

## Keenan, Gina N - DNR

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**From:** Neal, Michael <mneal@amengtest.com>  
**Sent:** Tuesday, September 25, 2018 11:07 AM  
**To:** Keenan, Gina N - DNR  
**Subject:** Extra monitoring wells in Chili, WI  
**Attachments:** Wolf\_Site\_Map.pdf; Wolf\_MW\_Construction\_Forms.pdf

Gina:

Finally got some info from AECOM.

They installed 5 wells as part of the Wolf Property investigation 03-10-545213 (see attached) and they are still there.

Also MW-1 from the original WDNR investigation (02-10-517968) is still present.

MW-2 from the Chili Service investigation (03-10-545214) may still be present (I have to double check this)  
But it looks like they abandoned MW-2 from the WDNR investigation instead of the Chili Service MW-2 well  
If you want us to abandon or incorporate into our investigation let me know.

Thanks

mn



**Michael K. Neal**

Geomorphologist/Professional Hydrologist

[mneal@amengtest.com](mailto:mneal@amengtest.com)

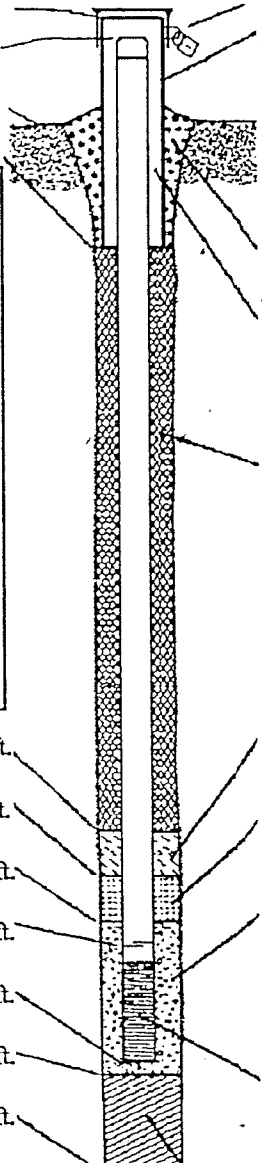
**D:** 715.201.9116 | **C:** 715.894.6455

1837 County Highway OO  
Chippewa Falls, WI 54729

[www.amengtest.com](http://www.amengtest.com)

Please read our email disclaimer at this [link](#) on our website.

Facility/Project Name <i>Well Property</i>		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name <i>MW-1</i>	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		Wis. Unique Well No. <i>PP 846</i> DNR Well ID No.	
Facility ID		Lat. _____ " Long. _____ " or		Date Well Installed <i>02/26/2007</i> m m d d y y y y	
Type of Well Well Code <i>1</i>		St. Plane _____ ft. N. _____ ft. E. S/C/N		Well Installed By: Name (first, last) and Firm <i>BC&amp;T</i>	
Distance from Waste/Source <i>100</i> ft.		Section Location of Waste/Source <i>SE 1/4 of SE 1/4 of Sec. 22, T. 25 N, R. 1</i> <input checked="" type="checkbox"/> E <input type="checkbox"/> W			
Enf. Stds. Apply <input type="checkbox"/>		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input checked="" type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number	

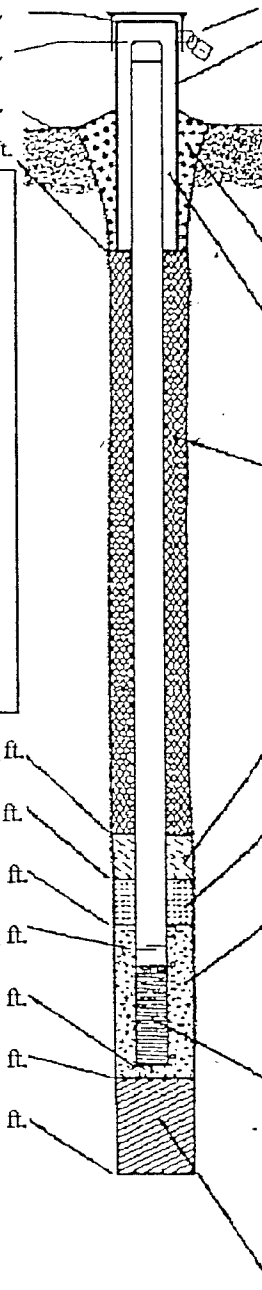
<p>A. Protective pipe, top elevation _____ ft. MSL</p> <p>B. Well casing, top elevation _____ ft. MSL</p> <p>C. Land surface elevation _____ ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input checked="" type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 5 0 Hollow Stem Auger <input type="checkbox"/> 4 1 Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1 Drilling Mud <input type="checkbox"/> 0 3 None <input type="checkbox"/> 9 9</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____</p> <p>17. Source of water (attach analysis, if required): _____</p> </div> <p>E. Bentonite seal, top _____ ft. MSL or <i>1</i> ft.</p> <p>F. Fine sand, top _____ ft. MSL or <i>7</i> ft.</p> <p>G. Filter pack, top _____ ft. MSL or <i>10</i> ft.</p> <p>H. Screen joint, top _____ ft. MSL or <i>11</i> ft.</p> <p>I. Well bottom _____ ft. MSL or <i>21</i> ft.</p> <p>J. Filter pack, bottom _____ ft. MSL or <i>22</i> ft.</p> <p>K. Borehole, bottom _____ ft. MSL or <i>22</i> ft.</p> <p>L. Borehole, diameter <i>10</i> in.</p> <p>M. O.D. well casing <i>23.2</i> in.</p> <p>N. I.D. well casing <i>20.2</i> in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <i>12</i> in. b. Length: <i>1.5</i> ft. c. Material: Steel <input checked="" type="checkbox"/> 0 4 Other <input type="checkbox"/></p> <p>d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 3 0 Concrete <input checked="" type="checkbox"/> 0 1 Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 3 0 Other <input checked="" type="checkbox"/> <i>sand</i></p> <p>5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3 3 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 5 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 1 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 5 0 e. _____ Ft<sup>3</sup> volume added for any of the above</p> <p>f. How installed: Tremie <input type="checkbox"/> 0 1 Tremie pumped <input type="checkbox"/> 0 2 Gravity <input checked="" type="checkbox"/> 0 8</p> <p>6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2 c. _____ Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name &amp; mesh size a. <i>Red Flint #40</i> b. Volume added <i>15</i> ft<sup>3</sup></p> <p>8. Filter pack material: Manufacturer, product name &amp; mesh size a. <i>Red Flint #80</i> b. Volume added <i>5</i> ft<sup>3</sup></p> <p>9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4 Other <input type="checkbox"/></p> <p>10. Screen material: <i>PVC</i> a. Screen type: Factory cut <input checked="" type="checkbox"/> 1 1 Continuous slot <input type="checkbox"/> 0 1 Other <input type="checkbox"/></p> <p>b. Manufacturer <i>Johanson</i> c. Slot size: <i>0.010</i> in. d. Slotted length: <i>10</i> ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4 Other <input type="checkbox"/></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *[Signature]* Firm *EARTH TECH*

Facility/Project Name <u>Wolf Property</u>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>P2-1</u>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>	Wis. Unique Well No. <u>PP847</u> DNR Well ID No.
Facility ID	Lat. " Long. " or	Date Well Installed <u>02/26/2007</u> m m d d y y y y
Type of Well Well Code <u>1</u>	St. Plane _____ ft. N, _____ ft. E. S/C/N	Well Installed By: Name (first, last) and Firm <u>Jodd BOALT</u>
Distance from Waste/Source <u>25</u> ft.	Enf. Stds. Apply <input type="checkbox"/>	
	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input checked="" type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>1.2</u> in. b. Length: <u>1.5</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
C. Land surface elevation _____ ft. MSL	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	4. Material between well casing and protective pipe: <u>sand</u> Bentonite <input type="checkbox"/> 30 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input checked="" type="checkbox"/>	5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
13. Sieve analysis performed? <input type="checkbox"/> Yes <input type="checkbox"/> No	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input type="checkbox"/>	7. Fine sand material: Manufacturer, product name & mesh size a. <u>Red Flint #40</u> b. Volume added <u>1 bag</u> ft <sup>3</sup>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	8. Filter pack material: Manufacturer, product name & mesh size a. <u>Red Flint #20</u> b. Volume added <u>2 bags</u> ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis, if required): _____	10. Screen material: <u>PVC</u> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> b. Manufacturer <u>Johnson</u> c. Slot size: <u>0.010</u> in. d. Slotted length: <u>5</u> ft.
E. Bentonite seal, top _____ ft. MSL or <u>1</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or <u>25</u> ft.	
G. Filter pack, top _____ ft. MSL or <u>26</u> ft.	
H. Screen joint, top _____ ft. MSL or <u>27</u> ft.	
I. Well bottom _____ ft. MSL or <u>32</u> ft.	
J. Filter pack, bottom _____ ft. MSL or <u>46</u> ft.	
K. Borehole, bottom _____ ft. MSL or <u>46</u> ft.	
L. Borehole, diameter <u>10</u> in.	
M. O.D. well casing <u>23.2</u> in.	
N. I.D. well casing <u>20.2</u> in.	



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

Signature [Signature] Firm EARTH TECH

Facility/Project Name <u>Well Property</u>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>MW-2</u>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>	Wis. Unique Well No. <u>PP848</u>	DNR Well ID No.
Facility ID	Lat. " Long. " or	Date Well Installed <u>02/27/2007</u> m m d d y y y y	
Type of Well Well Code <u>1</u>	St. Plane _____ ft. N. _____ ft. E. S/C/N	Well Installed By: Name (first, last) and Firm <u>Todd Schnoldehner</u>	
Distance from Waste/Source _____ ft.	Enf. Stds. Apply <input type="checkbox"/>	Section Location of Waste/Source <u>SE 1/4 of SE 1/4 of Sec. 22, T. 25 N, R. 1</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Gov. Lot Number
	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	<u>BOART</u>	

A. Protective pipe, top elevation _____ ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL		2. Protective cover pipe: a. Inside diameter: <u>1.2</u> in. b. Length: <u>1.5</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
C. Land surface elevation _____ ft. MSL		3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
D. Surface seal, bottom _____ ft. MSL or _____ ft.		4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Other <input checked="" type="checkbox"/> <u>Sand</u>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input checked="" type="checkbox"/>		5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above
13. Sieve analysis performed? <input type="checkbox"/> Yes <input type="checkbox"/> No		f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input type="checkbox"/>		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99		7. Fine sand material: Manufacturer, product name & mesh size a. <u>Bondger #30</u> b. Volume added <u>1/2 bags</u> ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____		8. Filter pack material: Manufacturer, product name & mesh size a. <u>Red Flint #80</u> b. Volume added <u>5 bags</u> ft <sup>3</sup>
17. Source of water (attach analysis, if required): _____		9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top _____ ft. MSL or <u>1</u> ft.	10. Screen material: <u>PVC</u> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>	
F. Fine sand, top _____ ft. MSL or <u>9</u> ft.	b. Manufacturer <u>Sihson</u> c. Slot size: <u>0.010</u> in. d. Slotted length: <u>10</u> ft.	
G. Filter pack, top _____ ft. MSL or <u>10</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>	
H. Screen joint, top _____ ft. MSL or <u>11</u> ft.		
I. Well bottom _____ ft. MSL or <u>21</u> ft.		
J. Filter pack, bottom _____ ft. MSL or <u>22</u> ft.		
K. Borehole, bottom _____ ft. MSL or <u>22</u> ft.		
L. Borehole, diameter <u>10</u> in.		
M. O.D. well casing <u>2.32</u> in.		
N. I.D. well casing <u>2.02</u> in.		

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

Signature 	Firm <u>EARTH TECH</u>
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Facility/Project Name <i>Wolf Property</i>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <i>MW-3</i>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. " Long. " or	Wis. Unique Well No. <i>PP849</i> DNR Well ID No.
Facility ID	St. Plane _____ ft. N. _____ ft. E. S/C/N	Date Well Installed <i>02/27/2007</i> m m d d y y v v
Type of Well Well Code <i>1</i>	Section Location of Waste/Source <i>SE 1/4 of SE 1/4 of Sec. 22, T. 25 N, R. 1</i> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: Name (first, last) and Firm <i>Todd BOALT</i>
Distance from Waste/Source _____ ft.	Enf. Stds. Apply <input type="checkbox"/>	
	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: <i>1.2</i> in. b. Length: <i>1.5</i> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
<div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input checked="" type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____</p> <p>17. Source of water (attach analysis, if required): _____</p> </div>	
E. Bentonite seal, top _____ ft. MSL or <i>1</i> ft.	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Other <input checked="" type="checkbox"/> <i>Sand</i>
F. Fine sand, top _____ ft. MSL or <i>9</i> ft.	5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
G. Filter pack, top _____ ft. MSL or <i>10</i> ft.	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
H. Screen joint, top _____ ft. MSL or <i>11</i> ft.	7. Fine sand material: Manufacturer, product name & mesh size a. <i>Budger #30</i> b. Volume added <i>1/2 bags</i> ft <sup>3</sup>
I. Well bottom _____ ft. MSL or <i>21</i> ft.	8. Filter pack material: Manufacturer, product name & mesh size a. <i>Red Flint #80</i> b. Volume added <i>5 bags</i> ft <sup>3</sup>
J. Filter pack, bottom _____ ft. MSL or <i>22</i> ft.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
K. Borehole, bottom _____ ft. MSL or <i>22</i> ft.	10. Screen material: <i>PVC</i> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
L. Borehole, diameter <i>10</i> in.	b. Manufacturer <i>Schnee</i> c. Slot size: <i>0.010</i> in. d. Slotted length: <i>10</i> ft.
M. O.D. well casing <i>23.2</i> in.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
N. I.D. well casing <i>20.2</i> in.	

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

Signature *[Signature]* Firm *EARTH TECH*

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

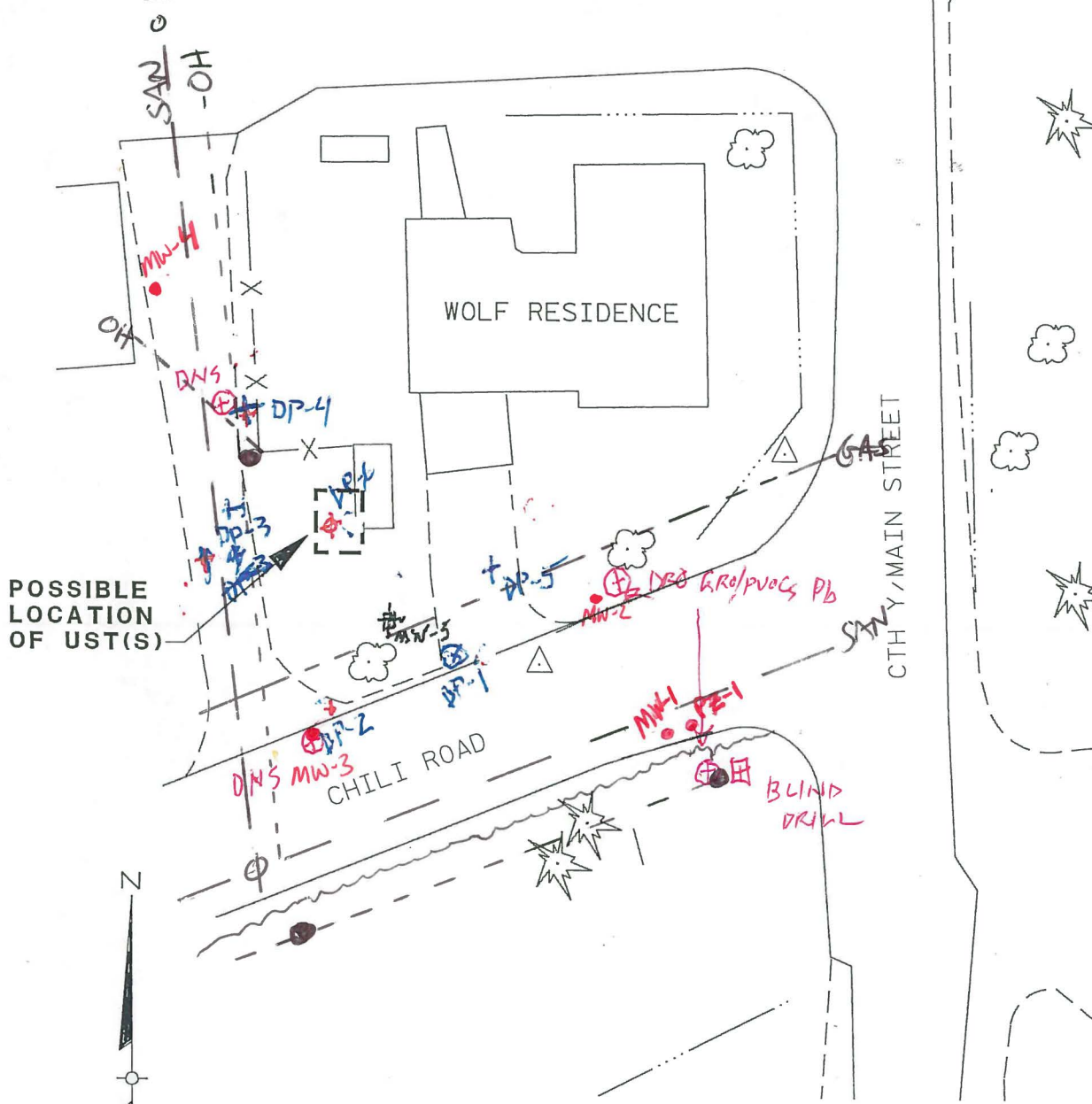
Facility/Project Name <u>Wolf Property</u>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.	Well Name <u>111-1-1</u>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. " Long. " or	Wis. Unique Well No. <u>PP850</u> DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed <u>01/24/2007</u> m m d d y y y y
Type of Well Well Code <u>1</u>	Section Location of Waste/Source <u>SE 1/4 of SE 1/4 of Sec. 22, T. 25 N, R. 1</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: Name (first, last) and Firm <u>BOART</u>
Distance from Waste/Source _____ ft.	Enf. Stds. Apply <input type="checkbox"/>	
	Location of Well Relative to Waste/Source u <input checked="" type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	
	Gov. Lot Number	

A. Protective pipe, top elevation _____ ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL		2. Protective cover pipe: a. Inside diameter: <u>12</u> in. b. Length: <u>1.5</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
C. Land surface elevation _____ ft. MSL		3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
D. Surface seal, bottom _____ ft. MSL or _____ ft.		4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Other <input checked="" type="checkbox"/> <u>sand</u>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input checked="" type="checkbox"/>		5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
13. Sieve analysis performed? <input type="checkbox"/> Yes <input type="checkbox"/> No		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input type="checkbox"/>		7. Fine sand material: Manufacturer, product name & mesh size a. <u>Badger #20</u> b. Volume added <u>1/2 bag</u> ft <sup>3</sup>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99		8. Filter pack material: Manufacturer, product name & mesh size a. <u>Red Flint #80</u> b. Volume added <u>5 bags</u> ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____		9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis, if required): _____		10. Screen material: <u>PVC</u> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> b. Manufacturer <u>Johnson</u> c. Slot size: <u>0.010</u> in. d. Slotted length: <u>10</u> ft.
E. Bentonite seal, top _____ ft. MSL or <u>1</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>	
F. Fine sand, top _____ ft. MSL or <u>9</u> ft.		
G. Filter pack, top _____ ft. MSL or <u>10</u> ft.		
H. Screen joint, top _____ ft. MSL or <u>11</u> ft.		
I. Well bottom _____ ft. MSL or <u>21</u> ft.		
J. Filter pack, bottom _____ ft. MSL or <u>22</u> ft.		
K. Borehole, bottom _____ ft. MSL or <u>22</u> ft.		
L. Borehole, diameter <u>10</u> in.		
M. O.D. well casing <u>2.32</u> in.		
N. I.D. well casing <u>2.02</u> in.		

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

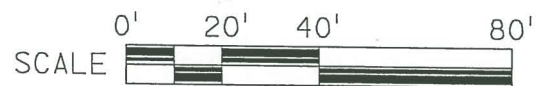
Signature [Signature] Firm EARTH TECH

MW SCREENS 11'-21'  
 PZ SCREEN 40'-45'



LEGEND

- ⊕ PROPOSED BORING LOCATION
- ⊕ PROPOSED MONITORING WELL LOCATION
- Final well location



A Tyco International Ltd. Company

FIGURE 1-2  
 SITE MAP  
 WOLF PROPERTY SITE  
 CHILI, WISCONSIN  
 DNR BRRTS NO. 03-10-545213

NOV. 2006

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