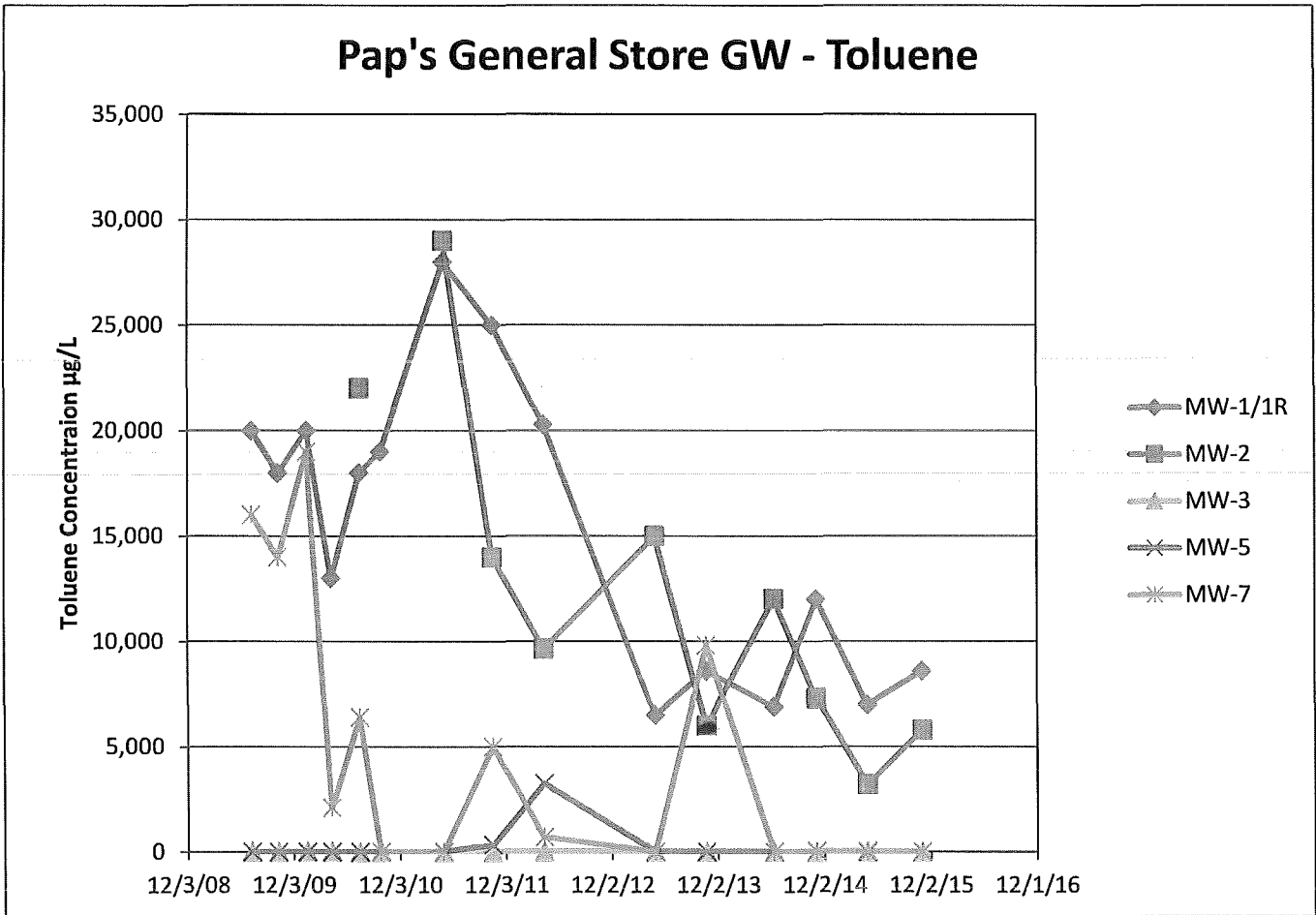
ETHYL-BENZENE CONCENTRATIONS VS TIME



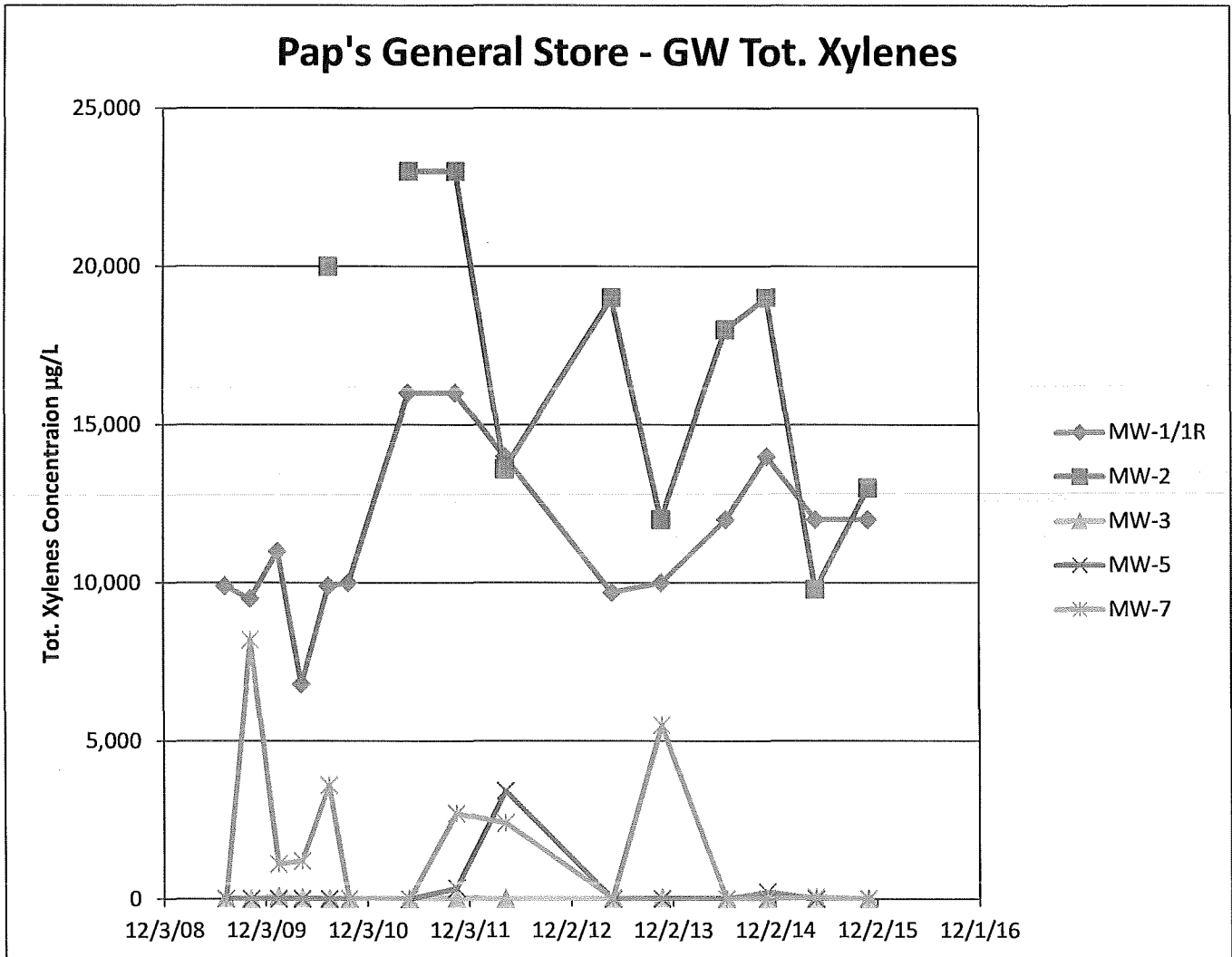
NAPHTHALENE CONCENTRATIONS VS TIME



TOLUENE CONCENTRATION vs TIME



XYLENES CONCENTRATION vs TIME



11/2/15

POS

P. Sunny

55°

MW#	DTW	TOC	GWG	Time
1R	12.11	1133.95	1121.84	1500
2	12.25	1134.04	1121.79	1530
3	11.03	1133.07	1122.04	1430
4	11.27	1133.46	1122.49	—
5	9.95	1131.47	1121.54	1400
6	9.91	1133.82 1134.50	1123.91	—
7	12.92	1134.56	1121.58	1230
P-8	12.39	1134.42	1122.03	1300
9	10.43	1131.26	1120.83	1200
10	6.02	1128.11	1122.09	—
11	11.08	1132.24	1121.16	—

Olson	outside	tap		1130
Strey	outside	tap		1330

Mod Brn N

Mod Brn N

SLT Brn N

ST Brn N

Mod Brn N

recommendations for obtaining closure of the site.

Cedar Corporation is the Agent for the project, and we will submit annual requests for reimbursement

engineers • architects • planners • environmental specialists • land surveyors • landscape architects • interior

4/28/15 PWS Summary 620

Mus#	DTW	TOC	Close	Time
1R	12.88	1133.95	1121.02	1445
2	13.02	1134.04	1121.02	1515
3	12.05	1133.07	1121.02	1415
4	12.28	1133.76	1121.48	1315
5	10.23	1131.49	1121.26	1245
6	10.81	1133.82	1123.01	1345
7	13.69	1134.50	1120.81	1030
P-8	13.05	1134.42	1121.37	1100
9	11.18	1131.26	1120.08	1000
10	10.90	1128.11	1121.21	1130
11	11.91	1132.24	1120.33	1200
Olson	outside trap			930
Stray	outside trap			1215
Paps	Bartholomew sink			900

Paps

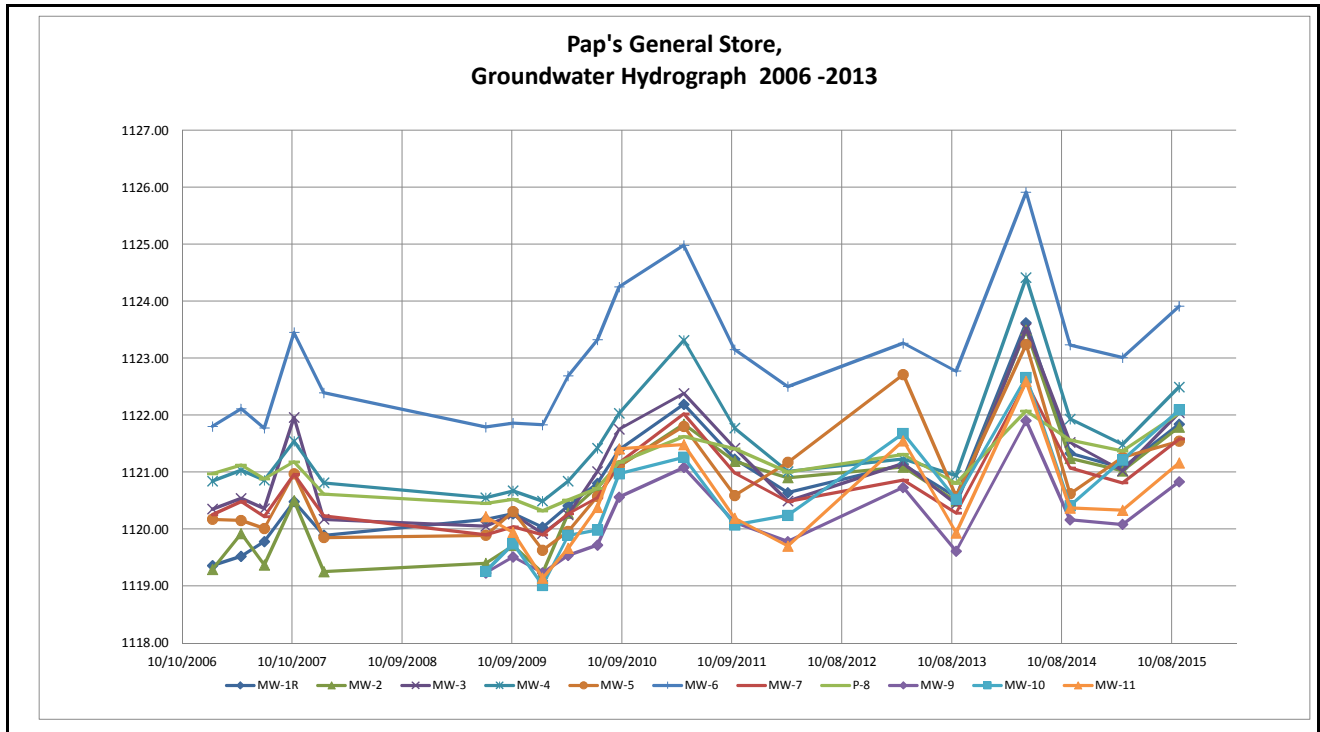
T/	C/	O
SPR	CIR	P-7
SIT	CIR	P-7
Med	BrN	N
Med	BrN	N
Var	BrN	N
CIR	CIR	N
SIT	CIR	N
SIT	CIR	N
SIT	BrN	N
Med	BrN	N
SIT	BrN	N

Provide a letter report after the last sampling event with updated tables, figures, and recommendations for obtaining closure of the site.

Cedar Corporation is the Agent for the project, and we will submit annual requests for reimbursement engineers • architects • planners • environmental specialists • land surveyors • landscape architects • interior designers

**TABLE 2
GROUNDWATER ELEVATIONS**

WELL	MW-1	MW-1R	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	P-8	MW-9	MW-10	MW-11
CASING ELEV.	1133.68	1133.95	1134.04	1133.07	1133.76	1131.49	1133.82	1134.5	1134.42	1131.26	1128.11	1132.24
GROUND ELEV.	1134.20	1134.45	1135.39	1133.78	1134.23	1132.14	1134.22	1134.96	1134.96	1131.78	1128.56	1132.70
SCREEN TOP ELEV.	1124.34	1125.65	1122.89	1124.83	1123.95	1121.97	1124.08	1125.53	1094.30	1123.46	1122.98	1123.99
SCREEN BOTTOM ELEV.	1114.34	1115.65	1112.89	1114.83	1113.95	1111.97	1114.08	1115.53	1089.30	1113.46	1112.98	1113.99
DATE												
10/31/2000	1120.76	1120.76	1119.82	1120.97								
01/19/2007	1119.36	1119.36	1119.29	1120.35	1120.84	1120.17	1121.80	1120.25	1120.97			
04/24/2007	1119.52	1119.52	1119.92	1120.54	1121.03	1120.15	1122.11	1120.48	1121.12			
07/10/2007	1119.78	1119.78	1119.37	1120.36	1120.86	1120.01	1121.77	1120.22	1120.88			
10/17/2007	1120.48	1120.48	1120.50	1121.96	1121.54	1120.97	1123.45	1120.96	1121.18			
01/24/2008	1119.89	1119.89	1119.25	1120.17	1120.81	1119.85	1122.39	1120.23	1120.61			
07/14/2009		1120.17	1119.40	1120.05	1120.55	1119.89	1121.79	1119.90	1120.45	1119.23	1119.26	1120.22
10/13/2009		1120.27	1119.71	1120.26	1120.67	1120.31	1121.86	1120.04	1120.52	1119.51	1119.74	1119.94
01/19/2010		1120.03	1119.23	1119.92	1120.49	1119.63	1121.83	1119.90	1120.32	1119.23	1119.01	1119.14
04/14/2010		1120.41	1120.28	1120.25	1120.84	1119.96	1122.69	1120.27	1120.51	1119.54	1119.89	1119.66
07/20/2010		1120.80	1120.74	1121.01	1121.42	1120.57	1123.32	1120.55	1120.71	1119.72	1119.98	1120.38
09/30/2010		1121.39	1121.10	1121.75	1122.03	1121.11	1124.25	1121.16	1121.17	1120.56	1120.97	1121.41
05/03/2011		1122.19	1121.84	1122.38	1123.31	1121.80	1124.98	1122.02	1121.62	1121.08	1121.26	1121.48
10/19/2011		1121.23	1121.19	1121.42	1121.77	1120.59	1123.15	1120.98	1121.41	1120.12	1120.07	1120.19
04/12/2012		1120.64	1120.90	1120.49	1121.01	1121.17	1122.50	1120.48	1121.00	1119.78	1120.24	1119.70
04/30/2013		1121.13	1121.09	1121.15	1121.23	1122.71	1123.26	1120.86	1121.31	1120.73	1121.68	1121.55
10/23/2013		1120.56	1120.49	1120.44	1120.94	1120.57	1122.77	1120.28	1120.80	1119.61	1120.52	1119.93
06/12/2014		1123.62	1123.49	1123.52	1124.41	1123.24	1125.91	1122.58	1122.07	1121.90	1122.66	1122.59
11/05/2014		1121.33	1121.24	1121.52	1121.93	1120.62	1123.23	1121.07	1121.56	1120.16	1120.41	1120.37
04/28/2015		1121.07	1121.02	1121.02	1121.48	1121.26	1123.01	1120.81	1121.37	1120.08	1121.21	1120.33
11/02/2015		1121.84	1121.79	1122.04	1122.49	1121.54	1123.91	1121.58	1122.03	1120.83	1122.09	1121.16



**TABLE 2
Groundwater Elevations and Hydrograph**



<http://www.epa.gov/Athens/learn2model/part-two/onsite/gradient.htm>

Last updated on Wednesday, October 31st, 2007.

Modeling Subsurface Petroleum Hydrocarbon Transport

You are here: [EPA Home](#) | [Modeling Subsurface Petroleum Hydrocarbon Transport](#)

EPA On-line Tools for Site Assessment Calculation

[Module Home](#) | [Objectives](#) | [Table of Contents](#) | [Previous <](#) | [Next >](#)

Hydraulic Gradient

$$\text{Hydraulic Gradient } i = (h_2 - h_1)/d$$

i = Hydraulic Gradient [L/L]

h_1 = Upgradient Head [L]

h_2 = Downgradient Head [L]

d = Distance Between Wells [L]

[Example Data](#)

[Calculate](#)

[Clear](#)

[Save Data](#)

[Recall Data](#)

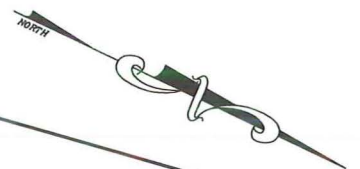
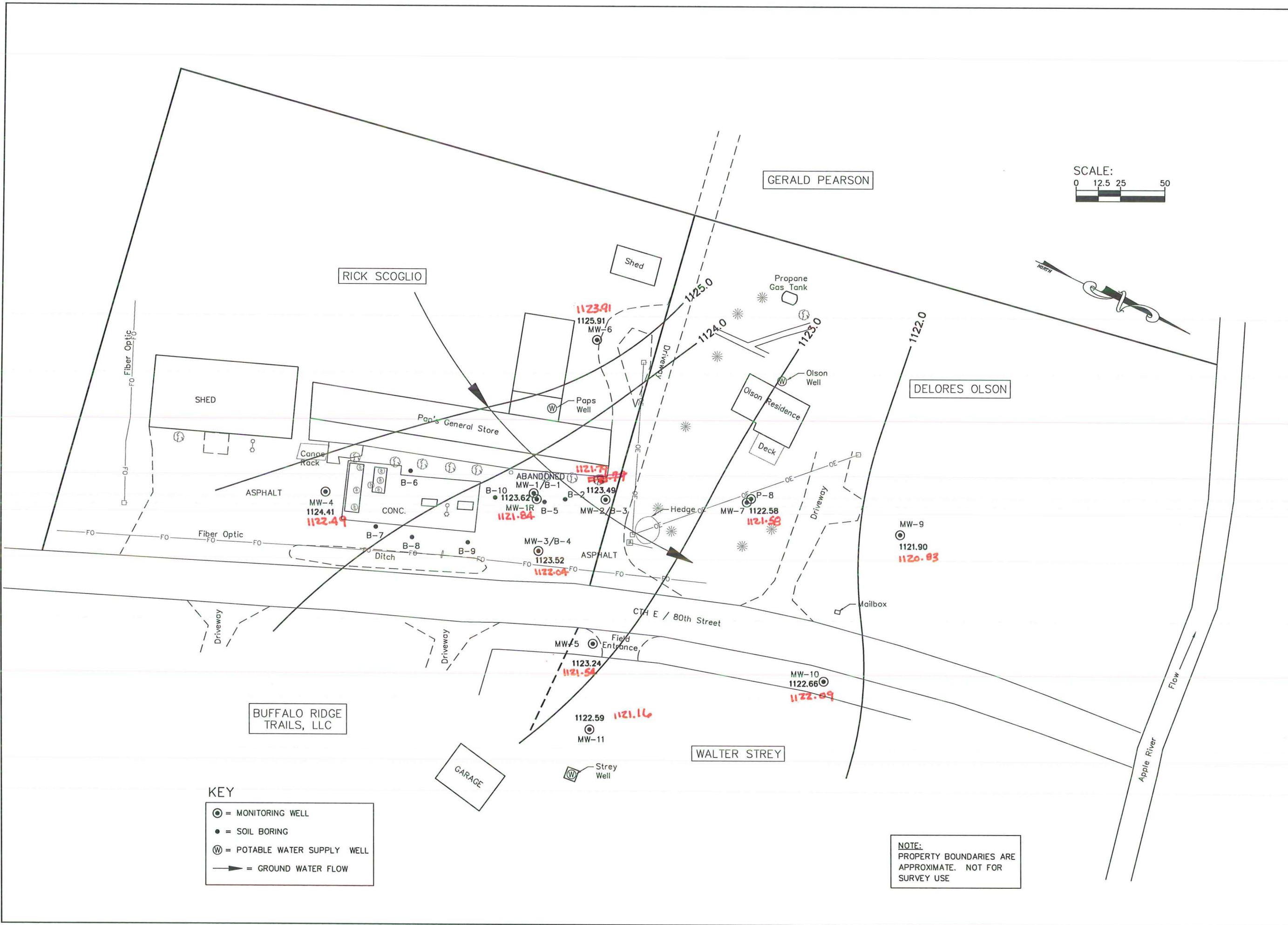
[Go Back](#)

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Date	<input type="text" value="3/27/2008"/>	Current Date
Distance Unit	<input type="text" value="ft"/>	
Distance Between Wells	<input type="text" value="90.00"/>	
Head Unit	<input type="text" value="ft"/>	
Upgradient Water Level (h_1)	<input type="text" value="84.90"/>	
Downgradient Water Level (h_2)	<input type="text" value="84.85"/>	
Gradient (i)	<input type="text" value="-0.000556"/>	

[Previous](#) | [Top ^](#) | [Next](#)

[Home](#) | [Glossary](#) | [Notation](#) | [Links](#) | [References](#) | [Calculators](#)

FILE NAME : I:\CLIENTS\S2880 SCOGGIO RICK\003 PAPS REMEDIATION_002_FINALIZE_ENV_INVESTIGATION\DWG\S002BASE_2014_DATA.DWG PLOT DATE : 2/10/2015 7:22 AM PLOT BY : PAULETTE FENSKE



KEY

- ⊙ = MONITORING WELL
- = SOIL BORING
- ⊕ = POTABLE WATER SUPPLY WELL
- = GROUND WATER FLOW

NOTE:
PROPERTY BOUNDARIES ARE APPROXIMATE. NOT FOR SURVEY USE

JOB NO.	S2880-002
BOOK NO.	
Project Name	Pap's General Store
DRAWN BY	JNM
CHECKED BY	SEM
DATE	November 6, 2000
REVISIONS	JANUARY 2014
	JANUARY 2015
REFERENCE FILE	S002base.dwg
DRAWING FILE	S002base.dwg

Cedar corporation

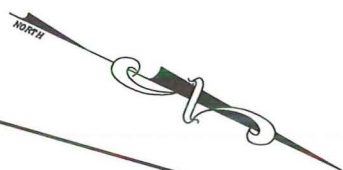
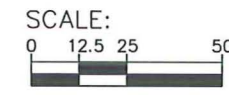
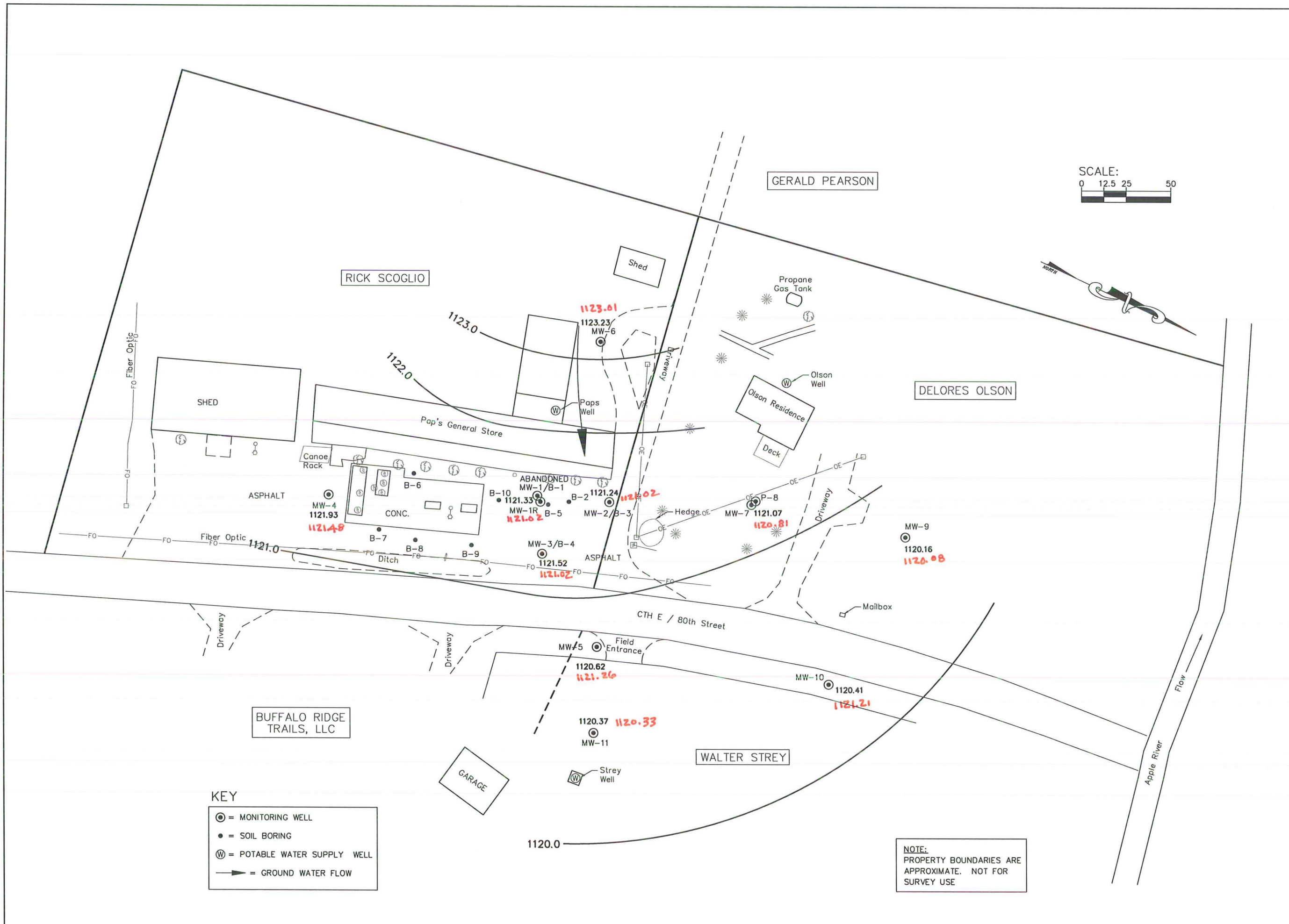
604 Wilson Avenue
Menomonie, Wisconsin 54751

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800-472-7372
FAX 715-235-2727
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PAPS GENERAL STORE
RICK SCOGGIO
TOWN OF APPLE RIVER
GROUND WATER FLOW JUNE 12, 2014 / 1/12/15

FILE NAME : I:\CLIENTS\2880 SCOGGIO RICK\003 PAPS REMEDIATION_002 FINALIZE ENV INVESTIGATION\DWG\S002BASE_2014 DATA.DWG PLOT DATE : 2/10/2015 7:37 AM PLOT BY : PAULETTE FENSKE



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- = GROUND WATER FLOW

NOTE:
PROPERTY BOUNDARIES ARE APPROXIMATE. NOT FOR SURVEY USE

JOB NO.	S2880-002
BOOK NO.	
PROJECT	Pap's General Store
DRAWN BY	JNM
CHECKED BY	SEM
DATE	November 6, 2000
REVISIONS	JANUARY 2014
	JANUARY 2015
REFERENCE FILE	S002base.dwg
DRAWING FILE	S002base.dwg

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Menomonie, Wisconsin 54751

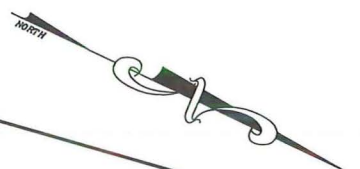
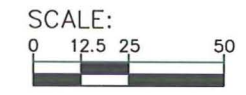
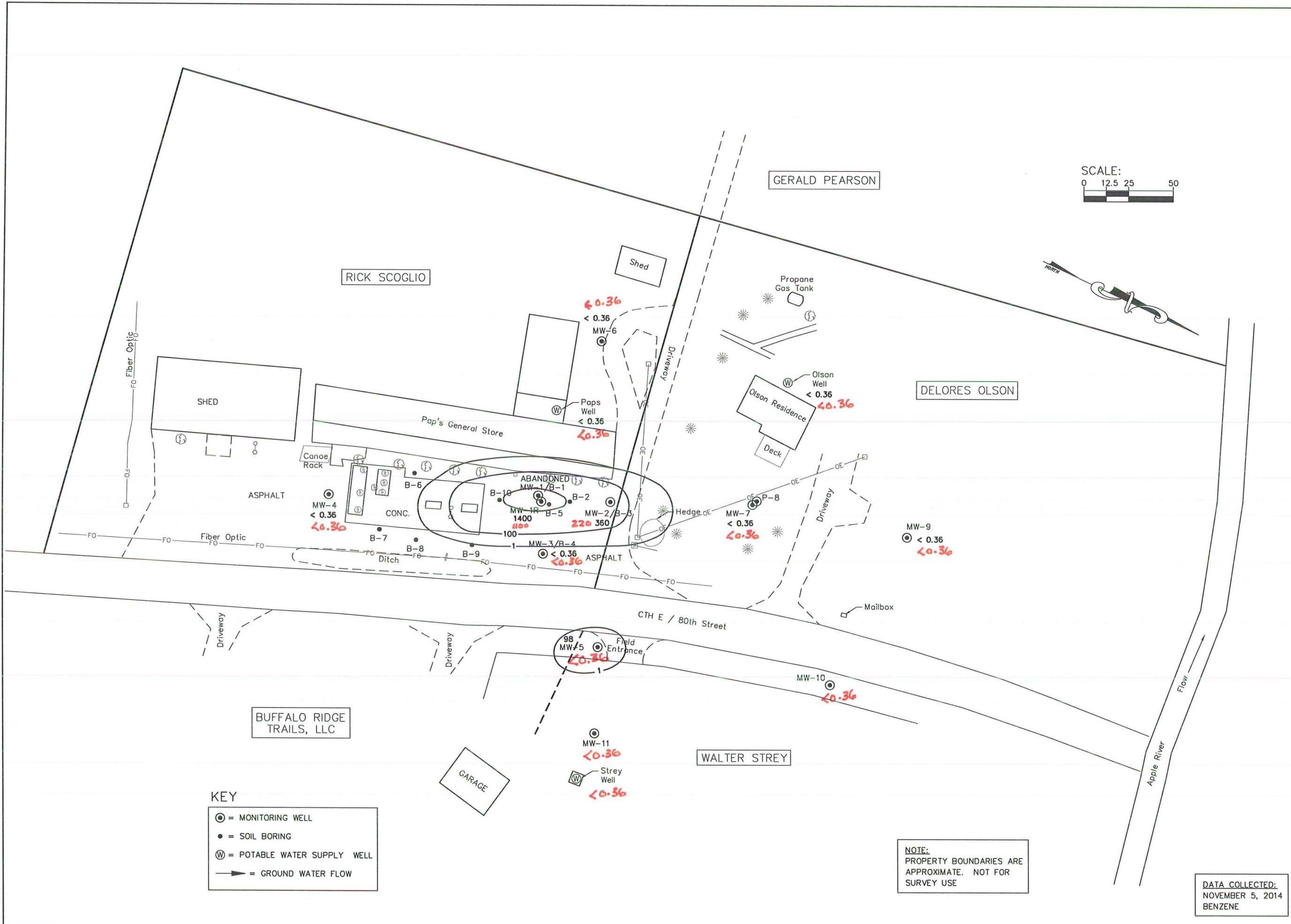
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PAPS GENERAL STORE
RICK SCOGGIO
TOWN OF APPLE RIVER
GROUND WATER FLOW NOVEMBER 5, 2014
and 4/15/2015

FILE NAME : I:\CLIENTS\S2880 SCOGGIO RICK\003 PAPS REMEDIATION_002 FINALIZE ENV INVESTIGATION\DWG\S002BASE_2014 DATA.DWG PLOT DATE : 2/10/2015 7:22 AM PLOT BY : PAULETTE FENSKE



KEY

	= MONITORING WELL
	= SOIL BORING
	= POTABLE WATER SUPPLY WELL
	= GROUND WATER FLOW

NOTE:
PROPERTY BOUNDARIES ARE APPROXIMATE. NOT FOR SURVEY USE

DATA COLLECTED:
NOVEMBER 5, 2014
BENZENE

JOB NO.	S2880-002
BOOK NO.	
PROJECT	Pap's General Store
DRAWN BY	JNM
CHECKED BY	SEM
DATE	November 6, 2000
REVISIONS	JANUARY 2014
	JANUARY 2015
REFERENCE FILE	S002base.dwg
DRAWING FILE	S002base.dwg

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PAPS GENERAL STORE
RICK SCOGGIO
 TOWN OF APPLE RIVER
 BENZENE ISOCONCENTRATION

FIGURE NO.
 8 of 11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-95391-1

Client Project/Site: Pap's General Store - 2880

Revision: 1

For:

Cedar Corporation

604 Wilson Avenue

Menomonie, Wisconsin 54751

Attn: Scott McCurdy



Authorized for release by:

5/12/2015 4:37:35 PM

Sandie Fredrick, Project Manager II

(920)261-1660

sandie.fredrick@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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14

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16



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Subcontract Data	6
Method Summary	9
Sample Summary	10
Client Sample Results	11
Definitions	16
QC Association	17
Surrogate Summary	18
QC Sample Results	19
Chronicle	24
Certification Summary	27
Chain of Custody	28
Receipt Checklists	30

Case Narrative

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Job ID: 500-95391-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-95391-1

Comments

No additional comments.

Receipt

The samples were received on 4/30/2015 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -0.3° C.

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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- 3
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- 15
- 16

Detection Summary

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: MW-1R

Lab Sample ID: 500-95391-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2000		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	570		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	1300		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	2400		5.0	3.7	ug/L	10		WDNR	Total/NA
Naphthalene	440		50	24	ug/L	10		WDNR	Total/NA
Toluene	7000		50	33	ug/L	100		WDNR	Total/NA
Xylenes, Total	12000		150	58	ug/L	100		WDNR	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 500-95391-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	4400		10	6.0	ug/L	20		WDNR	Total/NA
1,3,5-Trimethylbenzene	1400		10	6.0	ug/L	20		WDNR	Total/NA
Benzene	86		10	7.2	ug/L	20		WDNR	Total/NA
Ethylbenzene	1700		10	7.4	ug/L	20		WDNR	Total/NA
Methyl tert-butyl ether	63		10	4.8	ug/L	20		WDNR	Total/NA
Naphthalene	690		100	48	ug/L	20		WDNR	Total/NA
Toluene	3200		10	6.6	ug/L	20		WDNR	Total/NA
Xylenes, Total	9800		30	12	ug/L	20		WDNR	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 500-95391-3

No Detections.

Client Sample ID: MW-4

Lab Sample ID: 500-95391-4

No Detections.

Client Sample ID: MW-5

Lab Sample ID: 500-95391-5

No Detections.

Client Sample ID: MW-6

Lab Sample ID: 500-95391-6

No Detections.

Client Sample ID: MW-7

Lab Sample ID: 500-95391-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	8.1		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	2.4		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	0.56		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	10		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	1.3		0.50	0.24	ug/L	1		WDNR	Total/NA
Naphthalene	2.9	J	5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	22		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	41		1.5	0.58	ug/L	1		WDNR	Total/NA

Client Sample ID: P-8

Lab Sample ID: 500-95391-8

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: MW-9

Lab Sample ID: 500-95391-9

No Detections.

Client Sample ID: MW-10

Lab Sample ID: 500-95391-10

No Detections.

Client Sample ID: MW-11

Lab Sample ID: 500-95391-11

No Detections.

Client Sample ID: Olson

Lab Sample ID: 500-95391-12

No Detections.

Client Sample ID: Strey

Lab Sample ID: 500-95391-13

No Detections.

Client Sample ID: Paps

Lab Sample ID: 500-95391-14

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

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TestAmerica Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record



5/12/2015

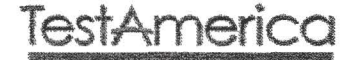
Client Information (Sub Contract Lab)		Sampler:		Lab PM: Fredrick, Sandie J		Carrier Tracking No(s):		COC No: 500-61075.1	
Client Contact: Shipping/Receiving		Phone:		E-Mail: sandie.fredrick@testamericainc.com				Page: Page 1 of 2	
Company: TestAmerica Laboratories, Inc				Analysis Requested				Job #: 500-95391-1	
Address: 2960 Foster Creighton Drive, City: Nashville State, Zip: TN, 37204		Due Date Requested: 5/11/2015		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) WL_GRO/5030B (MOD) WISC PVOC + Nap				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)	
City: Nashville		TAT Requested (days):							
Phone: 615-726-0177(Tel) 615-726-3404(Fax)		PO #:							
Email:		WO #:							
Project Name: Pap's General Store - 2880		Project #: 50006556						Other:	
Site:		SSOW#:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
				Preservation Code:		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-1R (500-95391-1)		4/28/15	14:45 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-2 (500-95391-2)		4/28/15	15:15 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-3 (500-95391-3)		4/28/15	14:15 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-4 (500-95391-4)		4/28/15	13:15 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-5 (500-95391-5)		4/28/15	12:45 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-6 (500-95391-6)		4/28/15	13:45 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-7 (500-95391-7)		4/28/15	10:30 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-8 (500-95391-8)		4/28/15	11:00 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-9 (500-95391-9)		4/28/15	10:00 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-10 (500-95391-10)		4/28/15	11:30 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-11 (500-95391-11)		4/28/15	12:00 Central		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by:		Date/Time: 04/30/15 1600		Company: TAL		Received by:		Date/Time: 5-1-15 08:30	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:				

Page 6 of 31

TestAmerica Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)
Sampling: Fredrick, Sandie J
Carrier Tracking No(s):
COC No: 500-61075.2
Page: Page 2 of 2

Company: TestAmerica Laboratories, Inc
Analysis Requested
Job #: 500-95391-1

Address: 2960 Foster Creighton Drive, Nashville
Due Date Requested: 5/11/2015
TAT Requested (days):

City: Nashville
State, Zip: TN, 37204
Phone: 615-726-0177(Tel) 615-726-3404(Fax)
PO #:

Email:
WO #:

Project Name: Pap's General Store - 2880
Project #: 50006556
SSOW#:

Site:
Special Instructions/Note:

Sample Identification - Client ID (Lab ID)
Sample Date
Sample Time
Sample Type (C=comp, G=grab)
Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)

Table with columns: Sample Identification - Client ID (Lab ID), Sample Date, Sample Time, Sample Type, Matrix, Field Filtered Sample (Yes or No), Perform MS/MSB (Yes or No), WL_GRO1503DB (MOD) WISC PVOC + Nap, Total Number of containers, Preservation Code, Special Instructions/Note

Olson (500-95391-12) 4/28/15 09:30 Central Water X X 2

Strey (500-95391-13) 4/28/15 12:15 Central Water X X 2

Paps (500-95391-14) 4/28/15 09:00 Central Water X X 2

Loc: 500
95391

Possible Hazard Identification

Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by: Date/Time: Company: Received by: Date/Time: Company:

Relinquished by: Date/Time: Company: Received by: Date/Time: Company:

Relinquished by: Date/Time: Company: Received by: Date/Time: Company:

Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks:

COOLER RECEIPT FORM

Cooler Received/Opened On 5/1/2015 @ 0830

1. Tracking # 2675 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 96210146

2. Temperature of rep. sample or temp blank when opened: 2.9 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO... NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 0 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) MB

7. Were custody seals on containers: YES NO and Intact YES...NO... NA

Were these signed and dated correctly? YES...NO... NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES... NO...NA

14. Was there a Trip Blank in this cooler? YES...NO... NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (initial) ⊕

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO... NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO... NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ⊕

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ⊕

I certify that I attached a label with the unique LIMS number to each container (initial) ⊕

21. Were there Non-Conformance issues at login? YES... NO Was a NCM generated? YES... NO.#

Method Summary

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Method	Method Description	Protocol	Laboratory
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH

Protocol References:

WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



Sample Summary

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-95391-1	MW-1R	Water	04/28/15 14:45	04/30/15 10:00
500-95391-2	MW-2	Water	04/28/15 15:15	04/30/15 10:00
500-95391-3	MW-3	Water	04/28/15 14:15	04/30/15 10:00
500-95391-4	MW-4	Water	04/28/15 13:15	04/30/15 10:00
500-95391-5	MW-5	Water	04/28/15 12:45	04/30/15 10:00
500-95391-6	MW-6	Water	04/28/15 13:45	04/30/15 10:00
500-95391-7	MW-7	Water	04/28/15 10:30	04/30/15 10:00
500-95391-8	P-8	Water	04/28/15 11:00	04/30/15 10:00
500-95391-9	MW-9	Water	04/28/15 10:00	04/30/15 10:00
500-95391-10	MW-10	Water	04/28/15 11:30	04/30/15 10:00
500-95391-11	MW-11	Water	04/28/15 12:00	04/30/15 10:00
500-95391-12	Olson	Water	04/28/15 09:30	04/30/15 10:00
500-95391-13	Strey	Water	04/28/15 12:15	04/30/15 10:00
500-95391-14	Paps	Water	04/28/15 09:00	04/30/15 10:00

Client Sample Results

Client: Cedar Corporation
 Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: MW-1R

Date Collected: 04/28/15 14:45

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-1

Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	2000		5.0	3.0	ug/L			05/06/15 07:25	10
1,3,5-Trimethylbenzene	570		5.0	3.0	ug/L			05/06/15 07:25	10
Benzene	1300		5.0	3.6	ug/L			05/06/15 07:25	10
Ethylbenzene	2400		5.0	3.7	ug/L			05/06/15 07:25	10
Methyl tert-butyl ether	<2.4		5.0	2.4	ug/L			05/06/15 07:25	10
Naphthalene	440		50	24	ug/L			05/06/15 07:25	10
Toluene	7000		50	33	ug/L			05/12/15 10:25	100
Xylenes, Total	12000		150	58	ug/L			05/12/15 10:25	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	137		80 -					05/06/15 07:25	10
a,a,a-Trifluorotoluene	96		80 -					05/12/15 10:25	100

Client Sample ID: MW-2

Date Collected: 04/28/15 15:15

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-2

Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	4400		10	6.0	ug/L			05/06/15 08:04	20
1,3,5-Trimethylbenzene	1400		10	6.0	ug/L			05/06/15 08:04	20
Benzene	86		10	7.2	ug/L			05/06/15 08:04	20
Ethylbenzene	1700		10	7.4	ug/L			05/06/15 08:04	20
Methyl tert-butyl ether	63		10	4.8	ug/L			05/06/15 08:04	20
Naphthalene	690		100	48	ug/L			05/06/15 08:04	20
Toluene	3200		10	6.6	ug/L			05/06/15 08:04	20
Xylenes, Total	9800		30	12	ug/L			05/06/15 08:04	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	151		80 -					05/06/15 08:04	20

Client Sample ID: MW-3

Date Collected: 04/28/15 14:15

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-3

Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/12/15 02:28	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/12/15 02:28	1
Benzene	<0.36		0.50	0.36	ug/L			05/12/15 02:28	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/12/15 02:28	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/12/15 02:28	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/12/15 02:28	1
Toluene	<0.33		0.50	0.33	ug/L			05/12/15 02:28	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/12/15 02:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		80 -					05/12/15 02:28	1

TestAmerica Chicago

Client Sample Results

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: MW-4
Date Collected: 04/28/15 13:15
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-4
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/12/15 03:00	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/12/15 03:00	1
Benzene	<0.36		0.50	0.36	ug/L			05/12/15 03:00	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/12/15 03:00	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/12/15 03:00	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/12/15 03:00	1
Toluene	<0.33		0.50	0.33	ug/L			05/12/15 03:00	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/12/15 03:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	86		80 -		05/12/15 03:00	1

Client Sample ID: MW-5
Date Collected: 04/28/15 12:45
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-5
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 22:08	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 22:08	1
Benzene	<0.36		0.50	0.36	ug/L			05/04/15 22:08	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/04/15 22:08	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/04/15 22:08	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/04/15 22:08	1
Toluene	<0.33		0.50	0.33	ug/L			05/04/15 22:08	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/04/15 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	88		80 -		05/04/15 22:08	1

Client Sample ID: MW-6
Date Collected: 04/28/15 13:45
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-6
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 22:43	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 22:43	1
Benzene	<0.36		0.50	0.36	ug/L			05/04/15 22:43	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/04/15 22:43	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/04/15 22:43	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/04/15 22:43	1
Toluene	<0.33		0.50	0.33	ug/L			05/04/15 22:43	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/04/15 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		80 -		05/04/15 22:43	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: MW-7
Date Collected: 04/28/15 10:30
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-7
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	8.1		0.50	0.30	ug/L			05/04/15 23:19	1
1,3,5-Trimethylbenzene	2.4		0.50	0.30	ug/L			05/04/15 23:19	1
Benzene	0.56		0.50	0.36	ug/L			05/04/15 23:19	1
Ethylbenzene	10		0.50	0.37	ug/L			05/04/15 23:19	1
Methyl tert-butyl ether	1.3		0.50	0.24	ug/L			05/04/15 23:19	1
Naphthalene	2.9 J		5.0	2.4	ug/L			05/04/15 23:19	1
Toluene	22		0.50	0.33	ug/L			05/04/15 23:19	1
Xylenes, Total	41		1.5	0.58	ug/L			05/04/15 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		80 -					05/04/15 23:19	1

Client Sample ID: P-8
Date Collected: 04/28/15 11:00
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-8
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 23:54	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 23:54	1
Benzene	<0.36		0.50	0.36	ug/L			05/04/15 23:54	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/04/15 23:54	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/04/15 23:54	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/04/15 23:54	1
Toluene	<0.33		0.50	0.33	ug/L			05/04/15 23:54	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/04/15 23:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	86		80 -					05/04/15 23:54	1

Client Sample ID: MW-9
Date Collected: 04/28/15 10:00
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-9
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 00:29	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 00:29	1
Benzene	<0.36		0.50	0.36	ug/L			05/05/15 00:29	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/05/15 00:29	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/05/15 00:29	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/05/15 00:29	1
Toluene	<0.33		0.50	0.33	ug/L			05/05/15 00:29	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/05/15 00:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		80 -					05/05/15 00:29	1

TestAmerica Chicago

Client Sample Results

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: MW-10

Lab Sample ID: 500-95391-10

Date Collected: 04/28/15 11:30

Matrix: Water

Date Received: 04/30/15 10:00

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 01:04	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 01:04	1
Benzene	<0.36		0.50	0.36	ug/L			05/05/15 01:04	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/05/15 01:04	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/05/15 01:04	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/05/15 01:04	1
Toluene	<0.33		0.50	0.33	ug/L			05/05/15 01:04	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/05/15 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	86		80 -		05/05/15 01:04	1

Client Sample ID: MW-11

Lab Sample ID: 500-95391-11

Date Collected: 04/28/15 12:00

Matrix: Water

Date Received: 04/30/15 10:00

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 01:39	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 01:39	1
Benzene	<0.36		0.50	0.36	ug/L			05/05/15 01:39	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/05/15 01:39	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/05/15 01:39	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/05/15 01:39	1
Toluene	<0.33		0.50	0.33	ug/L			05/05/15 01:39	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/05/15 01:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	87		80 -		05/05/15 01:39	1

Client Sample ID: Olson

Lab Sample ID: 500-95391-12

Date Collected: 04/28/15 09:30

Matrix: Water

Date Received: 04/30/15 10:00

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 02:15	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 02:15	1
Benzene	<0.36		0.50	0.36	ug/L			05/05/15 02:15	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/05/15 02:15	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/05/15 02:15	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/05/15 02:15	1
Toluene	<0.33		0.50	0.33	ug/L			05/05/15 02:15	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/05/15 02:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	87		80 -		05/05/15 02:15	1

TestAmerica Chicago

Client Sample Results

Client: Cedar Corporation
 Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: Strey
Date Collected: 04/28/15 12:15
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-13
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 02:50	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/05/15 02:50	1
Benzene	<0.36		0.50	0.36	ug/L			05/05/15 02:50	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/05/15 02:50	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/05/15 02:50	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/05/15 02:50	1
Toluene	<0.33		0.50	0.33	ug/L			05/05/15 02:50	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/05/15 02:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	87		80 -		05/05/15 02:50	1

Client Sample ID: Paps
Date Collected: 04/28/15 09:00
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-14
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/12/15 03:32	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/12/15 03:32	1
Benzene	<0.36		0.50	0.36	ug/L			05/12/15 03:32	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/12/15 03:32	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/12/15 03:32	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/12/15 03:32	1
Toluene	<0.33		0.50	0.33	ug/L			05/12/15 03:32	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/12/15 03:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	89		80 -		05/12/15 03:32	1

Definitions/Glossary

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Reported value was between the limit of detection and the limit of quantitation.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

GC VOA

Analysis Batch: 245543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-95391-5	MW-5	Total/NA	Water	WDNR	
500-95391-6	MW-6	Total/NA	Water	WDNR	
500-95391-7	MW-7	Total/NA	Water	WDNR	
500-95391-8	P-8	Total/NA	Water	WDNR	
500-95391-9	MW-9	Total/NA	Water	WDNR	
500-95391-10	MW-10	Total/NA	Water	WDNR	
500-95391-11	MW-11	Total/NA	Water	WDNR	
500-95391-12	Olson	Total/NA	Water	WDNR	
500-95391-13	Strey	Total/NA	Water	WDNR	
LCS 490-245543/3	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-245543/31	Lab Control Sample Dup	Total/NA	Water	WDNR	
MB 490-245543/20	Method Blank	Total/NA	Water	WDNR	
MB 490-245543/5	Method Blank	Total/NA	Water	WDNR	

Analysis Batch: 245914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-95391-1	MW-1R	Total/NA	Water	WDNR	
500-95391-2	MW-2	Total/NA	Water	WDNR	
LCS 490-245914/3	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-245914/4	Lab Control Sample Dup	Total/NA	Water	WDNR	
MB 490-245914/19	Method Blank	Total/NA	Water	WDNR	

Analysis Batch: 247392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-95391-1	MW-1R	Total/NA	Water	WDNR	
500-95391-3	MW-3	Total/NA	Water	WDNR	
500-95391-4	MW-4	Total/NA	Water	WDNR	
500-95391-14	Paps	Total/NA	Water	WDNR	
LCS 490-247392/2	Lab Control Sample	Total/NA	Water	WDNR	
LCS 490-247392/30	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-247392/3	Lab Control Sample Dup	Total/NA	Water	WDNR	
LCSD 490-247392/31	Lab Control Sample Dup	Total/NA	Water	WDNR	
MB 490-247392/18	Method Blank	Total/NA	Water	WDNR	

Surrogate Summary

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT (80-)
500-95391-1	MW-1R	137
500-95391-1	MW-1R	96
500-95391-2	MW-2	151
500-95391-3	MW-3	91
500-95391-4	MW-4	86
500-95391-5	MW-5	88
500-95391-6	MW-6	85
500-95391-7	MW-7	91
500-95391-8	P-8	86
500-95391-9	MW-9	85
500-95391-10	MW-10	86
500-95391-11	MW-11	87
500-95391-12	Olson	87
500-95391-13	Strey	87
500-95391-14	Paps	89
LCS 490-245543/3	Lab Control Sample	94
LCS 490-245914/3	Lab Control Sample	102
LCS 490-247392/2	Lab Control Sample	99
LCS 490-247392/30	Lab Control Sample	96
LCSD 490-245543/31	Lab Control Sample Dup	97
LCSD 490-245914/4	Lab Control Sample Dup	98
LCSD 490-247392/3	Lab Control Sample Dup	97
LCSD 490-247392/31	Lab Control Sample Dup	96
MB 490-245543/20	Method Blank	91
MB 490-245543/5	Method Blank	87
MB 490-245914/19	Method Blank	92
MB 490-247392/18	Method Blank	91

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

QC Sample Results

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-245543/20

Matrix: Water

Analysis Batch: 245543

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 21:33	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 21:33	1
Benzene	<0.36		0.50	0.36	ug/L			05/04/15 21:33	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/04/15 21:33	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/04/15 21:33	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/04/15 21:33	1
Toluene	<0.33		0.50	0.33	ug/L			05/04/15 21:33	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/04/15 21:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		80 -		05/04/15 21:33	1

Lab Sample ID: MB 490-245543/5

Matrix: Water

Analysis Batch: 245543

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 12:12	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/04/15 12:12	1
Benzene	<0.36		0.50	0.36	ug/L			05/04/15 12:12	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/04/15 12:12	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/04/15 12:12	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/04/15 12:12	1
Toluene	<0.33		0.50	0.33	ug/L			05/04/15 12:12	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/04/15 12:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		80 -		05/04/15 12:12	1

Lab Sample ID: LCS 490-245543/3

Matrix: Water

Analysis Batch: 245543

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	100	93.5		ug/L		93	60 - 131
1,3,5-Trimethylbenzene	100	93.0		ug/L		93	70 - 130
Benzene	100	86.4		ug/L		86	69 - 129
Ethylbenzene	100	91.8		ug/L		92	70 - 130
Methyl tert-butyl ether	100	90.6		ug/L		91	57 - 138
m-Xylene & p-Xylene	200	178		ug/L		89	65 - 127
Naphthalene	100	96.0		ug/L		96	69 - 133
o-Xylene	100	92.5		ug/L		93	64 - 128
Toluene	100	90.7		ug/L		91	66 - 127
Xylenes, Total	300	271		ug/L		90	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	94		80 -

TestAmerica Chicago

QC Sample Results

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Lab Sample ID: LCSD 490-245543/31
Matrix: Water
Analysis Batch: 245543

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	100	92.9		ug/L		93	60 - 131	1	43
1,3,5-Trimethylbenzene	100	91.2		ug/L		91	70 - 130	2	20
Benzene	100	82.2		ug/L		82	69 - 129	5	33
Ethylbenzene	100	88.4		ug/L		88	70 - 130	4	35
Methyl tert-butyl ether	100	82.0		ug/L		82	57 - 138	10	40
m-Xylene & p-Xylene	200	173		ug/L		86	65 - 127	3	39
Naphthalene	100	88.7		ug/L		89	69 - 133	8	48
o-Xylene	100	90.3		ug/L		90	64 - 128	2	35
Toluene	100	87.4		ug/L		87	66 - 127	4	34
Xylenes, Total	300	263		ug/L		88		3	

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
a,a,a-Trifluorotoluene	97		80 -

Lab Sample ID: MB 490-245914/19
Matrix: Water
Analysis Batch: 245914

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/06/15 00:54	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/06/15 00:54	1
Benzene	<0.36		0.50	0.36	ug/L			05/06/15 00:54	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/06/15 00:54	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/06/15 00:54	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/06/15 00:54	1
Toluene	<0.33		0.50	0.33	ug/L			05/06/15 00:54	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/06/15 00:54	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		80 -		05/06/15 00:54	1

Lab Sample ID: LCS 490-245914/3
Matrix: Water
Analysis Batch: 245914

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	100	97.9		ug/L		98	60 - 131
1,3,5-Trimethylbenzene	100	99.2		ug/L		99	70 - 130
Benzene	100	96.3		ug/L		96	69 - 129
Ethylbenzene	100	100		ug/L		100	70 - 130
Methyl tert-butyl ether	100	105		ug/L		105	57 - 138
m-Xylene & p-Xylene	200	199		ug/L		100	65 - 127
Naphthalene	100	110		ug/L		110	69 - 133
o-Xylene	100	100		ug/L		100	64 - 128
Toluene	100	99.5		ug/L		100	66 - 127
Xylenes, Total	300	299		ug/L		100	

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
a,a,a-Trifluorotoluene	102		80 -

TestAmerica Chicago

QC Sample Results

Client: Cedar Corporation
 Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCSD 490-245914/4

Matrix: Water

Analysis Batch: 245914

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	100	95.3		ug/L		95	60 - 131	3	43
1,3,5-Trimethylbenzene	100	97.6		ug/L		98	70 - 130	2	20
Benzene	100	93.8		ug/L		94	69 - 129	3	33
Ethylbenzene	100	98.4		ug/L		98	70 - 130	2	35
Methyl tert-butyl ether	100	104		ug/L		104	57 - 138	1	40
m-Xylene & p-Xylene	200	196		ug/L		98	65 - 127	2	39
Naphthalene	100	112		ug/L		112	69 - 133	2	48
o-Xylene	100	98.3		ug/L		98	64 - 128	2	35
Toluene	100	97.6		ug/L		98	66 - 127	2	34
Xylenes, Total	300	294		ug/L		98		2	

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
a,a,a-Trifluorotoluene	98		80 -

Lab Sample ID: MB 490-247392/18

Matrix: Water

Analysis Batch: 247392

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/12/15 01:24	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/12/15 01:24	1
Benzene	<0.36		0.50	0.36	ug/L			05/12/15 01:24	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/12/15 01:24	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/12/15 01:24	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/12/15 01:24	1
Toluene	<0.33		0.50	0.33	ug/L			05/12/15 01:24	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/12/15 01:24	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		80 -		05/12/15 01:24	1

Lab Sample ID: LCS 490-247392/2

Matrix: Water

Analysis Batch: 247392

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	100	96.4		ug/L		96	60 - 131
1,3,5-Trimethylbenzene	100	98.4		ug/L		98	70 - 130
Benzene	100	98.9		ug/L		99	69 - 129
Ethylbenzene	100	99.7		ug/L		100	70 - 130
Methyl tert-butyl ether	100	98.0		ug/L		98	57 - 138
m-Xylene & p-Xylene	200	199		ug/L		99	65 - 127
Naphthalene	100	99.0		ug/L		99	69 - 133
o-Xylene	100	97.2		ug/L		97	64 - 128
Toluene	100	100		ug/L		100	66 - 127
Xylenes, Total	300	296		ug/L		99	

TestAmerica Chicago

QC Sample Results

Client: Cedar Corporation
 Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCS 490-247392/2
Matrix: Water
Analysis Batch: 247392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>a,a,a-Trifluorotoluene</i>	99		80 -

Lab Sample ID: LCS 490-247392/30
Matrix: Water
Analysis Batch: 247392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	100	97.8		ug/L		98	60 - 131
1,3,5-Trimethylbenzene	100	100		ug/L		100	70 - 130
Benzene	100	101		ug/L		101	69 - 129
Ethylbenzene	100	102		ug/L		102	70 - 130
Methyl tert-butyl ether	100	95.1		ug/L		95	57 - 138
m-Xylene & p-Xylene	200	203		ug/L		101	65 - 127
Naphthalene	100	91.8		ug/L		92	69 - 133
o-Xylene	100	99.2		ug/L		99	64 - 128
Toluene	100	103		ug/L		103	66 - 127
Xylenes, Total	300	302		ug/L		101	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>a,a,a-Trifluorotoluene</i>	96		80 -

Lab Sample ID: LCSD 490-247392/3
Matrix: Water
Analysis Batch: 247392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	100	94.6		ug/L		95	60 - 131	2	43
1,3,5-Trimethylbenzene	100	96.3		ug/L		96	70 - 130	2	20
Benzene	100	97.0		ug/L		97	69 - 129	2	33
Ethylbenzene	100	97.6		ug/L		98	70 - 130	2	35
Methyl tert-butyl ether	100	98.3		ug/L		98	57 - 138	0	40
m-Xylene & p-Xylene	200	195		ug/L		97	65 - 127	2	39
Naphthalene	100	98.5		ug/L		99	69 - 133	0	48
o-Xylene	100	95.4		ug/L		95	64 - 128	2	35
Toluene	100	98.4		ug/L		98	66 - 127	2	34
Xylenes, Total	300	290		ug/L		97		2	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>a,a,a-Trifluorotoluene</i>	97		80 -

Lab Sample ID: LCSD 490-247392/31
Matrix: Water
Analysis Batch: 247392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	100	97.8		ug/L		98	60 - 131	1	43
1,3,5-Trimethylbenzene	100	100		ug/L		100	70 - 130	2	20

TestAmerica Chicago

QC Sample Results

Client: Cedar Corporation
 Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCSD 490-247392/31

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 247392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	100	102		ug/L		102	69 - 129	3	33
Ethylbenzene	100	102		ug/L		102	70 - 130	2	35
Methyl tert-butyl ether	100	97.1		ug/L		97	57 - 138	1	40
m-Xylene & p-Xylene	200	205		ug/L		103	65 - 127	3	39
Naphthalene	100	94.7		ug/L		95	69 - 133	4	48
o-Xylene	100	99.7		ug/L		100	64 - 128	3	35
Toluene	100	104		ug/L		104	66 - 127	3	34
Xylenes, Total	300	305		ug/L		102		3	

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
a,a,a-Trifluorotoluene	96		80 -

Lab Chronicle

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: MW-1R

Date Collected: 04/28/15 14:45

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	245914	05/06/15 07:25	BK	TAL NSH
Total/NA	Analysis	WDNR		100	247392	05/12/15 10:25	BK	TAL NSH

Client Sample ID: MW-2

Date Collected: 04/28/15 15:15

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		20	245914	05/06/15 08:04	BK	TAL NSH

Client Sample ID: MW-3

Date Collected: 04/28/15 14:15

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	247392	05/12/15 02:28	BK	TAL NSH

Client Sample ID: MW-4

Date Collected: 04/28/15 13:15

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	247392	05/12/15 03:00	BK	TAL NSH

Client Sample ID: MW-5

Date Collected: 04/28/15 12:45

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/04/15 22:08	BK	TAL NSH

Client Sample ID: MW-6

Date Collected: 04/28/15 13:45

Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/04/15 22:43	BK	TAL NSH

TestAmerica Chicago

Lab Chronicle

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: MW-7
Date Collected: 04/28/15 10:30
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/04/15 23:19	BK	TAL NSH

Client Sample ID: P-8
Date Collected: 04/28/15 11:00
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/04/15 23:54	BK	TAL NSH

Client Sample ID: MW-9
Date Collected: 04/28/15 10:00
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/05/15 00:29	BK	TAL NSH

Client Sample ID: MW-10
Date Collected: 04/28/15 11:30
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/05/15 01:04	BK	TAL NSH

Client Sample ID: MW-11
Date Collected: 04/28/15 12:00
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/05/15 01:39	BK	TAL NSH

Client Sample ID: Olson
Date Collected: 04/28/15 09:30
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/05/15 02:15	BK	TAL NSH

TestAmerica Chicago

Lab Chronicle

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Client Sample ID: Strey
Date Collected: 04/28/15 12:15
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	245543	05/05/15 02:50	BK	TAL NSH

Client Sample ID: Paps
Date Collected: 04/28/15 09:00
Date Received: 04/30/15 10:00

Lab Sample ID: 500-95391-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	247392	05/12/15 03:32	BK	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Cedar Corporation
Project/Site: Pap's General Store - 2880

TestAmerica Job ID: 500-95391-1

Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-15

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998020430	08-31-15

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING


2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: Scott McCurdy
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/References# _____

Chain of Custody Record

Lab Job #: 500-95391
 Chain of Custody Number: _____
 Page 1 of 2
 Temperature °C of Cooler: -0.3

Client		Client Project #		Preservative		Parameter		Project Location/State		Lab Project #		Sampler		Lab PM		Preservative Key	
<u>Cedar Corp</u>		<u>2880</u>		<u>1</u>		<u>PDOC + Naphk</u>		<u>Balsam Lake, WI</u>				<u>RDS</u>		<u>Sandra Fredrick</u>		 500-95391 COC	
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Comments										
			Date	Time													
1		MW-1R	4/28/15	1445	2	W	X										
2		MW-2		1515													
3		MW-3		1415													
4		MW-4		1315													
5		MW-5		1245													
6		MW-6		1345													
7		MW-7		1030													
8		MW-8		1100													
9		MW-9		1000													
10		MW-10		1130													

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other
 Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>Papa Syp</u>	Company <u>Cedar Corp</u>	Date <u>4/29/15</u>	Time <u>1400</u>	Received By <u>Syp/K</u>	Company <u>TAL</u>	Date <u>04/30/15</u>	Time <u>1000</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: _____
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil C - Other
 A - Air

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: Scott McCurdy
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-95391

Chain of Custody Number: _____

Page 2 of 2

Temperature °C of Cooler: -0.3

Client		Client Project #		Preservative												Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Lab Project #		Parameter												
Project Location/State		Lab Project #		Parameter												Comments
Sampler		Lab PM		Parameter												
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix										
11		Mw-11	4/29/15	1200	W	X										
12		Olson	↓	930	DW	↓										
13		Strey	↓	1215	↓	↓										
14		PAPS	↓	900	↓	↓										

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other

Sample Disposal

Return to Client Disposal by Lab Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>Anna Shope</u>	Company <u>Cedar Corp</u>	Date <u>4/29/15</u>	Time <u>1400</u>	Received By <u>[Signature]</u>	Company <u>TAL</u>	Date <u>04/30/15</u>	Time <u>1000</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: _____
Shipped: _____
Hand Delivered: _____

Matrix Key
WW - Wastewater SE - Sediment
W - Water SO - Soil
S - Soil L - Leachate
SL - Sludge WI - Wipe
MS - Miscellaneous DW - Drinking Water
OL - Oil O - Other
A - Air

Client Comments: _____
Lab Comments: _____

Login Sample Receipt Checklist

Client: Cedar Corporation

Job Number: 500-95391-1

Login Number: 95391

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	-0.3c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Cedar Corporation

Job Number: 500-95391-1

Login Number: 95391

List Number: 2

Creator: Ford, Easton

List Source: TestAmerica Nashville

List Creation: 05/01/15 04:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-103507-1

Client Project/Site: Paps General Store - 2880

For:

Cedar Corporation

604 Wilson Avenue

Menomonie, Wisconsin 54751

Attn: Scott McCurdy



Authorized for release by:

11/11/2015 3:29:09 PM

Sandie Fredrick, Project Manager II

(920)261-1660

sandie.fredrick@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	10
QC Association	11
Surrogate Summary	12
QC Sample Results	13
Chronicle	15
Certification Summary	17
Chain of Custody	18
Receipt Checklists	22

Case Narrative

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Job ID: 500-103507-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-103507-1

Comments

No additional comments.

Receipt

The samples were received on 11/4/2015 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -1.0° C.

Receipt Exceptions

Received both vials for sample 6 with ID of PZ-8, logged per COC.

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Client Sample ID: MW-1R

Lab Sample ID: 500-103507-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	3000		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	710		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	1100		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	2400		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	65		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	750		50	24	ug/L	10		WDNR	Total/NA
Toluene	8600		50	33	ug/L	100		WDNR	Total/NA
Xylenes, Total	12000		15	5.8	ug/L	10		WDNR	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 500-103507-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	4200		50	30	ug/L	100		WDNR	Total/NA
1,3,5-Trimethylbenzene	1200		50	30	ug/L	100		WDNR	Total/NA
Benzene	220		50	36	ug/L	100		WDNR	Total/NA
Ethylbenzene	2100		50	37	ug/L	100		WDNR	Total/NA
Methyl tert-butyl ether	270		50	24	ug/L	100		WDNR	Total/NA
Naphthalene	1200		500	240	ug/L	100		WDNR	Total/NA
Toluene	5800		50	33	ug/L	100		WDNR	Total/NA
Xylenes, Total	13000		150	58	ug/L	100		WDNR	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 500-103507-3

No Detections.

Client Sample ID: MW-5

Lab Sample ID: 500-103507-4

No Detections.

Client Sample ID: MW-7

Lab Sample ID: 500-103507-5

No Detections.

Client Sample ID: P-8

Lab Sample ID: 500-103507-6

No Detections.

Client Sample ID: MW-9

Lab Sample ID: 500-103507-7

No Detections.

Client Sample ID: Olson Well

Lab Sample ID: 500-103507-8

No Detections.

Client Sample ID: Strey Well

Lab Sample ID: 500-103507-9

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Method	Method Description	Protocol	Laboratory
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH

Protocol References:

WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



Sample Summary

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-103507-1	MW-1R	Water	11/02/15 15:00	11/04/15 10:00
500-103507-2	MW-2	Water	11/02/15 15:30	11/04/15 10:00
500-103507-3	MW-3	Water	11/02/15 14:30	11/04/15 10:00
500-103507-4	MW-5	Water	11/02/15 14:00	11/04/15 10:00
500-103507-5	MW-7	Water	11/02/15 12:30	11/04/15 10:00
500-103507-6	P-8	Water	11/02/15 13:00	11/04/15 10:00
500-103507-7	MW-9	Water	11/02/15 12:00	11/04/15 10:00
500-103507-8	Olson Well	Water	11/02/15 11:30	11/04/15 10:00
500-103507-9	Strey Well	Water	11/02/15 13:30	11/04/15 10:00

Client Sample Results

Client: Cedar Corporation
 Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Client Sample ID: MW-1R

Date Collected: 11/02/15 15:00

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-1

Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	3000		5.0	3.0	ug/L			11/11/15 07:48	10
1,3,5-Trimethylbenzene	710		5.0	3.0	ug/L			11/11/15 07:48	10
Benzene	1100		5.0	3.6	ug/L			11/11/15 07:48	10
Ethylbenzene	2400		5.0	3.7	ug/L			11/11/15 07:48	10
Methyl tert-butyl ether	65		5.0	2.4	ug/L			11/11/15 07:48	10
Naphthalene	750		50	24	ug/L			11/11/15 07:48	10
Toluene	8600		50	33	ug/L			11/11/15 09:53	100
Xylenes, Total	12000		15	5.8	ug/L			11/11/15 07:48	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	108		80 - 120					11/11/15 07:48	10
a,a,a-Trifluorotoluene	101		80 - 120					11/11/15 09:53	100

Client Sample ID: MW-2

Date Collected: 11/02/15 15:30

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-2

Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	4200		50	30	ug/L			11/11/15 06:13	100
1,3,5-Trimethylbenzene	1200		50	30	ug/L			11/11/15 06:13	100
Benzene	220		50	36	ug/L			11/11/15 06:13	100
Ethylbenzene	2100		50	37	ug/L			11/11/15 06:13	100
Methyl tert-butyl ether	270		50	24	ug/L			11/11/15 06:13	100
Naphthalene	1200		500	240	ug/L			11/11/15 06:13	100
Toluene	5800		50	33	ug/L			11/11/15 06:13	100
Xylenes, Total	13000		150	58	ug/L			11/11/15 06:13	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	118		80 - 120					11/11/15 06:13	100

Client Sample ID: MW-3

Date Collected: 11/02/15 14:30

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-3

Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/10/15 22:54	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/10/15 22:54	1
Benzene	<0.36		0.50	0.36	ug/L			11/10/15 22:54	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/10/15 22:54	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/10/15 22:54	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/10/15 22:54	1
Toluene	<0.33		0.50	0.33	ug/L			11/10/15 22:54	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/10/15 22:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		80 - 120					11/10/15 22:54	1

TestAmerica Chicago

Client Sample Results

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Client Sample ID: MW-5
Date Collected: 11/02/15 14:00
Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-4
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/10/15 23:25	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/10/15 23:25	1
Benzene	<0.36		0.50	0.36	ug/L			11/10/15 23:25	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/10/15 23:25	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/10/15 23:25	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/10/15 23:25	1
Toluene	<0.33		0.50	0.33	ug/L			11/10/15 23:25	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/10/15 23:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	92		80 - 120					11/10/15 23:25	1

Client Sample ID: MW-7
Date Collected: 11/02/15 12:30
Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-5
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/10/15 23:57	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/10/15 23:57	1
Benzene	<0.36		0.50	0.36	ug/L			11/10/15 23:57	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/10/15 23:57	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/10/15 23:57	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/10/15 23:57	1
Toluene	<0.33		0.50	0.33	ug/L			11/10/15 23:57	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/10/15 23:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	97		80 - 120					11/10/15 23:57	1

Client Sample ID: P-8
Date Collected: 11/02/15 13:00
Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-6
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 00:28	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 00:28	1
Benzene	<0.36		0.50	0.36	ug/L			11/11/15 00:28	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/11/15 00:28	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/11/15 00:28	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/11/15 00:28	1
Toluene	<0.33		0.50	0.33	ug/L			11/11/15 00:28	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/11/15 00:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	98		80 - 120					11/11/15 00:28	1

Client Sample Results

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Client Sample ID: MW-9
Date Collected: 11/02/15 12:00
Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-7
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 00:59	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 00:59	1
Benzene	<0.36		0.50	0.36	ug/L			11/11/15 00:59	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/11/15 00:59	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/11/15 00:59	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/11/15 00:59	1
Toluene	<0.33		0.50	0.33	ug/L			11/11/15 00:59	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/11/15 00:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	91		80 - 120		11/11/15 00:59	1

Client Sample ID: Olson Well
Date Collected: 11/02/15 11:30
Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-8
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 03:05	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 03:05	1
Benzene	<0.36		0.50	0.36	ug/L			11/11/15 03:05	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/11/15 03:05	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/11/15 03:05	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/11/15 03:05	1
Toluene	<0.33		0.50	0.33	ug/L			11/11/15 03:05	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/11/15 03:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	88		80 - 120		11/11/15 03:05	1

Client Sample ID: Strey Well
Date Collected: 11/02/15 13:30
Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-9
Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 03:36	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 03:36	1
Benzene	<0.36		0.50	0.36	ug/L			11/11/15 03:36	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/11/15 03:36	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/11/15 03:36	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/11/15 03:36	1
Toluene	<0.33		0.50	0.33	ug/L			11/11/15 03:36	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/11/15 03:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	96		80 - 120		11/11/15 03:36	1

Definitions/Glossary

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

GC VOA

Analysis Batch: 297180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-103507-1	MW-1R	Total/NA	Water	WDNR	
500-103507-1	MW-1R	Total/NA	Water	WDNR	
500-103507-2	MW-2	Total/NA	Water	WDNR	
500-103507-3	MW-3	Total/NA	Water	WDNR	
500-103507-4	MW-5	Total/NA	Water	WDNR	
500-103507-5	MW-7	Total/NA	Water	WDNR	
500-103507-6	P-8	Total/NA	Water	WDNR	
500-103507-7	MW-9	Total/NA	Water	WDNR	
500-103507-8	Olson Well	Total/NA	Water	WDNR	
500-103507-9	Strey Well	Total/NA	Water	WDNR	
LCS 490-297180/3	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-297180/4	Lab Control Sample Dup	Total/NA	Water	WDNR	
MB 490-297180/19	Method Blank	Total/NA	Water	WDNR	
MB 490-297180/6	Method Blank	Total/NA	Water	WDNR	

Surrogate Summary

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT (80-120)
500-103507-1	MW-1R	108
500-103507-1	MW-1R	101
500-103507-2	MW-2	118
500-103507-3	MW-3	94
500-103507-4	MW-5	92
500-103507-5	MW-7	97
500-103507-6	P-8	98
500-103507-7	MW-9	91
500-103507-8	Olson Well	88
500-103507-9	Strey Well	96
LCS 490-297180/3	Lab Control Sample	101
LCSD 490-297180/4	Lab Control Sample Dup	100
MB 490-297180/19	Method Blank	91
MB 490-297180/6	Method Blank	99

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

QC Sample Results

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-297180/19

Matrix: Water

Analysis Batch: 297180

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 02:34	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/11/15 02:34	1
Benzene	<0.36		0.50	0.36	ug/L			11/11/15 02:34	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/11/15 02:34	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/11/15 02:34	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/11/15 02:34	1
Toluene	<0.33		0.50	0.33	ug/L			11/11/15 02:34	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/11/15 02:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		80 - 120		11/11/15 02:34	1

Lab Sample ID: MB 490-297180/6

Matrix: Water

Analysis Batch: 297180

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/10/15 15:26	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			11/10/15 15:26	1
Benzene	<0.36		0.50	0.36	ug/L			11/10/15 15:26	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			11/10/15 15:26	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			11/10/15 15:26	1
Naphthalene	<2.4		5.0	2.4	ug/L			11/10/15 15:26	1
Toluene	<0.33		0.50	0.33	ug/L			11/10/15 15:26	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			11/10/15 15:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		80 - 120		11/10/15 15:26	1

Lab Sample ID: LCS 490-297180/3

Matrix: Water

Analysis Batch: 297180

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trimethylbenzene	100	95.4		ug/L		95	60 - 131
1,3,5-Trimethylbenzene	100	94.4		ug/L		94	70 - 130
Benzene	100	101		ug/L		101	69 - 129
Ethylbenzene	100	103		ug/L		103	70 - 130
Methyl tert-butyl ether	100	103		ug/L		103	57 - 138
m-Xylene & p-Xylene	200	190		ug/L		95	65 - 127
Naphthalene	100	105		ug/L		105	69 - 133
o-Xylene	100	93.9		ug/L		94	64 - 128
Toluene	100	101		ug/L		101	66 - 127
Xylenes, Total	300	284		ug/L		95	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	101		80 - 120

TestAmerica Chicago

QC Sample Results

Client: Cedar Corporation
 Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Lab Sample ID: LCSD 490-297180/4
 Matrix: Water
 Analysis Batch: 297180

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	100	96.3		ug/L		96	60 - 131	1	43
1,3,5-Trimethylbenzene	100	95.4		ug/L		95	70 - 130	1	20
Benzene	100	102		ug/L		102	69 - 129	1	33
Ethylbenzene	100	102		ug/L		102	70 - 130	0	35
Methyl tert-butyl ether	100	103		ug/L		103	57 - 138	0	40
m-Xylene & p-Xylene	200	192		ug/L		96	65 - 127	1	39
Naphthalene	100	104		ug/L		104	69 - 133	1	48
o-Xylene	100	94.4		ug/L		94	64 - 128	1	35
Toluene	100	102		ug/L		102	66 - 127	1	34
Xylenes, Total	300	286		ug/L		95		1	

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
a,a,a-Trifluorotoluene	100		80 - 120

Lab Chronicle

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Client Sample ID: MW-1R

Date Collected: 11/02/15 15:00

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	297180	11/11/15 07:48	BK	TAL NSH
Total/NA	Analysis	WDNR		100	297180	11/11/15 09:53	BK	TAL NSH

Client Sample ID: MW-2

Date Collected: 11/02/15 15:30

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		100	297180	11/11/15 06:13	BK	TAL NSH

Client Sample ID: MW-3

Date Collected: 11/02/15 14:30

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	297180	11/10/15 22:54	BK	TAL NSH

Client Sample ID: MW-5

Date Collected: 11/02/15 14:00

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	297180	11/10/15 23:25	BK	TAL NSH

Client Sample ID: MW-7

Date Collected: 11/02/15 12:30

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	297180	11/10/15 23:57	BK	TAL NSH

Client Sample ID: P-8

Date Collected: 11/02/15 13:00

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	297180	11/11/15 00:28	BK	TAL NSH

TestAmerica Chicago

Lab Chronicle

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Client Sample ID: MW-9

Date Collected: 11/02/15 12:00

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	297180	11/11/15 00:59	BK	TAL NSH

Client Sample ID: Olson Well

Date Collected: 11/02/15 11:30

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	297180	11/11/15 03:05	BK	TAL NSH

Client Sample ID: Strey Well

Date Collected: 11/02/15 13:30

Date Received: 11/04/15 10:00

Lab Sample ID: 500-103507-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	297180	11/11/15 03:36	BK	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Cedar Corporation
Project/Site: Paps General Store - 2880

TestAmerica Job ID: 500-103507-1

Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-16

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998020430	08-31-16

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6C
Phone: 708.534.5200 Fax: 708.534



500-103507 COC

Report To (optional)
Contact: Scott McCurdy
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-103507

Chain of Custody Number: _____

Page 1 of 1

Temperature °C of Cooler: -7.0

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
<u>Cedar Corp</u>		<u>2880</u>		<u>1</u>		<u>1</u>		<u>1</u>		
Project Name		Lab Project #		# of Containers		Matrix		Comments		
<u>Paps General Store</u>		<u>2880</u>		<u>2</u>		<u>W</u>		<u>X</u>		
Project Location/State		Lab PM		Date		Time				
<u>Balsam Lake, WI</u>		<u>Sandra Fredrick</u>		<u>11/2/15</u>		<u>1500</u>				
Sampler		Sample ID								
<u>PAS</u>		<u>MW-1R</u>								
Lab ID	MS/MSD									
<u>1</u>		<u>MW-2</u>		<u>11/2/15</u>		<u>1530</u>				
<u>2</u>		<u>MW-3</u>								
<u>3</u>		<u>MW-5</u>								
<u>4</u>		<u>MW-7</u>								
<u>5</u>		<u>P-8</u>								
<u>6</u>		<u>MW-9</u>								
<u>7</u>		<u>Olson Well</u>								
<u>8</u>		<u>Stray Well</u>								
<u>9</u>										

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Requested Due Date _____

Sample Disposal

Return to Client

Disposal by Lab

Archive for _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company <u>Cedar Corp</u>	Date <u>11/2/15</u>	Time <u>1700</u>	Received By <u>[Signature]</u>	Company <u>Facets</u>	Date <u>11/4/15</u>	Time <u>1800</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: _____

Shipped: FedEx

Hand Delivered: _____

Matrix Key

- WW - Wastewater
- W - Water
- S - Soil
- SL - Sludge
- MS - Miscellaneous
- OL - Oil
- A - Air
- SE - Sediment
- SO - Soil
- L - Leachate
- WI - Wipe
- DW - Drinking Water
- O - Other

Client Comments

Lab Comments:



500-103507 Waybill

RT 519
ST 13

5 16:00 A
2539 11.04

FedEx
TRK# 8042 5912 2539
0215

WED - 04 NOV AA
STANDARD OVERNIGHT

NA JOTA

60484
IL-US
ORD



FID 643099 03NOV15 EAUA 639C2/3F56/31D0

50157
00400

FedEx Package
Express US Airbill

FedEx Tracking Number 8042 5912 2539

Form ID No 0215

fedex.com 1.800.GoFedEx 1.800.463.3339

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From

Date 11/3/15

Sender's Name Regis Shop Phone 1-877-735-9081

Company Cedar Corp

Address 604 W. 15th Ave

City Marionville State WI ZIP 54751

2 Your Internal Billing Reference

3 To

Recipient's Name GAMMA BETA Phone 708-534-5200

Company TESTAMERICA

Address 2417 JUNE

City UNIVERSITY PARK State IL ZIP 60484-3101

HOLD Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

HOLD Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.

4 Express Package Service * To most locations.
NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.
For packages over 150 lbs., use the
FedEx Express Freight US Airbill.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select
locations. Friday shipments will be delivered on
Monday unless SATURDAY Delivery is selected.

FedEx Priority Overnight
Next business morning.* Friday shipments will be
delivered on Monday unless SATURDAY Delivery
is selected.

FedEx Standard Overnight
Next business afternoon.*
Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning.*
Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon.* Thursday shipments
will be delivered on Monday unless SATURDAY
Delivery is selected.

FedEx Express Saver
Third business day.*
Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options

SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required
Package may be left without
obtaining a signature for delivery.

Direct Signature
Signature at recipient's address
may be required for delivery. Fee applies.

Indirect Signature
If no one is available at recipient's
address, someone at a neighboring
address may sign for delivery. For
residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?
Date box must be checked.

No Yes
As per attached
Shipper's Declaration

Yes
Shipper's Declaration
not required

Dry Ice
Dry Ice, 9, UN 1845 _____ x _____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging
or placed in a FedEx Express Drop Box. Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Sender
Acct. No. in Section
1 will be billed

Recipient

Third Party

Credit Card

Cash/Check

Total Packages 1 Total Weight 4.0 lbs

Credit Card Auth



8042 5912 2539

Align Open End of FedEx Pouch Here

TestAmerica Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record



TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

11/11/2015

Client Information (Sub Contract Lab)				Sampler:		Lab PM: Fredrick, Sandie J		Carrier Tracking No(s):		COC No: 500-67058.1			
Client Contact: Shipping/Receiving				Phone:		E-Mail: sandie.fredrick@testamericainc.com				Page: Page 1 of 1			
Company: TestAmerica Laboratories, Inc				Analysis Requested								Job #: 500-103507-1	
Address: 2960 Foster Creighton Drive,				Due Date Requested: 11/13/2015		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) WI_GRO/5030B (MOD) WISC PVOC + Nap				Total Number of containers		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)	
City: Nashville				TAT Requested (days):									
State, Zip: TN, 37204				PO #:									
Phone: 615-726-0177(Tel) 615-726-3404(Fax)				WO #:									
Email:				Project #: 50006556									
Project Name: Paps General Store - 2880				SSOW#:									
Site:													
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Special Instructions/Note:	
MW-1R (500-103507-1)				11/2/15		15:00 Central		Water		X		2	
MW-2 (500-103507-2)				11/2/15		15:30 Central		Water		X		2	
MW-3 (500-103507-3)				11/2/15		14:30 Central		Water		X		2	
MW-5 (500-103507-4)				11/2/15		14:00 Central		Water		X		2	
MW-7 (500-103507-5)				11/2/15		12:30 Central		Water		X		2	
P-8 (500-103507-6)				11/2/15		13:00 Central		Water		X		2	
MW-9 (500-103507-7)				11/2/15		12:00 Central		Water		X		2	
Olson Well (500-103507-8)				11/2/15		11:30 Central		Water		X		2	
Strey Well (500-103507-9)				11/2/15		13:30 Central		Water		X		2	
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:									
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:					
Relinquished by: <i>[Signature]</i>				Date/Time: 11/4/15 1530		Company: TH-ENV		Received by: <i>[Signature]</i> 2.6		Date/Time: 11-5-15 09130		Company: TAN	
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:		Company:	
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: Δ Yes Δ No				Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:					

Page 20 of 23

COOLER RECEIPT FORM

Loc: 500
103507

Cooler Received/Opened On 11/5/2015 @ 0930

1. Tracking # 5040 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 18290455

2. Temperature of rep. sample or temp blank when opened: 2.6 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO... NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: (1) Front

5. Were the seals intact, signed, and dated correctly? YES NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) WMS

7. Were custody seals on containers: YES and Intact YES...NO...

Were these signed and dated correctly? YES...NO...

8. Packing mat'l used? ~~Bubblewrap~~ Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES... NO...NA

14. Was there a Trip Blank in this cooler? YES...NO... NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (initial) WMS

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO... NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO... NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) WMS

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) WMS

I certify that I attached a label with the unique LIMS number to each container (initial) WMS

21. Were there Non-Conformance issues at login? YES... NO...#

rubbed off
 the gap bet
 the lid and
 cooler but
 still attach
 to the cooler
 upon

Login Sample Receipt Checklist

Client: Cedar Corporation

Job Number: 500-103507-1

Login Number: 103507

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	-1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Sample 6 bottles note PZ-8
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Cedar Corporation

Job Number: 500-103507-1

Login Number: 103507

List Number: 2

Creator: Ford, Easton

List Source: TestAmerica Nashville

List Creation: 11/07/15 02:16 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	