Appendix F

Boring and Monitoring Well Logs and Forms, and Geotechnical Test Reports

F1 Drilling Locations 1 through 11
F2 Drilling Locations 105 through 126
F3 Drilling Locations 212 through 233
F4 Wisconsin Well Information Form 4400-089

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		ST-116

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	3/8/2023	3/8/2023	SSA

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
--	--	--	--	901.4 Feet MSL	4.3"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 378,468 N, 2,164,728 E S / C / N
SE 1/4 of SE 1/4 of Section 25, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

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

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Blind drilled to 1' bgs. (See MW-116 log for lithology from 0'-26' bgs.)										
S1	19		1-3	LEAN CLAY, dark brown (10YR 3/3 to 4/4), moslty silt with clay, soft, cohesive, uniform, massive, trace roots with sand at bottom. (Loess)	CL				1.25	M				Shelby tube sampled from 1-3 feet bgs.
				End of boring at 3' bgs in loess. Abandoned with bentonite chips.										

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

Signature Adam Watson Firm SCS Engineers
2830 Dairy Drive, Madison, WI 53718

State of Wis., Dept. of Natural Resources SCS No. 25222268.00
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

☐ **Verification Only of Fill and Seal**

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Dane		ST-116

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

¼ / ¼ SE	¼ SE	Section	Township	Range
or Gov't Lot #		25	7 N	10 ☒ E ☐ W

Well Street Address: 7101 US Highway 12 & 18

Well City, Village or Town	Well ZIP Code
Madison, WI	53718

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Temporary Borehole	

2. Facility / Owner Information

Facility Name: Dane County Landfill No.3 (Proposed)
Facility ID (FID or PWS):
License/Permit/Monitoring #:
Original Well Owner: Dane County Department of Waste and Renewables
Present Well Owner: Dane County Department of Waste and Renewables
Mailing Address of Present Owner: 1919 Alliant Energy Center Way

City of Present Owner	State	ZIP Code
Madison	WI	53713

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 03/08/2023
If a Well Construction Report is available, please attach.

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

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
3	NA

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

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

If yes, to what depth (feet)?	Depth to Water (feet)
NA	~20

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite Chips	Surface	3	8 lbs	dry mix

6. Comments

Shelby Tube ST-116

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Soils & Engineering Services, Inc		03/08/2023

Street or Route	Telephone Number
1102 Stewart St.	(608)274-7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713		03/08/2023

DNR Use Only

Date Received	Noted By

Comments:

MW-117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		MW-117

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	1/20/2023	1/20/2023	HSA, 4.25" ID

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
WD846	--	MW-117	899.3 Feet MSL	899.8 Feet MSL	8.3"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 377,913 N, 2,168,367 E S / C / N
SE 1/4 of SE 1/4 of Section 25, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

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

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
S1	24	4 3 3 3	1	SILT (ML), very dark grayish brown (10YR 3/2), organic rich, with roots. (Topsoil)	ML				1.0 1.75	W				Depth to water is at ~0.5' bgs.
			2	FAT CLAY (CH), light olive brown (2.5Y 5/6) with orange mottling, mostly silt with clay, some fine sand, soft, cohesive, uniform, massive, trace roots. (Loess)										
			3	At 1' to 2', FAT CLAY (CH) % g-s-si-cl = 0-4-56-40 LL=51, PI=29 Olive gray (5Y 5/2).	CH									
S2	18	1 1 2	4						1.0	W				
			5											
			6											
S3	18	4 7 3	7	SILTY SAND (SM), strong brown (7.5YR 5/6), mostly fine sand with medium to coarse sand and some clay, fine to coarse gravel (mostly dolomite), uniform, massive. (Till) (Holy Hill Formation, Horicon Member)						W				
			8											
S4	18	3 4 17	9							W				
			10	Kh = 3.72E-04 cm/s	SM									
S5	14	11 10 9	11	At 11' to 12.5', SILTY SAND (SM) % g-s-si-cl = 14-59-14-13						W				
			12											
			13											
S6	13	9 29 39	14							W				
			15											

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

Signature	Firm
Adam Watson	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-117 Use only as an attachment to Form 4400-122.

Sample									Soil Properties					
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	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16	SILTY SAND (SM), strong brown (7.5YR 5/6), mostly fine sand with medium to coarse sand and some clay, fine to coarse gravel (mostly dolomite), uniform, massive. (Till) (Holy Hill Formation, Horicon Member)	SM									
				End of boring at 16' bgs in till. Constructed well from 15.3' bgs.										

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 3 (Proposed)	**Local Grid Location of Well** ☐ ft. ☐ N. ☐ S. ☐ ft. ☐ E. ☐ W.	**Well Name** MW-117
Facility License, Permit or Monitoring No. --	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** WD846
Facility ID --	**St. Plane** 377912.89 ft. N, 2168366.81 ft. E. S/C/N	**DNR Well ID No.** --
Type of Well Well Code 11 / MW	**Section Location of Waste/Source** SW 1/4 of SE 1/4 of Sec. 25, T. 7 N, R. 10 ☒ E ☐ W	**Date Well Installed** 01 / 23 / 2023 (m m d d y y y y)
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**
		Well Installed By: Name (first, last) and Firm Scott Klumb Soils & Engineering Services, Inc.

A. Protective pipe, top elevation 902.37 ft. MSL

B. Well casing, top elevation 902.35 ft. MSL

C. Land surface elevation 899.8 ft. MSL

D. Surface seal, bottom 896.8 ft. MSL or 3 ft.

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

13. Sieve analysis performed? ☒ Yes ☐ No

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

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

16. Drilling additives used? ☐ Yes ☒ No
Describe N/A

17. Source of water (attach analysis, if required):
N/A

E. Bentonite seal, top 899.8 ft. MSL or 0 ft.

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

G. Filter pack, top 896.8 ft. MSL or 3 ft.

H. Screen joint, top 894.8 ft. MSL or 5 ft.

I. Well bottom 884.5 ft. MSL or 15.3 ft.

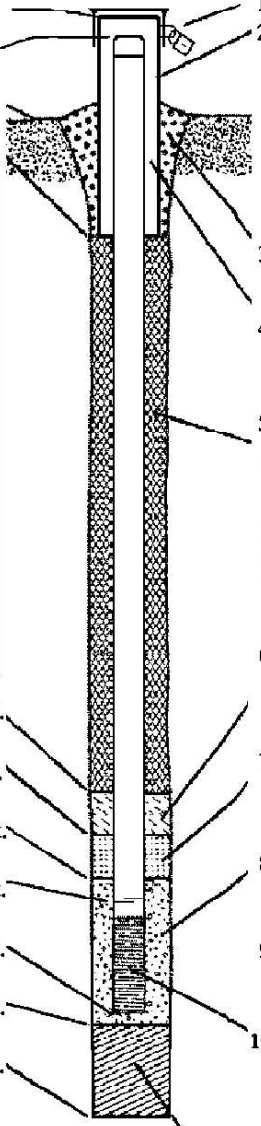
J. Filter pack, bottom 883.8 ft. MSL or 16 ft.

K. Borehole, bottom 883.8 ft. MSL or 16 ft.

L. Borehole, diameter 8.3 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 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04 Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe:
3. Surface seal: Bentonite ☒ 30 Concrete ☐ 01 Other ☐
4. Material between well casing and protective pipe: Bentonite ☐ 30 Other ☒
Filter Sand
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 2.07 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15 ☒
b. Volume added 0.15 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40 ☒
b. Volume added 2.0 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐
10. Screen material: Sch. 40 PVC
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐
b. Manufacturer Campbell (Monoflex)
c. Slot size: 0.01 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☒ 14 Other ☐

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

Signature	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.

Pro top (top)=34.5' above ground. TOC=2.59' above ground above ground surface

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

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

Facility/Project Name	County Name	Well Name
Dane County Landfill No. 3 (Proposed)	Dane	MW-117

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
--	13	WD846	--

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

2. Well development method

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

3. Time spent developing well 35 min.

4. Depth of well (from top of well casisng) 17.9 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 12.3 gal.

7. Volume of water removed from well 7.0 gal.

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

9. Source of water added NA

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 3.31 ft.	15.84 ft.
Date	b. 01/27/2023	01/27/2023
Time	c. 11:55 ☒ a.m. ☐ p.m.	12:30 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	3.0 inches	~3.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	medium brown color, no odor	medium brown color, no odor

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

14. Total suspended solids	---.- mg/l	63,900.0 mg/l
15. COD	---.- mg/l	---.- mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Ethan Last Name: Schaefer
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

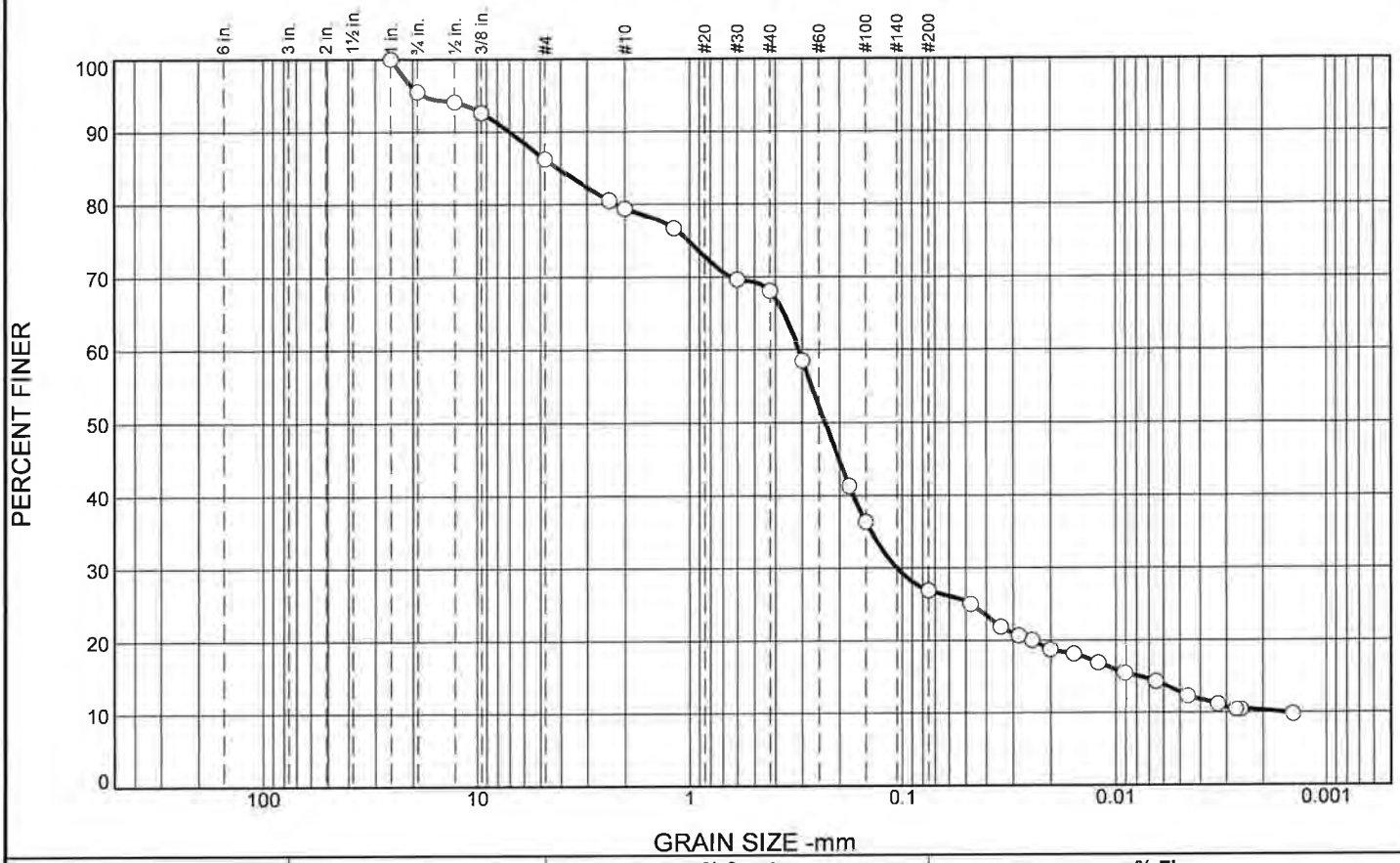
17. Additional comments on development:
- Purged and surged for 30 minutes
- Purged dry 3 times for a total of 7 gallons purged
- Sample time: 12:35

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Allison Last Name: Rathsack
Facility/Firm: Dane County Dpt. of Waste & Renewables
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: Ethan Schaefer
Print Name: Ethan Schaefer
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.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	4.5	9.3	6.8	11.4	41.1	14.1	12.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
3/4	95.5		
1/2	94.1		
3/8	92.6		
#4	86.2		
#8	80.5		
#10	79.4		
#16	76.6		
#30	69.7		
#40	68.0		
#50	58.5		
#80	41.3		
#100	36.4		
#200	26.9		

* (no specification provided)

Material Description

Brown Fine to Coarse Sand, Some Silt and Gravel

Atterberg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{90}= 7.0087 D_{85}= 4.1715 D_{60}= 0.3132
D_{50}= 0.2351 D_{30}= 0.1063 D_{15}= 0.0077
D_{10}= 0.0016 C_u= 201.33 C_c= 23.20

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

NP= Non-Plastic

Sample Number: MW117 **Depth:** 11'-12.5'

Date: 3/21/23

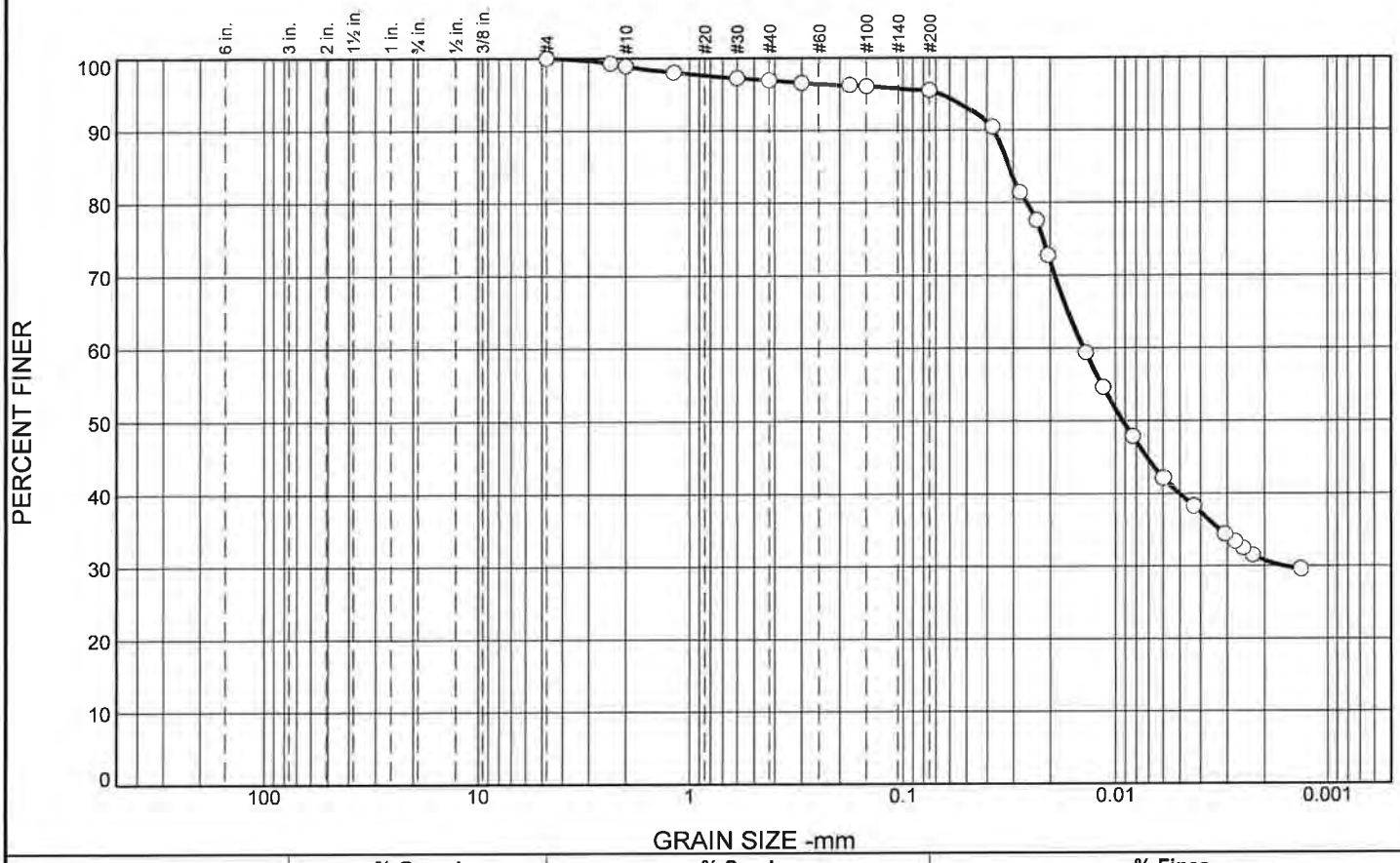
CGC, Inc.

Client: SCS Engineers
Project: Dane County Yahara Hills

Project No: C22011-8 **Figure**

Tested By: JFS **Checked By:** KJS

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	1.1	1.9	1.5	55.6	39.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#8	99.3		
#10	98.9		
#16	98.1		
#30	97.3		
#40	97.0		
#50	96.6		
#80	96.2		
#100	96.0		
#200	95.5		

* (no specification provided)

Material Description

Brown Fat Clay, Trace Sand

Atterberg Limits

PL= 22 LL= 51 PI= 29

Coefficients

D_{90}= 0.0370 D_{85}= 0.0316 D_{60}= 0.0141
D_{50}= 0.0093 D_{30}= 0.0016 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CH AASHTO= A-7-6(31)

Remarks

Sample Number: MW-117 **Depth:** 1'-2'

Date: 3/8/23

CGC, Inc.

Client: SCS Engineers
Project: Dane Couty Yahara Hills

Project No: C22011-8 **Figure**

Tested By: JFS **Checked By:** KJS

MW-117A

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		MW-117A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	2/6/2023	3/2/2023	HSA, 4.25" ID & Air Rotary

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
WD869	--	MW-117A	--	899.7 Feet MSL	8.3" & 6"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 377,911 N, 2,168,363 E S/C/N
SE 1/4 of SE 1/4 of Section 25, T 7 N, R 10 E
Lat ___° ___' ___"
Long ___° ___' ___"
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

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

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Blind drilled to 18.5' bgs. (See MW-117 log for lithology from 0' to 16' bgs.) Split barrel sampled from 18.5' to 30' bgs and cored hole from 30' to 50.75' bgs on 2/6/2023. Reamed hole to 6" diameter to 51' bgs using air rotary on 3/2/2023 and set well MW-117A at 50.3' bgs.										
			2											
			3											
			4											
			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
Jackie Rennebohm, PG	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

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 be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-117A Use only as an attachment to Form 4400-122.

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16	Blind drilled to 18.5' bgs.										
			17											
			18											
S1	18	6 5 7	19	SILTY SAND (SM), yellowish brown (10YR 5/6), mostly fine sand, with medium to coarse sand, some clay, and fine to coarse gravel (mostly dolomite), uniform, massive. (Till) (Holy Hill Formation, Horicon Member)						W				
			20											
			21		SM									
			22											
			23											
S2	18	11 89/4"	24							W				
			25	SILTY SAND (SM), white (10YR 8/1), fine to medium grained, with silt and green (glauconite) clay. (SS2) (Ancell Group, St. Peter Formation, Tonti Member)	SS2									
			26											
			27	DOLOMITE (DL4), light gray (2.5Y 7/2), massive, with sand, chert, round, oval, and elongated vugs, calcite, aragonite, dendrites, and green (glauconite) clay. (Prairie du Chien Group, Oneota Formation)										
			28											
			29											
			30											
			31											
			32											
Run 1	53.5		33		DL4									FF=4.46/ft Percent Recovery=89% RQD=48%, poor
			34											
			35	More sandy.										
			36											
			37											
			38											
			39											
			40											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-117A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample 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: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
Run 2	101		41	DOLOMITE (DL4), light gray (2.5Y 7/2), massive, with sand, chert, round, oval, and elongated vugs, calcite, aragonite, dendrites, and green (glauconite) clay. (Prairie du Chien Group, Oneota Formation)										FF=1.19/ft Percent Recovery=85% RQD=36%, poor
			42											
			43											
			44											
			45											
			46	Kh = 1.87E-04 cm/s	DL4									
			47											
Run 3	56		48											FF=1.1/ft Percent Recovery=93% RQD=61%, fair
			49											
			50											
			51	End of boring at 51' bgs in dolomite. Reamed hole to 6" diameter to 51' bgs using air rotary and constructed well from 50.3' bgs.										

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 3 (Proposed)	**Local Grid Location of Well** ☐ N. ☐ S. ____ ft. ☐ E. ☐ W. ____ ft.	**Well Name** MW-117A
Facility License, Permit or Monitoring No. --	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ____ ° ____ ' ____ " Long. ____ ° ____ ' ____ " or	**Wis. Unique Well No.** WD869 — **DNR Well ID No.** --
Facility ID --	**St. Plane** 377910.95 ft. N, 2168363.17 ft. E. S/C/N	**Date Well Installed** 03 / 02 / 2023 (m m d d y y y y)
Type of Well Well Code 12 / PZ	**Section Location of Waste/Source** SW 1/4 of SE 1/4 of Sec. 25, T. 7 N, R. 10 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm** Scott Klumb Soils & Engineering Services, Inc.
Distance from Waste/ Source ____ ft. — **Enf. Stds. Apply** ☒	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number**

A. Protective pipe, top elevation 902.38 ft. MSL

B. Well casing, top elevation 902.36 ft. MSL

C. Land surface elevation 899.7 ft. MSL

D. Surface seal, bottom 858.7 ft. MSL or 41 ft.

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

13. Sieve analysis performed? ☐ Yes ☒ No

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

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

16. Drilling additives used? ☐ Yes ☒ No

Describe N/A

17. Source of water (attach analysis, if required):
Yahara Hills Private Well

E. Bentonite seal, top 899.7 ft. MSL or 0 ft.

F. Fine sand, top 858.7 ft. MSL or 41 ft.

G. Filter pack, top 856.7 ft. MSL or 43 ft.

H. Screen joint, top 854.7 ft. MSL or 45 ft.

I. Well bottom 849.4 ft. MSL or 50.3 ft.

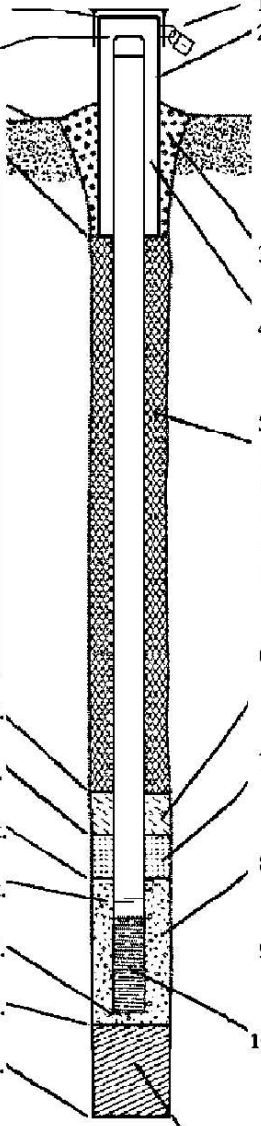
J. Filter pack, bottom 848.7 ft. MSL or 51 ft.

K. Borehole, bottom 848.7 ft. MSL or 51 ft.

L. Borehole, diameter 8.3 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 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04 — Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe:

3. Surface seal: Bentonite ☒ 30 — Concrete ☐ 01 — Other ☐

4. Material between well casing and protective pipe:
Filter Sand — Bentonite ☐ 30 — Other ☒

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. 2:1 Lbs/gal mud weight . . . Bentonite-sand slurry ☒ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 15.9 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 — Tremie pumped ☒ 02 — Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☒ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 32
c. Pell plug, Bentonite Pellets — Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15 ☒
b. Volume added 0.4 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40 ☒
b. Volume added 1.5 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23 — Flush threaded PVC schedule 80 ☐ 24 — Other ☐

10. Screen material: Sch. 40 PVC
a. Screen type: Factory cut ☒ 11 — Continuous slot ☐ 01 — Other ☐
b. Manufacturer Campbell (Monoflex)
c. Slot size: 0.01 in.
d. Slotted length: 5 ft.

11. Backfill material (below filter pack): None ☒ 14 — Other ☐

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

Signature	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.

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

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

Facility/Project Name	County Name	Well Name
Dane County Landfill No. 3 (Proposed)	Dane	MW-117A
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well ID Number**
	13	WD869 /

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

2. Well development method

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

3. Time spent developing well 100 min.

4. Depth of well (from top of well casisng) 52.9 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 12.1 gal.

7. Volume of water removed from well 29.0 gal.

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

9. Source of water added NA

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 1.30 ft.	46.51 ft.
Date	b. 03/16/2023 (m m d d y y y y)	03/16/2023
Time	c. 11:20 ☒ a.m. ☐ p.m.	12:40 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	5.0 inches	1.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	brown, no odor	light brown, no odor

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

14. Total suspended solids	---.- mg/l	1060.0 mg/l
15. COD	---.- mg/l	---.- mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Bri Last Name: Salome
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

17. Additional comments on development:

- Surged and purged for 30 minutes - DTW after was 38.91ft, removed 12 gallons
- 1 well volume was equal to 12.1 gallons, 10 well volumes was 121 gallons
- Surged dry 3 times w/ a 10 minute recharge period in between each purge to dry, 1st purge - 9 gal, 2nd - 5 gal, 3rd - 3 gal
- Sample taken at 1245
- Quick recharge

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Allison Last Name: Rathsack
Facility/Firm: Dane County Dpt. of Waste & Renewables
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: Bri Salome
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.

MW-118

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		MW-118

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	1/27/2023	1/27/2023	HSA, 4.25" ID

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
WD862	--	MW-118	897.4 Feet MSL	901.9 Feet MSL	8.3"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 377,989 N, 2,169,161 E S/C/N
SE 1/4 of SE 1/4 of Section 25, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Dane	13	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	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	11	2 3 5 6	1	ORGANIC SILT (OL), very dark grayish brown (10YR 3/2), with roots. (Topsoil)	OL					M				
			2	LEAN CLAY (CL), dark yellowish brown (10YR 3/4) with black mottling, mostly silt with clay, some fine sand, soft, cohesive, uniform, massive, trace roots. (Loess)	CL									
			3											
S2	11	2 2 2	4	SILTY SAND (SM), dark brown (10YR 3/3), mostly fine sand with medium to coarse sand and some clay, fine to coarse gravel (mostly dolomite), uniform, massive. (Till) (Holy Hill Formation, Horicon Member)	SM				1.5	W				Depth to water is ~4.5' bgs.
			5											
			6											
S3	16	1 1 2	7	Kh = 2.22E-03 cm/s						W				
			8											
S4	14		9	POORLY GRADED SAND WITH SILT (SP-SM), yellow (10YR 8/8), fine to medium grained. (Weathered Sandstone Bedrock) (SS2) (Ancell Group, St. Peter Formation, Tonti Member)	SS2					W				
			10											
			11	Trace pieces of consolidated sandsonte.										
S5	18	7 6 13	12							W				
			13	At 11' to 12.5' POORLY GRADED SAND WITH SILT (SP-SM) % g-s-si+cl = 2-93-6										
			14											
S6	18	6 26 32	15							W				

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

Signature	Firm
Jackie Rennebohm, PG	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

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 be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-118 Use only as an attachment to Form 4400-122.

Sample									Soil Properties						
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	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				POORLY GRADED SAND WITH SILT (SP-SM), yellow (10YR 8/8), fine to medium grained. (Weathered Sandstone Bedrock) (SS2) (Ancell Group, St. Peter Formation, Tonti Member)	SS2									
				End of boring at 15.3' bgs in sandstone. Constructed well from 15.3' bgs.										

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 3 (Proposed)	**Local Grid Location of Well** ☐ ft. ☐ N. ☐ S. ☐ ft. ☐ E. ☐ W.	**Well Name** MW-118
Facility License, Permit or Monitoring No. --	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** WD862
Facility ID --	**St. Plane** 377988.64 ft. N, 2169160.61 ft. E. S/C/N	**DNR Well ID No.** --
Type of Well Well Code 11 / MW	**Section Location of Waste/Source** SE 1/4 of SE 1/4 of Sec. 25, T. 7 N, R. 10 ☒ E ☐ W	**Date Well Installed** 01 / 27 / 2023 (m m d d y y y y)
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**
		Well Installed By: Name (first, last) and Firm Scott Klumb Soils & Engineering Services, Inc.

A. Protective pipe, top elevation 904.23 ft. MSL

B. Well casing, top elevation 904.27 ft. MSL

C. Land surface elevation 901.9 ft. MSL

D. Surface seal, bottom 897.9 ft. MSL or 4 ft.

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

13. Sieve analysis performed? ☒ Yes ☐ No

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

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

16. Drilling additives used? ☐ Yes ☒ No

Describe -

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

E. Bentonite seal, top 901.9 ft. MSL or 0 ft.

F. Fine sand, top 897.9 ft. MSL or 4 ft.

G. Filter pack, top 897.4 ft. MSL or 4.5 ft.

H. Screen joint, top 896.9 ft. MSL or 5 ft.

I. Well bottom 886.6 ft. MSL or 15.3 ft.

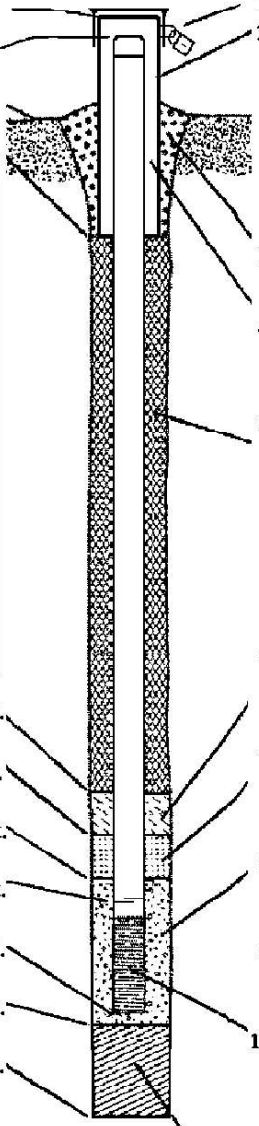
J. Filter pack, bottom 886.6 ft. MSL or 15.3 ft.

K. Borehole, bottom 886.6 ft. MSL or 15.3 ft.

L. Borehole, diameter 8.3 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 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04 Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe:

3. Surface seal: Bentonite ☒ 30 Concrete ☐ 01 Other ☐

4. Material between well casing and protective pipe:
Filter Sand
Bentonite ☐ 30 Other ☒

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 2.07 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. ____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15 ☒
b. Volume added 0.5 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40 ☒
b. Volume added 2.0 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐

10. Screen material: Sch. 40 PVC
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐
b. Manufacturer Campbell (Monoflex)
c. Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14 Other ☐

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

Signature	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.

2.8' stick up height

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

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

Facility/Project Name	County Name	Well Name
Dane County Landfill No. 3 (Proposed)	Dane	MW-118

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
--	13	WD862	--

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

2. Well development method

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

3. Time spent developing well 70 min.

4. Depth of well (from top of well casisng) 176 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 98 gal.

7. Volume of water removed from well 76.8 gal.

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

9. Source of water added NA

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 7.01 ft.	7.52 ft.
Date	b. 02/02/2023 (m m d d y y y y)	02/02/2023
Time	c. 10:20 ☒ a.m. ☐ p.m.	11:30 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	1.0 inches	<1.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
(Describe)	brown, no odor	very slight turbidity, no odor, mostly clear

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

14. Total suspended solids	---.- mg/l	4,400.0 mg/l
15. COD	---.- mg/l	---.- mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Ethan Last Name: Schaefer
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

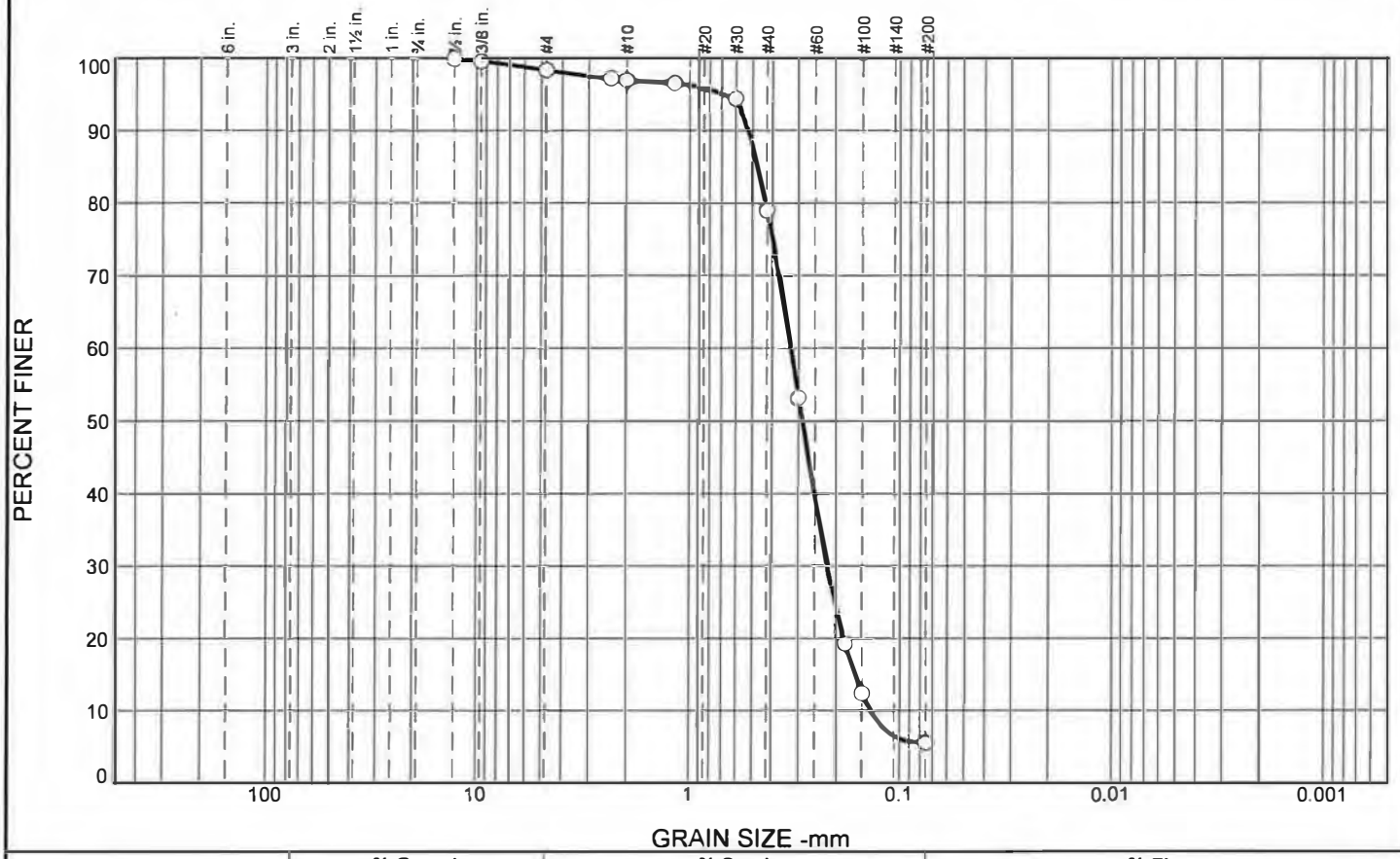
17. Additional comments on development:
- Surged with bailer 30 minutes, purged 10 gallons
- Pumped with Gfoss. Pump rate=2.5gpm
-1 0 well volumes =98 gallons
- Pumped 66.8 gallons

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Allison Last Name: Rathsack
Facility/Firm: Dane County Dpt. of Waste & Renewables
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: Ethan Schaefer
Print Name: Ethan Schaefer
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.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.6	1.4	18.0	73.4	5.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2	100.0		
3/8	99.6		
#4	98.4		
#8	97.2		
#10	97.0		
#16	96.6		
#30	94.5		
#40	79.0		
#50	53.2		
#80	19.3		
#100	12.4		
#200	5.6		

* (no specification provided)

Material Description

Light Brown Fine to Medium Sand, Little Silt, Trace Gravel

Atterberg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{90}= 0.5247 D_{85}= 0.4713 D_{60}= 0.3271
D_{50}= 0.2879 D_{30}= 0.2180 D_{15}= 0.1623
D_{10}= 0.1366 C_u= 2.40 C_c= 1.06

Classification

USCS= SP-SM AASHTO= A-3

Remarks

NP= Non-Plastic

Sample Number: MW118 **Depth:** 11'-12.5'

Date: 3/16/23

CGC, Inc.

Client: SCS Engineers
Project: Dane County Yahara Hills

Project No: C22011-8 **Figure**

Tested By: JFS **Checked By:** KJS

MW-118A

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		MW-118A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	2/17/2023	2/20/2023	HSA, 4.25" ID & HQ Core

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
WD864	--	MW-118A	895.9 Feet MSL	901.8 Feet MSL	8.3" & 3.8"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 377,985 N, 2,169,164 E S/C/N
SE 1/4 of SE 1/4 of Section 25, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

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

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Blind drilled to 16' bgs. (See MW-118 log for lithology from 0' to 15' bgs.) Split-barrel sampled from 16' to 47' bgs on 2/17/2023. Cored hole from 47' to 52.8' bgs on 2/20/2023 and set well MW-118A at 46.3' bgs.										
			2											
			3											
			4											
			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
Jackie Rennebohm, PG	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

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 be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

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Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-118A Use only as an attachment to Form 4400-122.

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16											
S1	18	10 8 14	17	VARIABLE LITHOLOGY (SS3), white (10YR 8/1), light gray (10YR 7/1), and weak red (10R 4/3), fine to medium sand, interbedded with laminated layers of silt, silty sand diamict, clay, and shale, with clasts of dolomite and chert. (Ancell Group, St. Peter Formation, Readstown Member)						W				Depth to water at 5.9' bgs.
			18											
S2	18	3 6 8	19	At 18.5' to 20', CLAYEY SAND (SC) % g-s-si-cl = 1-54-23-23 LL = 39 PI = 22						W				
			20											
			21											
			22											
			23											
S3	18	11 10 13	24							W				
			25											
			26											
			27											
			28		SS3									
S4	5.5	100/5.5"	29							W				
			30											
			31											
			32											
			33											
S5	3.5	100/3.5"	34							W				
			35											
			36											
			37											
			38											
S6	8	38 30/4" 30/2"	39	At 39' to 40', FAT CLAY (CH) % g-s-si-cl = 4-16-23-57 LL = 58 PI = 26						W				Harder drilling at 39' bgs.
			40											

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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			41	VARIABLE LITHOLOGY (SS3), white (10YR 8/1), light gray (10YR 7/1), and weak red (10R 4/3), fine to medium sand, interbedded with laminated layers of silt, silty sand diamict, clay, and shale, with clasts of dolomite and chert. (Ancell Group, St. Peter Formation, Readstown Member)										
			42											
			43	At 43' to 44', SANDY SILT/SANDY LEAN CLAY (ML/CL)	SS3									
S7	8	100/6"	44	% g-s-si+cl = 7-40-53						W				
			45	Kh = 7.99E-05 cm/s										
			46											
			47	DOLOMITE (DL5), gray (10YR 6/1) and yellow (10YR 7/6), sandy, massive, with round, oval, and elongated vugs, and chert. (Prairie du Chien Group)										
			48											
			49											
Run 1	69.6		50		DL5									FF=1.54/ft Percent Recovery=100% RQD=83%, good
			51											
			52											
				End of boring at 52.8' bgs in dolomite. Reamed hole to 6" diameter using air rotary and constructed well from 46.3' bgs.										

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 3 (Proposed)	**Local Grid Location of Well** ☐ ft. ☐ N. ☐ S. ☐ ft. ☐ E. ☐ W.	**Well Name** MW-118A
Facility License, Permit or Monitoring No. --	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** WD864 — **DNR Well ID No.** --
Facility ID --	**St. Plane** 377985.41 ft. N, 2169163.59 ft. E. S/C/N	**Date Well Installed** 02 / 20 / 2023 (m m d d y y y y)
Type of Well Well Code 12 / PZ	**Section Location of Waste/Source** SE 1/4 of SE 1/4 of Sec. 25, T. 7 N, R. 10 ☒ E ☐ W	**Well Installed By: Name (first, last) and Firm** Scott Klumb Soils & Engineering Services, Inc.
Distance from Waste/ Source ____ ft. — **Enf. Stds. Apply** ☒	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number**

A. Protective pipe, top elevation 904.35 ft. MSL

B. Well casing, top elevation 904.26 ft. MSL

C. Land surface elevation 901.8 ft. MSL

D. Surface seal, bottom 865.0 ft. MSL or 36.8 ft.

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

13. Sieve analysis performed? ☐ Yes ☒ No

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

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

16. Drilling additives used? ☐ Yes ☒ No
Describe N/A

17. Source of water (attach analysis, if required):
N/A

E. Bentonite seal, top 901.8 ft. MSL or 0 ft.

F. Fine sand, top 865.0 ft. MSL or 36.8 ft.

G. Filter pack, top 863.0 ft. MSL or 38.8 ft.

H. Screen joint, top 860.8 ft. MSL or 41 ft.

I. Well bottom 855.5 ft. MSL or 46.3 ft.

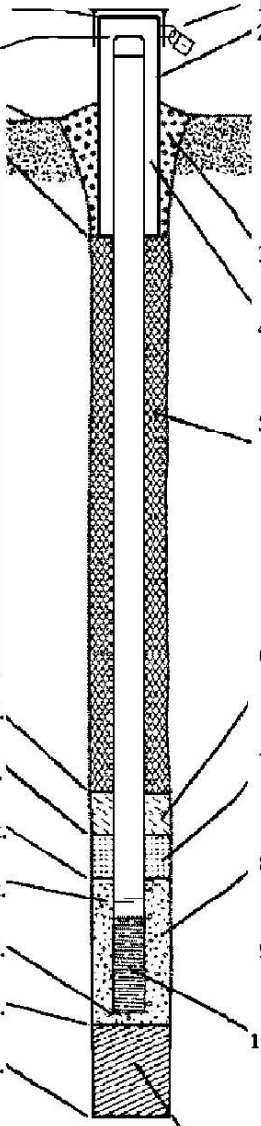
J. Filter pack, bottom 849.0 ft. MSL or 52.8 ft.

K. Borehole, bottom 849.0 ft. MSL or 52.8 ft.

L. Borehole, diameter 6.0 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 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04 Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe:

3. Surface seal: Bentonite ☒ 30 Concrete ☐ 01 Other ☐
Bent Grout Mix

4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐
Filter Sand

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. 50:24 Lbs/gal mud weight . . . . . Bentonite slurry ☒ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 10.87 Ft^3 volume added for any of the above
f. How installed: Tremie ☒ 01 Tremie pumped ☒ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 32
c. Bent Pellets Other ☒

7. Fine sand material: Manufacturer, product name & mesh size ☒
a. Red Flint #15
b. Volume added 1 ft^3

8. Filter pack material: Manufacturer, product name & mesh size ☒
a. Red Flint #40
b. Volume added 2.25 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐

10. Screen material: Sch. 40 PVC
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐
b. Manufacturer Campbell (Monoflex)
c. Slot size: 0.01 in.
d. Slotted length: 5 ft.

11. Backfill material (below filter pack): None ☒ 14
Other ☐

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

Signature	Firm
Budget Arnold	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.

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

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

Facility/Project Name	County Name	Well Name
Dane County Landfill No. 3 (Proposed)	Dane	MW-118A
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number**	**DNR Well ID Number**
--	13	WD864	

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

2. Well development method

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

3. Time spent developing well 90 min.

4. Depth of well (from top of well casisng) 49.1 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 18.6 gal.

7. Volume of water removed from well 42.0 gal.

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

9. Source of water added NA

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 5.21 ft.	46.13 ft.
Date	b. 03/17/2023 (m m d d y y y y)	03/17/2023 (m m d d y y y y)
Time	c. 8:55 ☒ a.m. ☐ p.m.	10:25 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	2.0 inches	0.5 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	light brown, no odor	cloudy white, no odor

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

14. Total suspended solids	---.- mg/l	355.0 mg/l
15. COD	---.- mg/l	---.- mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Bri Last Name: Salome
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

17. Additional comments on development:

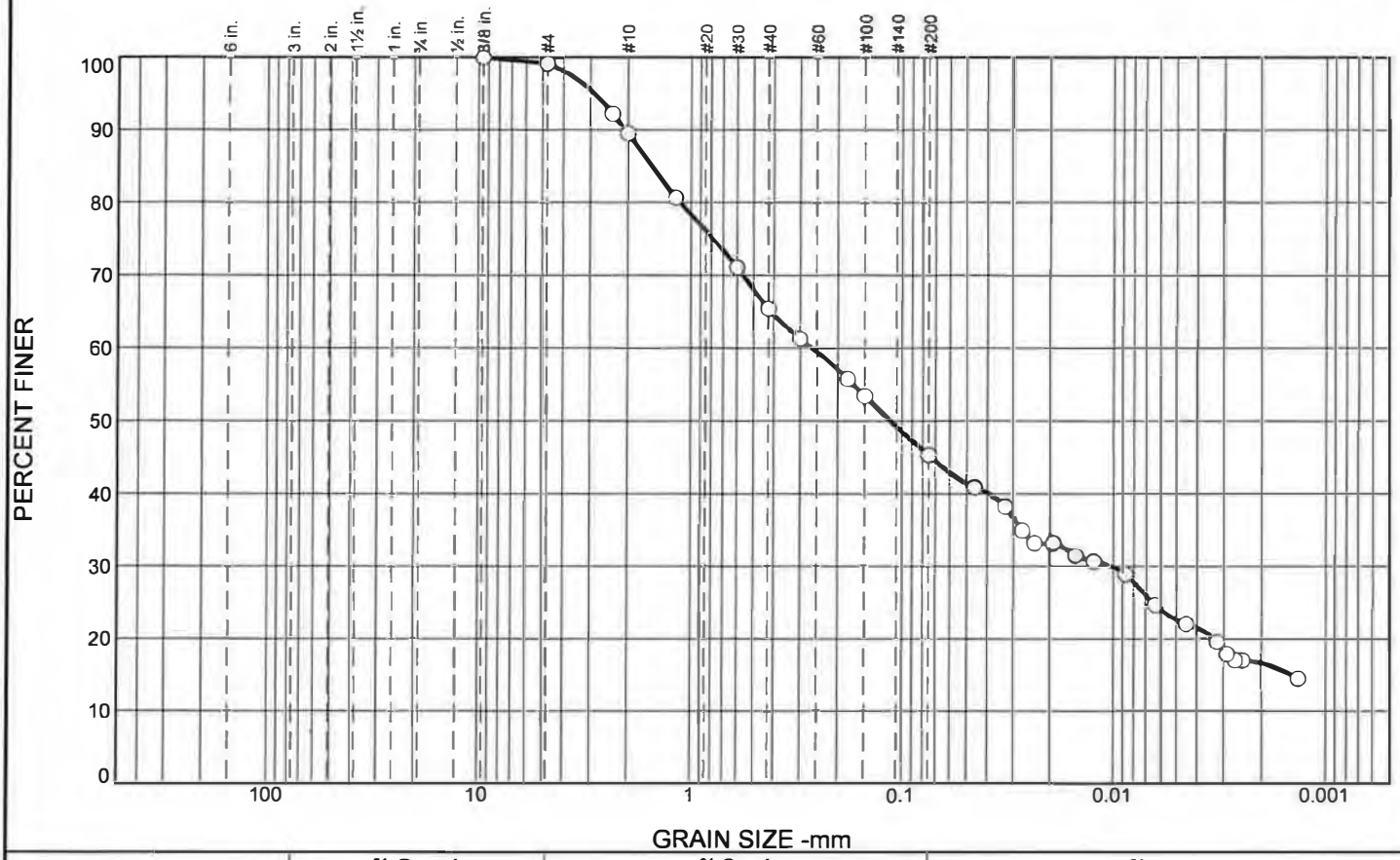
- Surged/purged for 30 minutes, purged 8 gallons
- Pumped dry 3 times; 1 - 18 gallons, 2 - 7 gallons, 3 - 9 gallons
- Quick recovery, after pumping, it would cycle 5 seconds strong flow, low flow 10 seconds, 5 seconds no flow
- 10 minute recharge period in between purges
- Sample time 1035

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Allison Last Name: Rathsack
Facility/Firm: Dane County Dpt. of Waste & Renewables
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: Bri Salome
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.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.8	9.7	24.0	20.2	22.6	22.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8"	100.0		
#4	99.2		
#8	92.3		
#10	89.5		
#16	80.7		
#30	71.1		
#40	65.5		
#50	61.3		
#80	55.8		
#100	53.4		
#200	45.3		

* (no specification provided)

Material Description

Red-Brown Clayey Fine to Coarse Sand, Trace Gravel

Atterberg Limits

PL= 17 LL= 39 PI= 22

Coefficients

D_{90}= 2.0573 D_{85}= 1.5400 D_{60}= 0.2629
D_{50}= 0.1138 D_{30}= 0.0102 D_{15}= 0.0014
D_{10}= C_u= C_c=

Classification

USCS= SC AASHTO= A-6(6)

Remarks

Sample Number: MW 118A S2 **Depth:** 18.5'-20'

Date: 8/30/23

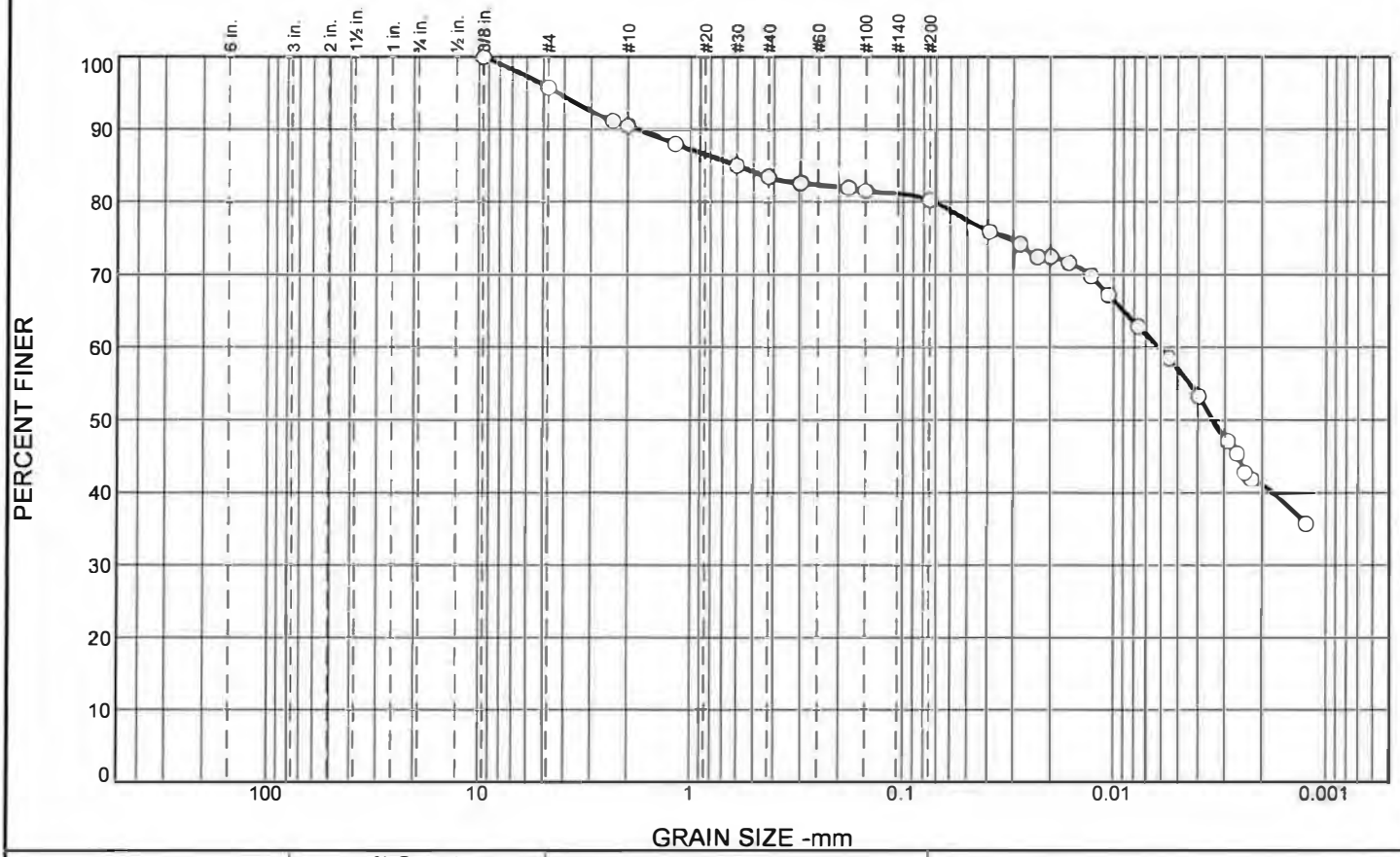
CGC, Inc.

Client: SCS Engineers
Project: Dane County Yahara Hills

Project No: C22011-8 **Figure**

Tested By: JFS **Checked By:** KJS

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	4.2	5.3	7.0	3.3	23.1	57.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	95.8		
#8	91.2		
#10	90.5		
#16	88.0		
#30	85.0		
#40	83.5		
#50	82.6		
#80	81.9		
#100	81.6		
#200	80.2		

* (no specification provided)

Material Description

Gray Fat Clay, Some Sand, Trace Gravel

Atterberg Limits

PL= 22 LL= 58 PI= 36

Coefficients

D_{90}= 1.7706 D_{85}= 0.6005 D_{60}= 0.0061
D_{50}= 0.0034 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CH AASHTO= A-7-6(30)

Remarks

Sample Number: MW 118A S6 **Depth:** 38.5'-40'

Date: 8/30/23

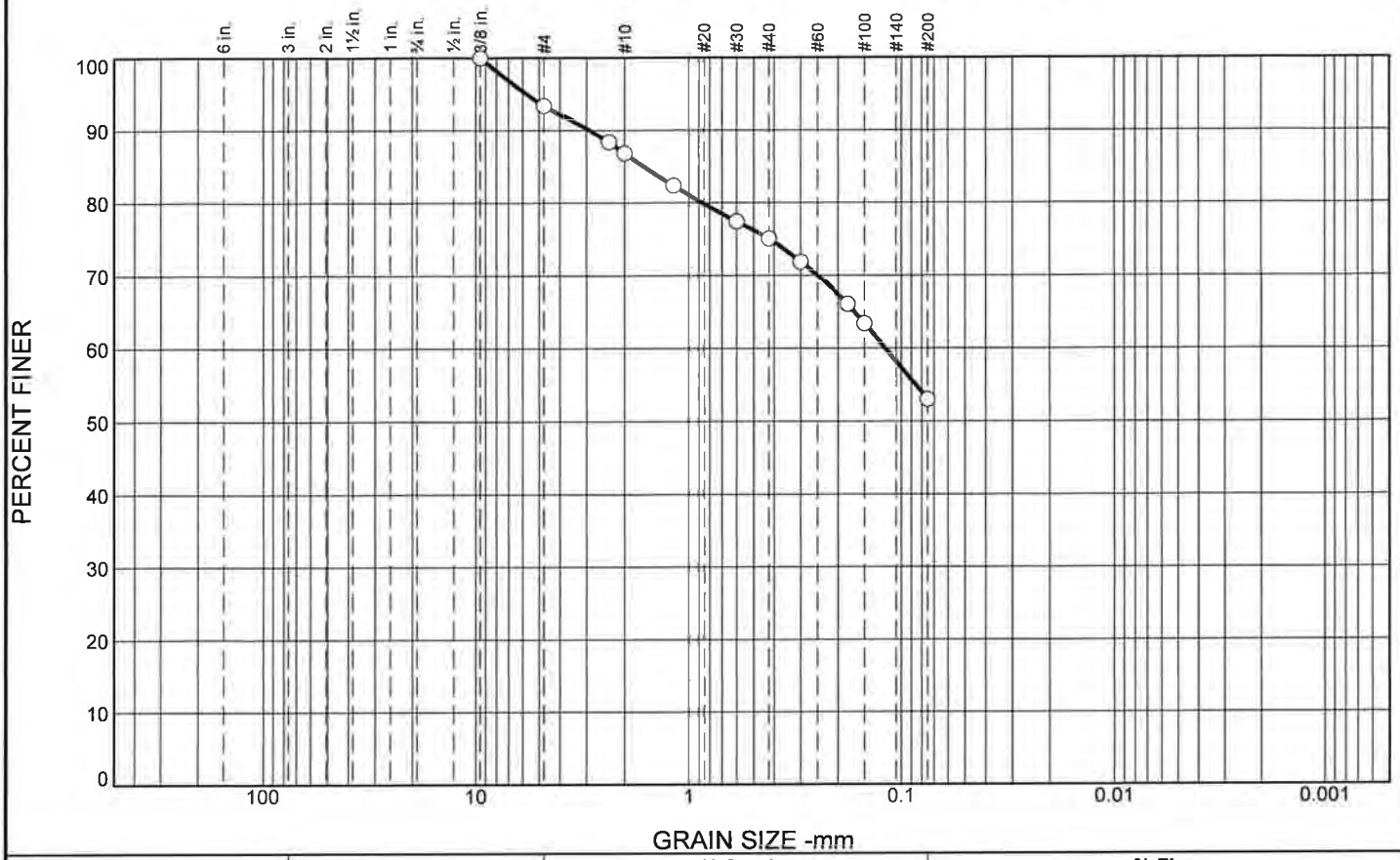
CGC,Inc.

Client: SCS Engineers
Project: Dane County Yahara Hills

Project No: C22011-8 **Figure**

Tested By: JFS **Checked By:** KJS

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	6.6	6.6	11.7	22.1	53.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	93.4		
#8	88.4		
#10	86.8		
#16	82.4		
#30	77.4		
#40	75.1		
#50	71.8		
#80	66.0		
#100	63.4		
#200	53.0		

* (no specification provided)

Material Description

White Sandy Silt to Sandy Clay, Little Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 2.8950 D_{85}= 1.6264 D_{60}= 0.1197
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= ML/CL AASHTO=

Remarks

Sample Number: MW118A S7 **Depth:** 43'-44'

Date: 3/27/23

CGC, Inc.

Client: SCS Engineers
Project: Dane County Yahara Hills

Project No: C22011-8 **Figure**

Tested By: JFS **Checked By:** KJS

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		MW-119

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	1/27/2023	1/27/2023	HSA, 2.25" ID

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
WD861	--	MW-119	--	919.3 Feet MSL	6.0"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 378,019 N, 2,169,756 E S/C/N
SE 1/4 of SE 1/4 of Section 25, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Dane	13	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	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	14	2 3 3 4	1	ORGANIC SILT (OL), very dark grayish brown (10YR 3/2), with roots. (Topsoil)	ML									
			2	LEAN CLAY (CL), olive brown (2.5Y 4/4), some fine sand, soft, cohesive, uniform, massive, trace roots. (Loess) At 0.5' to 2.5', LEAN CLAY (CL) % g-s-si-cl = 0-6-49-45 LL=48, PI=24 K = 2.0 x 10-8 cm/sec	CL				3.5	M				
			3											
S2	16	2 2 2	4	SILTY SAND (SM), yellowish brown (10YR 5/4), fine sand with medium to coarse sand, and fine to coarse gravel. (Outwash) (Holy Hill Formation)	SM					M				
			5											
			6											
S3	17	4 5 5	7	SILTY SAND (SM), brown (10YR 5/3), mostly fine sand with medium to coarse sand and some clay, fine to coarse gravel (mostly dolomite), uniform, massive. (Till) (Holy Hill Formation, Horicon Member)	SM					M				
			8	SILTY SAND (SM), reddish yellow (7.5YR 7/8), pink (7.5YR 7/4), white (7.5YR 8/1), and dark brown (7.5YR 3/2), fine to medium grained, with silt, massive. (Sandstone Bedrock) (SS2) (Ancell Group, St. Peter Formation, Tonti Member)										
S4	16	21 32 37/4"	9							M+				
			10											
			11		SS2									
S5	9	100/6"	12							M+				
			13											
S6	10	100/4"	14							M				
			15											

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

Signature	Firm
Jackie Rennebohm, PG	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16	SILTY SAND (SM), reddish yellow (7.5YR 7/8), pink (7.5YR 7/4), white (7.5YR 8/1), and dark brown (7.5YR 3/2), fine to medium sand, with silt, massive. (Sandstone Bedrock) (SS2) (Ancell Group, St. Peter Formation, Tonti Member)										
S7	4	100/2"	17							M				Tougher drilling.
			18											
S8	7	100/2.25"	19							M				
			20											
			21											
			22											
			23											
S9	3	100/2"	24							M				
			25											
			26											
			27											
			28		SS2									
S10	1.5	100/1.5"	29							M				
			30											
			31											
			32											
			33											
S11	6	100/5"	34							M				Depth to water at ~36' bgs.
			35											
			36											
			37											
			38	Kh = 3.17E-03 cm/s										
S12	6	100/5"	39	At 38.5' to 40', SILTY SAND (SM) % g-s-si+cl = 1-85-15						W				
			40											

State of Wisconsin
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Boring Number MW-119 Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
S13	2.5	100/2.5"	41	SILTY SAND (SM), reddish yellow (7.5YR 7/8), pink (7.5YR 7/4), white (7.5YR 8/1), and dark brown (7.5YR 3/2), fine to medium sand, with silt, massive. (Sandstone Bedrock) (SS2) (Ancell Group, St. Peter Formation, Tonti Member)						W				
			42											
			43		SS2									
			44											
			45											
			46											
			47	SILTY SAND (SM), white (10YR 8/1) and light gray (10YR7/1), mostly fine to medium sand with silt and clay seams, clay is green (glauconite). (Weathered Sandstone Bedrock) (SS3) (Ancell Group, St. Peter Formation, Readstown Member)										
			48		SS3									
S14	6	100/6"	49	End of boring at 49' bgs in sandstone. Constructed well from 46.3' bgs.						W				Driller noted different drilling at 47' bgs. Likely transition from the Tonti to the Readstown Member.

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 3 (Proposed)	**Local Grid Location of Well** ☐ ft. ☐ N. ☐ S. ☐ ft. ☐ E. ☐ W.	**Well Name** MW-119
Facility License, Permit or Monitoring No. --	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** WD861
Facility ID --	**St. Plane** 378018.99 ft. N, 2169755.57 ft. E. S/C/N	**DNR Well ID No.** --
Type of Well Well Code 11 / MW	**Section Location of Waste/Source** SE 1/4 of SE 1/4 of Sec. 25, T. 7 N, R. 10 ☒ E ☐ W	**Date Well Installed** 01 / 27 / 2023 (m m d d y y y y)
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**
		Well Installed By: Name (first, last) and Firm Scott Klumb Soils & Engineering Services, Inc.

A. Protective pipe, top elevation 921.69 ft. MSL
B. Well casing, top elevation 921.70 ft. MSL
C. Land surface elevation 919.3 ft. MSL
D. Surface seal, bottom 887.3 ft. MSL or 32 ft.

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

13. Sieve analysis performed? ☒ Yes ☐ No

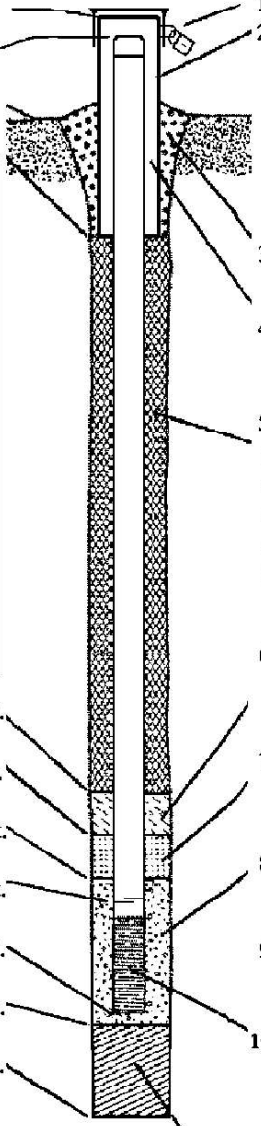
14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Other ☐

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

16. Drilling additives used? ☐ Yes ☒ No
Describe N/A

17. Source of water (attach analysis, if required):
N/A

E. Bentonite seal, top 919.3 ft. MSL or 0 ft.
F. Fine sand, top 887.3 ft. MSL or 32 ft.
G. Filter pack, top 885.3 ft. MSL or 34 ft.
H. Screen joint, top 883.3 ft. MSL or 36 ft.
I. Well bottom 873.0 ft. MSL or 46.3 ft.
J. Filter pack, bottom 871.3 ft. MSL or 48 ft.
K. Borehole, bottom 871.3 ft. MSL or 48 ft.
L. Borehole, diameter 6.0 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 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04 Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe:
3. Surface seal: Bentonite ☒ 30 Concrete ☐ 01 Other ☐
4. Material between well casing and protective pipe: Bentonite ☐ 30
Filter Sand Other ☒
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 16.6 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15 ☒
b. Volume added 0.5 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40 ☒
b. Volume added 2.0 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐
10. Screen material: Sch. 40 PVC
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐
b. Manufacturer Campbell (Monoflex)
c. Slot size: 0.01 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☒ 14 Other ☐

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

Signature	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.

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

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

Facility/Project Name	County Name	Well Name
Dane County Landfill No. 3 (Proposed)	Dane	MW-119

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
--	13	WD861	--

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

2. Well development method

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

3. Time spent developing well 60 min.

4. Depth of well (from top of well casisng) 48.6 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 10.0 gal.

7. Volume of water removed from well 13.0 gal.

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

9. Source of water added NA

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 37.74 ft.	39.07 ft.
Date	b. 02/02/2023 (m m d d y y y y)	02/02/2023
Time	c. 9:30 ☒ a.m. ☐ p.m.	10:30 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	6.0 inches	~5.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☐ 20 Turbid ☒ 25
(Describe)	light brown, no odor	light brown, no odor

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

14. Total suspended solids	---.- mg/l	4,500.0 mg/l
15. COD	---.- mg/l	---.- mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Ethan Last Name: Schaefer
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

17. Additional comments on development:

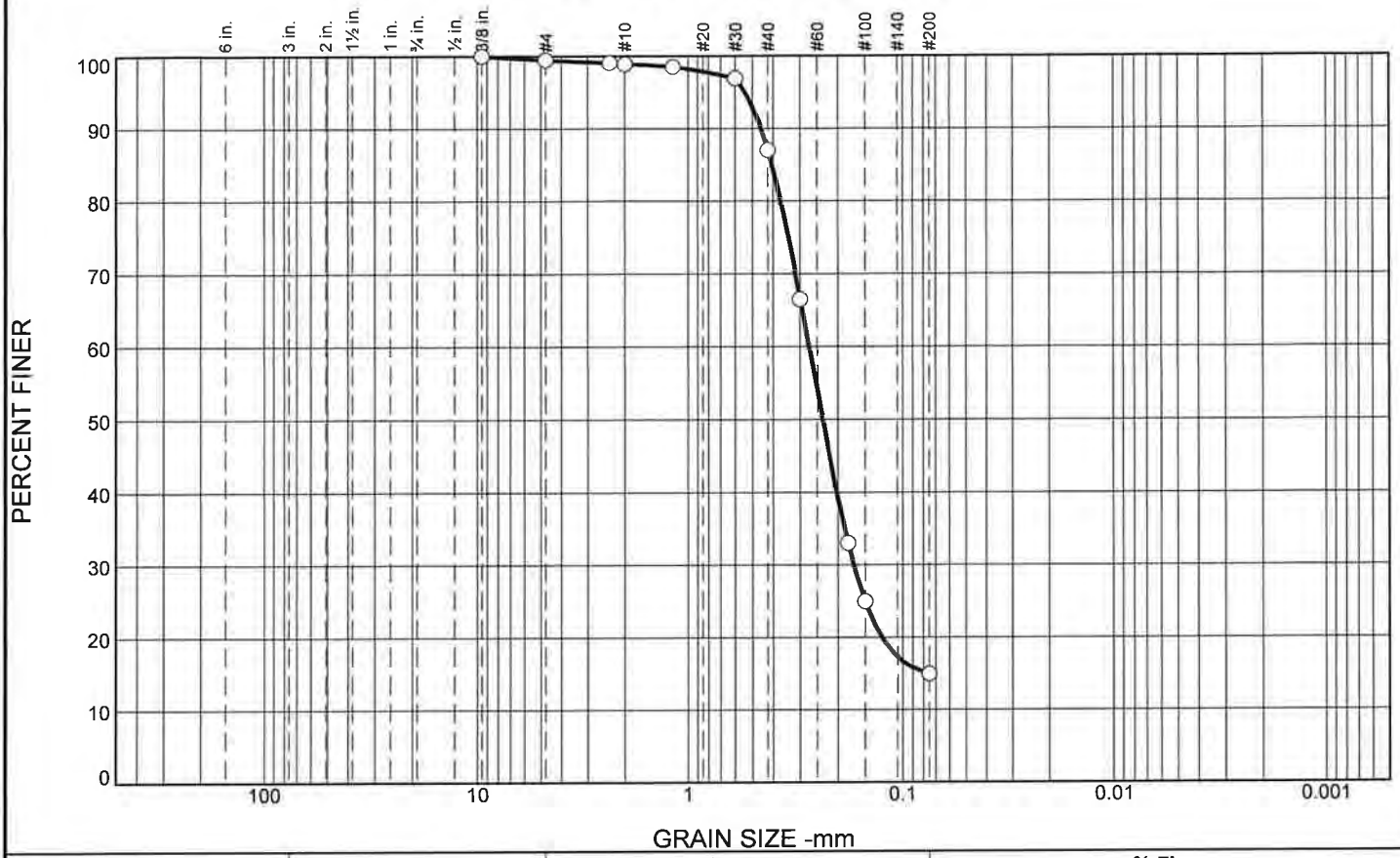
- Surge/purge 30 min
- Removed 5 gallons w/ bailer
- Pumped dry 3 times with Grundfoss for total of: 8 gallons removed by pumping
- 10 well volumes: 100 gallons
- Sample at 1035

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Allison Last Name: Rathsack
Facility/Firm: Dane County Dpt. of Waste & Renewables
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: Ethan Schaefer
Print Name: Ethan Schaefer
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.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.5	0.6	11.9	72.0	15.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	99.5		
#8	99.0		
#10	98.9		
#16	98.5		
#30	96.9		
#40	87.0		
#50	66.5		
#80	33.0		
#100	25.0		
#200	15.0		

* (no specification provided)

Material Description

Light Brown Fine to Medium Sand, Some Silt, Trace Gravel

Atterberg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{90}= 0.4573 D_{85}= 0.4073 D_{60}= 0.2732
D_{50}= 0.2367 D_{30}= 0.1694 D_{15}= 0.0756
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Sample Number: MW119 **Depth:** 38.5'-40'

Date: 3/16/23

CGC,Inc.

Client: SCS Engineers
Project: Dane County Yahara Hills

Project No: C22011-8 **Figure**

Tested By: JFS **Checked By:** KJS

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		ST-119

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	3/8/2023	3/8/2023	SSA

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
--	--	--	--	919.3 Feet MSL	4.3"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 378,019 N, 2,169,756 E S / C / N
SE 1/4 of SE 1/4 of Section 25, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

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

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	17		1 2	Blind drilled to 0.5' bgs. (See MW-119 log for lithology from 0' to 49' bgs.) LEAN CLAY, dark yellowish brown (10YR 4/4), mostly silt with clay, some fine sand, soft, cohesive, uniform, massive, trace roots. (Loess) At 0.5' to 2.5', LEAN CLAY (CL) % g-s-si-cl = 0-6-49-45 LL=48, PI=24 End of boring at 2' bgs in loess. Abandoned with bentonite chips.	CL				2.25	M				Shelby tube sample from 0.5 to 3 feet bgs.

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

Signature	Adam Watson	Firm	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

State of Wis., Dept. of Natural Resources SCS No. 25222268.00
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

☐ **Verification Only of Fill and Seal**

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Dane		ST-119

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

¼ / ¼ SE	¼ SE	Section	Township	Range
or Gov't Lot #		25	7 N	10 ☒ E ☐ W

Well Street Address: 7101 US Highway 12 & 18

Well City, Village or Town	Well ZIP Code
Madison, WI	53718

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Temporary Borehole	

2. Facility / Owner Information

Facility Name: Dane County Landfill No.3 (Proposed)

Facility ID (FID or PWS):

License/Permit/Monitoring #:

Original Well Owner: Dane County Department of Waste and Renewables

Present Well Owner: Dane County Department of Waste and Renewables

Mailing Address of Present Owner: 1919 Alliant Energy Center Way

City of Present Owner	State	ZIP Code
Madison	WI	53713

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 03/08/2023

If a Well Construction Report is available, please attach.

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

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
2.5	NA

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

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

If yes, to what depth (feet)?	Depth to Water (feet)
NA	~38

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite Chips	Surface	2.5	7 lbs	dry mix

6. Comments

Shelby Tube ST-119

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Soils & Engineering Services, Inc		03/08/2023

Street or Route	Telephone Number
1102 Stewart St.	(608)274-7600

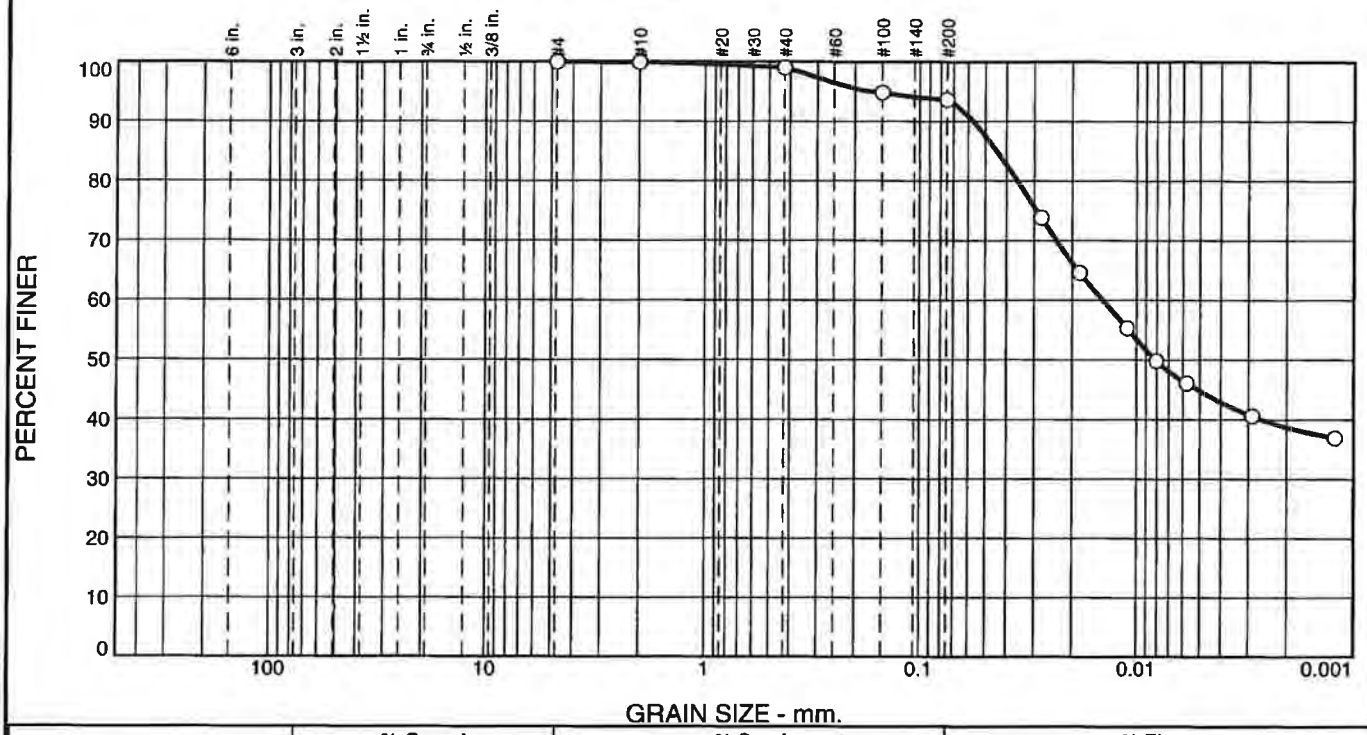
City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713		03/08/2023

DNR Use Only

Date Received	Noted By

Comments:

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	0.9	5.4	48.8	44.8

Test Results (ASTM D6913 & ASTM D1140)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	100.0		
#10	99.9		
#40	99.0		
#100	94.9		
#200	93.6		
0.0279 mm.	73.8		
0.0184 mm.	64.6		
0.0111 mm.	55.3		
0.0080 mm.	49.8		
0.0058 mm.	46.1		
0.0029 mm.	40.6		
0.0012 mm.	36.9		

* (no specification provided)

Material Description

LEAN CLAY, brown

Atterberg Limits (ASTM D 4318)

PL= 24 LL= 48 PI= 24

Classification

USCS (D 2487)= CL AASHTO (M 145)= A-7-6(25)

Coefficients

D_{90}= 0.0570 D_{85}= 0.0444 D_{60}= 0.0144
D_{50}= 0.0081 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks

Munsell Color Code: 10YR 4/3

Date Received: 3/27/2023 **Date Tested:** 3/29/2023

Tested By: MRG

Checked By: RJP

Title: Eng. Project Manager

Source of Sample: ST-Soil Borings **Depth:** 0.5'-2.5' **Date Sampled:** 3/23/2023

Sample Number: ST-119

Tetra Tech
2679 Continental Drive
Green Bay, WI 54311

Client: CGC, Inc.

Project: Dane County - Yahara Hills

Project No: SCS #25222268.00 **Figure**

HYDRAULIC CONDUCTIVITY DETERMINATION
Rising tailwater method in a triaxial permeameter
ASTM D 5084, Method C (EM-1110-2-1906 7)

Tetra Tech
2679 Continental Dr.
Green Bay, WI. 54311

Project No. :	SCS#25222268.00		
Client:	CGC, Inc.		
Project:	Dane Co. Yahara Hills		
Sampled Date:	3/23/2023	Date Received:	3/27/2023

SUMMARY OF TEST RESULTS

Sample No.:	ST-119	
Location:	S-1 @ 0.5'-2.5'	
Soil Classification:	LEAN CLAY, brown (CL)	
Munsell Color Code:	10YR 4/3	

	INITIAL	FINAL
DRY UNIT WEIGHT (pcf)	99.5	99.5
WATER CONTENT (%)	24.6	26.4
DIAMETER (cm)	7.08	7.08
LENGTH (cm)	7.96	7.96
HYDRAULIC GRADIENT (MAXIMUM)		11.6
PERCENT SATURATION	96.428074	103.06634
HYDRAULIC CONDUCTIVITY k (cm/sec)		1.96E-08

Tested By: Robert J Peeters

Reviewed By: Robert R Pocze

Date Reviewed: 4/7/23

MW-120

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		MW-120

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	1/20/2023	1/20/2023	HSA, 4.25" ID

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
WD844	--	MW-120	902.5 Feet MSL	907.2 Feet MSL	8.3"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 377,642 N, 2,167,842 E S/C/N
NW 1/4 of NE 1/4 of Section 36, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Dane	13	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	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
S1	24	2 4 4 2	1	SILT (ML), very dark grayish brown (10YR 3/2), organic rich, with roots. (Topsoil)	ML									
			2	LEAN CLAY (CL), reddish brown (5YR 4/3), mostly silt with clay, some fine sand, soft, cohesive, uniform, massive, trace roots. (Loess)	CL				1.0	M				
			3	SILTY SAND, reddish brown (5YR 4/3), moslty fine sand with medium to coarse sand and some clay, fine to coarse gravel (mostly dolomite), uniform, massive. (Till) (Holy Hill Formation, Horicon Member)										
S2	18	2 1 2	4	Same as above but strong brown (7.5YR 5/6).						W				Depth to water at ~4.7' bgs.
			5											
			6											
S3	18	9 7 6	7							W				
			8	Kh = 2.37E-04 cm/s	SM									
S4	14	6 8 9	9						0.75 1.0	W				
			10											
			11	At 11' to 12.5', SILTY SAND (SM) % g-s-si-cl = 15-59-15-12										
S5	18	5 7 8	12						1.0	W				
			13											
S6	18	3 3 1	14							W				
			15											

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

Signature	Firm
Adam Watson	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-120 Use only as an attachment to Form 4400-122.

Sample									Soil Properties						
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	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			16	SILTY SAND (SM), strong brown (7.5YR 5/6), mostly fine sand with medium to coarse sand and some clay, fine to coarse gravel (mostly dolomite), uniform, massive. (Till) (Holy Hill Formation, Horicon Member)	SM									
				End of boring at 16' bgs in till. Constructed well from 15.3' bgs.										

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 3 (Proposed)	**Local Grid Location of Well** ☐ ft. ☐ N. ☐ S. ☐ ft. ☐ E. ☐ W.	**Well Name** MW-120
Facility License, Permit or Monitoring No. --	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** WD844
Facility ID --	**St. Plane** 377642.07 ft. N, 2167842.43 ft. E. S/C/N	**DNR Well ID No.** --
Type of Well Well Code 11 / MW	**Section Location of Waste/Source** NW 1/4 of NE 1/4 of Sec. 36, T. 7 N, R. 10 ☒ E ☐ W	**Date Well Installed** 01 / 20 / 2023 (m m d d y y y y)
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**
		Well Installed By: Name (first, last) and Firm Scott Klumb Soils & Engineering Services, Inc.

A. Protective pipe, top elevation 919.94 ft. MSL

B. Well casing, top elevation 909.91 ft. MSL

C. Land surface elevation 907.2 ft. MSL

D. Surface seal, bottom 903.2 ft. MSL or 4 ft.

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

13. Sieve analysis performed? ☒ Yes ☐ No

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

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

16. Drilling additives used? ☐ Yes ☒ No

Describe N/A

17. Source of water (attach analysis, if required):
N/A

E. Bentonite seal, top 907.2 ft. MSL or 0 ft.

F. Fine sand, top 903.2 ft. MSL or 4 ft.

G. Filter pack, top 902.7 ft. MSL or 4.5 ft.

H. Screen joint, top 902.2 ft. MSL or 5 ft.

I. Well bottom 891.9 ft. MSL or 15.3 ft.

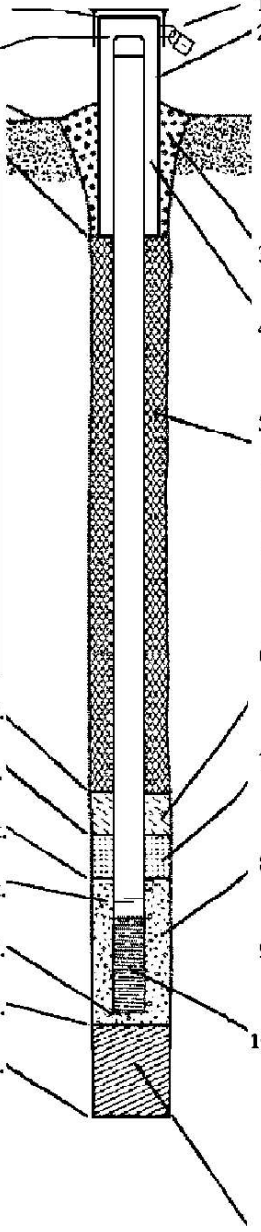
J. Filter pack, bottom 891.2 ft. MSL or 16 ft.

K. Borehole, bottom 891.2 ft. MSL or 16 ft.

L. Borehole, diameter 8.3 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 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04 Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe:

3. Surface seal: Bentonite ☒ 30 Concrete ☐ 01 Other ☐

4. Material between well casing and protective pipe:
Filter Sand
Bentonite ☐ 30 Other ☒

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 2.07 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. ____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15 ☒
b. Volume added 0.15 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40 ☒
b. Volume added 1.5 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐

10. Screen material: Sch. 40 PVC
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐
b. Manufacturer Campbell (Monoflex)
c. Slot size: 0.01 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☒ 14 Other ☐

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

Signature	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.

stitch up height is ~2.50

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

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

Facility/Project Name	County Name	Well Name
Dane County Landfill No. 3 (Proposed)	Dane	MW-120

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
--	13	WD844	--

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

2. Well development method

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

3. Time spent developing well 125 min.

4. Depth of well (from top of well casisng) 180 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 97 gal.

7. Volume of water removed from well 50.0 gal.

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

9. Source of water added NA

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 7.47 ft.	11.07 ft.
Date	b. 02/01/2023 (m m d d y y y y)	02/01/2023
Time	c. 9:00 ☒ a.m. ☐ p.m.	11:05 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	1.0 inches	1.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) med brown, no odor	Clear ☐ 20 Turbid ☒ 25 (Describe) slight turbidity almost clear, no odor

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

14. Total suspended solids	---.- mg/l	241.0 mg/l
15. COD	---.- mg/l	---.- mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Ethan Last Name: Schaefer
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

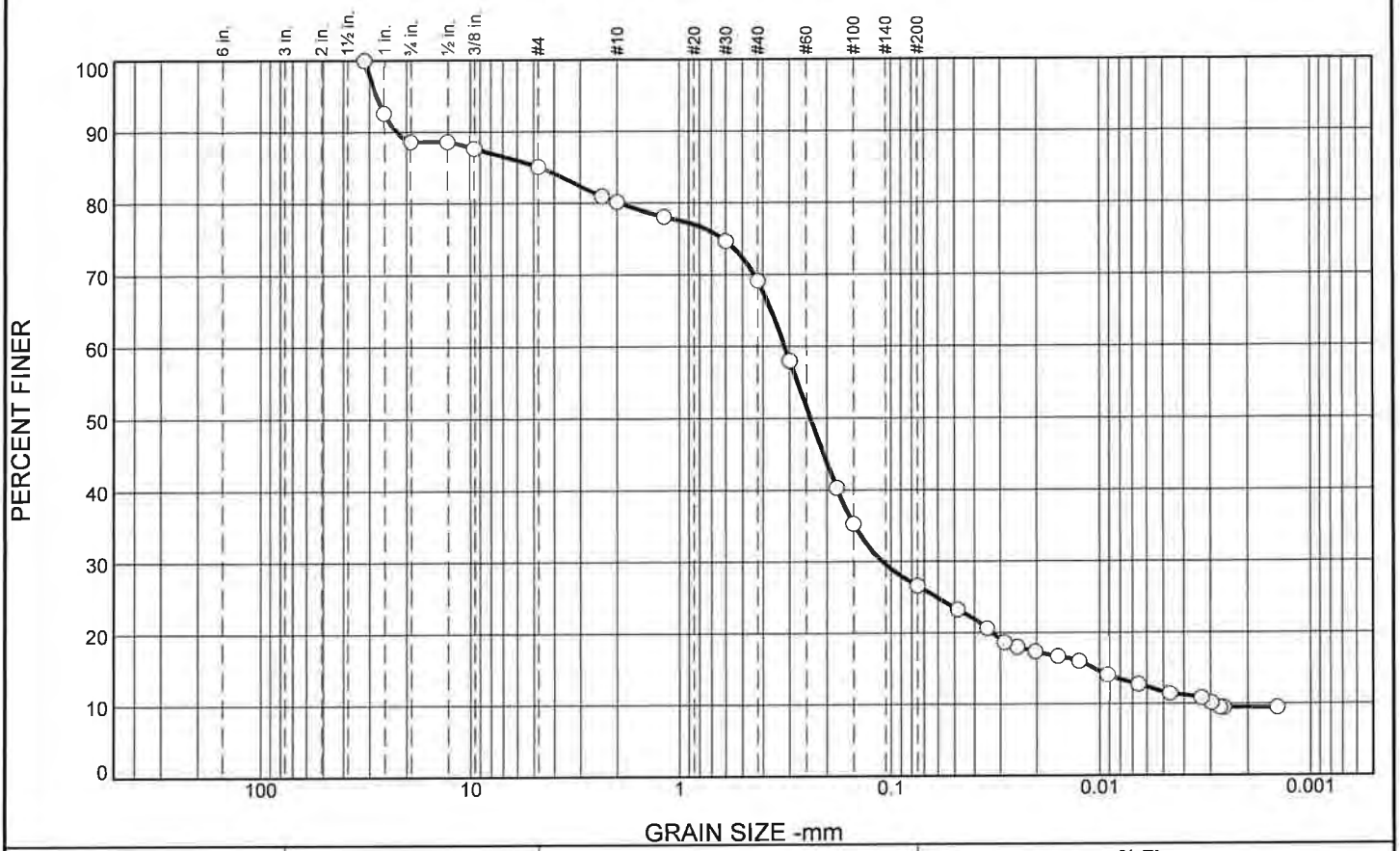
17. Additional comments on development:
- Surge/purge 30 min
- Did not purge dry, purge 15 gallons
- 10 well volumes: 105.1 gallons
- Surged and purged dry 3 times with Grunfoss for total of 35 gallons

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Allison Last Name: Rathsack
Facility/Firm: Dane County Dpt. of Waste & Renewables
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: Ethan Schaefer
Print Name: Ethan Schaefer
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.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	11.4	3.5	5.0	11.0	42.5	14.9	11.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/4	100.0		
1	92.6		
3/4	88.6		
1/2	88.6		
3/8	87.7		
#4	85.1		
#8	81.0		
#10	80.1		
#16	78.1		
#30	74.7		
#40	69.1		
#50	58.0		
#80	40.3		
#100	35.3		
#200	26.6		

* (no specification provided)

Material Description

Brown Fine to Coarse Sand, Some Silt and Gravel

Atterberg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{90}= 22.2554 D_{85}= 4.6953 D_{60}= 0.3172
D_{50}= 0.2402 D_{30}= 0.1103 D_{15}= 0.0106
D_{10}= 0.0029 C_u= 108.91 C_c= 13.18

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

NP= Non-Plastic

Sample Number: MW120 **Depth:** 11'-12.5'

Date: 3/21/23

CGC,Inc.

Client: SCS Engineers
Project: Dane County Yahara Hills

Project No: C22011-8 **Figure**

Tested By: JFS **Checked By:** KJS

MW-120A

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		MW-120A

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	2/7/2023	3/2/2023	HSA, 4.25" ID & Air Rotary

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
WD867	--	MW-120A	--	907.3 Feet MSL	8.3" & 6"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 377,643 N, 2,167,838 E S / C / N
NW 1/4 of NE 1/4 of Section 36, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

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

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Blind drilled to 18.5' bgs. (See MW-120 log for lithology from 0' to 15' bgs.) Cored hole from 19.5' to 50.5' bgs on 2/7/2023. Reamed hole to 6" diameter with air rotary on 3/2/2023 and set well MW-120A to 49.3' bgs.										
			2											
			3											
			4											
			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
Jackie Rennebohm, PG	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

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 be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-120A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
			16	Blind drilled to 18.5' bgs. (See MW-120 log for lithology from 0' to 15' bgs.) Cored hole from 19.5' to 50.5' bgs on 2/7/2023. Reamed hole to 6" diameter with air rotary on 3/2/2023 and set well MW-120A to 49.3' bgs.										
			17											
			18											
S1	2	11/2" 60/<1"	19	SILTY SAND WITH GRAVEL (SM), brownish yellow (10YR 6/8), fine to medium grained, with fine to coarse gravel (mostly dolomite), with green (glauconite) silt. (Weathered Dolomite Bedrock) (Prairie du Chien Group, Oneota Formation)	SM									
			20	DOLOMITE (DL4), light gray (10YR 7/1) and yellow (10YR 7/6), massive to planar bedded, sandy, with chert, trace glauconite, round to oval vugs, and dendrites. (Prairie du Chien Group, Oneota Formation)										
			21											
			22											
Run 1	41.5		23											FF=1.36/ft Percent Recovery=73.5% RQD=32.5%, poor Bit drop at 21' bgs.
			24											
			25											
			26											
			27	From 26.5' to 27.5' bgs, massive with abundant dendrites and no sand.										
Run 2	55		28											FF=0.87/ft Percent Recovery=89% RQD=48%, poor
			29											
			30		DL4									
			31											
			32											
			33											
			34											
Run 3	82		35											FF=1.17/ft Percent Recovery=85% RQD=63.5%, fair
			36											
			37											
			38											
			39											
			40											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number MW-120A Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample 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: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
Run 4	83		41 42 43 44 45	DOLOMITE (DL4), light gray (10YR 7/1) and yellow (10YR 7/6), massive to planar bedded, sandy, with chert, trace glauconite, round to oval vugs, and dendrites. (Prairie du Chien Group, Oneota Formation)	DL4									FF=0.72/ft Percent Recovery=99% RQD=41%, poor
			46	Kh = 1.77E-04 cm/s										
Run 5	59		47 48 49 50											FF=0.81/ft Percent Recovery=98% RQD=61%, fair
				End of boring at 50.5' bgs in dolomite. Reamed hole to 6" diameter using air rotary and constructed well from 49.3' bgs.										

SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Dane County Landfill Site No. 3 (Proposed)	**Local Grid Location of Well** ☐ N. ☐ S. ____ ft. ☐ E. ☐ W. ____ ft.	**Well Name** MW-120A
Facility License, Permit or Monitoring No. --	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ° ' " Long. ° ' " or	**Wis. Unique Well No.** WD867
Facility ID --	**St. Plane** 377643.38 ft. N, 2167837.94 ft. E. S/C/N	**DNR Well ID No.** --
Type of Well Well Code 12 / PZ	**Section Location of Waste/Source** NW 1/4 of NE 1/4 of Sec. 36, T. 7 N, R. 10 ☒ E ☐ W	**Date Well Installed** 03 / 02 / 2023 (m m d d y y y y)
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** ____
		Well Installed By: Name (first, last) and Firm Scott Klumb Soils & Engineering Services, Inc.

A. Protective pipe, top elevation 909.78 ft. MSL

B. Well casing, top elevation 909.81 ft. MSL

C. Land surface elevation 907.3 ft. MSL

D. Surface seal, bottom 868.3 ft. MSL or 39 ft.

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

13. Sieve analysis performed? ☐ Yes ☒ No

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

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

16. Drilling additives used? ☐ Yes ☒ No

Describe N/A

17. Source of water (attach analysis, if required):
N/A

E. Bentonite seal, top 907.3 ft. MSL or 0 ft.

F. Fine sand, top 868.3 ft. MSL or 39 ft.

G. Filter pack, top 865.3 ft. MSL or 42 ft.

H. Screen joint, top 863.3 ft. MSL or 44 ft.

I. Well bottom 858.0 ft. MSL or 49.3 ft.

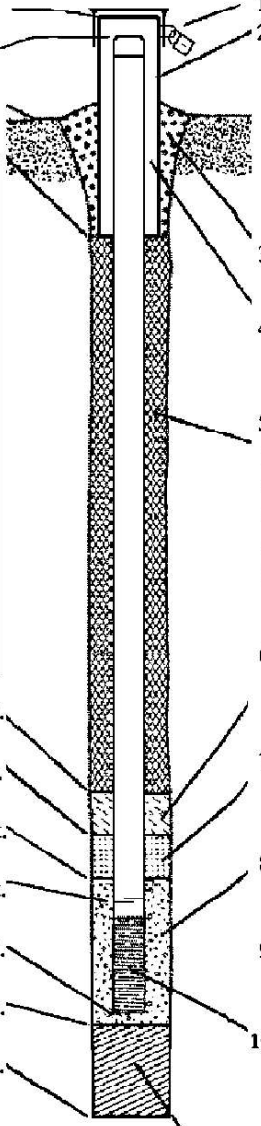
J. Filter pack, bottom 856.8 ft. MSL or 50.5 ft.

K. Borehole, bottom 856.8 ft. MSL or 50.5 ft.

L. Borehole, diameter 6.0 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 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04 Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe:
3. Surface seal: Bentonite ☒ 30 Concrete ☐ 01 Other ☐
4. Material between well casing and protective pipe: Bentonite ☐ 30
Filter Sand Other ☒
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. 2:1 Lbs/gal mud weight . . . Bentonite-sand slurry ☒ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 15.5 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☒ 02 Gravity ☐ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☒ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 32
c. Pell plug, Bentonite pellets Other ☒
7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15 ☒
b. Volume added 0.5 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40 ☒
b. Volume added 1.4 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐
10. Screen material: Sch. 40 PVC
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐
b. Manufacturer Campbell (Monoflex)
c. Slot size: 0.01 in.
d. Slotted length: 5 ft.
11. Backfill material (below filter pack): None ☒ 14 Other ☐

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

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

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SCS # 25222268.00

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

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

Facility/Project Name	County Name	Well Name
Dane County Landfill No. 3 (Proposed)	Dane	MW-120A
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well ID Number**
--	13	WD867 /

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

2. Well development method

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

3. Time spent developing well 82 min.

4. Depth of well (from top of well casisng) 52.6 ft.

5. Inside diameter of well 2.07 in.

6. Volume of water in filter pack and well casing 11.7 gal.

7. Volume of water removed from well 16.0 gal.

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

9. Source of water added NA

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 5.61 ft.	49.45 ft.
Date	b. 03/15/2023	03/15/2023
Time	c. 9:55 ☒ a.m. ☐ p.m.	11:17 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	6.0 inches	3.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) tan, no odor	Clear ☐ 20 Turbid ☒ 25 (Describe) tan, no odor

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

14. Total suspended solids ---.- mg/l 2,160.0 mg/l

15. COD ---.- mg/l ---.- mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Bri Last Name: Salome
Firm: SCS ENGINEERS, 2830 Dairy Drive, Madison, WI 53718

17. Additional comments on development:

- Surge/purge 30 minutes, DTW 47.8ft, purged 10 gallons, went dry during surge/purge
- Purged dry 3 times w/ 10 minute recharge in between purges, purged 6 gallons
- 48.6ft after first purge, after 10 minute recovery break 43.8, recovered 0.48 ft/min
- Sampled at 1120
- 1 well volume 11.7 gal; 10 well volumes 117gal

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Allison Last Name: Rathsack
Facility/Firm: Dane County Dpt. of Waste & Renewables
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: Brianna Salome
Print Name: Brianna Salome
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.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Dane County Landfill No. 3 (Proposed) SCS#: 25222268.00		B-121C

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	2/7/2023	2/7/2023	HSA 4.25" ID & HQ Core

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
--	--	--	--	903.6 Feet MSL	8.3" & 3.8"

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 377,615 N, 2,168,256 E S / C / N
NW 1/4 of NE 1/4 of Section 36, T 7 N, R 10 E
Lat ° ' "
Long ° ' "
Local Grid Location Feet ☐ N ☐ S Feet ☐ E ☐ W

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

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Blind drilled to 12.5' bgs. (See MW-121 log for lithology from 0' to 15' bgs.)										
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13	DOLOMITE (DL4), brownish yellow (10YR 6/6) and light brownish gray (10YR 6/2), sandy, massive to planar bedded, with round, oval and elongated vugs, chert, and dendrites. (Prairie du Chien Group, Oneota Formation)	DL4									
			14											
			15											

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

Signature	Jackie Rennebohm, PG	Firm	SCS Engineers 2830 Dairy Drive, Madison, WI 53718

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 be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number B-121C Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample 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: Standard Penetration	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
Run 1	27		16–20	DOLOMITE (DL4), brownish yellow (10YR 6/6) and light brownish gray (10YR 6/2), sandy, massive to planar bedded, with round, oval and elongated vugs, chert, and dendrites. (Prairie du Chien Group, Oneota Formation)	DL4									FF=1.33/ft Percent Recovery=30% RQD=17%, very poor
Run 2	84		24–29											FF=0.86/ft Percent Recovery=87.5% RQD=59%, fair
Run 3	117		34–40											FF=0.51/ft Percent Recovery=96.7% RQD=63%, fair

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number B-121C Use only as an attachment to Form 4400-122.

Sample									Soil Properties						
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	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
Run 4	29		41	DOLOMITE (DL4), brownish yellow (10YR 6/6) and light brownish gray (10YR 6/2), sandy, massive to planar bedded, with round, oval and elongated vugs, chert, and dendrites. (Prairie du Chien Group, Oneota Formation)	DL4									FF=2.1/ft Percent Recovery=100% RQD=55%
				End of boring at 41' bgs in dolomite. Abandoned borehole with bentonite grout and bentonite chips.										

State of Wis., Dept. of Natural Resources SCS No. 25222268.00
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

☐ **Verification Only of Fill and Seal**

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Dane	_ _ _ _ _	B-121C

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

¼ / ¼ NW	¼ NE	Section	Township	Range
or Gov't Lot #		36	7 N	10 ☒ E ☐ W

Well Street Address: 7101 US Highway 12 & 18

Well City, Village or Town	Well ZIP Code
Madison, WI	53718

Subdivision Name	Lot #

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

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 02/07/2023

If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (specify): _____

Formation Type:
☒ Unconsolidated Formation ☒ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
41	NA

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
8.3 to 3.0	NA

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

If yes, to what depth (feet)?	Depth to Water (feet)
NA	~4

2. Facility / Owner Information

Facility Name: Dane County Landfill No.3 (Proposed)
Facility ID (FID or PWS):
License/Permit/Monitoring #:
Original Well Owner: Dane County Department of Waste and Renewables
Present Well Owner: Dane County Department of Waste and Renewables
Mailing Address of Present Owner: 1919 Alliant Energy Center Way

City of Present Owner	State	ZIP Code
Madison	WI	53713

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3\8" Bentonite Chips	Surface	41	450 lbs	dry mix

6. Comments

Boring B-121C

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Soils & Engineering, Inc.		02/07/2023

Street or Route	Telephone Number
1102 Stewart St	(608)274-7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Bridget Arnold	02/07/2023

DNR Use Only

Date Received	Noted By

Comments: