

CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org



December 19, 2017

Mr. & Mrs. Steven Novy
2918 S. 26th St.
Manitowoc, WI 54220

COPY

Dear Mr. & Mrs. Novy:

Thank you for your patience during the installation of your new potable well. Connections to your home were completed on December 8, 2017 and your new well was sampled on December 11, 2017.

The City is in receipt of the sample results for your property. We are pleased to inform you that the results confirm that water from your new well does not indicate the presence of volatile organic compounds (VOCs). According to DNR guidelines the well water is fit for consumption, and you can use it with no limitations. A copy of your laboratory analytical results is attached.

Water quality testing was also done on December 11, 2017. The City is working with Luisier Plumbing to get the appropriate treatment equipment installed.

If you have any questions please feel free to call us or the WDNR contacts listed below:

- Well water/sample results: Jim Kasdorf (920) 387-7872
WDNR, Drinking & Groundwater
- Investigation/future activities: Tauren Beggs (920) 662-5178
WDNR, Remediation & Redevelopment
- Health Questions: Adam Streiffer (608) 266-3393
Wisconsin Department of Health Services

If you have any questions, please do not hesitate to call Kathleen McDaniel at 686-6990.

Sincerely,

Kathleen McDaniel
City Attorney
City of Manitowoc

Dan Koski, P.E.
Director of Public Infrastructure
City of Manitowoc

Attachment: Laboratory Data



Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

DAVE HENDERSON
AECOM
1555 N RIVERCENTER DRIVE
MILWAUKEE, WI 53212

Report Date 14-Dec-17

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E34024

Lab Code 5034024A
Sample ID 2918 26TH-RAW
Sample Matrix Water
Sample Date 12/11/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Iron, Total	14.5	mg/l	0.03	0.1	1	200.7		12/12/2017	CWT	1
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/12/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/12/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/12/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		12/12/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/12/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/12/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/12/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/12/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/12/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/12/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/12/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/12/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/12/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/12/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/12/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/12/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/12/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/12/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/12/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/12/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/12/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/12/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/12/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/12/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/12/2017	CJR	1

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Lab Code 5034024A
 Sample ID 2918 26TH-RAW
 Sample Matrix Water
 Sample Date 12/11/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/12/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/12/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/12/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/12/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/12/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/12/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/12/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/12/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/12/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/12/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/12/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/12/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/12/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/12/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/12/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/12/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/12/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/12/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/12/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/12/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/12/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/12/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/12/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/12/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/12/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/12/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/12/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/12/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/12/2017	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		12/12/2017	CJR	1
SUR - Dibromofluoromethane	109	REC %			1	8260B		12/12/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		12/12/2017	CJR	1
SUR - 4-Bromofluorobenzene	108	REC %			1	8260B		12/12/2017	CJR	1

Wet Chemistry

General

Hardness, Total Unfiltered	1898	mg/l	0.74	2.46	2	200.7		12/12/2017	CWT	1
Solids, Total Dissolved	3007	mg/l	20	20	1	2540c		12/11/2017	BLE	1

Project Name NEWTON GRAVEL PIT
 Project # 60135471

Invoice # E34024

Lab Code 5034024B
 Sample ID 2918 26TH-DUP
 Sample Matrix Water
 Sample Date 12/11/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/12/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/12/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/12/2017	CJR	1
Bromoforn	< 0.49	ug/l	0.49	1.56	1	8260B		12/12/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/12/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/12/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/12/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/12/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/12/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/12/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/12/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/12/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/12/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/12/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/12/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/12/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/12/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/12/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/12/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/12/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/12/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/12/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/12/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/12/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/12/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/12/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/12/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/12/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/12/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/12/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/12/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/12/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/12/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/12/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/12/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/12/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/12/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/12/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/12/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/12/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/12/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/12/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/12/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/12/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/12/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/12/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/12/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/12/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/12/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/12/2017	CJR	1

Project Name NEWTON GRAVEL PIT
Project # 60135471

Invoice # E34024

Lab Code 5034024B
Sample ID 2918 26TH-DUP
Sample Matrix Water
Sample Date 12/11/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/12/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/12/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/12/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/12/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %				1 8260B		12/12/2017	CJR	1
SUR - 4-Bromofluorobenzene	111	REC %				1 8260B		12/12/2017	CJR	1
SUR - Dibromofluoromethane	102	REC %				1 8260B		12/12/2017	CJR	1
SUR - Toluene-d8	96	REC %				1 8260B		12/12/2017	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code Comment

1 Laboratory QC within limits.

BLE denotes sub contract lab - Certification #445023150

CWT denotes sub contract lab - Certification #445126660

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



Lab I.D. # _____
 Account No.: _____ Quote No.: _____
 Project #: 100135471
 Sampler (signature): Sarah E. Kaueger

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
 920-830-2455 • FAX 920-733-0631

Sample Handling Request
 Rush Analysis Date Required 12/13
 (Rushes accepted only with prior authorization)
 _____ Normal Turn Around

Project (Name / Location): <u>NENTON GRAVEL PIT/MANITOWOC WI</u>								Analysis Requested												Other Analysis						
Reports To: <u>DAVE HENDERSON</u>				Invoice To: <u>SEE LEFT</u>				DRO (Mod DPO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-HORA METALS	TDS	Total Fe	Hardness	PID	FID
Company: <u>AECOM</u>				Company: _____																						
Address: <u>1555 N RIVER CENTER DRIVE STE 214</u>				Address: _____																						
City State Zip: <u>MILWAUKEE WI 53212</u>				City State Zip: _____																						
Phone: <u>(414) 944-6190</u>				Phone: _____																						
FAX: _____				FAX: _____																						
Lab I.D.	Sample I.D.	Collection Date	Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)	Preservation																	
<u>5034024A</u>	<u>2918 2LTH - RAW</u>	<u>12/11/08</u>	<u>0855</u>		X	N	5	<u>GW</u>	<u>HCl/HNO₃</u>																	
<u>B</u>	<u>2918 2LTH - DUP</u>	<u>12/11/08</u>	<u>0855</u>		X	N	3	<u>GW</u>	<u>HCl</u>																	

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

ANALYSIS PER CONTRACT
 dave.henderson@aecom.com

Sample Integrity - To be completed by receiving lab. Method of Shipment: <u> </u> Temp. of Temp. Blank _____ °C On Ice: <u>X</u> Cooler seal intact upon receipt: <u> </u> Yes <u> </u> No	Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	<u>Sarah E. Kaueger</u>	<u>1030</u>	<u>12/10/17</u>			
	Received in Laboratory By: <u> </u>	Time: <u>10120</u>	Date: <u>12/10/17</u>			