

**MEMORANDUM**

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To: Wisconsin Department of Natural Resources

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From: Ben Peotter

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Date: July 1, 2019 Project No.: 51-0338.10

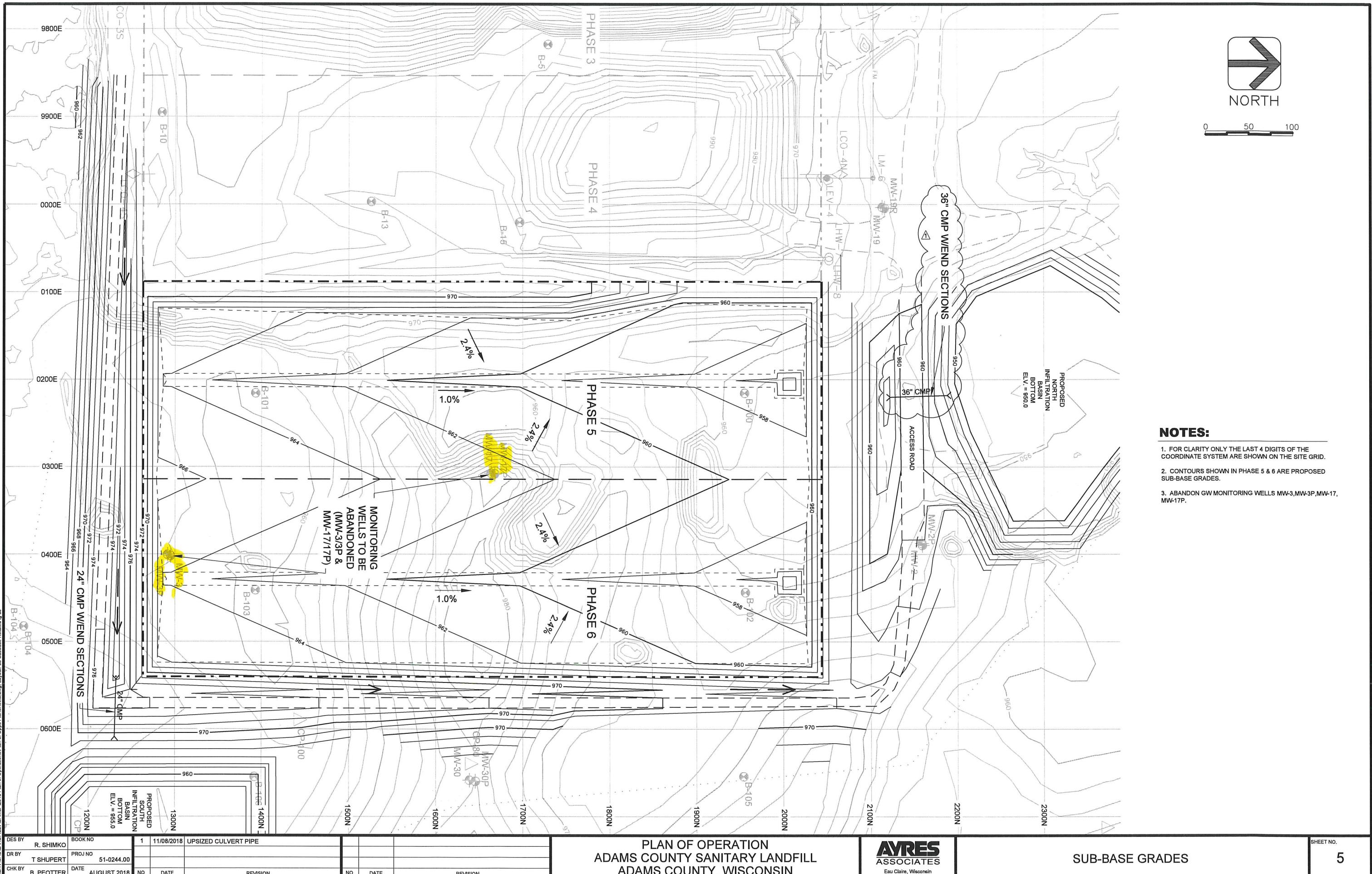
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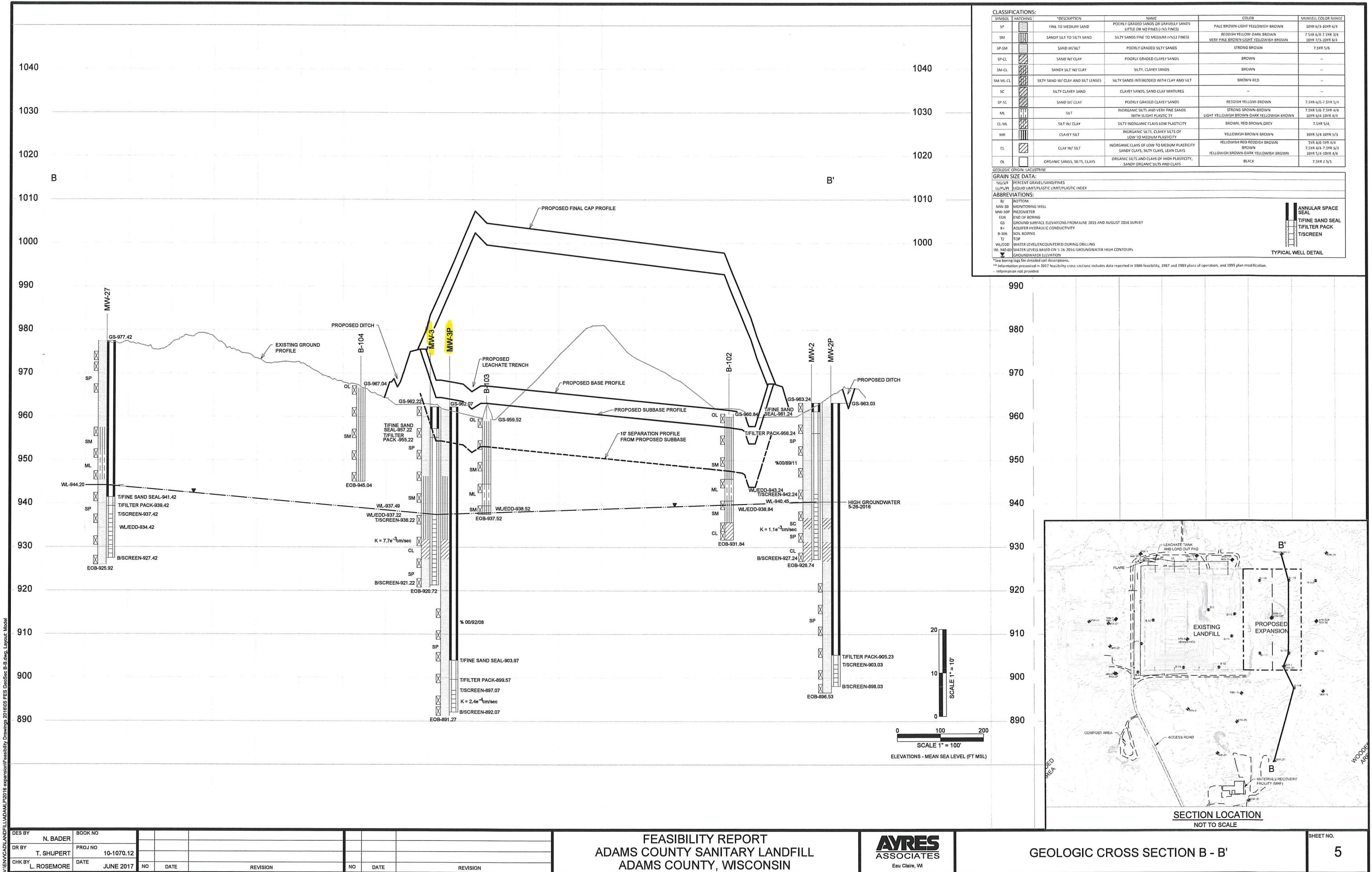
Re: Adams County Landfill Well Abandonment

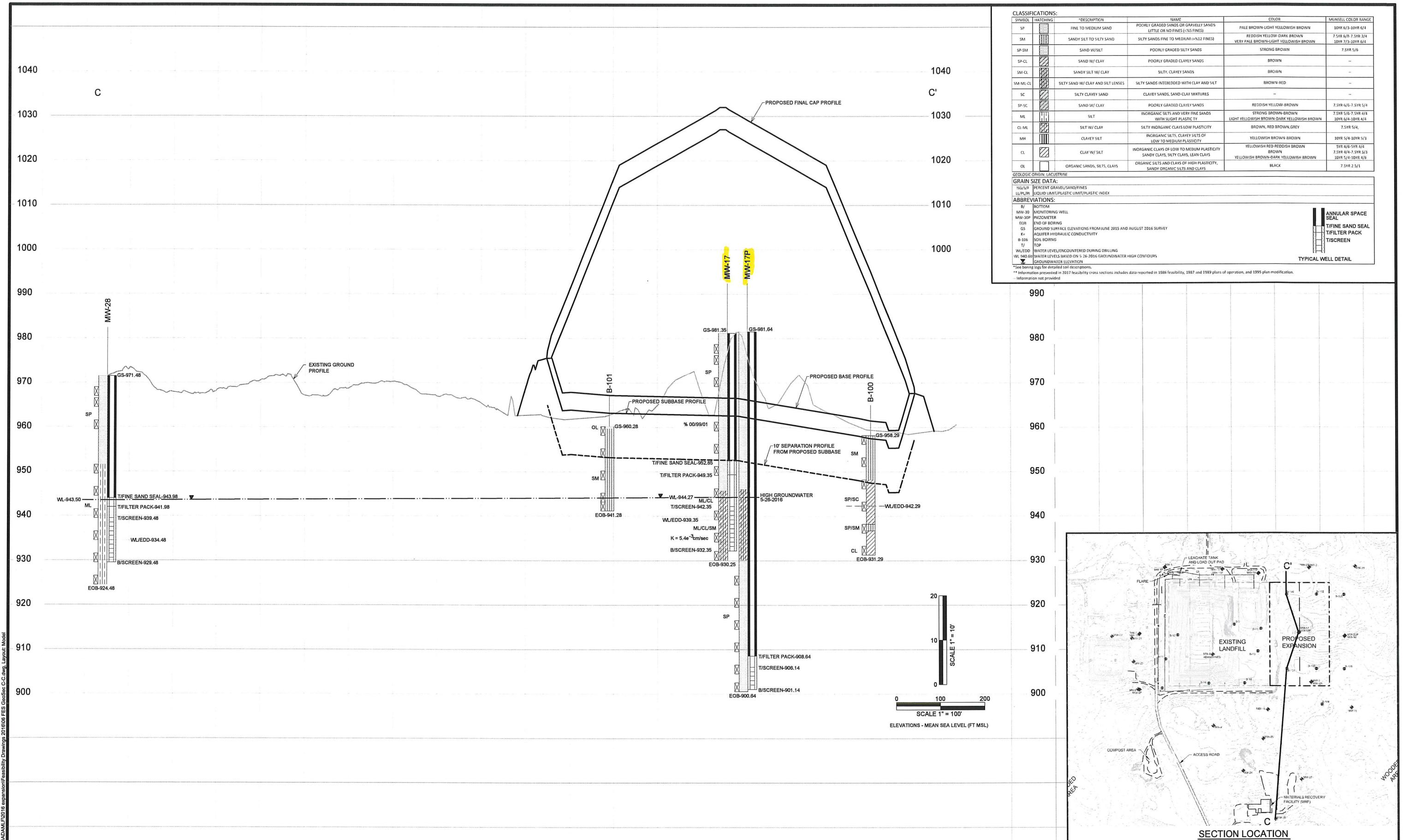
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This memo is in reference to the Adams County Feasibility Determination (April 11, 2019; Condition 19) in which four (4) 2-inch wells were required to be over-drilled and abandoned in accordance per WI NR 141 Wisc. Adm. Code.

Driller Traut Companies and Ayres senior technician Tim Shupert were on-site May 20, 2019 to abandon the wells on the Adams County Landfill. The four groundwater monitoring wells included MW-3, MW-3P, MW-17, and MW-17P with depths from ground surface of 41, 65, 51, and 81 feet, respectively. All wells were over-drilled with a Rotary Sonic rig, had their casings and screens removed, and had the borehole filled with a bentonite-sand slurry. A photo log and abandonment forms are attached.







DES BY	N. BADER	BOOK NO
DR BY	T. SHUPERT	PROJ NO
CHK BY	L. ROSEMORE	DATE

PRINTED ON CAD/LANDFILL

FEASIBILITY REPORT  
ADAMS COUNTY SANITARY LANDFILL  
ADAMS COUNTY, WISCONSIN

**AYRES  
ASSOCIATES**  
Eau Claire, WI

## GEOLOGIC CROSS SECTION C - C'

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## Wisconsin Department of Natural Resources

## Well / Drillhole / Borehole Filling &amp; Sealing

Form 3300-005

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295 and 299, Wis. Stats., and ch. NR 141 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.

Date of Filling &amp; Sealing: 05/20/2019

Rec #: 161154

Verification. Check only if well filling &amp; sealing was done previously and you are just verifying that work.: No

## 1. Well Location Information

County: Adams		WI Unique Well #:		DNR Hicap Well #:	
Latitude: (DD.DDDDD°) 44.0337 °N		Longitude: (DD.DDDDD°) 89.84072 °W		GPS Method Code: GPS008	
Gov't Lot #:	Qtr/Qtr:	Quarter:	Section #:	Township #:	North Range #:
Well Street Address: 1420 HIGHWAY 21					
Well City/Village/Town: Village of FRIENDSHIP		Well Zip Code:	Lot #:	Does a new well replace this well? No	
Reason for Filling & Sealing: EXPANSION OF LANDFILL					

## 2. Facility / Owner Information

Facility Name:		FID #:	License/Permit/Monitoring #:		
Original Well Owner:		Service Category:			
Present Well Owner: ADAMS COUNTY LANDFILL		Mailing Address of Present Owner: 1420 HIGHWAY 21			
		City: FRIENDSHIP	State: WI	Zip Code: 53934	

## 3. Well / Drillhole / Borehole Information

Well Type: Monitoring Well	Original Construction Date: (mm/dd/yyyy)			Construction Type: Drilled
Formation Type:	Total Well Depth From Ground Surface (ft.): 41.00			(specify Other):
Casing Diameter (in.): 2.00	Lower Drillhole Diameter (in.):			Casing Depth (ft.):
Was well annular space grouted?	If yes, to what depth (ft.)?			Depth to Water (ft.):

## 4. Pump, Liner, Screen, Casing &amp; Sealing Material

Pump and piping removed?	N/A	Liner(s) removed?	N/A	If no, was liner perforated?	
Screen removed?	Yes	Casing/Loop left in place?	No	Was casing cut off below surface?	N/A
Did sealing material rise to surface?	Yes	Did material settle after 24 hours?	No	If yes, was hole retopped?	
If bentonite chips were used, were they hydrated with water from a known water source?					N/A
Method of Placing Sealing Material: Conductor Pipe-Pumped			(Explain Other):		
Water Well Sealing Materials:			Monitoring Wells & other Drillholes: Bentonite-Sand Slurry		

## 5. Material Used to Fill Well / Drillhole

Material:	From (ft.):	To (ft.):	# and Units of Sealant:	Mix Ratio or Mud Weight:
HS BENTONIRE	Surface	41.00	4 BAGS	20%

## 6. Comments

MW-3 WAS OVER-DRILLED WITH A ROTASONIC RIG, CASING AND SCREEN REMOVED, AND BOREHOLE SEALED

## 7. Supervision of Work

Name of Person or Firm Doing Filling &amp; Sealing: TRAUT MARK J WELLS INC License #: 5912 Phone: 320-251-5090

PO BOX 547 WAITE PARK MN 56387-0547 Email Address: MJTRAUT@TRAUTWELLS.COM

## 8. DNR Use Only

Signed On: 06/12/2019	Submitted By: RECEP1	Received On: 06/12/2019	Approved On:
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## Wisconsin Department of Natural Resources

## Well / Drillhole / Borehole Filling &amp; Sealing

Form 3300-005

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Date of Filling &amp; Sealing: 05/20/2019

Rec #: 161155

Verification. Check only if well filling &amp; sealing was done previously and you are just verifying that work.: No

## 1. Well Location Information

County: Adams		WI Unique Well #:		DNR Hicap Well #:	
Latitude: (DD.DDDDD°) 44.03469 °N		Longitude: (DD.DDDDD°) 89.84068 °W		GPS Method Code: GPS008	
Gov't Lot #:	Qtr/Qtr:	Quarter:	Section #:	Township #:	Range #:
Well Street Address: 1420 HIGHWAY 21					
Well City/Village/Town: Village of FRIENDSHIP		Well Zip Code:	Lot #:	Does a new well replace this well? No	
Reason for Filling & Sealing: LANDFILL EXPANSION					

## 2. Facility / Owner Information

Facility Name:		FID #:	License/Permit/Monitoring #:		
Original Well Owner:		Service Category:			
Present Well Owner: ADAMS COUNTY LANDFILL		Mailing Address of Present Owner: 1420 HIGHWAY 21			
		City: FRIENDSHIP	State: WI	Zip Code: 53934	

## 3. Well / Drillhole / Borehole Information

Well Type: Monitoring Well	Original Construction Date: (mm/dd/yyyy)			Construction Type: Drilled
Formation Type:	Total Well Depth From Ground Surface (ft.): 81.00			(specify Other):
Casing Diameter (in.): 2.00	Lower Drillhole Diameter (in.):			Casing Depth (ft.):
Was well annular space grouted?	If yes, to what depth (ft.)?			Depth to Water (ft.):

## 4. Pump, Liner, Screen, Casing &amp; Sealing Material

Pump and piping removed?	N/A	Liner(s) removed?	N/A	If no, was liner perforated?	
Screen removed?	Yes	Casing/Loop left in place?	No	Was casing cut off below surface?	N/A
Did sealing material rise to surface?	Yes	Did material settle after 24 hours?	No	If yes, was hole retopped?	
If bentonite chips were used, were they hydrated with water from a known water source?					N/A
Method of Placing Sealing Material: Conductor Pipe-Pumped			(Explain Other):		
Water Well Sealing Materials:			Monitoring Wells & other Drillholes: Bentonite-Sand Slurry		

## 5. Material Used to Fill Well / Drillhole

Material:	From (ft.):	To (ft.):	# and Units of Sealant:	Mix Ratio or Mud Weight:
HS BENTONIRE	Surface	81.00	13	20% SOLIDS

## 6. Comments

MW 17P WAS OVER-DRILLED WITH A ROTASONIC RIG, CASING AND SCREEN WERE REMOVED AND BOREHOLE SEALED

## 7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: TRAUT MARK J WELLS INC	License #: 5912	Phone: 320-251-5090
PO BOX 547 WAITE PARK MN 56387-0547	Email Address: MJTRAUT@TRAUTWELLS.COM	

## 8. DNR Use Only

Signed On: 06/12/2019	Submitted By: RECEP1	Received On: 06/12/2019	Approved On:
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## Wisconsin Department of Natural Resources

## Well / Drillhole / Borehole Filling &amp; Sealing

Form 3300-005

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Date of Filling &amp; Sealing: 05/20/2019

Rec #: 161156

Verification. Check only if well filling &amp; sealing was done previously and you are just verifying that work.: No

## 1. Well Location Information

County: Adams		WI Unique Well #:		DNR Hicap Well #:	
Latitude: (DD.DDDDD°) 44.03469 °N		Longitude: (DD.DDDDD°) 89.84068 °W		GPS Method Code: GPS008	
Gov't Lot #:	Qtr/Qtr:	Quarter:	Section #:	Township #:	North Range #:
Well Street Address: 1420 HIGHWAY 21				Subdivision Name:	
Well City/Village/Town: Village of FRIENDSHIP		Well Zip Code:	Lot #:	Does a new well replace this well? No	
Reason for Filling & Sealing: LANDFILL EXPANSION				WI Unique Well # of Replacement Well:	

## 2. Facility / Owner Information

Facility Name:		FID #:	License/Permit/Monitoring #:		
Original Well Owner:		Service Category:			
Present Well Owner: ADAMS COUNTY LANDFILL		Mailing Address of Present Owner: 1420 HIGHWAY 21			
		City: FRIENDSHIP	State: WI	Zip Code: 56378	

## 3. Well / Drillhole / Borehole Information

Well Type: Monitoring Well	Original Construction Date: (mm/dd/yyyy)			Construction Type: Drilled
Formation Type:	Total Well Depth From Ground Surface (ft.): 51.00			(specify Other):
Casing Diameter (in.): 2.00	Lower Drillhole Diameter (in.):			Casing Depth (ft.):
Was well annular space grouted?	If yes, to what depth (ft.)?			Depth to Water (ft.):

## 4. Pump, Liner, Screen, Casing &amp; Sealing Material

Pump and piping removed?	N/A	Liner(s) removed?	N/A	If no, was liner perforated?	
Screen removed?	Yes	Casing/Loop left in place?	No	Was casing cut off below surface?	N/A
Did sealing material rise to surface?	Yes	Did material settle after 24 hours?	No	If yes, was hole retopped?	
If bentonite chips were used, were they hydrated with water from a known water source?					N/A
Method of Placing Sealing Material: Conductor Pipe-Pumped			(Explain Other):		
Water Well Sealing Materials:			Monitoring Wells & other Drillholes: Bentonite-Sand Slurry		

## 5. Material Used to Fill Well / Drillhole

Material:	From (ft.):	To (ft.):	# and Units of Sealant:	Mix Ratio or Mud Weight:
HS BENTONIRE	Surface	51.00	9 BAGS	20% SOLIDS

## 6. Comments

MW-17 WAS OVER-DRILLED WITH A ROTASONIC RIG, REMOVING CASING AND SCREEN AND BOREHOLE WAS SEALED

## 7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: TRAUT MARK J WELLS INC	License #: 5912	Phone: 320-251-5090
PO BOX 547 WAITE PARK MN 56387-0547	Email Address: MJTRAUT@TRAUTWELLS.COM	

## 8. DNR Use Only

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## Wisconsin Department of Natural Resources

## Well / Drillhole / Borehole Filling &amp; Sealing

Form 3300-005

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Date of Filling &amp; Sealing: 05/20/2019

Rec #: 161157

Verification. Check only if well filling &amp; sealing was done previously and you are just verifying that work.: No

## 1. Well Location Information

County: Adams		WI Unique Well #:		DNR Hicap Well #:	
Latitude: (DD.DDDDD°) 44.0337 °N		Longitude: (DD.DDDDD°) 89.94072 °W		GPS Method Code: GPS008	
Gov't Lot #:	Qtr/Qtr:	Quarter:	Section #:	Township #:	Range #:
Well Street Address: 1420 HIGHWAY 21					
Well City/Village/Town: Village of FRIENDSHIP		Well Zip Code:	Lot #:	Does a new well replace this well? No	
Reason for Filling & Sealing: LANDFILL EXPANSION					

## 2. Facility / Owner Information

Facility Name:		FID #:	License/Permit/Monitoring #:		
Original Well Owner:		Service Category:			
Present Well Owner: ADAMS COUNTY LANDFILL		Mailing Address of Present Owner: 1420 HIGHWAY 21			
		City: FRIENDSHIP	State: WI	Zip Code: 53934	

## 3. Well / Drillhole / Borehole Information

Well Type: Monitoring Well	Original Construction Date: (mm/dd/yyyy)			Construction Type: Drilled
Formation Type:	Total Well Depth From Ground Surface (ft.): 65.00			(specify Other):
Casing Diameter (in.): 2.00	Lower Drillhole Diameter (in.):			Casing Depth (ft.):
Was well annular space grouted?	If yes, to what depth (ft.)?			Depth to Water (ft.):

## 4. Pump, Liner, Screen, Casing &amp; Sealing Material

Pump and piping removed?	N/A	Liner(s) removed?	N/A	If no, was liner perforated?	
Screen removed?	Yes	Casing/Loop left in place?	No	Was casing cut off below surface?	N/A
Did sealing material rise to surface?	Yes	Did material settle after 24 hours?	No	If yes, was hole retopped?	
If bentonite chips were used, were they hydrated with water from a known water source?					N/A
Method of Placing Sealing Material: Conductor Pipe-Pumped			(Explain Other):		
Water Well Sealing Materials:			Monitoring Wells & other Drillholes: Bentonite-Sand Slurry		

## 5. Material Used to Fill Well / Drillhole

Material:	From (ft.):	To (ft.):	# and Units of Sealant:	Mix Ratio or Mud Weight:
HS BENRONITE	Surface	65.00	11 BAGS	20% SOLIDS

## 6. Comments

MW 3P WAS OVER-DRILLED WITH A ROTASONIC RIG, CASING AND SCREEN WERE REMOVED AND BOREHOLE SEALED

## 7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: TRAUT MARK J WELLS INC	License #: 5912	Phone: 320-251-5090
PO BOX 547 WAITE PARK MN 56387-0547	Email Address: MJTRAUT@TRAUTWELLS.COM	

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05/20/2019

View of groundwater monitoring well



05/20/2019

View of Adams County Landfill



05/20/2019

Traut Companies on-site



05/20/2019

Traut Companies performing Rotary Sonic drilling



View of the drilling



Casings removed from wells



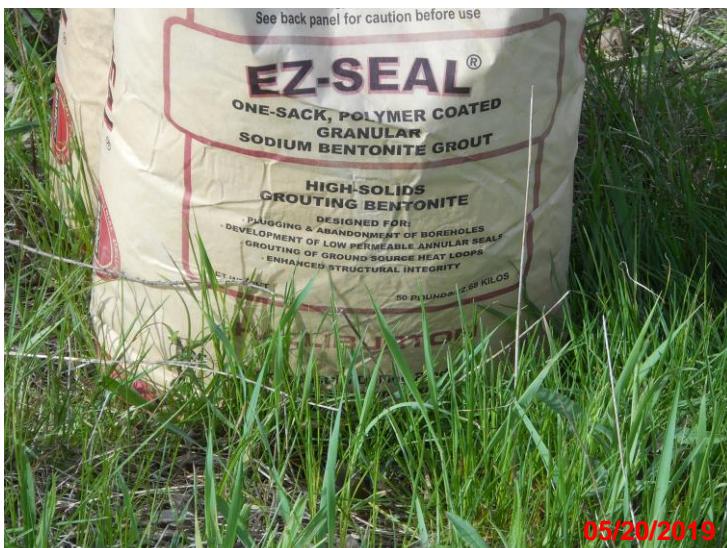
View of drill rig



Traut Companies operating the drill rig



Bags of bentonite used to seal boreholes



Close-up of bentonite



Mixing the bentonite-sand slurry to fill the boreholes