

Appendix Q

Supplemental Boring and Well Information

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

Page 1 of 2

Facility/Project Name Dane County Landfill No. 2 Rodefild SCS#: 25217087.02		License/Permit/Monitoring Number 3018		Boring Number GP-4R	
Boring Drilled By: Name of crew chief (first, last) and Firm Tony Kapugi On-site Environmental Services, Inc.		Date Drilling Started 6/30/2020		Date Drilling Completed 6/30/2020	
Drilling Method geoprobe					
WI Unique Well No. --	DNR Well ID No. 714	Common Well Name GP-4R	Final Static Water Level Feet MSL	Surface Elevation 884.05 Feet MSL	Borehole Diameter 2.5 in.
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 380,750 N, 2,201,301 E S/C/Ⓝ SE 1/4 of NE 1/4 of Section 25, T 7 N, R 10 E			Local Grid Location Lat ° ' " Long ° ' " Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W		
Facility ID 113127300		County Dane	County Code 13	Civil Town/City/ or Village Madison	


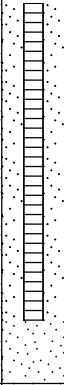
Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
22			1	LEAN CLAY, light brown to reddish brown (5YR 4/4).	CL				2.5	M				
			2											
			3											
			4											
35			5	SILTY SAND, red (2.5YR 4/6), fine to medium (till).					1.0					
			6											
			7											
			8											
46			9	Trace small rounded gravel.	SM				1.0					
			10											
			11											
			12											
			13							W				
			14											
			15											

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

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

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number		Use only as an attachment to Form 4400-122.										Page 2 of 2			
Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
	60		16 17 18 19 20 21		SM					W					
	12			End of boring at 21 feet. Set gas probe at 20 feet.						W					

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

Signature _____

Firm	
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SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

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.

Route To: Watershed/Wastewater ☐
Remediation/Redevelopment ☐

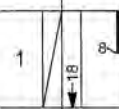


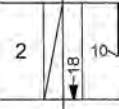


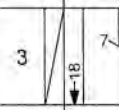


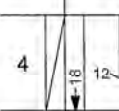


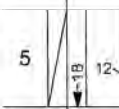


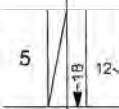


Waste Management ☐
Other ☐

SES Project Number **506.77**

Page 1 of 2

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number GP5R	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Z. Hargis Soils & Engineering Services, Inc.		Date Drilling Started November 13, 2014		Date Drilling Completed November 13, 2014	
Drilling Method HSA		Final Static Water Level		Surface Elevation 904.8 Feet	
WI Unique Well No.	DNR Well ID No.	Common Well Name GP5R		Borehole Diameter 6.6 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Lat		Local Grid Location	
State Plane		ft. N, ft. E. S / C / N		<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
1/4 of		1/4 of Sec. T. N. R. E / W		81756 Feet <input type="checkbox"/> S 201305 Feet <input type="checkbox"/> W	

Facility ID	County Dane	County Code 13	Civil Town/City/ or Village City of Madison
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Sample			Depth In Feet	Total Depth = 25'-6"	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments					
Number and Type	Length Att. & Recovered (in)	Blow Counts								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200							
1		4	1	LEAN CLAY (CL) — <i>medium plasticity, dark brown, TOPSOIL, trace sand-[7" thick]</i>	CL					3.1, 2.1					M; OO						
			2													4					
			5																		
2		3	4	SILTY SAND (SM) — <i>fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, loose to medium dense relative density, trace to little gravel</i>	SM										M						
			3																		
			6																		
3		5	6		SM																
			6																		
			5																		
4		30	8	SILTY SAND WITH GRAVEL (SM) — <i>fine to coarse grained, non-plastic to low plasticity fines, brown, moist, very dense relative density</i>	SM										M						
			9																		
			32																		
5		4	10		SM										M						
			11																		
			22																		
5		6	12	SILTY SAND (SM) — <i>fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel</i>	SM																
			13																		
			8																		

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

Signature 	Firm Soils & Engineering Services, Inc. 1102 Stewart Street Madison, Wisconsin 53713	Tel: 608-274-7600 Fax: 608-274-7511
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This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

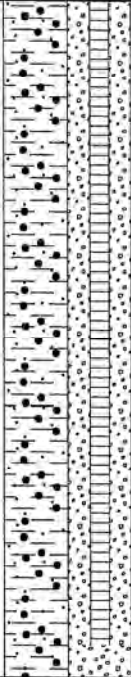

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **GP5R**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200	
6	18 14	5 8 10	16 17 18 19 20 21 22 23 24 25	SILTY SAND (SM) — <i>fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel (continued)</i>	SM									M
7	11	8 10 17	24 25											M
NOTES 1. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring GP5R.														

Route To:

Watershed/Wastewater ☐

Waste Management ☐

Remediation/Redevelopment ☐

Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

SES Project Number 506.77

Facility/Project Name

Dane County No. 2 Landfill Expansion

Local Grid Location of Well

81756 ft. ☒ N. ☐ S.

201305 ft. ☒ E. ☐ W.

Well Name

GP5R

Facility License, Permit or Monitoring No.

Grid Origin Location (estimated: ☐)

Well Location ☐

Wis. Unique Well No.

DNR Well Number

Facility ID

Lat. _____ Long. _____ or

St. Plane _____ ft. N. _____ ft. E. S/C/N

Date Well Installed

1 1 / 1 3 / 2 0 1 4

Type of Well

Well Code **51 / gp**

Section Location of Waste/Source

1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. _____ ☐ E ☐ W

Well Installed By: Name (first,last) and Firm

Kevin Z. Hargis

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

Soils & Engineering Services, Inc.

A. Protective pipe, top elevation **907.15** ft. MSL

B. Well casing, top elevation **907.05** ft. MSL

C. Land surface elevation **904.8** ft. MSL

D. Surface seal, bottom **900.4** ft. MSL or **4.3** ft.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter **4.0** in.

b. Length: **5.0** ft.

c. Material: Steel ☒ 0 4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe: _____

3. Surface seal: Bentonite ☒ 3 0

Concrete ☐ 0 1

Other ☐

4. Material between well casing and protective pipe: Bentonite ☒ 3 0

Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3

b. _____ Lbs/gal mud weight _____ Bentonite-sand slurry ☐ 3 5

c. _____ Lbs/gal mud weight _____ Bentonite slurry ☐ 3 1

d. _____ % Bentonite _____ Bentonite-cement grout ☐ 5 0

e. _____ Ft³ volume added for any of the above

f. How installed: Tremie ☐ 0 1

No Annular Space Seal Tremie pumped ☐ 0 2

Material Provided Gravity ☐ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2

c. **None** Other ☒

7. Fine sand material: Manufacturer, product name and mesh size

a. **None**

b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #40 well slot**

b. Volume added **4.7** ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3

Flush threaded PVC schedule 80 ☐ 2 4

Other ☐

10. Screen material: **Flush threaded PVC schedule**

a. Screen Type: **40** Factory cut ☒ 1 1

Continuous slot ☐ 0 1

Other ☐

b. Manufacturer **Baker Water Systems**

c. Slot size: **(Monoflex)** **0.010** in.

d. Slotted length: **20.0** ft.

11. Backfill material (below filter pack): **None** ☒ 1 4

Other ☐

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐

SM ☒ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐

Bedrock ☐ OL/OH ☐ PT ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0

Hollow Stem Auger ☒ 4 1

Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1

Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top **900.4** ft. MSL or **4.3** ft.

F. Fine sand, top **900.4** ft. MSL or **4.3** ft.

G. Filter pack, top **900.4** ft. MSL or **4.3** ft.

H. Screen joint, top **899.8** ft. MSL or **5.0** ft.

I. Well bottom **879.8** ft. MSL or **25.0** ft.

J. Filter pack, bottom **879.3** ft. MSL or **25.5** ft.

K. Borehole, bottom **879.3** ft. MSL or **25.5** ft.

L. Borehole, diameter **6.6** in.

M. O.D. well casing **1.32** in.

N. I.D. well casing **1.03** in.

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

Signature

Craig M. Bower

Firm

Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

Fax: 608-274-7511

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Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

Page 1 of 2

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number GP6R	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Z. Hargis Soils & Engineering Services, Inc.		Date Drilling Started November 12, 2014		Date Drilling Completed November 12, 2014	
Drilling Method HSA		WT Unique Well No.		DNR Well ID No.	
Common Well Name GP6R		Final Static Water Level		Surface Elevation 883.8 Feet	
Borehole Diameter 6.6 in		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Local Grid Location	
State Plane ft. N, ft. E. S / C / N		Lat		Long	
1/4 of 1/4 of Sec. T. N, R. E / W		82609 Feet <input type="checkbox"/> S 201293 Feet <input type="checkbox"/> W			
Facility ID		County Dane		County Code 13	
				Civil Town/City/ or Village City of Madison	

Sample		Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)							Blow Counts	Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200	

Total Depth = 25'-6"														
1		4	LEAN CLAY (CL) — medium plasticity, dark brown, TOPSOIL , trace sand-[6" thick]	CL										M
		4												
		4												
2		4	LEAN CLAY (CL) — medium plasticity, brown, moist, very stiff consistency	CL										M
		4												
		5												
3		3	SANDY LEAN CLAY (CL) — medium plasticity, brown, moist, soft consistency	CL										M
		3												
		4												
4		6	SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, loose to medium dense relative density, trace to little gravel	SM										M
		7												
		8												
5		8												M
		9												
		17												

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

Signature Craig M. Bower Firm **Soils & Engineering Services, Inc.** Tel: 608-274-7600
1102 Stewart Street Madison, Wisconsin 53713 Fax: 608-274-7511

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Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **GP6R**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			16	SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, loose to medium dense relative density, trace to little gravel (continued)	SM										
			17												
			18												
6	10	10	19	POORLY-GRADED SAND (SP) — fine to medium grained, brown, moist to wet, medium dense relative density										M	
			20												
			21												
			22		SP										
			23												
			24	With gravel at 23'-6"										W	
7	7	7	25												
			26												
			27	NOTES											
			28	1. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring GP6R.											
			29												
			30												
			31												
			32												
			33												
			34												
			35												
			36												
			37												
			38												
			39												

Route To:

Watershed/Wastewater ☐

Waste Management ☐

Remediation/Redevelopment ☐

Other ☐

SES Project Number **506.77**

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

Facility/Project Name

Dane County No. 2 Landfill Expansion

Local Grid Location of Well

82609

ft. ☒ N. ☐ S.

201293

ft. ☐ E. ☐ W.

Well Name

GP6R

Facility License, Permit or Monitoring No.

Grid Origin Location ☐ (estimated: ☐)

Well Location ☐

Wis. Unique Well No.

DNR Well Number

Facility ID

Lat. _____

Long. _____

or _____

Date Well Installed

1 1 / 1 2 / 2 0 1 4

Type of Well

Well Code **51** / **gp**

St. Plane _____ ft. N, _____ ft. E. S / C / N

Well Installed By: Name (first, last) and Firm

Kevin Z. Hargis

Distance From Waste/Source _____ ft.

Enf. Stds. Apply ☒

Location of Well Relative to Waste/Source

☐ Upgradient ☐ s ☐ Sidegradient ☐ E ☐ W

Gov. Lot Number

Soils & Engineering Services, Inc.

- A. Protective pipe, top elevation 886.58 ft. MSL
- B. Well casing, top elevation 886.48 ft. MSL
- C. Land surface elevation 883.8 ft. MSL
- D. Surface seal, bottom 879.3 ft. MSL or 4.5 ft.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter: 4.0 in.

b. Length: 5.0 ft.

c. Material: Steel ☒ 0 4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe: _____

3. Surface seal:

Bentonite ☒ 3 0

Concrete ☐ 0 1

Other ☐

4. Material between well casing and protective pipe:

Bentonite ☒ 3 0

Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3

b. _____ Lbs/gal mud weight Bentonite-sand slurry ☐ 3 5

c. _____ Lbs/gal mud weight Bentonite slurry ☐ 3 1

d. _____ % Bentonite Bentonite-cement grout ☐ 5 0

e. _____ Fr³ volume added for any of the above

f. How installed: Tremie ☐ 0 1

No Annular Space Seal

Tremie pumped ☐ 0 2

Material Provided

Gravity ☐ 0 8

6. Bentonite seal:

a. Bentonite granules ☐ 3 3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2

c. None ☒ Other ☐

7. Fine sand material: Manufacturer, product name and mesh size

a. None ☒

b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

a. Red Flint Sand and Gravel, #40 well slot ☒

b. Volume added 4.7 ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3

Flush threaded PVC schedule 80 ☐ 2 4

Other ☐

10. Screen material: Flush threaded PVC schedule

a. Screen Type: 40 ☒

Factory cut ☒ 1 1

Continuous slot ☐ 0 1

Other ☐

b. Manufacturer Baker Water Systems

c. Slot size: (Monoflex) 0.010 in.

d. Slotted length: 20.0 ft.

11. Backfill material (below filter pack): None ☒ 1 4

Other ☐

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒

SM ☒ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐

Bedrock ☐ OL/OH ☐ PT ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0

Hollow Stem Auger ☒ 4 1

Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1

Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top 879.3 ft. MSL or 4.5 ft.

F. Fine sand, top 879.3 ft. MSL or 4.5 ft.

G. Filter pack, top 879.3 ft. MSL or 4.5 ft.

H. Screen joint, top 878.8 ft. MSL or 5.0 ft.

I. Well bottom 858.8 ft. MSL or 25.0 ft.

J. Filter pack, bottom 858.3 ft. MSL or 25.5 ft.

K. Borehole, bottom 858.3 ft. MSL or 25.5 ft.

L. Borehole, diameter 6.6 in.

M. O.D. well casing 1.32 in.

N. I.D. well casing 1.03 in.

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

Signature

Craig M. Bower

Firm Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

Fax: 608-274-7511

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Route To: ☐ Watershed/Wastewater ☐ Waste Management ☐
☐ Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

Page 1 of 2

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number GP25R	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Z. Hargis Soils & Engineering Services, Inc.		Date Drilling Started November 12, 2014		Date Drilling Completed November 12, 2014	
Drilling Method HSA		WT Unique Well No.		DNR Well ID No.	
Common Well Name GP25R		Final Static Water Level		Surface Elevation 906.3 Feet	
Borehole Diameter 6.6 in		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Local Grid Location	
State Plane <input type="checkbox"/> ft. N, <input type="checkbox"/> ft. E. S / C / N		Lat <input type="checkbox"/>		Long <input type="checkbox"/>	
1/4 of <input type="checkbox"/> 1/4 of Sec. <input type="checkbox"/> T. <input type="checkbox"/> N, R. <input type="checkbox"/> E / W		81970 Feet <input type="checkbox"/> S 201303 Feet <input type="checkbox"/> W			
Facility ID		County Dane		County Code 13	
				Civil Town/City/ or Village City of Madison	

Sample			Depth In Feet	Total Depth = 28'-6"	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)	Blow Counts								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
					LEAN CLAY (CL) — medium plasticity, dark brown, TOPSOIL , trace sand-[4" thick]	CL									M	
1	18	5	1		SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel	SM									M	
		6	2													
		8	3													
2	18	8	4												M	
		8	5													
		11	6													
3	18	10	7												M	
		12	8													
		15	9													
					SILTY SAND WITH GRAVEL (SM) — fine to coarse grained, non-plastic to low plasticity fines, brown and reddish-brown, dry to moist, very dense relative density	SM									Dry-M	
4	13	10	10													
		15	11													
		50	12													

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

Signature Craig M. Bower Firm **Soils & Engineering Services, Inc.** Tel: 608-274-7600
1102 Stewart Street Madison, Wisconsin 53713 Fax: 608-274-7511

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

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **GP25R**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample			Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)	Blow Counts							Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			16	SILTY SAND (SM) — <i>fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel (continued)</i>	SM										
			17												
			18												
6	18	12	19												
		8	20												
		8	21												
		8	22												
			23												
			24												
			25												
7	18	9	24											M	
		12	25												
		10	26												
		16	27												
			28												
			29												
			30												
			31												
			32												
			33												
			34												
			35												
			36												
			37												
			38												
			39												

NOTES

- The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring GP25R.

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

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

SES Project Number **506.77**

Facility/Project Name
Dane County No. 2 Landfill Expansion

Local Grid Location of Well
81970 ft. ☒ N. ☐ S. **201303** ft. ☒ E. ☐ W.

Well Name
GP25R

Facility License, Permit or Monitoring No.

Grid Origin Location (estimated: ☐) Well Location ☐

Wis. Unique Well No. DNR Well Number

Facility ID

Lat. Long. or

Date Well Installed

Type of Well

St. Plane ft. N. ft. E. S/C/N

1 1 / 1 2 / 2 0 1 4
m m d d y y v v

Well Code **51 / gp**

Section Location of Waste/Source

Well Installed By: Name (first,last) and Firm

Distance From Waste/Source ft. Enf. Stds. Apply ☒

Location of Well Relative to Waste/Source
u ☐ Upgradient s ☐ Sidegradient
d ☐ Downgradient n ☐ Not Known

Kevin Z. Hargis

Soils & Engineering Services, Inc.

A. Protective pipe, top elevation **909.05** ft. MSL
B. Well casing, top elevation **908.95** ft. MSL
C. Land surface elevation **906.3** ft. MSL
D. Surface seal, bottom **901.8** ft. MSL or **4.5** ft.

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

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
Other ☐

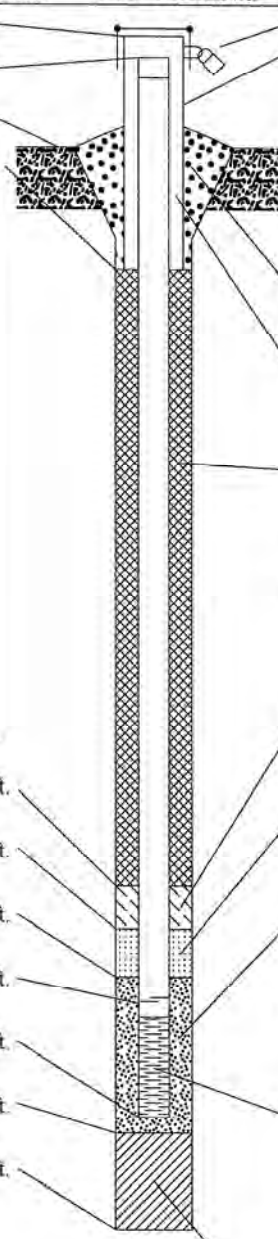
15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis): _____

E. Bentonite seal, top **901.8** ft. MSL or **4.5** ft.
F. Fine sand, top **901.8** ft. MSL or **4.5** ft.
G. Filter pack, top **901.8** ft. MSL or **4.5** ft.
H. Screen joint, top **901.3** ft. MSL or **5.0** ft.
I. Well bottom **881.3** ft. MSL or **25.0** ft.
J. Filter pack, bottom **877.8** ft. MSL or **28.5** ft.
K. Borehole, bottom **877.8** ft. MSL or **28.5** ft.
L. Borehole, diameter **6.6** in.
M. O.D. well casing **1.32** in.
N. I.D. well casing **1.03** in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: **4.0** in.
b. Length: **5.0** ft.
c. Material: Steel ☒ 0 4
Other ☐

d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____

3. Surface seal: Bentonite ☒ 3 0
Concrete ☐ 0 1
Other ☐

4. Material between well casing and protective pipe: Bentonite ☒ 3 0
Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. _____ Lbs/gal mud weight Bentonite-sand slurry ☐ 3 5
c. _____ Lbs/gal mud weight Bentonite slurry ☐ 3 1
d. _____ % Bentonite Bentonite-cement grout ☐ 5 0
e. _____ Ft³ volume added for any of the above
f. How installed: Tremie ☐ 0 1
No Annular Space Seal Tremie pumped ☐ 0 2
Material Provided Gravity ☐ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2
c. **None** Other ☒

7. Fine sand material: Manufacturer, product name and mesh size
a. **None**
b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size
a. **Red Flint Sand and Gravel, #40 well slot**
b. Volume added **5.4** ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3
Flush threaded PVC schedule 80 ☐ 2 4
Other ☐

10. Screen material: **Flush threaded PVC schedule 40**
a. Screen Type: **40** Factory cut ☒ 1 1
Continuous slot ☐ 0 1
Other ☐

b. Manufacturer **Baker Water Systems**
c. Slot size: **(Monoflex) 0.010** in.
d. Slotted length: **20.0** ft.

11. Backfill material (below filter pack): None ☒ 1 4
Other ☐

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

Signature **Craig M. Bower**

Firm **Soils & Engineering Services, Inc.**
1102 Stewart Street, Madison, Wisconsin 53713
Tel: 608-274-7600
Fax: 608-274-7511

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

Page 1 of 2

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number GP26R	
Boring Drilled By: Name of crew chief (first, last) and Firm Kevin Z. Hargis Soils & Engineering Services, Inc.		Date Drilling Started November 12, 2014		Date Drilling Completed November 12, 2014	
Drilling Method HSA		WI Unique Well No.		DNR Well ID No.	
Common Well Name GP26R		Final Static Water Level Dry		Surface Elevation 899.4 Feet	
Borehole Diameter 6.6 in		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Local Grid Location	
State Plane ft. N, ft. E. S / C / N		Lat Lat		Long 82185 Feet <input type="checkbox"/> S 201302 Feet <input type="checkbox"/> W	
1/4 of 1/4 of Sec. T. N, R. E / W		County Dane		County Code 13	
Facility ID		Civil Town/City/ or Village City of Madison			

Sample			Blow Counts	Depth In Feet	Total Depth = 25'-6"	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments									
Number and Type	Length Att. & Recovered (in)	Pocket Penetrometer									Moisture Content	Liquid Limit	Plasticity Index	P 200												
1		5	1	LEAN CLAY (CL) — medium plasticity, dark brown, TOPSOIL , trace sand-[6" thick]	CL																					
		5	2														LEAN CLAY (CL) — medium plasticity, brown, dry to moist, hard consistency	CL		6.0+						Dry-M
		5																								
2		5	3	SANDY LEAN CLAY (CL) — medium plasticity, brown, moist, hard consistency	CL											M										
		7	4														6.0+									
		16	5																							
3		5	6	SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, dry to moist, medium dense relative density, trace to little gravel	SM											Dry-M										
		6	7																							
		11	8																							
4		10	9	SILTY SAND WITH GRAVEL (SM) — fine to coarse grained, non-plastic to low plasticity fines, brown and gray, dry to moist, dense relative density	SM											Dry-M										
		20	10																							
		26	10																							
5		9	11	SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel	SM											M										
		9	12																							
		10	13																							
			14																							
			15																							

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

Signature Craig M. Bower Firm **Soils & Engineering Services, Inc.** Tel: 608-274-7600
1102 Stewart Street Madison, Wisconsin 53713 Fax: 608-274-7511

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Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **GP26R**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample		Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					RQD/ Comments
Number and Type	Length Alt. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			16	SILTY SAND (SM) — <i>fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel (continued)</i>	SM									
			17											
			18											
6	18	6	19											
	14	10	20											
		15	21											
			22											
			23											
7	18	8	24											
	13	12	25											
		12	26											
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			31											
			32											
			33											
			34											
			35											
			36											
			37											
			38											
			39											

NOTES
1. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring GP26R.

Route To:

Watershed/Wastewater ☐

Waste Management ☐

Remediation/Redevelopment ☐

Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

SES Project Number **506.77**

Facility/Project Name

Dane County No. 2 Landfill Expansion

Local Grid Location of Well

82185 ft. ☒ N. ☐ S.

201302 ft. ☒ E. ☐ W.

Well Name

GP26R

Facility License, Permit or Monitoring No.

Grid Origin Location (estimated: ☐)

Well Location ☐

Wis. Unique Well No.

DNR Well Number

Facility ID

Lat. _____ Long. _____ or

St. Plane _____ ft. N. _____ ft. E. S / C / N

Date Well Installed

1 1 / 1 2 / 2 0 1 4
m m d d y y v v

Well Installed By: Name (first, last) and Firm

Kevin Z. Hargis

Type of Well

Well Code **51** / **gp**

Section Location of Waste/Source

1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. _____ ☐ E ☐ W

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

Soils & Engineering Services, Inc.

- A. Protective pipe, top elevation **901.86** ft. MSL
- B. Well casing, top elevation **901.76** ft. MSL
- C. Land surface elevation **899.4** ft. MSL
- D. Surface seal, bottom **894.9** ft. MSL or **4.5** ft.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: **4.0** in.

b. Length: **5.0** ft.

c. Material: Steel ☒ 0.4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe: _____

3. Surface seal: Bentonite ☒ 3.0

Concrete ☐ 0.1

Other ☐

4. Material between well casing and protective pipe: Bentonite ☒ 3.0

Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3.3

b. _____ Lbs/gal mud weight Bentonite-sand slurry ☐ 3.5

c. _____ Lbs/gal mud weight Bentonite slurry ☐ 3.1

d. _____ % Bentonite Bentonite-cement grout ☐ 5.0

e. _____ Ft³ volume added for any of the above

f. How installed: Tremie ☐ 0.1

No Annular Space Seal Tremie pumped ☐ 0.2

Material Provided Gravity ☐ 0.8

6. Bentonite seal: a. Bentonite granules ☐ 3.3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3.2

c. **None** Other ☒

7. Fine sand material: Manufacturer, product name and mesh size

a. **None**

b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #40 well slot**

b. Volume added **4.7** ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2.3

Flush threaded PVC schedule 80 ☐ 2.4

Other ☐

10. Screen material: **Flush threaded PVC schedule**

a. Screen Type: **40** Factory cut ☒ 1.1

Continuous slot ☐ 0.1

Other ☐

b. Manufacturer **Baker Water Systems**

c. Slot size: **(Monoflex) 0.010** in.

d. Slotted length: **20.0** ft.

11. Backfill material (below filter pack): None ☒ 1.4

Other ☐

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

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5.0

Hollow Stem Auger ☒ 4.1

Other ☐

15. Drilling fluid used: Water ☐ 0.2 Air ☐ 0.1

Drilling Mud ☐ 0.3 None ☒ 9.9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis): _____

E. Bentonite seal, top **894.9** ft. MSL or **4.5** ft.

F. Fine sand, top **894.9** ft. MSL or **4.5** ft.

G. Filter pack, top **894.9** ft. MSL or **4.5** ft.

H. Screen joint, top **894.4** ft. MSL or **5.0** ft.

I. Well bottom **874.4** ft. MSL or **25.0** ft.

J. Filter pack, bottom **873.9** ft. MSL or **25.5** ft.

K. Borehole, bottom **873.9** ft. MSL or **25.5** ft.

L. Borehole, diameter **6.6** in.

M. O.D. well casing **1.32** in.

N. I.D. well casing **1.03** in.

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

Signature

Craig M. Bower

Firm

Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

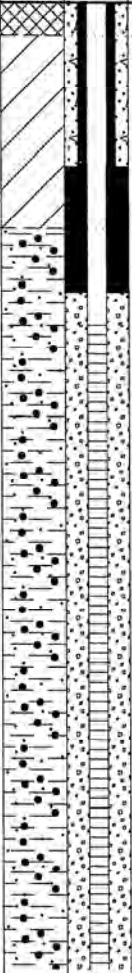
Fax: 608-274-7511

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

Page 1 of 2

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number GP27R	
Boring Drilled By: Name of crew chief (first, last) and Firm Steve J. Hunger Soils & Engineering Services, Inc.		Date Drilling Started November 5, 2014		Date Drilling Completed November 5, 2014	
Drilling Method HSA		WT Unique Well No.		DNR Well ID No.	
Common Well Name GP27R		Final Static Water Level		Surface Elevation 877.0 Feet	
Borehole Diameter 6.6 in		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Local Grid Location	
State Plane ft. N, ft. E. S / C / N		Lat		N <input type="checkbox"/> E <input type="checkbox"/>	
1/4 of 1/4 of Sec. T. N, R. E / W		Long		82927 Feet <input type="checkbox"/> S 201295 Feet <input type="checkbox"/> W	
Facility ID		County Dane		County Code 13	
				Civil Town/City/ or Village City of Madison	

Sample		Blow Counts	Depth In Feet	Total Depth = 25'-6"	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)									Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	LEAN CLAY (CL) — medium plasticity, dark brown, TOPSOIL , trace sand-[6" thick] LEAN CLAY (CL) — medium plasticity, brown, organic odor, moist, very stiff consistency	CL											
			2		CL											
			3													
			4	SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel	SM											
			5													
			6													
			7													
			8													
			9													
			10													
			11													
			12													
			13													
			14													
			15													

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Signature Craig M. Bower Firm **Soils & Engineering Services, Inc.** Tel: 608-274-7600
1102 Stewart Street Madison, Wisconsin 53713 Fax: 608-274-7511

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Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **GP27R**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			16	SILTY SAND (SM) — <i>fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel (continued)</i>	SM										
			17												
			18												
			19												
			20												
			21												
			22												
			23												
			24												
			25												
			26												
			27	NOTES 1. Boring GP27R completed by blind drilling to depth shown. See Boring MW302BR for soil stratification specifics. 2. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring GP27R.											
			28												
			29												
			30												
			31												
			32												
			33												
			34												
			35												
			36												
			37												
			38												
			39												

Route To:

Watershed/Wastewater ☐

Waste Management ☐

Remediation/Redevelopment ☐

Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

SES Project Number **506.77**

Facility/Project Name

Dane County No. 2 Landfill Expansion

Local Grid Location of Well

82927 ft. ☒ N. ☐ S.

201295 ft. ☒ E. ☐ W.

Well Name

GP27R

Facility License, Permit or Monitoring No.

Grid Origin Location (estimated: ☐)

Well Location ☐

Wis. Unique Well No.

DNR Well Number

Facility ID

Lat. _____

Long. _____

or

St. Plane _____

ft. N.

ft. E.

S/C/N

Section Location of Waste/Source

1/4 of _____

1/4 of Sec. _____

T. _____

N. R. _____

☐ E. ☐ W.

Location of Well Relative to Waste/Source

u ☐ Upgradient

s ☐ Sidegradient

d ☐ Downgradient

n ☐ Not Known

Gov. Lot Number

Date Well Installed

1 1 / 0 5 / 2 0 1 4

Well Installed By: Name (first,last) and Firm

Steve J. Hunger

Soils & Engineering Services, Inc.

Type of Well

Well Code **51 / gp**

Distance From Waste/Source _____ ft.

Enf. Stds. Apply ☒

A. Protective pipe, top elevation

879.44 ft. MSL

B. Well casing, top elevation

879.34 ft. MSL

C. Land surface elevation

877.0 ft. MSL

D. Surface seal, bottom

872.5 ft. MSL or

4.5 ft.

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☒ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐ OL/OH ☐ PT ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used:

Rotary ☐ 5 0

Hollow Stem Auger ☒ 4 1

Other ☐

15. Drilling fluid used:

Water ☐ 0 2

Air ☐ 0 1

Drilling Mud ☐ 0 3

None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top

872.5 ft. MSL or

4.5 ft.

F. Fine sand, top

872.5 ft. MSL or

4.5 ft.

G. Filter pack, top

872.5 ft. MSL or

4.5 ft.

H. Screen joint, top

872.0 ft. MSL or

5.0 ft.

I. Well bottom

852.0 ft. MSL or

25.0 ft.

J. Filter pack, bottom

851.5 ft. MSL or

25.5 ft.

K. Borehole, bottom

851.5 ft. MSL or

25.5 ft.

L. Borehole, diameter

6.6 in.

M. O.D. well casing

1.32 in.

N. I.D. well casing

1.03 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter: **4.0** in.

b. Length: **5.0** ft.

c. Material:

Steel ☒ 0 4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe: _____

3. Surface seal:

Bentonite ☒ 3 0

Concrete ☐ 0 1

Other ☐

4. Material between well casing and protective pipe:

Bentonite ☒ 3 0

Other ☐

5. Annular space seal:

a. Granular/Chipped Bentonite ☐ 3 3

b. _____ Lbs/gal mud weight _____ Bentonite-sand slurry ☐ 3 5

c. _____ Lbs/gal mud weight _____ Bentonite slurry ☐ 3 1

d. _____ % Bentonite _____ Bentonite-cement grout ☐ 5 0

e. _____ Ft³ volume added for any of the above

f. How installed:

Tremie ☐ 0 1

No Annular Space Seal

Tremie pumped ☐ 0 2

Material Provided

Gravity ☐ 0 8

6. Bentonite seal:

a. Bentonite granules ☐ 3 3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2

c. **None**

Other ☒

7. Fine sand material: Manufacturer, product name and mesh size

a. **None**

b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #40 well slot**

b. Volume added **4.7** ft³

9. Well casing:

Flush threaded PVC schedule 40 ☒ 2 3

Flush threaded PVC schedule 80 ☐ 2 4

Other ☐

10. Screen material: **Flush threaded PVC schedule**

a. Screen Type: **40**

Factory cut ☒ 1 1

Continuous slot ☐ 0 1

Other ☐

b. Manufacturer **Baker Water Systems**

c. Slot size: **(Monoflex) 0.010** in.

d. Slotted length: **20.0** ft.

11. Backfill material (below filter pack):

None ☒ 1 4

Other ☐

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

Signature

Craig M. Bower

Firm

Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

Fax: 608-274-7511

Please complete both Forms 4400-113A and 4400-113B and return 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.

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

Page 1 of 2

Facility/Project Name Dane County Landfill No. 2 Rodefild SCS#: 25217087.02			License/Permit/Monitoring Number 3018		Boring Number M-17AR	
Boring Drilled By: Name of crew chief (first, last) and Firm Tony Kapugi On-site Environmental Services, Inc.			Date Drilling Started 6/30/2020		Date Drilling Completed 6/30/2020	
Drilling Method hollow stem auger						
WI Unique Well No. WB260		DNR Well ID No. 166		Common Well Name M-17AR		
Final Static Water Level Feet MSL		Surface Elevation 886.05 Feet MSL		Borehole Diameter 8.25 in.		
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 380,565 N, 2,201,316 E S/C/N SE 1/4 of NE 1/4 of Section 25, T 7 N, R 10 E			Lat ° ' " Long ° ' "		Local Grid Location Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID 113127300		County Dane		County Code 13		Civil Town/City/ or Village Madison

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			<div><div></div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div><div>8</div><div>9</div><div>10</div><div>11</div><div>12</div><div>13</div><div>14</div><div>15</div></div>	Blind drilled to 31 feet. See M-17BR boring log for lithology.										

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

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

[illegible]

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

Facility/Project Name		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name	
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. DNR Well ID No.	
Facility ID		Lat. " Long. " or		Date Well Installed	
Type of Well		St. Plane ft. N. ft. E. S/C/N		Well Installed By: Name (first, last) and Firm	
Well Code /		Section Location of Waste/Source 1/4 of 1/4 of Sec. T. N. R. <input type="checkbox"/> E <input type="checkbox"/> W			
Distance from Waste/Source ft.		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		Gov. Lot Number	
Enf. Stds. Apply <input type="checkbox"/>					

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 _____ 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 ☐ 5 0
Hollow Stem Auger ☐ 4 1
Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☐ 9 9

16. Drilling additives used? ☐ Yes ☐ No

Describe _____

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

E. Bentonite seal, top _____ ft. MSL or _____ ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top _____ ft. MSL or _____ ft.

H. Screen joint, top _____ ft. MSL or _____ ft.

I. Well bottom _____ ft. MSL or _____ ft.

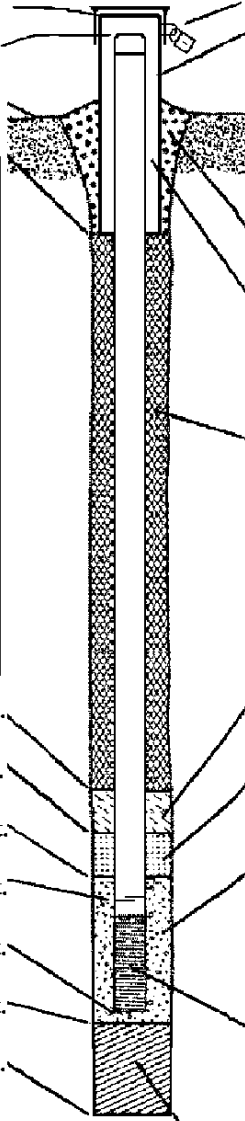
J. Filter pack, bottom _____ ft. MSL or _____ ft.

K. Borehole, bottom _____ ft. MSL or _____ ft.

L. Borehole, diameter _____ in.

M. O.D. well casing _____ in.

N. I.D. well casing _____ in.



1. Cap and lock? ☐ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: _____ in.
b. Length: _____ ft.
c. Material: Steel ☐ 0 4
Other ☐
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 3 0
Concrete ☐ 0 1
Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 3 0
Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. _____ Lbs/gal mud weight Bentonite slurry ☐ 3 1
d. _____ % Bentonite Bentonite-cement grout ☐ 5 0
e. _____ Ft³ volume added for any of the above
f. How installed: Tremie ☐ 0 1
Tremie pumped ☐ 0 2
Gravity ☐ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2
c. _____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 2 3
Flush threaded PVC schedule 80 ☐ 2 4
Other ☐

10. Screen material: _____
a. Screen type: Factory cut ☐ 1 1
Continuous slot ☐ 0 1
Other ☐
b. Manufacturer _____
c. Slot size: _____ in.
d. Slotted length: _____ ft.

11. Backfill material (below filter pack): None ☐ 1 4
Other ☐

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

Signature

Firm

Jackie Rennabohm

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

Facility/Project Name	County Name	Well Name	
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number

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

2. Well development method

- surged with bailer and bailed ☐ 4 1
 surged with bailer and pumped ☐ 6 1
 surged with block and bailed ☐ 4 2
 surged with block and pumped ☐ 6 2
 surged with block, bailed and pumped ☐ 7 0
 compressed air ☐ 2 0
 bailed only ☐ 1 0
 pumped only ☐ 5 1
 pumped slowly ☐ 5 0
 Other ☐

3. Time spent developing well _____ min.

4. Depth of well (from top of well casing) _____ ft.

5. Inside diameter of well _____ in.

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

7. Volume of water removed from well _____ gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added _____

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

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. _____ ft.	_____ ft.
Date	b. ____/____/____	____/____/____
Time	c. ____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input type="checkbox"/> 1 5 (Describe) _____	Clear <input type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l
16. Well developed by: Name (first, last) and Firm		
First Name:	Last Name:	
Firm: BT ² , INC.		

Name and Address of Facility Contact/Owner/Responsible Party

First Name: _____ Last Name: _____

Facility/Firm: _____

Street: _____

City/State/Zip: _____

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

Signature: Jackie Rensselaer

Print Name: _____

Firm: BT², INC., 2830 DAIRY DRIVE, MADISON, WI 53718

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

Page 1 of 3









Facility/Project Name Dane County Landfill No. 2 Rodefild SCS#: 25217087.02			License/Permit/Monitoring Number 3018		Boring Number M-17BR	
Boring Drilled By: Name of crew chief (first, last) and Firm Tony Kapugi On-site Environmental Services, Inc.			Date Drilling Started 6/29/2020		Date Drilling Completed 6/30/2020	
Drilling Method hollow stem auger						
WI Unique Well No. VT575	DNR Well ID No. 168	Common Well Name M-17BR	Final Static Water Level Feet MSL	Surface Elevation 886.10 Feet MSL		Borehole Diameter 8.25 in.
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 380,559 N, 2,201,316 E S/C/N SE 1/4 of NE 1/4 of Section 25, T 7 N, R 10 E			Lat ° ' " Long ° ' "		Local Grid Location Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID 113127300		County Dane	County Code 13	Civil Town/City/ or Village Madison		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
36			1	ORGANIC SILT, brown, (topsoil).	OL									
			2	LEAN CLAY, brown (7.5YR 4/3), (fill).	CL									
			3	POORLY GRADED SAND, brown (7.5YR 5/4) to light brown, fine to medium, (fill).					4.0	M				Geoprobed to 45 feet then overdrilled using 4.25" hollow stem augers.
39			4											
			5											
			6											
10			7											Depth to water ~9 feet
			8	Trace gravel.						M				
			9											
			10	POORLY GRADED SAND, dark reddish brown (5YR 3/3), fine to medium, with trace gravel, (till).										
			11											
			12											
			13											
			14											
			15											

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

Signature <i>Jackie Rennsbohm</i>	Firm SCS Engineers	Tel: Fax:
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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
	0		16	SILTY SAND, reddish gray (2.5YR 6/1), fine, trace small rounded gravel, (till).	SP					W				No recovery, sand washed out of geoprobe sleeve.
			17											
			18											
			19											
			20											
			21											
			22											
			23											
	30		24	SILTY SAND, reddish gray (2.5YR 6/1), fine, trace small rounded gravel, (till).						W			40.4	
			25											
			26											
			27											
			28											
			29											
			30											
			31											
	35		32	POORLY GRADED SAND, reddish gray (2.5YR 6/1), fine to medium, trace silt and small rounded gravel, (till).	SM					W				
			33											
			34											
			35											
			36											
			37											
			38											
			39											
	45		40	POORLY GRADED SAND, reddish gray (2.5YR 6/1), fine to medium, trace silt and small rounded gravel, (till).	SP					W				

[illegible]

State of Wisconsin
Department of Natural ResourcesRoute to: Watershed/Wastewater ☐ Waste Management ☒
Remediation/Redevelopment ☐ Other ☐MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 2		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name M-17BR	
Facility License, Permit or Monitoring No. 3018		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input type="checkbox"/> Lat. <input type="checkbox"/> Long. <input type="checkbox"/> or <input type="checkbox"/>		Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>	
Facility ID 113127300		St. Plane 380,559.85 ft. N, 2,201,316.33 ft. E. S/C/N		Date Well Installed 06 / 30 / 2020 m m d d y y y y	
Type of Well Well Code 12 / pz		Section Location of Waste/Source SE 1/4 of NE 1/4 of Sec. 25, T. 07 N, R. 10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Tony Kapugi	
Distance from Waste/Source 600 ft.		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		On-site Environmental Services, Inc.	
Enf. Stds. Apply <input checked="" type="checkbox"/>		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	888.55 ft. MSL	2. Protective cover pipe:	
C. Land surface elevation	886.10 ft. MSL	a. Inside diameter:	6 in.
D. Surface seal, bottom	886.10 ft. MSL or 0 ft.	b. Length:	4 ft.
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 checked="" 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 type="checkbox"/>		c. Material:	Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
13. Sieve analysis performed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		d. Additional protection?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>		If yes, describe:	
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99		3. Surface seal:	
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No		Bentonite <input checked="" type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input type="checkbox"/>	
Describe NA		4. Material between well casing and protective pipe:	
17. Source of water (attach analysis, if required): NA		Filter Sand Bentonite <input type="checkbox"/> 30 Other <input checked="" type="checkbox"/>	
E. Bentonite seal, top	886.10 ft. MSL or 0 ft.	5. Annular space seal:	
F. Fine sand, top	846.10 ft. MSL or 40 ft.	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. 13.63 Ft ³ volume added for any of the above	
G. Filter pack, top	844.10 ft. MSL or 42 ft.	f. How installed:	
H. Screen joint, top	842.10 ft. MSL or 44 ft.	Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08	
I. Well bottom	837.10 ft. MSL or 49 ft.	6. Bentonite seal:	
J. Filter pack, bottom	835.10 ft. MSL or 51 ft.	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"/>	
K. Borehole, bottom	835.10 ft. MSL or 51 ft.	7. Fine sand material: Manufacturer, product name & mesh size a. Red Flint #7 <input checked="" type="checkbox"/>	
L. Borehole, diameter	8.25 in.	b. Volume added 0.68 ft ³	
M. O.D. well casing	2.38 in.	8. Filter pack material: Manufacturer, product name & mesh size a. RW Sidley #5 <input checked="" type="checkbox"/>	
N. I.D. well casing	2.01 in.	b. Volume added 3.06 ft ³	
		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"/>	
		10. Screen material: PVC	
		a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>	
		b. Manufacturer Monoflex	
		c. Slot size: 0.010 in.	
		d. Slotted length: 5 ft.	
		11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>	

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

Signature

Jackie Rannabohm

Firm

SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

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 ResourcesMONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 7-98Route to: Watershed/Wastewater ☐Waste Management ☒Remediation/Redevelopment ☐Other ☐

Facility/Project Name Dane County Landfill Site No. 2	County Name Dane	Well Name M-17BR
Facility License, Permit or Monitoring Number 3081/113127300	County Code 13	Wis. Unique Well Number VT575
		DNR Well ID Number 168

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

2. Well development method

- surged with bailer and bailed ☐ 4 1
 surged with bailer and pumped ☒ 6 1
 surged with block and bailed ☐ 4 2
 surged with block and pumped ☐ 6 2
 surged with block, bailed and pumped ☐ 7 0
 compressed air ☐ 2 0
 bailed only ☐ 1 0
 pumped only ☐ 5 1
 pumped slowly ☐ 5 0
 Other ☐

3. Time spent developing well 90 min.4. Depth of well (from top of well casing) 50.6 ft.5. Inside diameter of well 2.01 in.6. Volume of water in filter pack and well casing 8.2 gal.7. Volume of water removed from well 102.5 gal.8. Volume of water added (if any) 0.0 gal.9. Source of water added NA10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

- Surged and purged for 30 minutes, removed ~5-gallons.
- Pumped starting at 1130 at 1.5-gallons/min. Continued to surge with pump every 5 minutes.
- Collected TSS sample at 1235.

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>16.31</u> ft.	<u>16.23</u> ft.
Date	b. <u>06/30/2020</u> m m d d y y y y	<u>06/30/2020</u> m m d d y y y y
Time	c. <u>11:05</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>12:35</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>—</u> inches	<u>—</u> inches
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe) <u>light gray, slightly silty/sandy</u>	Clear <input checked="" type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe) <u></u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>—</u> mg/l	<u>162.0</u> mg/l
15. COD	<u>—</u> mg/l	<u>—</u> mg/l
16. Well developed by: Name (first, last) and Firm		
First Name: Jackie Last Name: Rennebohm		
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718		

Name and Address of Facility Contact/Owner/Responsible Party

First Name: John Last Name: Welch

Facility/Firm: Dane County Dept. of Waste & Renewables

Street: 7102 U.S. Hwy 12/18

City/State/Zip: Madison, WI 53718

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

Signature: Jackie Rennebohm

Print Name: Jackie Rennebohm

Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

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

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

Page 1 of 2

Facility/Project Name Dane County Landfill No. 2 Rodefild SCS#: 25217087.02		License/Permit/Monitoring Number 3018		Boring Number M-303AR	
Boring Drilled By: Name of crew chief (first, last) and Firm Tony Kapugi On-site Environmental Services, Inc.		Date Drilling Started 6/29/2020		Date Drilling Completed 6/29/2020	
Drilling Method hollow stem auger					
WI Unique Well No. OX700	DNR Well ID No. 176	Common Well Name M-303AR	Final Static Water Level Feet MSL	Surface Elevation 883.19 Feet MSL	Borehole Diameter 8.25 in.
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/> State Plane 380,779 N, 2,200,339 E S/C(N) SE 1/4 of NE 1/4 of Section 25, T 7 N, R 10 E		Lat ° ' " Long ° ' "		Local Grid Location Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID 113127300		County Dane	County Code 13	Civil Town/City/ or Village Madison	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
29			1	ORGANIC SILT, brown, (topsoil).	OL									
			2	POORLY GRADED SAND, dark reddish brown (5YR 3/3), fine.										
30			3											Geoprobed to 25 feet then overdrilled using 4.25" hollow stem augers.
			4											
38			5											
			6	Trace angular gravel.										
			7											
			8		SP									
			9	Trace silt/clay.										
			10											
			11											
			12											
			13											Depth to water ~12 feet
			14											
			15											

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

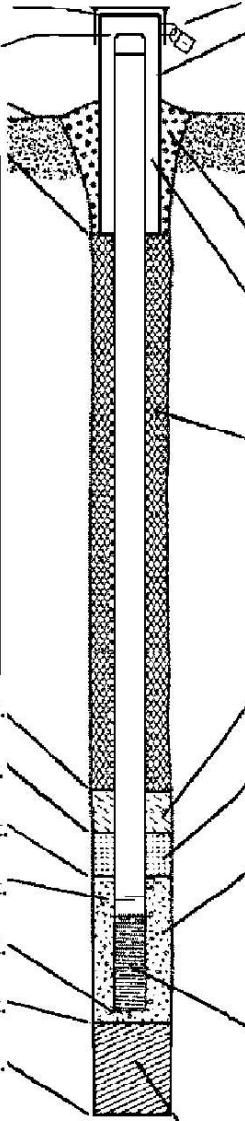
Signature <i>Jackie Rennsbohm</i>	Firm SCS Engineers	Tel: Fax:
-----------------------------------	---------------------------	--------------

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

[illegible]

State of Wisconsin
Department of Natural ResourcesRoute to: Watershed/Wastewater ☐ Waste Management ☒
Remediation/Redevelopment ☐ Other ☐MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 2		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name M-303AR	
Facility License, Permit or Monitoring No. 3018		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input type="checkbox"/> Lat. <input type="checkbox"/> Long. <input type="checkbox"/> or <input type="checkbox"/>		Wis. Unique Well No. <input type="checkbox"/> DNR Well ID No. <input type="checkbox"/>	
Facility ID 113127300		St. Plane 380,779.02 ft. N, 2,200,339.01 ft. E. S/C/N		Date Well Installed 06 / 29 / 2020 m m d d y y y y	
Type of Well Well Code 11 / mw		Section Location of Waste/Source SE 1/4 of NE 1/4 of Sec. 25, T. 07 N, R. 10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Tony Kapugi	
Distance from Waste/Source 130 ft.		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		On-site Environmental Services, Inc.	
Enf. Stds. Apply <input checked="" type="checkbox"/>		Gov. Lot Number			

<p>A. Protective pipe, top elevation --- ft. MSL</p> <p>B. Well casing, top elevation --- 885.53 ft. MSL</p> <p>C. Land surface elevation --- 883.19 ft. MSL</p> <p>D. Surface seal, bottom --- 883.19 ft. MSL or --- 0 ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <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 checked="" 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 type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 5 0 Hollow Stem Auger <input checked="" 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 checked="" type="checkbox"/> 9 9</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe NA</p> <p>17. Source of water (attach analysis, if required): NA</p> </div> <p>E. Bentonite seal, top --- 883.19 ft. MSL or --- 0 ft.</p> <p>F. Fine sand, top --- 876.19 ft. MSL or --- 7 ft.</p> <p>G. Filter pack, top --- 874.19 ft. MSL or --- 9 ft.</p> <p>H. Screen joint, top --- 872.19 ft. MSL or --- 11 ft.</p> <p>I. Well bottom --- 862.19 ft. MSL or --- 21 ft.</p> <p>J. Filter pack, bottom --- 861.69 ft. MSL or --- 21.5 ft.</p> <p>K. Borehole, bottom --- 861.69 ft. MSL or --- 21.5 ft.</p> <p>L. Borehole, diameter --- 8.25 in.</p> <p>M. O.D. well casing --- 2.38 in.</p> <p>N. I.D. well casing --- 2.01 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: --- 6 in. b. Length: --- 4 ft. c. Material: Steel <input checked="" type="checkbox"/> 0 4 Other <input type="checkbox"/> d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: ---</p> <p>3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3 0 Concrete <input type="checkbox"/> 0 1 Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 3 0 Filter Sand <input checked="" type="checkbox"/></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. 2.38 Ft³ volume added for any of the above 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 & mesh size a. Red Flint #7 <input checked="" type="checkbox"/> b. Volume added 0.68 ft³</p> <p>8. Filter pack material: Manufacturer, product name & mesh size a. RW Sidley #5 <input checked="" type="checkbox"/> b. Volume added 3.52 ft³</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: PVC a. Screen type: Factory cut <input checked="" type="checkbox"/> 1 1 Continuous slot <input type="checkbox"/> 0 1 Other <input type="checkbox"/> b. Manufacturer Monoflex c. Slot size: 0.010 in. d. Slotted length: 10 ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4 Other <input type="checkbox"/></p>
---	--

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

Signature
Jackie RansbohmFirm
SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

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. 7-98Route to: Watershed/Wastewater ☐Waste Management ☒Remediation/Redevelopment ☐Other ☐

Facility/Project Name Dane County Landfill Site No. 2	County Name Dane	Well Name M-303AR	
Facility License, Permit or Monitoring Number 3081/113127300	County Code 13	Wis. Unique Well Number OX700	DNR Well ID Number 176

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

- surged with bailer and bailed ☒ 4 1
 surged with bailer and pumped ☐ 6 1
 surged with block and bailed ☐ 4 2
 surged with block and pumped ☐ 6 2
 surged with block, bailed and pumped ☐ 7 0
 compressed air ☐ 2 0
 bailed only ☐ 1 0
 pumped only ☐ 5 1
 pumped slowly ☐ 5 0
 Other ☐

3. Time spent developing well 30 min.4. Depth of well (from top of well casing) 23.8 ft.5. Inside diameter of well 2.01 in.6. Volume of water in filter pack and well casing 3.4 gal.7. Volume of water removed from well 5.0 gal.8. Volume of water added (if any) 0.0 gal.9. Source of water added NA10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

17. Additional comments on development:

- Purged and surged, removed ~2-gallons, well went dry.
- Removed 1/2-gallon, well went dry.
- Removed 1/2-gallon, well went dry. Really surging bailer to see if drilling mud is cased around the well.
- Waited over 1 hour, bailed ~1-gallon, well went dry.
- Returned at 1530, removed ~1-gallon, well went dry. Let recharge and collected TSS sample.

Name and Address of Facility Contact/Owner/Responsible Party

First Name: John Last Name: WelchFacility/Firm: Dane County Dept. of Waste & RenewablesStreet: 7102 U.S. Hwy 12/18City/State/Zip: Madison, WI 53718

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

Signature: Jackie RennebohmPrint Name: Jackie RennebohmFirm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

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

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and 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 Dane	WI Unique Well # of Removed Well V M 9 4 8	Hicap #
Latitude / Longitude (see instructions) 43.042883 N -89.247844 W	Format Code <input checked="" type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input checked="" type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
1/4 1/4 SE 1/4 NE or Gov't Lot #	Section 25	Township 7 N Range 10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well Street Address 7102 US-12		
Well City, Village or Town Madison		Well ZIP Code 53718
Subdivision Name		Lot #

2. Facility / Owner Information

Facility Name Dane County Landfill #2 (Rodefild)
Facility ID (FID or PWS) 113127300
License/Permit/Monitoring # 03018
Original Well Owner Dane County
Present Well Owner Dane County
Mailing Address of Present Owner 1919 Alliant Energy Center Way
City of Present Owner Madison
State WI
ZIP Code 53717

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

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

Required Method of Placing Sealing Material

<input type="checkbox"/> Conductor Pipe-Gravity	<input checked="" type="checkbox"/> Conductor Pipe-Pumped
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____

Sealing Materials	
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Concrete
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

<input checked="" type="checkbox"/> Bentonite Chips	<input checked="" type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

Reason for Removal from Service
Landfill Construction

WI Unique Well # of Replacement Well

3. Filled & Sealed Well / Drillhole / Borehole Information

<input checked="" type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 11/06/2012
<input type="checkbox"/> Water Well	
<input type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach. M305A

Construction Type:

<input checked="" type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)	<input type="checkbox"/> Dug
<input type="checkbox"/> Other (specify): _____		

Formation Type:

<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
--	----------------------------------

Total Well Depth From Ground Surface (ft.) 34.3'	Casing Diameter (in.) 2.38"
--	---------------------------------------

Lower Drillhole Diameter (in.) 8"	Casing Depth (ft.) 29'
---	----------------------------------

Was well annular space grouted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
---------------------------------	--

If yes, to what depth (feet)?	Depth to Water (feet) 28.3'
-------------------------------	---------------------------------------

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	Surface	6'	100 lbs.	
Bentonite - Cement Grout	4'	34.3'	50 gallons	250 lbs. cement 33 lbs. bentonite

6. Comments

M305A - All casing was removed. Screen snapped while over drilling and was left in the borehole.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing Badger State Drilling Co., Inc	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/11/2016	DNR Use Only	
Street or Route 360 Business Park Cr.		Telephone Number (608) 877-9770	Date Received	Noted By
City Stoughton	State WI	ZIP Code 53589	Signature of Person Doing Work <i>John C. Duff for Badger State Drilling</i>	
			Date Signed 9-28-16	

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and 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				2. Facility / Owner Information			
County Dane		WI Unique Well # of Removed Well V M 9 4 9		Hicap #		Facility Name Dane County Landfill #2 (Rodefild)	
Latitude / Longitude (see instructions) 43.042883 N -89.247844 W		Format Code <input checked="" type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input checked="" type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS) 113127300	
1/4 SE 1/4 NE or Gov't Lot #		Section 25		Township 7 N		Range <input checked="" type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 7102 US-12				Original Well Owner Dane County			
Well City, Village or Town Madison				Present Well Owner Dane County			
Subdivision Name				Mailing Address of Present Owner 1919 Alliant Energy Center Way			
Well ZIP Code 53718				City of Present Owner Madison		State WI	
Lot #				ZIP Code 53717			

Reason for Removal from Service Landfill Construction		WI Unique Well # of Replacement Well	
3. Filled & Sealed Well / Drillhole / Borehole Information			
<input checked="" type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 11/06/2012	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach. M305B	
<input type="checkbox"/> Borehole / Drillhole			
Construction Type:			
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug			
<input type="checkbox"/> Other (specify): _____			
Formation Type:			
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock			
Total Well Depth From Ground Surface (ft.) 66'		Casing Diameter (in.) 2.38"	
Lower Drillhole Diameter (in.) 8"		Casing Depth (ft.) 61'	
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
If yes, to what depth (feet)? 52		Depth to Water (feet) N.A. Obstructed @ 18'	

4. Pump, Liner, Screen, Casing & Sealing Material			
Pump and piping removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Liner(s) removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Screen removed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Was casing cut off below surface?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Did material settle after 24 hours?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
If yes, was hole retopped?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	If bentonite chips were used, were they hydrated with water from a known safe source?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Required Method of Placing Sealing Material			
<input type="checkbox"/> Conductor Pipe-Gravity <input checked="" type="checkbox"/> Conductor Pipe-Pumped			
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Sealing Materials			
<input type="checkbox"/> Neat Cement Grout		<input type="checkbox"/> Concrete	
<input type="checkbox"/> Sand-Cement (Concrete) Grout		<input type="checkbox"/> Bentonite Chips	
For Monitoring Wells and Monitoring Well Boreholes Only:			
<input checked="" type="checkbox"/> Bentonite Chips		<input checked="" type="checkbox"/> Bentonite - Cement Grout	
<input type="checkbox"/> Granular Bentonite		<input type="checkbox"/> 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		Surface	4'	85 lbs.	
Bentonite - Cement Grout		4'	66'	100 gallons	500 lbs. cement 67 lbs. bentonite

6. Comments

M305B - All casing and screen removed. Tremie pipe got stuck in the borehole and abandoned in place.

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Badger State Drilling Co., Inc		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/11/2016	Date Received	Noted By
Street or Route 360 Business Park Cr.		Telephone Number (608) 877-9770		Comments	
City Stoughton	State WI	ZIP Code 53589	Signature of Person Doing Work <i>John C. ...</i>	Date Signed 9-28-16	

Route To: ☐ Watershed/Wastewater ☐ Waste Management ☐
☐ Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

Page 1 of 2

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number MW9AR	
Boring Drilled By: Name of crew chief (first, last) and Firm Steve J. Hunger Soils & Engineering Services, Inc.		Date Drilling Started November 7, 2014		Date Drilling Completed November 7, 2014	
Drilling Method HSA					
WI Unique Well No.	DNR Well ID No.	Common Well Name M9AR	Final Static Water Level 859.9 Feet	Surface Elevation 877.2 Feet	Borehole Diameter 7.6 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>			Local Grid Location		
State Plane <input type="checkbox"/> ft. N, <input type="checkbox"/> ft. E. S / C / N			Lat <input type="checkbox"/> N <input type="checkbox"/> E		
1/4 of <input type="checkbox"/> 1/4 of Sec. <input type="checkbox"/> T. <input type="checkbox"/> N, R. <input type="checkbox"/> E / W			Long <input type="checkbox"/> 82700 Feet <input type="checkbox"/> S 200362 Feet <input type="checkbox"/> W		

Facility ID	County Dane	County Code 13	Civil Town/City/ or Village City of Madison
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Sample		Blow Counts	Depth In Feet	Total Depth = 30'-7"	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)									Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	LEAN CLAY (CL) — medium plasticity, dark brown, FILL TOPSOIL , trace sand-[9" thick] SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, reddish-brown, moist, medium dense relative density, FILL , trace gravel-[6'-3" thick]	CL <											

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

Signature <i>Craig M. Bower</i>	Firm Soils & Engineering Services, Inc. 1102 Stewart Street Madison, Wisconsin 53713	Tel: 608-274-7600 Fax: 608-274-7511
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This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.







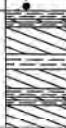

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **MW9AR**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample		Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			16	LEAN CLAY (CL) — medium plasticity, light brown, moist, very stiff to medium consistency (continued)	CL									
			17											
			18											
			19											
			20											
			21											
			22	CLAYEY SAND (SC) — fine grained, medium plasticity fines, reddish-brown, wet, loose relative density	SC									
			23	POORLY-GRADED SAND (SP) — fine to medium grained, brown, wet, loose relative density	SP									
			24											
			25											
			26											
			27											
			28											
			29	LEAN CLAY (CL) — medium plasticity, gray, wet, soft to stiff consistency, stratified, with SILT (ML) lenses and seams	CL ML									
			30											
			31											
			32	NOTES										
			33	1. Boring MW9AR completed by blind drilling to depth shown. See Boring MW9BR for soil stratification specifics.										
			34	2. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring MW9AR.										
			35											
			36											
			37											
			38											
			39											

Route To:

Watershed/Wastewater ☐

Waste Management ☐

Remediation/Redevelopment ☐

Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

SES Project Number **506.77**

Facility/Project Name

Dane County No. 2 Landfill Expansion

Facility License, Permit or Monitoring No.

Facility ID

Type of Well

Well Code **11** / **mw**

Distance From Waste/
Source **ft.**

Enf. Stds.
Apply ☒

Local Grid Location of Well

82700 ft. ☒ N. **200362** ft. ☒ E.
☐ S. ☐ W.

Grid Origin Location

(estimated: ☐)

Well Location ☐

Lat.

Long.

or

St. Plane **ft. N.** **ft. E.** **S / C / N**

Section Location of Waste/Source

1/4 of **1/4 of Sec.** **T.** **N.** **R.** ☐ E ☐ W

Location of Well Relative to Waste/Source

☐ u

☐ Upgradient

☐ s

☐ Sidegradient

☐ d

☐ Downgradient

☐ n

☐ Not Known

Gov. Lot Number

Well Name

M9AR

Wis. Unique Well No.

DNR Well Number

Date Well Installed

1 1 / 0 7 / 2 0 1 4
m m d d y y y y

Well Installed By: Name (first,last) and Firm

Steve J. Hunger

Soils & Engineering Services, Inc.

A. Protective pipe, top elevation **879.66** ft. MSL

B. Well casing, top elevation **879.56** ft. MSL

C. Land surface elevation **877.2** ft. MSL

D. Surface seal, bottom **872.2** ft. MSL or **5.0** ft.

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☒ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐ OL/OH ☐ PT ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe

17. Source of water (attach analysis):

E. Bentonite seal, top **865.6** ft. MSL or **11.6** ft.

F. Fine sand, top **865.6** ft. MSL or **11.6** ft.

G. Filter pack, top **863.6** ft. MSL or **13.6** ft.

H. Screen joint, top **861.6** ft. MSL or **15.6** ft.

I. Well bottom **846.6** ft. MSL or **30.6** ft.

J. Filter pack, bottom **846.6** ft. MSL or **30.6** ft.

K. Borehole, bottom **846.6** ft. MSL or **30.6** ft.

L. Borehole, diameter **7.6** in.

M. O.D. well casing **2.38** in.

N. I.D. well casing **2.07** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter: **4.0** in.

b. Length: **5.0** ft.

c. Material: Steel ☒ 0 4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe:

3. Surface seal: Bentonite ☒ 3 0

Concrete ☐ 0 1

Other ☐

4. Material between well casing and protective pipe:

Bentonite ☒ 3 0

Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3

b. **1.9** Lbs/gal mud weight Bentonite-sand slurry ☐ 3 5

c. **1.9** Lbs/gal mud weight Bentonite slurry ☐ 3 1

d. **1.9** % Bentonite Bentonite-cement grout ☐ 5 0

e. **1.9** Ft³ volume added for any of the above

f. How installed: Tremie ☐ 0 1

Tremie pumped ☐ 0 2

Gravity ☒ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2

c. None ☒ Other ☐

7. Fine sand material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #15 well slot**

b. Volume added **ft³**

8. Filter pack material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #40 well slot**

b. Volume added **4.7** ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3

Flush threaded PVC schedule 80 ☐ 2 4

Other ☐

10. Screen material: **Flush threaded PVC schedule**

a. Screen Type: **40**

Factory cut ☒ 1 1

Continuous slot ☐ 0 1

Other ☐

b. Manufacturer **Baker Water Systems**

c. Slot size: **(Monoflex)** **0.010** in.

d. Slotted length: **15.0** ft.

11. Backfill material (below filter pack): None ☒ 1 4

Other ☐

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

Signature

Craig M. Bower

Firm

Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

Fax: 608-274-7511

Please complete both Forms 4400-113A and 4400-113B and return 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.

Route To: Watershed/Wastewater ☐
Remediation/Redevelopment ☐

Waste Management ☐
Other ☐

SES Project Number **506.77**

Facility/Project Name Dane County No. 2 Landfill Expansion	County Dane	Well Name M9AR
Facility License, Permit or Monitoring Number	County Code 1 3	Wis. Unique Well Number _____
		DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

- surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☒ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed, and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only ☐ 5 1
pumped slowly ☐ 5 0
other _____ ☐

3. Time spent developing well 1 2 2 min.

4. Depth of well (from top of well casing) 3 3.0 ft.

5. Inside diameter of well 2.0 7 in.

6. Volume of water in filter pack and well casing 1 4.5 gal.

7. Volume of water removed from well 1 4 4.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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

17. Additional comments on development:

After surging pump, discharge becomes clear after 30 to 60 seconds.

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>1 9.6 5</u> ft.	<u>2 0.1 6</u> ft.
Date	b. <u>1 1 / 1 0 / 2 0 1 4</u> m m d d y y y y	<u>1 1 / 1 1 / 2 0 1 4</u> m m d d y y y y
Time	c. <u>0 3:0 5</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>1 1:4 0</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.0</u> inches	<u>0.0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe) _____	Clear <input checked="" type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe) _____

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

14. Total suspended solids _____ mg/l _____ mg/l

15. COD _____ mg/l _____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: **Kevin** Last Name: **Hargis**

Firm: **Soils & Engineering Services, Inc.**

Name and Address of Facility Contact/Owner/Responsible Party

First Name: _____ Last Name: _____

Facility/Firm: _____

Street: _____

City/State/Zip: _____

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

Signature: Craig M. Bower

Print Name: Craig M. Bower

Firm: Soils & Engineering Services, Inc.

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

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

Page 1 of 3

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number MW9BR	
Boring Drilled By: Name of crew chief (first, last) and Firm Steve J. Hunger Soils & Engineering Services, Inc.		Date Drilling Started November 6, 2014		Date Drilling Completed November 6, 2014	
Drilling Method HSA					
WI Unique Well No.	DNR Well ID No.	Common Well Name MW9BR	Final Static Water Level 859.8 Feet	Surface Elevation 877.1 Feet	Borehole Diameter 7.6 in
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Lat _____		Local Grid Location	
State Plane _____ ft. N, _____ ft. E. S / C / N		Long _____		<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ E / W				82701 Feet <input type="checkbox"/> S 200358 Feet <input type="checkbox"/> W	
Facility ID		County Dane	County Code 13	Civil Town/City/ or Village City of Madison	

Sample		Blow Counts	Depth In Feet	Total Depth = 57'-6"	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)									Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200	
					LEAN CLAY (CL) — medium plasticity, dark brown, FILL TOPSOIL , trace sand-[9" thick]	CL									
1	18	4	1		SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, reddish-brown, moist, medium dense to loose relative density, FILL , trace gravel-[6'-3" thick]	SM									M
		6	2												
		8	3												
2	12	5	4		Cobble at 5'-0"										M
		8	5												M
3	18	5	6							4.2,					M
		4	7							2.1					M
		5	8		LEAN CLAY (CL) — medium plasticity, dark brown, moist, hard consistency, TOPSOIL , trace sand-[2" thick]	CL									
4	12	3	9		LEAN CLAY (CL) — medium plasticity, brown, moist, very stiff consistency	CL									M
		5	10		With sand, 9'-6" to 11'-0"					2.5,					
		6	11							2.2					
			12		SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, loose relative density, trace to little gravel	SM									
			13												
5	18	4	14		See description on next page	CL				1.4,					M
		4	15							2.4					M
		4													

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

Signature Craig M. Bower Firm **Soils & Engineering Services, Inc.** Tel: 608-274-7600
1102 Stewart Street Madison, Wisconsin 53713 Fax: 608-274-7511

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

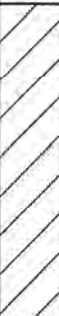











Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **MW9BR**

Use only as an attachment to Form 4400-122.

Page **2** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					RQD/ Comments	
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			16	LEAN CLAY (CL) — <i>medium plasticity, light brown, moist, very stiff to medium consistency (continued)</i> Cobble, 15'-0" to 15'-6"	CL				0.6, 1.2					M	
6	18	3 5 7	17												
			18												
			19												
			20												
7	18	2 3 5	21	CLAYEY SAND (SC) — <i>fine grained, medium plasticity fines, reddish-brown, wet, loose relative density</i>	SC									W W	
			22												
			23												
			24												
8	18	2 3 5	24	POORLY-GRADED SAND (SP) — <i>fine to medium grained, brown, wet, loose relative density</i>	SP									W	
			25												
			26												
			27												
			28												
9	18	3 3 4	29	LEAN CLAY (CL) — <i>medium plasticity, gray, wet, soft to stiff consistency, stratified, with SILT (ML) lenses and seams</i>	CL ML				0.5 1.6					W W	
			30												
			31												
			32												
10	18	3 4 5	32						1.4, 1.5					W	
			33	POORLY-GRADED SAND (SP) — <i>fine to medium grained, gray, wet, loose relative density</i>	SP									W W	
11	13	3 4 5	34												
			35												
			36												
			37	LEAN CLAY (CL) — <i>medium plasticity, gray, wet, stiff to soft consistency, stratified, with SILT (ML) lenses and seams</i>	CL ML				1.9, 1.6					W	
12	18	3 3 4	36												
			37												
			38												
		3	39						1.7, 1.2					W	

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **MW9BR**

Use only as an attachment to Form 4400-122.

Page **3** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well	Diagram	PID Readings	Soil Properties					RQD/ Comments			
Number and Type	Length Att. & Recovered (in)									Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200				
13	18	5	40	LEAN CLAY (CL) — medium plasticity, gray, wet, stiff to soft consistency, stratified, with SILT (ML) lenses and seams (continued)	CL ML				1.2, 1.3					W				
	14	6	41															
14	18	2	42											1.2, 0.9				W
	18	3	43															
15	18	3	44											1.1, 0.6				W
	18	3	45															
16	18	2	46											1.4, 0.7				W
	18	3	47															
17	18	4	49											1.6, 0.6				W
	18	5	50															
18	18	3	51						1.0, 0.5				W					
	12	4	52															
	12	4	53															
19	18	3	54						0.6				W					
	12	4	55															
	12	4	56															
20	18	3	57						1.1				W					
	14	4	58															
	14	4	59															
			60															
			61															
			62															
			63															

NOTES
1. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring MW9BR.

SES Project Number **506.77**

Route To:

Watershed/Wastewater ☐

Remediation/Redevelopment ☐

Waste Management ☐

Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

Facility/Project Name

Dane County No. 2 Landfill Expansion

Local Grid Location of Well

82701 ft. ☒ N. ☐ S.

200358 ft. ☒ E. ☐ W.

Well Name

MW9BR

Facility License, Permit or Monitoring No.

Grid Origin Location (estimated: ☐)

Well Location ☐

Wis. Unique Well No.

DNR Well Number

Facility ID

Lat. _____ Long. _____ or

St. Plane _____ ft. N. _____ ft. E. S/C/N

Date Well Installed

1 1 / 0 6 / 2 0 1 4

Type of Well

Well Code **12 / pz**

1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. _____ ☐ E ☐ W

Well Installed By: Name (first, last) and Firm

Steve J. Hunger

Distance From Waste/Source _____ ft.

Enf. Stds. Apply ☒

Location of Well Relative to Waste/Source

☐ Upgradient ☐ Sidegradient

☐ Downgradient ☐ Not Known

Gov. Lot Number

Soils & Engineering Services, Inc.

A. Protective pipe, top elevation **879.56** ft. MSL

B. Well casing, top elevation **879.46** ft. MSL

C. Land surface elevation **877.1** ft. MSL

D. Surface seal, bottom **872.1** ft. MSL or **5.0** ft.

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐ OL/OH ☐ PT ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top **828.1** ft. MSL or **49.0** ft.

F. Fine sand, top **828.1** ft. MSL or **49.0** ft.

G. Filter pack, top **826.1** ft. MSL or **51.0** ft.

H. Screen joint, top **824.1** ft. MSL or **53.0** ft.

I. Well bottom **820.9** ft. MSL or **56.2** ft.

J. Filter pack, bottom **819.6** ft. MSL or **57.5** ft.

K. Borehole, bottom **819.6** ft. MSL or **57.5** ft.

L. Borehole, diameter **7.6** in.

M. O.D. well casing **2.38** in.

N. I.D. well casing **2.07** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter: **4.0** in.

b. Length: **7.0** ft.

c. Material: Steel ☒ 0 4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe: _____

3. Surface seal: Bentonite ☒ 3 0

Concrete ☐ 0 1

Other ☐

4. Material between well casing and protective pipe:

Bentonite ☒ 3 0

Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3

b. _____ Lbs/gal mud weight _____ Bentonite-sand slurry ☐ 3 5

c. _____ Lbs/gal mud weight _____ Bentonite slurry ☐ 3 1

d. _____ % Bentonite _____ Bentonite-cement grout ☐ 5 0

e. **13** Ft³ volume added for any of the above

f. How installed: Tremie ☐ 0 1

Tremie pumped ☐ 0 2

Gravity ☒ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2

c. **None** Other ☒

7. Fine sand material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #15 well slot**

b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #40 well slot**

b. Volume added **1.7** ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3

Flush threaded PVC schedule 80 ☐ 2 4

Other ☐

10. Screen material: **Flush threaded PVC schedule**

a. Screen Type: **40** Factory cut ☒ 1 1

Continuous slot ☐ 0 1

Other ☐

b. Manufacturer **Baker Water Systems**

c. Slot size: **(Monoflex)** **0.010** in.

d. Slotted length: **2.8** ft.

11. Backfill material (below filter pack): **None** ☒ 1 4

Other ☐

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

Signature

Craig M. Bower

Firm

Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

Fax: 608-274-7511

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Route To: Watershed/Wastewater ☐
Remediation/Redevelopment ☐

Waste Management ☐
Other ☐

SES Project Number **506.77**

Facility/Project Name Dane County No. 2 Landfill Expansion	County Dane	Well Name MW9BR
Facility License, Permit or Monitoring Number	County Code 1 3	Wis. Unique Well Number _____
		DNR Well Number _____

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method:

- surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☐ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed, and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only ☐ 5 1
pumped slowly ☐ 5 0
other surged with bailer, ☒
pumped, and bailed

3. Time spent developing well 1 0 2 min.

4. Depth of well (from top of well casing) 5 8.5 ft.

5. Inside diameter of well 2.0 7 in.

6. Volume of water in filter pack and well casing 1 3.5 gal.

7. Volume of water removed from well 2 2.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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

17. Additional comments on development:

Well pumped dry after 4 gallons. Switched to using bailer. Can bail well dry.

11. Depth to Water Before Development After Development
(from top of well casing) a. 1 9.1 0 ft. 5 2.6 0 ft.
Date b. 1 1 / 1 0 / 2 0 1 4 1 1 / 1 1 / 2 0 1 4
Time c. 0 3:0 5 ☐ a.m. 1 1:4 0 ☒ a.m.
☐ p.m. ☐ p.m.

12. Sediment in well bottom 0.0 inches 0.0 inches

13. Water clarity Clear ☐ 1 0 Clear ☐ 2 0
Turbid ☒ 1 5 Turbid ☒ 2 5
(Describe) (Describe)
Still brown

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

14. Total suspended solids _____ mg/l _____ mg/l

15. COD _____ mg/l _____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Kevin Last Name: Hargis

Firm: Soils & Engineering Services, Inc.

Name and Address of Facility Contact/Owner/Responsible Party

First Name: _____ Last Name: _____

Facility/Firm: _____

Street: _____

City/State/Zip: _____

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

Signature: Craig M. Bower

Print Name: Craig M. Bower

Firm: Soils & Engineering Services, Inc.

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

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

Page 1 of 3

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number MW28R	
Boring Drilled By: Name of crew chief (first, last) and Firm Steve J. Hunger Soils & Engineering Services, Inc.		Date Drilling Started November 5, 2014		Date Drilling Completed November 5, 2014	
Drilling Method HSA					
WI Unique Well No.	DNR Well ID No.	Common Well Name MW28R		Final Static Water Level	Surface Elevation 886.1 Feet
				Borehole Diameter 7.6 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>				Local Grid Location	
State Plane _____ ft. N, _____ ft. E. S / C / N		Lat _____		_____ N _____ E	
_____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ E / W		Long _____		82509 Feet <input type="checkbox"/> S 201298 Feet <input type="checkbox"/> W	

Facility ID	County Dane	County Code 13	Civil Town/City/ or Village City of Madison
-------------	-----------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					RQD/ Comments
									Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200	
Total Depth = 38'-0"														
1	18	2	1	LEAN CLAY (CL) — medium plasticity, dark brown, TOPSOIL, trace sand-[18" thick]	CL									M
		3	2	LEAN CLAY (CL) — medium plasticity, brown, moist, very stiff consistency	CL									
2	18	4	3											
		5	4											
		7	5	SANDY LEAN CLAY (CL) — medium plasticity, brown, moist, hard consistency	CL									M; OO
			6											
3	18	4	7	SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense to dense relative density, trace to little gravel	SM									M
		5	8											
		8	9											
4	18	14	10											M
		8	11											
			12											
			13											
5	18	18	14											
		25	15											
		24												

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

Signature Craig M. Bower	Firm Soils & Engineering Services, Inc.	Tel: 608-274-7600
	1102 Stewart Street Madison, Wisconsin 53713	Fax: 608-274-7511

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

Facility/Project Name: Dane County No. 2 Landfill Expansion, Eastern Expansion

SES Project Number 506.77

Boring Number MW28R

Use only as an attachment to Form 4400-122.

Page 2 of 3

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
		DS			SM										
			16	POORLY-GRADED SAND (SP) — <i>fine to medium grained, brown, dry to moist, medium dense to dense relative density</i>											
			17												
			18												
6	18 14	7 18 22	19												Dry-M
			20												
			21												
			22												
			23												
7	18 11	8 14 21	24												M
			25												
			26												
			27		SP										
			28												
8	18 14	5 7 8	29	With coarse sand and gravel, 28'-0" to 35'-0"											W
			30												
			31												
			32												
			33												
9	18 12	16 17 18	34												W
			35												
			36												
			37												
			38												
			39												

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **MW28R**

Use only as an attachment to Form 4400-122.

Page **3** of **3**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200	
				NOTES										
				1. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring MW28R.										
			40											
			41											
			42											
			43											
			44											
			45											
			46											
			47											
			48											
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			61											
			62											
			63											

SES Project Number **506.77**

Facility/Project Name

Dane County No. 2 Landfill Expansion

Facility License, Permit or Monitoring No.

Facility ID

Type of Well

Well Code **11 / mw**

Distance From Waste/
Source _____ ft.

Enf. Stds.
Apply ☒

Route To:

Watershed/Wastewater ☐

Remediation/Redevelopment ☐

Waste Management ☐

Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

Local Grid Location of Well

82509 ft. ☒ N. ☐ S.

201298 ft. ☒ E. ☐ W.

Grid Origin Location ☐ (estimated: ☐)

Lat. _____ Long. _____ or

St. Plane _____ ft. N. _____ ft. E. S / C / N

Section Location of Waste/Source

_____ 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. ☐ E ☐ W

Location of Well Relative to Waste/Source

☐ u ☐ Upgradient ☐ s ☐ Sidegradient

☐ d ☐ Downgradient ☐ n ☐ Not Known

Gov. Lot Number

Well Name

MW28R

Wis. Unique Well No. _____ DNR Well Number _____

Date Well Installed

1 1 / 0 5 / 2 0 1 4

Well Installed By: Name (first,last) and Firm

Steve J. Hunger

Soils & Engineering Services, Inc.

A. Protective pipe, top elevation **888.95** ft. MSL

B. Well casing, top elevation **888.85** ft. MSL

C. Land surface elevation **886.1** ft. MSL

D. Surface seal, bottom **881.1** ft. MSL or **5.0** ft.

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐ OL/OH ☐ PT ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top **868.1** ft. MSL or **18.0** ft.

F. Fine sand, top **868.1** ft. MSL or **18.0** ft.

G. Filter pack, top **866.1** ft. MSL or **20.0** ft.

H. Screen joint, top **864.1** ft. MSL or **22.0** ft.

I. Well bottom **849.1** ft. MSL or **37.0** ft.

J. Filter pack, bottom **848.1** ft. MSL or **38.0** ft.

K. Borehole, bottom **848.1** ft. MSL or **38.0** ft.

L. Borehole, diameter **7.6** in.

M. O.D. well casing **2.38** in.

N. I.D. well casing **2.07** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter: **4.0** in.

b. Length: **7.0** ft.

c. Material: Steel ☒ 0 4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe: _____

3. Surface seal: Bentonite ☒ 3 0

Concrete ☐ 0 1

Other ☐

4. Material between well casing and protective pipe:

Bentonite ☒ 3 0

Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3

b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5

c. _____ Lbs/gal mud weight Bentonite slurry ☐ 3 1

d. _____ % Bentonite Bentonite-cement grout ☐ 5 0

e. **3.7** Ft³ volume added for any of the above

f. How installed: Tremie ☐ 0 1

Tremie pumped ☐ 0 2

Gravity ☒ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2

c. **None** Other ☒

7. Fine sand material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #15 well slot**

b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #40 well slot**

b. Volume added **5.1** ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3

Flush threaded PVC schedule 80 ☐ 2 4

Other ☐

10. Screen material: **Flush threaded PVC schedule**

a. Screen Type: **40** Factory cut ☒ 1 1

Continuous slot ☐ 0 1

Other ☐

b. Manufacturer **Baker Water Systems**

c. Slot size: **(Monoflex)** **0.010** in.

d. Slotted length: **15.0** ft.

11. Backfill material (below filter pack):

None ☒ 1 4

Other ☐

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

Signature

Craig M. Bower

Firm

Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

Fax: 608-274-7511

Route To: Watershed/Wastewater ☐
Remediation/Redevelopment ☐

Waste Management ☐
Other ☐

SES Project Number 506.77

Facility/Project Name Dane County No. 2 Landfill Expansion	County Dane	Well Name MW28R
Facility License, Permit or Monitoring Number	County Code 1 3	Wis. Unique Well Number DNR Well Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

- surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☒ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed, and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only ☐ 5 1
pumped slowly ☐ 5 0
other ☐

3. Time spent developing well 9 5 min.

4. Depth of well (from top of well casing) 3 9.7 ft.

5. Inside diameter of well 2 0 7 in.

6. Volume of water in filter pack and well casing 1 2.3 gal.

7. Volume of water removed from well 1 2 4.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added

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

17. Additional comments on development:

After surging pump, discharge becomes clear after 30 to 60 seconds.

11. Depth to Water (from top of well casing)
Before Development After Development
a. 2 8.4 2 ft. 2 8.4 5 ft.
Date b. 1 1 / 1 1 / 2 0 1 4 1 1 / 1 1 / 2 0 1 4
m m a d y y y y m m d d y y y y
Time c. 1 1:3 0 ☒ a.m. 0 1:0 5 ☐ a.m.
☐ p.m. ☒ p.m.
12. Sediment in well bottom 0.0 inches 0.0 inches
13. Water clarity Clear ☐ 1 0 Clear ☒ 2 0
Turbid ☒ 1 5 Turbid ☐ 2 5
(Describe) (Describe)

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

14. Total suspended solids _____ mg/l _____ mg/l

15. COD _____ mg/l _____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Kevin Last Name: Hargis

Firm: Soils & Engineering Services, Inc.

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Last Name:

Facility/Firm:

Street:

City/State/Zip:

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

Signature: Craig M. Bower

Print Name: Craig M. Bower

Firm: Soils & Engineering Services, Inc.

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





























Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

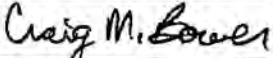
Page 1 of 2

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number MW302AR	
Boring Drilled By: Name of crew chief (first, last) and Firm Steve J. Hunger Soils & Engineering Services, Inc.		Date Drilling Started November 5, 2014		Date Drilling Completed November 5, 2014	
Drilling Method HSA					
WI Unique Well No.	DNR Well ID No.	Common Well Name MW302AR		Final Static Water Level	Surface Elevation 876.9 Feet
				Borehole Diameter 7.6 in	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>				Local Grid Location	
State Plane		ft. N, ft. E. S / C / N		Lat	
1/4 of		1/4 of Sec. T. N, R. E / W		Long	
				82932 Feet <input type="checkbox"/> N 201293 Feet <input type="checkbox"/> E	
				201293 Feet <input type="checkbox"/> S 82932 Feet <input type="checkbox"/> W	

Facility ID	County Dane	County Code 13	Civil Town/City/ or Village City of Madison
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Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200		
Total Depth = 23'-6"															
			1	LEAN CLAY (CL) — medium plasticity, dark brown, TOPSOIL , trace sand-[6" thick]	CL										
			2	LEAN CLAY (CL) — medium plasticity, brown, organic odor, moist, very stiff consistency	CL										
			3												
			4	SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel	SM										
			5												
			6												
			7												
			8												
			9												
			10												
			11												
			12												
			13												
			14												
			15												

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

Signature 	Firm Soils & Engineering Services, Inc. 1102 Stewart Street Madison, Wisconsin 53713	Tel: 608-274-7600 Fax: 608-274-7511
--	---	--

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

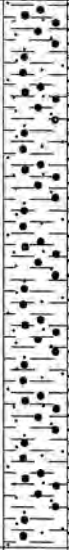

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **MW302AR**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			16	SILTY SAND (SM) — <i>fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel (continued)</i>	SM									
			17											
			18											
			19											
			20											
			21											
			22											
			23											
			24											
			25											
			26	NOTES 1. Boring MW302AR completed by blind drilling to depth shown. See Boring MW302BR for soil stratification specifics. 2. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for Boring MW302AR.										
			27											
			28											
			29											
			30											
			31											
			32											
			33											
			34											
			35											
			36											
			37											
			38											
			39											

Route To:

Watershed/Wastewater ☐

Waste Management ☐

Remediation/Redevelopment ☐

Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

SES Project Number **506.77**

Facility/Project Name

Dane County No. 2 Landfill Expansion

Facility License, Permit or Monitoring No.

Facility ID

Type of Well

Well Code **11 / mw**

Distance From Waste/
Source ft.

Enf. Stds.
Apply ☒

Local Grid Location of Well

82932 ft. ☒ N. ☒ S.

201293 ft. ☒ E. ☒ W.

Grid Origin Location ☐ (estimated: ☐)

Lat. _____

Long. _____

Well Location ☐ or

St. Plane _____

ft. N. _____

ft. E. _____

S / C / N

Section Location of Waste/Source

1/4 of _____

1/4 of Sec. _____

T. _____

N. R. _____

☐ E ☐ W

Location of Well Relative to Waste/Source

u ☐ Upgradient

s ☐ Sidegradient

d ☐ Downgradient

n ☐ Not Known

Gov. Lot Number

Well Name

MW302AR

Wis. Unique Well No.

DNR Well Number

Date Well Installed

1 1 / 0 5 / 2 0 1 4

Well Installed By: Name (first,last) and Firm

Steve J. Hunger

Soils & Engineering Services, Inc.

A. Protective pipe, top elevation **879.53** ft. MSL

B. Well casing, top elevation **879.43** ft. MSL

C. Land surface elevation **876.9** ft. MSL

D. Surface seal, bottom **871.9** ft. MSL or **5.0** ft.

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☒ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐ OL/OH ☐ PT ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0

Hollow Stem Auger ☒ 4 1

Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1

Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top **868.0** ft. MSL or **8.8** ft.

F. Fine sand, top **868.0** ft. MSL or **8.8** ft.

G. Filter pack, top **866.0** ft. MSL or **10.8** ft.

H. Screen joint, top **864.0** ft. MSL or **12.8** ft.

I. Well bottom **854.0** ft. MSL or **22.8** ft.

J. Filter pack, bottom **853.4** ft. MSL or **23.5** ft.

K. Borehole, bottom **853.4** ft. MSL or **23.5** ft.

L. Borehole, diameter **7.6** in.

M. O.D. well casing **2.38** in.

N. I.D. well casing **2.07** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter: **4.0** in.

b. Length: **7.0** ft.

c. Material: Steel ☒ 0 4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe: _____

3. Surface seal: Bentonite ☒ 3 0

Concrete ☐ 0 1

Other ☐

4. Material between well casing and protective pipe:

Bentonite ☒ 3 0

Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3

b. _____ Lbs/gal mud weight Bentonite-sand slurry ☐ 3 5

c. _____ Lbs/gal mud weight Bentonite slurry ☐ 3 1

d. _____ % Bentonite Bentonite-cement grout ☐ 5 0

e. **1.1** Ft³ volume added for any of the above

f. How installed: Tremie ☐ 0 1

Tremie pumped ☐ 0 2

Gravity ☒ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2

c. **None** Other ☒

7. Fine sand material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #15 well slot**

b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #40 well slot**

b. Volume added **3.5** ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3

Flush threaded PVC schedule 80 ☐ 2 4

Other ☐

10. Screen material: **Flush threaded PVC schedule**

a. Screen Type: **40**

Factory cut ☒ 1 1

Continuous slot ☐ 0 1

Other ☐

b. Manufacturer **Baker Water Systems**

c. Slot size: **(Monoflex) 0.010** in.

d. Slotted length: **10.0** ft.

11. Backfill material (below filter pack):

None ☒ 1 4

Other ☐

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

Signature

Craig M. Bower

Firm

Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

Fax: 608-274-7511

Please complete both Forms 4400-113A and 4400-113B and return 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.

Route To: Watershed/Wastewater ☐
Remediation/Redevelopment ☐

Waste Management ☐
Other ☐

SES Project Number **506.77**

Facility/Project Name Dane County No. 2 Landfill Expansion	County Dane	Well Name MW302AR
Facility License, Permit or Monitoring Number	County Code 1 3	Wis. Unique Well Number
		DNR Well Number

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method:

- surged with bailer and bailed ☒ 4 1
 surged with bailer and pumped ☐ 6 1
 surged with block and bailed ☐ 4 2
 surged with block and pumped ☐ 6 2
 surged with block, bailed, and pumped ☐ 7 0
 compressed air ☐ 2 0
 bailed only ☐ 1 0
 pumped only ☐ 5 1
 pumped slowly ☐ 5 0
 other ☐

3. Time spent developing well 9 0 min.

4. Depth of well (from top of well casing) 2 5.4 ft.

5. Inside diameter of well 2.0 7 in.

6. Volume of water in filter pack and well casing 5.8 gal.

7. Volume of water removed from well 8.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

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

17. Additional comments on development:

Well recharges very slow

11. Depth to Water (from top of well casing)

	Before Development	After Development
a.	<u>2 0.0 3</u> ft.	<u>2 4.8 0</u> ft.
Date	b. <u>1 1 / 1 0 / 2 0 1 4</u> m m d d y y y y	<u>1 1 / 1 1 / 2 0 1 4</u> m m d d y y y y
Time	c. <u>1 1:3 0</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>1 2:5 5</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.

12. Sediment in well bottom 0.0 inches 0.0 inches

13. Water clarity

Clear	Turbid
<input type="checkbox"/> 1 0	<input type="checkbox"/> 2 0
<input checked="" type="checkbox"/> 1 5	<input checked="" type="checkbox"/> 2 5
(Describe) <u>Reddish</u>	(Describe) <u>Still reddish</u>

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

14. Total suspended solids _____ mg/l _____ mg/l

15. COD _____ mg/l _____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: **Kevin** Last Name: **Hargis**

Firm: **Soils & Engineering Services, Inc.**

Name and Address of Facility Contact/Owner/Responsible Party

First Name: _____ Last Name: _____

Facility/Firm: _____

Street: _____

City/State/Zip: _____

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

Signature: Craig M. Bower

Print Name: Craig M. Bower

Firm: Soils & Engineering Services, Inc.













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

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

SES Project Number **506.77**

Page 1 of 4

Facility/Project Name Dane County No. 2 Landfill Expansion, Eastern Expansion		License/Permit/Monitoring Number		Boring Number MW302BR	
Boring Drilled By: Name of crew chief (first, last) and Firm Steve J. Hunger Soils & Engineering Services, Inc.		Date Drilling Started November 3, 2014		Date Drilling Completed November 4, 2014	
Drilling Method HSA		WI Unique Well No.		DNR Well ID No.	
Common Well Name MW302BR		Final Static Water Level		Surface Elevation 876.9 Feet	
Borehole Diameter 7.6 in		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/>		Local Grid Location	
State Plane <input type="checkbox"/> ft. N, <input type="checkbox"/> ft. E. S / C / N		Lat <input type="checkbox"/>		Long <input type="checkbox"/>	
1/4 of <input type="checkbox"/> 1/4 of Sec. <input type="checkbox"/> T. <input type="checkbox"/> N, R. <input type="checkbox"/> E / W		82932 Feet <input type="checkbox"/> S		201298 Feet <input type="checkbox"/> W	
Facility ID		County Dane		County Code 13	
		Civil Town/City/ or Village City of Madison			

Sample		Blow Counts	Depth In Feet	Total Depth = 61'-0"	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments				
Number and Type	Length Att. & Recovered (in)									Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index	P 200						
1	18	3	1	LEAN CLAY (CL) — medium plasticity, dark brown, TOPSOIL , trace sand-[6" thick]	CL	CL									M; OO					
		4	2													3.2, 2.0				
		5																		
2	18	2	4	SILTY SAND (SM) — fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel	SM	SM									M					
		4	4																	
		7	5																	
3	18	7	6												M					
		9	7																	
		7																		
4	13	10	9												M					
		13	10																	
		10																		
5	18	5	11												M					
		6	12																	
		8																		
6	18	6	13												M					
		12	14																	
		12																		

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

Signature Craig M. Bower Firm **Soils & Engineering Services, Inc.** Tel: 608-274-7600
1102 Stewart Street Madison, Wisconsin 53713 Fax: 608-274-7511

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

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **MW302BR**

Use only as an attachment to Form 4400-122.

Page **2** of **4**

Sample			Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties						RQD/ Comments
Number and Type	Length Att. & Recovered (in)	Pocket Penetrometer								Moisture Content	Liquid Limit	Plasticity Index	P 200			
7	18	9 15 17	16 17	SILTY SAND (SM) — <i>fine to medium grained, non-plastic to low plasticity fines, red and brown, moist, medium dense relative density, trace to little gravel (continued)</i>	SM										M	
8	14	14 19 21	18 19 20												M	
9	18	6 10 10	21 22												M	
10	10	5 7 10	23 24 25												M	
11	14	6 10 15	26 27												M	
12	18	3 5 8	28 29 30	POORLY-GRADED SAND (SP) — <i>fine to medium grained, brown, wet, medium dense to dense relative density</i>	SP										W	
13	16	5 5 12	31 32												W	
14	12	6 12 15	33 34 35												W	
15	14	5 12 13	36 37												W	
	2	8	38 39												W	

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **MW302BR**

Use only as an attachment to Form 4400-122.

Page **3** of **4**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					P 200	RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index			
16	18	10 16	40 41 42 43	POORLY-GRADED SAND (SP) — fine to medium grained, brown, wet, medium dense to dense relative density (continued)	SP										
17	18	8 15 17	44 45 46 47 48												
18	18	8 19 28	49 50 51 52 53												
19	18	5 19 24	54 55 56 57 58												
20	24	8 15 21 24	59 60 61 62 63												

NOTES
1. The Legend Record is considered a part of the WDNR Soil Boring Log Information form(s) for

Facility/Project Name **Dane County No. 2 Landfill Expansion, Eastern Expansion**

SES Project Number **506.77**

Boring Number **MW302BR**

Use only as an attachment to Form 4400-122.

Page **4** of **4**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID Readings	Soil Properties					P 200	RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Pocket Penetrometer	Moisture Content	Liquid Limit	Plasticity Index			
Boring MW302BR.															
			64												
			65												
			66												
			67												
			68												
			69												
			70												
			71												
			72												
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			83												
			84												
			85												
			86												
			87												

Route To:

Watershed/Wastewater ☐

Waste Management ☐

Remediation/Redevelopment ☐

Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A

Rev. 7-98

SES Project Number **506.77**

Facility/Project Name

Dane County No. 2 Landfill Expansion

Facility License, Permit or Monitoring No.

Facility ID

Type of Well

Well Code **12 / pz**

Distance From Waste/
Source ft.

Enf. Stds.
Apply ☒

Local Grid Location of Well

82932 ft. ☒ N. ☒ S.

201298 ft. ☒ E. ☒ W.

Grid Origin Location ☐ (estimated: ☐)

Lat. _____ Long. _____ or

St. Plane _____ ft. N. _____ ft. E. S/C/N

Section Location of Waste/Source

_____ 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. ☐ E ☐ W

Location of Well Relative to Waste/Source

u ☐ Upgradient s ☐ Sidegradient

d ☐ Downgradient n ☐ Not Known

Gov. Lot Number

Well Name

MW302BR

Wis. Unique Well No. _____ DNR Well Number _____

Date Well Installed

1 1 / 0 4 / 2 0 1 4

Well Installed By: Name (first,last) and Firm

Steve J. Hunger

Soils & Engineering Services, Inc.

A. Protective pipe, top elevation **879.52** ft. MSL

B. Well casing, top elevation **879.42** ft. MSL

C. Land surface elevation **876.9** ft. MSL

D. Surface seal, bottom **861.9** ft. MSL or **15.0** ft.

12. USCS classification of soil near screen:

GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐ OL/OH ☐ PT ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0
Hollow Stem Auger ☒ 4 1
Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1
Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top **825.9** ft. MSL or **51.0** ft.

F. Fine sand, top **825.9** ft. MSL or **51.0** ft.

G. Filter pack, top **823.9** ft. MSL or **53.0** ft.

H. Screen joint, top **821.9** ft. MSL or **55.0** ft.

I. Well bottom **816.9** ft. MSL or **60.0** ft.

J. Filter pack, bottom **815.9** ft. MSL or **61.0** ft.

K. Borehole, bottom **815.9** ft. MSL or **61.0** ft.

L. Borehole, diameter **7.6** in.

M. O.D. well casing **2.38** in.

N. I.D. well casing **2.07** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter: **4.0** in.

b. Length: **7.0** ft.

c. Material: Steel ☒ 0 4

Other ☐

d. Additional protection? ☐ Yes ☒ No

If yes, describe: _____

3. Surface seal: Bentonite ☒ 3 0

Concrete ☐ 0 1

Other ☐

4. Material between well casing and protective pipe:

Bentonite ☒ 3 0

Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3

b. **1.79** Lbs/gal mud weight . . . Bentonite-sand slurry ☒ 3 5

c. _____ Lbs/gal mud weight Bentonite slurry ☐ 3 1

d. _____ % Bentonite Bentonite-cement grout ☐ 5 0

e. **7.4** Ft³ volume added for any of the above

f. How installed: Tremie ☐ 0 1

Tremie pumped ☐ 0 2

Gravity ☒ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3

b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2

c. **None** Other ☒

7. Fine sand material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #15 well slot**

b. Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

a. **Red Flint Sand and Gravel, #40 well slot**

b. Volume added **-0.216** ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3

Flush threaded PVC schedule 80 ☐ 2 4

Other ☐

10. Screen material: **Flush threaded PVC schedule**

a. Screen Type: **40** Factory cut ☒ 1 1

Continuous slot ☐ 0 1

Other ☐

b. Manufacturer **Baker Water Systems**

c. Slot size: **(Monoflex)** **0.010** in.

d. Slotted length: **5.0** ft.

11. Backfill material (below filter pack):

None ☒ 1 4

Other ☐

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

Signature

Craig M. Bower

Firm

Soils & Engineering Services, Inc.

1102 Stewart Street, Madison, Wisconsin 53713

Tel: 608-274-7600

Fax: 608-274-7511

Route To: Watershed/Wastewater ☐
Remediation/Redevelopment ☐

Waste Management ☐
Other ☐

SES Project Number **506.77**

Facility/Project Name Dane County No. 2 Landfill Expansion	County Dane	Well Name MW302BR
Facility License, Permit or Monitoring Number	County Code 1 3	Wis. Unique Well Number DNR Well Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

- surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☒ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed, and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only ☐ 5 1
pumped slowly ☐ 5 0
other ☐

3. Time spent developing well 9 0 min.

4. Depth of well (from top of well casing) 6 2.5 ft.

5. Inside diameter of well 2.0 7 in.

6. Volume of water in filter pack and well casing 7.4 gal.

7. Volume of water removed from well 8 9.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added

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

17. Additional comments on development:

After surging pump, discharge becomes clear after 30 to 60 seconds.

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>2 0.3 2</u> ft.	<u>2 0.8 5</u> ft.
Date	b. <u>1 1 / 1 0 / 2 0 1 4</u> m m d d y y y y	<u>1 1 / 1 0 / 2 0 1 4</u> m m d d y y y y
Time	c. <u>1 2:3 0</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>0 2:0 0</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.0</u> inches	<u>0.0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe)	Clear <input checked="" type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe)

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

14. Total suspended solids mg/l mg/l

15. COD mg/l mg/l

16. Well developed by: Name (first, last) and Firm

First Name: **Steve** Last Name: **Hunger**

Firm: **Soils & Engineering Services, Inc.**

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Last Name:

Facility/Firm:

Street:

City/State/Zip:

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

Signature: Craig M. Bower

Print Name: Craig M. Bower











Firm: Soils & Engineering Services, Inc.

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

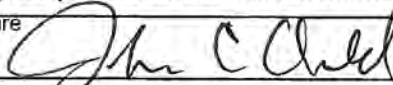
Route To: Watershed/Wastewater ☐ Waste Management ☒
Remediation/Redevelopment ☐ Other ☐

Page 1 of 2

Facility/Project Name Dane County Landfill #2 (Rodefild)		License/Permit/Monitoring Number 03018		Boring Number WT-208ARR	
Boring Drilled By: Name of crew chief (first, last) and Firm Steve Hunger Soils and Engineering Services, Inc		Date Drilling Started 6/20/2018		Date Drilling Completed 6/21/2018	
Drilling Method hollow stem auger					
WI Unique Well No. VU611	DNR Well ID No. 143	Common Well Name WT-208ARR	Final Static Water Level Feet MSL	Surface Elevation 872.6 Feet MSL	Borehole Diameter 8.0 inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input checked="" type="checkbox"/>			Local Grid Location		
State Plane 381,144 N, 2,199,014 E <input checked="" type="checkbox"/> S/C/N			Lat ° ' "		
NE 1/4 of NW 1/4 of Section 25, T 7 N, R 10 E			Long ° ' "		
Facility ID 113127300		County Dane	County Code 13	Civil Town/City/ or Village Madison	

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 SS	24 18	3 4 6 6	1 2 3	LEAN CLAY with sand, little f-m sand (subrounded), trace gravel, trace cobbles. Medium to high plasticity, brown (7.5 YR 4/4), moist, very stiff. (Loess)	CL				2.75					
2 SS	24 18	7 16 17 22	4 5	WELL GRADED SAND WITH SILT, fine to coarse, subrounded, few silt, few gravel. Yellowish brown (10YR 5/4), moist, medium density. (Till)	SW-SM									
3 SS	24 9	3 6 6 5	6 7	SILTY SAND WITH GRAVEL, fine to medium, subrounded, little silt, little gravel. Brown (10 YR 5/4), moist, loose. (Till)										
			8	As Above, but wet										
4 SS	24 9	6 6 7 7	9 10 11 12	As above, but reddish brown (5 YR 4/4)	SM									

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

Signature 	Firm Cornerstone Environmental Group 8413 Excelsior Drive, Suite 160 Madison, 53717	Tel: Fax:
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This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Page 2 of 2

[illegible]

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

Facility/Project Name Dane County Landfill #2 (Rodefeld)	County Dane	Well Name WT-208ARR
Facility License, Permit or Monitoring Number 03018	County Code 13	Wis. Unique Well Number VU611
		DNR Well Number 143

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method:
- surged with bailer and bailed ☐ 4 1
 - surged with bailer and pumped ☒ 6 1
 - surged with block and bailed ☐ 4 2
 - surged with block and pumped ☐ 6 2
 - surged with block, bailed, and pumped ☐ 7 0
 - compressed air ☐ 2 0
 - bailed only ☐ 1 0
 - pumped only ☐ 5 1
 - pumped slowly ☐ 5 0
 - other ☐

3. Time spent developing well **150 min.**

4. Depth of well (from top of well casing) **25.2 ft.**

5. Inside diameter of well **2.07 in.**

6. Volume of water in filter pack and well casing **12.4 gal.**

7. Volume of water removed from well **55.0 gal.**

8. Volume of water added (if any) **gal.**

9. Source of water added _____

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

17. Additional comments on development:

Well was gently surged with bailer and purged dry 10 times with a pump. Well was given 10 minutes to recharge between pumping cycles.

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 9.15 ft.	22.31 ft.
Date	b. 6/21/2018	6/21/2018
Time	c. 10:00 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12:30 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.

12. Sediment in well bottom **2.8 inches** **0.0 inches**

Water clarity	Before Development	After Development
Clear <input type="checkbox"/> 1 0	1 5	2 0
Turbid <input checked="" type="checkbox"/> 1 5	2 5	2 5
(Describe)	High turbidity;	Low turbidity;
	light brown	light brown

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

14. Total suspended solids **mg/l** **124.0** **mg/l**

15. COD **mg/l** **mg/l**

16. Well developed by: Person's Name and Firm

Steve Hunger
Soils and Engineering Services, Inc.

Facility Address or Owner/Responsible Party Address

Name: **John Welch**

Firm: **Dane County**

Street: **1919 Alliant Energy Center Way**

City/State/Zip: **Madison, WI 53713**

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

Signature:

Print Name: **John C. Oswald**

Firm: **Cornerstone Environmental Group**

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

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

Facility/Project Name Dane County Landfill #2 (Rodefild)		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. ft. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name WT-208ARR	
Facility License, Permit or Monitoring No. 03018		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input checked="" type="checkbox"/>		Wis. Unique Well No. DNR Well Number VU611 143	
Facility ID 113127300		Lat. " ' " Long. " ' " or St. Plane 381,144 ft. N, 2,199,014 ft. E. (S)/C/N		Date Well Installed 06/21/2018	
Type of Well Well Code 11/mw		Section Location of Waste/Source NE 1/4 of NW 1/4 of Sec. 25, T. 7 N, R. 10 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) Steve Hunger	
Distance from Waste Source 230 ft.		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 SES, Inc	

A. Protective pipe, top elevation 876.04 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 875.75 ft. MSL	2. Protective cover pipe: a. Inside diameter: 4.0 in. b. Length: 5.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation 872.6 ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:
D. Surface seal, bottom 871.0 ft. MSL or 1.6 ft.	3. Surface seal: Bentonite <input checked="" type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input 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 checked="" type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>
13. Sieve analysis attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	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. 2 Ft ³ 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
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. 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. Red Flint Sand #15 (1/2 bag) b. Volume added 0.25 ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name & mesh size a. Red Flint Sand #40 (7 bags) b. Volume added 3.5 ft ³
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: Schedule 40 PVC a. Screen Type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top 872.6 ft. MSL or 0.0 ft.	b. Manufacturer Monoflex
F. Fine sand, top 866.6 ft. MSL or 6.0 ft.	c. Slot size: 0.010 in.
G. Filter pack, top 866.1 ft. MSL or 6.5 ft.	d. Slotted length: 15.0 ft.
H. Screen joint, top 865.5 ft. MSL or 7.1 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
I. Well bottom 850.5 ft. MSL or 22.1 ft.	
J. Filter pack, bottom 849.6 ft. MSL or 23.0 ft.	
K. Borehole, bottom 849.6 ft. MSL or 23.0 ft.	
L. Borehole, diameter 8.0 in.	
M. O.D. well casing 2.38 in.	
N. I.D. well casing 2.07 in.	

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

Signature *[Handwritten Signature]*

Firm Cornerstone Environmental Group
8413 Excelsior Drive, Suite 160 Madison, 53717

Tel:
Fax:

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.