HYDE ENVIRONMENTAL, INC.

December 12, 2019

Caroline Rice
Wisconsin DNR – R&R
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: **Well Abandonment**
John Deere Horicon Works S2 Alleyway, 300 North Vine Street, Horicon, Dodge County, WI
BRRTS # 03-14-576088

Dear Caroline:

Please find attached the completed monitoring well abandonment form for the John Deere Horicon Works Building S2 Alleyway in Horicon, WI. The two-inch diameter monitoring well was abandoned by Earth Solutions, Inc. and observed by Hyde Environmental, Inc. personnel on October 25, 2019. The well was abandoned in accordance with s. NR 141.25, Wis. Adm. Code. The completed WDNR *Well / Drillhole / Boring Filling & Sealing Form 3300-005 (R 4/08)*, and boring log and well construction forms are attached. The former monitoring well location relative to local landmarks is depicted in the attached figure.

It is our understanding that by completing this work the site is formally closed with no further actions.

If you have any questions, please contact me by phone at 262-250-1226 or by email at jclindemann@hyde-env.com.

Sincerely,

James C. Lindemann
Hydrogeologist

JCL/rbt/pss

Attachments

c: S. Schnepper – John Deere Horicon Works
M. Gotto – Deere & Co.

W175N11163 Stonewood Drive, Suite 110 • Germantown WI 53022-6501
Phone 262-250-1226 • Fax 262-317-9171

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ■ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Dodge	_ _ _ _ _ _	

Latitude / Longitude (see instructions) _____ N _____ W | Format Code: ☐ DD ☐ DDM | Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼ SE	¼ NW	Section	Township	Range
or Gov't Lot #		6	11 N	■ E ☐ W

Well Street Address: 300 N. Vine Street

Well City, Village or Town	Well ZIP Code
Horicon	53032

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	_ _ _ _ _ _

2. Facility / Owner Information

Facility Name: John Deere Horicon Works S2 Alleyway

Facility ID (FID or PWS): 03-14-576088 BRRTS

License/Permit/Monitoring #:

Original Well Owner: John Deere Horicon Works

Present Well Owner: John Deere Horicon Works

Mailing Address of Present Owner: 300 N. Vine Street

City of Present Owner	State	ZIP Code
Horicon	WI	53032

3. Filled & Sealed Well / Drillhole / Borehole Information

■ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 09/01/2016

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
■ Other (specify): Geoprobe

Formation Type:
■ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
14.11	2

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
NA	10

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
3.0	9.75

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	○ Yes	○ No	◉ N/A
Liner(s) removed?	○ Yes	○ No	◉ N/A
Liner(s) perforated?	○ Yes	○ No	◉ N/A
Screen removed?	○ Yes	◉ No	○ N/A
Casing left in place?	○ Yes	◉ No	○ N/A
Was casing cut off below surface?	◉ Yes	○ No	○ N/A
Did sealing material rise to surface?	◉ Yes	○ No	○ N/A
Did material settle after 24 hours?	○ Yes	○ No	◉ N/A
If yes, was hole retopped?	○ Yes	◉ No	○ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	○ Yes	○ No	◉ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
■ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
■ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	14.11	0.5	0.5 bag	
Concrete	0.5	0	1 bag	

6. Comments

MW-1

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Earth Solutions		10/25/2019

Street or Route	Telephone Number
39W369 IL Rte 64	(630) 443-0955

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
St. Charles	IL	60175	Logan Cranley Logan Cranley (oversight)	12-12-19

DNR Use Only

Date Received	Noted By

Comments:

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: JDHW S2 Alleyway	Local Grid Location of Well: ____ ft. ☐N. ☐S. ____ ft. ☐E. ☐W.	Well Name: S2-MW-1
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. 43° 45' 16.434" Long. -88° 38' 47.27" or	Wis. Unique Well No. / DNR Well ID No.
Facility ID: 11405210	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 09/01/2016 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: SE 1/4 of NW 1/4 of Sec. 6, T. 11 N, R. 16 ☐E ☐W	Well Installed By: Name (first, last) and Firm: Jorjito Luna, EARTH Solutions
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☒ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or 1 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☒ 41; Other ☐ _____

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top _____ ft. MSL or 1 ft.
F. Fine sand, top _____ ft. MSL or _____ ft.
G. Filter pack, top _____ ft. MSL or 3 ft.
H. Screen joint, top _____ ft. MSL or 4.2 ft.
I. Well bottom _____ ft. MSL or 14.2 ft.
J. Filter pack, bottom _____ ft. MSL or 14.2 ft.
K. Borehole, bottom _____ ft. MSL or 16 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.25 in.
N. I.D. well casing 2.08 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 9 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04; Other ☐ _____
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30; Concrete ☒ 01; Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☒ 30; Other ☐ _____
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. 9 Ft³ volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. Not used
b. Volume added _____ ft³
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #30
b. Volume added 6 ft³
9. Well casing: Flush threaded PVC schedule 40 ☒ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ _____
10. Screen material: Timco PVC
a. Screen type: Factory cut ☒ 11; Continuous slot ☐ 01; Other ☐ _____
b. Manufacturer Timco
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☐ 14; Other ☒ Cave in native

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

Signature: _____ Firm: Hyde Environmental, INC.

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.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
JDHW S2 Alleyway	DODGE	S2-MW-1

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	14	MS1	

1. Can this well be purged dry? ☐ Yes [X] No

2. Well development method

surged with bailer and bailed	[X]	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	

3. Time spent developing well: 45 min.

4. Depth of well (from top of well casing): 14.2 ft.

5. Inside diameter of well: 2 in.

6. Volume of water in filter pack and well casing: 0.7 gal.

7. Volume of water removed from well: 27 gal.

8. Volume of water added (if any): ____ gal.

9. Source of water added: _____

10. Analysis performed on water added? ☐ Yes X No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 9.63 ft.	9.75 ft.
Date	b. 09 / 02 / 2016 (m m / d d / y y y y)	09 / 02 / 2016
Time	c. 09 : 25 [X] a.m. ☐ p.m.	10 : 15 [X] a.m. ☐ p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid [X] 15	Clear [X] 20 Turbid ☐ 25
(Describe)	Muddy brown in color	More clear than when starting
14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

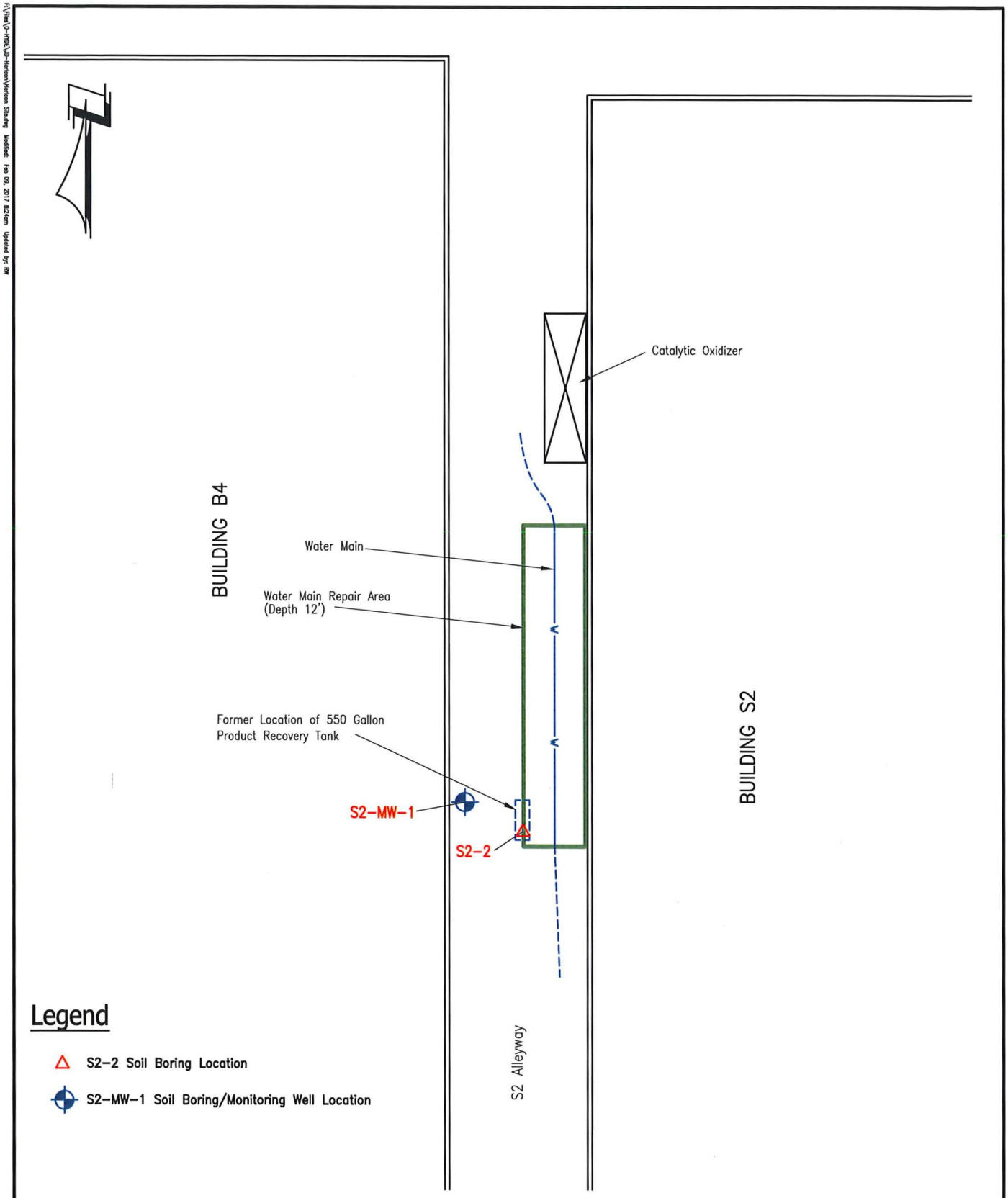
16. Well developed by: Name (first, last) and Firm
First Name: Cameron Last Name: Salyers
Firm: Hyde Environmental, Inc.

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Dan Last Name: Ketter
Facility/Firm: John Deere Horicon Works
Street: 300 N. Vine Street
City/State/Zip: Horicon WI 53032-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: Cameron Salyers
Firm: Hyde Environmental, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.



0 30'

SCALE

HYDE ENVIRONMENTAL, INC.

Figure 3

BORING & WELL LOCATIONS

JOHN DEERE HORICON WORKS – S2 ALLEYWAY
Horicon, Wisconsin