APPENDIX D SOIL BORING LOGS / CORE LOGS

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Sterling	Envir	onmer	tal En	gineer	ing, P.	С.

Page __1__ of __1__

Drilling Contractor/Personnel: Aquifer Drilling & Testing, Inc./Roger Buley, Marty Bachner (Assistant)

Drilling Equip./Method: CME 550 Inspector: Nathan Schafer

Sampling Method: 2.0' Split Spoon Size/Type of Bit: 2' L, 2.0" I, SS. Sam Elevation/Ground Surface: 32.38' Start/Finish Date: 4/17/12-4/17/12

Depth to Groundwater (date): 2.02' Well Type: Monitoring Well

Depth (ft.) Sample (ft.) Recovery (ft.) Glegatificating) Geologic Description Comments:						
No odors or staining. Solit Spoon Refusal @ 4.7' End of Boring @ 4.7' Split Spoon Refusal @ 4.7'	(ft.)		Recovery		Geologic Description	Comments:
S-1	0.0					
S-2 S-4-6-14 1.1' 0.0/0.0 Gray (clay, some weathered angular shale; trace silt; moist 1.1' Split Spoon Refusal @ 4.7'		S-1		0.0/0.0		
5.0 S-3 O.9' Weathered angular shale (1.5" in diameter); dry End of Boring @ 4.7' Split Spoon Refusal @ 4.7' Begin 3 7/8" diameter air rotary roller bit at 4.7-5.5' See Core Log for MW-1S 10.0 See Core Log for MW-1S 11.0 See Core Log for MW-1S 12.0 See Core Log for MW-1S 13.0 See Core Log for MW-1S		S-2		0.0/0.0	trace silt; moist	No odors or staining.
5.0		S-3		0.0/0.0		
8.0 Split Spoon Refusal @ 4.7' 8.0 9.0 11.0	5.0		0.9'	010,010		
Split Spoon Refusal @ 4.7' Begin 3 7/8" diameter air rotary roller bit at 4.7-5.5' See Core Log for MW-1S 10.0 11.0 12.0 13.0 14.0 15.0 18.0 19.0	60				End of Boring @ 4.7	
Begin 3 7/8" diameter air rotary roller bit at 4.7-5.5' See Core Log for MW-1S 10.0						Split Spoon Refusal @ 4.7'
9.0	7.0					Begin 3 7/8" diameter air
10.0	8.0					rotary roller bit at 4.7-5.5'
11.0	9.0					See Core Log for MW-1S
12.0	10.0					
13.0	11.0					
14.0	12.0					
15.0	13.0					
16.0	14.0					
17.0	15.0					
18.0	16.0					
19.0	17.0					
	18.0					
20.0	19.0					
	20.0					
Proportions: Trace = 0 - 10% Little = 10 - 20% Some = 20 - 35% And = 35 - 50%			Proportion	s: Trace = 0 -	10% Little = 10 - 20% Some = 20 - 35% And = 35 - 5	I 0%

	Page	1 of1
c.	Boring ID:	MW-1D
011-31	Location: Watervliet, NY	
SJB Services, Inc./Tom Far	rell and Jason Langdon (A	ssistant)
CME 550	Inspector:	Mark Williams
n	Size/Type of Bit:	2' L, 2.0" I, SS. Sam
32.48'	Start/Finish Date:	4/17/12-4/17/12
2.02'	Well Type:	Monitoring Well
	c. 011-31 SJB Services, Inc./Tom Far CME 550 on 32.48'	Boring ID: 011-31 Location: Watervliet, NY SJB Services, Inc./Tom Farrell and Jason Langdon (A CME 550 Inspector: on Size/Type of Bit: 32.48' Start/Finish Date:

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					*Roller bit auger drilled to
1.0					bedrock where rock coring began.
2.0					*No soil samples were collected for lab analysis
3.0					*See Boring Log for MW- 1S for Soil Description
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0					
		Proportion	ns: Trace = 0 -	10% Little = 10 - 20% Some = 20 - 35% And = 35 - 5	<u> </u> 0%

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Sterling Environmental Engineering, P.C.		Boring ID:	MW-2S	
Project Name/No. Troy Belting	2011-31	Location: Watervliet, NY		
Drilling Contractor/Personnel:	Aquifer Drilling & Tes	sting, Inc./Roger Buley, Marty Bach	nner (Assistant)	
Drilling Equip./Method:	CME 550	Inspector: 1	Nathan Schafer	
Sampling Method: 2.0' Split Spoon		Size/Type of Bit: 2	2' L, 2.0" I, SS. Sam	
Elevation/Ground Surface:	33.26'	Start/Finish Date: 4	1/18/12-4/18/12	
Depth to Groundwater (date):	7.17'	Well Type: N	Monitoring Well	
				

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0				0.0-0.5' Asphalt	
1.0	S-1	5-4-3-3 1.5'	0.0/14.0	0.5-0.75' Dark gray sub-base stone; 1" in diameter 0.75-2.0 Dark brown gravel; some clay; moist	
3.0	S-2	5-5-6-6 1.0'	0.0/17.0	Dark gray clay with brown silt; some gravel 1.5" in diameter; roots; moist	Solvent odors, no soil staining
5.0	S-3	8-10-9-11 1.2'	0.0/55.0		
7.0	S-4	15-29-25-50/0.4	0.0/86.0	Gray weathered shale, 1.0" in diameter	Solvent odors, no soil staining
	S-5	50/0.4, 50/0.1	0.0/64.0	Gray clay with gray weathered shale, 1.0" diar	
9.0 10.0 11.0 12.0				End of Boring @ 8.5'	Split Spoon Refusal @ 8.5' Begin 3 7/8" diameter air rotary roller bit at 8.5-10.5' bgs, then begin coring
13.0					through shale Sample (S-04) collected for lab analysis at 4.0-8.0'
15.0					See Core Log for MW-2S
17.0					
19.0					

SERLING		Page	1	of _	1
Sterling Environmental Engineering, P.	c.	Boring ID:		MW-3S	
Project Name/No. Troy Belting 2	011-31	Location: Watervliet, NY	,		
Drilling Contractor/Personnel:	Aquifer Drilling & Testing, In	nc./Roger Buley, Marty Bad	chner (A	Assistant)	
Drilling Equip./Method:	CME 550	Inspector:	Nathar	n Schafer	
Sampling Method: 2.0' Split Spoo	Size/Type of Bit:	2' L, 2.	0" I, SS. Sa	am	
Elevation/Ground Surface:	32.18'	Start/Finish Date:	4/19/12	2-4/19/12	
Depth to Groundwater (date):	N/A	Well Type:	Monito	ring Well	
Elevation/Ground Surface:	32.18'	Start/Finish Date:	4/19/12	2-4/19/12	<u> </u>

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
1.0	S-1	4-5-7-9 1.0'	0.0/0.0	Dark brown fine sand with silt; some roots; trace angular shale fragments up to 1" diameter; dry	
3.0	S-2	12-15-44-55/0.1 1.0'	0.0/0.0	Gray weathered shale; 1" in diameter; dry	No odors or staining.
5.0				End of Boring @ 4.0'	
6.0 7.0					Split Spoon Refusal @ 4.0'
8.0					Begin 3 7/8" diameter air rotary roller bit at 4.0-5.0'
9.0					See Core Log for MW-3S
10.0					
11.0					
13.0					
14.0					
15.0					
16.0 					
18.0					
19.0					
20.0					

	Page _	<u>1</u> of <u>1</u>
.C.	Boring ID:	MW-4S
2011-31	Location: Watervliet, NY	
Aquifer Drilling & Testing, In	nc./Roger Buley, Marty Bac	hner (Assistant)
CME 550	Inspector:	Nathan Schafer
on	Size/Type of Bit:	2' L, 2.0" I, SS. Sam
30.82'	Start/Finish Date:	12/11/12-12/11/1
5.52'	Well Type:	Monitoring Well
	CME 550 on 30.82'	Boring ID: 2011-31 Location: Watervliet, NY Aquifer Drilling & Testing, Inc./Roger Buley, Marty Bac CME 550 Inspector: on Size/Type of Bit: 3 30.82' Start/Finish Date:

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
1.0	S-1	6-7-12-7 1.0'	0.0/0.6	Dark brown silt and fine sand; some gravel; trace roots; moist	
3.0	S-2	4-5-5-5 0.5'	0.0/0.0	Dark brown fine sand and some gravel; trace angular shale fragments up to 1" diameter;	No odors or soil staining
5.0	S-3	50/5 No Recovery	0.0/0.0	moist	
6.0 7.0				End of Boring @ 5.5'	Split Spoon Refusal @ 5.5'
8.0					Begin 3 7/8" diameter air rotary roller bit at 5.5-18.0' bgs (Black Shale)
9.0					See Core Log for MW-4S
11.0					
13.0					
14.0					
15.0					
17.0					
18.0					
19.0					

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Sterling	Environmen	tal Engineering, P.	c.	Boring ID:	MW-4D
Project N	ame/No	Troy Belting 2	011-31	Location: Watervliet, NY	- MIV 45
		Personnel:	SJB Drilling	Services / TomFarrell, Jason Langden (Assista	unt)
	quip./Meth		CME 550	Inspector: Mark	
		2.0' Split Spoo		Size/Type of Bit: 2' L,	2.0" I, SS. Sam
	/Ground S		30.62'	Start/Finish Date: 12/10	
Depth to	Groundwa	ter (date):	N/A	Well Type: Moni	toring Well
	I				
Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0					*Roller bit auger drilled to
3.0					bedrock where rock coring began.
4.0					*No soil samples were
5.0					collected for lab analysis *See Boring Log for MW-
6.0					4S for Soil Description
7.0					
8.0					
9.0					
10.0					
11.0_					
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					

19.0

SERLING		Page	1 of1	
Sterling Environmental Engineering, l	P.C.	Boring ID:	MW-5S	
Project Name/No. Troy Belting 2011-31		Location: Watervliet, NY		
Drilling Contractor/Personnel:	Aquifer Drilling & Testing, In	c./Roger Buley, Marty Bac	chner (Assistant)	
Drilling Equip./Method:	CME 550	Inspector:	Nathan Schafer	
Sampling Method: 2.0' Split Spoon		Size/Type of Bit:	2' L, 2.0" I, SS. Sam	
Elevation/Ground Surface:	33.69'	Start/Finish Date:	12/11/12-12/11/1	
Depth to Groundwater (date):	N/A	Well Type:	Monitoring Well	

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
1.0	S-1	6-6-6-6 15"	0.4/0.4	Dark brown silt and clay; some gravel; trace roots; moist	
3.0	S-2	4-5-5-5 9.0"	0.1/246.0	Gray silt and clay; trace roots; moist	Solvent Odor 2.0'-5.5'
5.0	S-3	5-50/4 10"	0.4/225.0		
6.0 7.0				End of Boring @ 5.5'	Split Spoon Refusal @ 5.5'
8.0					Begin 3 7/8" diameter air rotary roller bit at 5.5-18.0' bgs (Black Shale)
9.0					See Core Log for MW-5S
11.0					
12.0					
13.0					
15.0					
16.0					
17.0					
19.0					
20.0					

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Page __1__ of __1__

MW-6S

Project Name/No. Troy Belting 2011-31 Location: Watervliet, NY

Drilling Contractor/Personnel: SJB Drilling Services / TomFarrell, Jason Langden (Assistant)

Drilling Equip./Method: CME 550 Inspector: Mark Williams

Sampling Method: 2.0' Split Spoon Size/Type of Bit: 2' L, 2.0" I, SS. Sam Elevation/Ground Surface: 29.99' Start/Finish Date: 12/11/12-12/11/1

Depth to Groundwater (date): N/A Well Type: Monitoring Well

1.0	Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
S-1 1.0' 0.4/0.4 roots; moist No odors or staining	0.0					
1.5' Gray silt and clay; trace roots; moist Split Spoon Refusal @ 4.0' Begin 3 7/8" diameter air rotary roller bit at 4.0-5.0' bgs then rock coring 5.0-21.50' bgs(Black Shale) See Core Log for MW-5S See Cor		S-1		0.4/0.4		
8.0 Begin 3 7/8" diameter air rotary roller bit at 4.0-5.0' bigs then rock coring 5.0-21.50' bigs (Black Shale) See Core Log for MW-5S See Cor		S-2		0.1/246.0	Gray silt and clay; trace roots; moist	No odors or staining
7.0 Robert Robert	5.0				End of Boring @ 4.0'	Split Spoon Refusal @ 4.0'
8.0						rotary roller bit at 4.0-5.0'
11.0						21.50' bgs(Black Shale)
11.0	9.0					
12.0	10.0					
13.0	11.0					
14.0	12.0					
15.0	13.0					
16.0	14.0					
17.0	15.0					
18.0	16.0					
	17.0					
	18.0					
19.0	19.0					
20.0	20.0					

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Sterling	Environment	tal Engineering, P.	С.		Boring I	D:	MW-6D
Project Na	ame/No.	Troy Belting 20	011-31		Location: Watervliet,		
Drilling Co	ontractor/P	ersonnel:	SJB Drilling	Services / Tom	Farrell, Jason Langden		
	quip./Meth		CME 550			or: Mark V	
Sampling	Method:	2.0' Split Spoo	<u>n</u>		Size/Type of I		
	/Ground Si Groundwat		29.92' N/A		Start/Finish Da	nte: 12/11/ pe: Monito	
рерит ю (Siddilawa	ter (date).	11/71		vven ry _l	pe. <u>Ivioriito</u>	illig Well
Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geolo	ogic Description		Comments:
0.0							
1.0							
2.0							*Roller bit auger drilled to
3.0							bedrock where rock coring began.
4.0							*No soil samples were collected for lab analysis
5.0							*See Boring Log for MW-6D' for Soil Description
6.0							
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							
16.0							
17.0							
18.0							
19.0							
20.0							
		Proportio	ns: Trace = 0	- 10% Little = 10	- 20% Some = 20 - 35%	And = $35 - 5$	50%

SERLING		Page	1 of1
Sterling Environmental Engineering, P	.C.	Boring ID:	MW-6D'
Project Name/No. Troy Belting 2	2011-31	Location: Watervliet, NY	(
Drilling Contractor/Personnel:	SJB Drilling Services / Tom	Farrell, Jason Langden (A	ssistant)
Drilling Equip./Method:	CME 550	Inspector:	Joseph Spaulding
Sampling Method: 2.0' Split Spo	on	Size/Type of Bit:	2' L, 2.0" I, SS. Sam
Elevation/Ground Surface:	29.80	Start/Finish Date:	9/8/15-9/18/15
Depth to Groundwater (date):	N/A	Well Type:	Monitoring Well

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0				0.0-0.5' Asphalt	
1.0	S-1	1-2-1-1 0.8'	0.0/0.0	Dark Brown Silt with some Clay;	
3.0	S-2	1-1-1-1 1.0'	0.0/0.1	some Gravel and Black Shale Fragments; loose; moist. Black Shale fragments at 4.0' bgs	No odors or staining
5.0	S-3	50/0.3 0.3'	0.0/1.0	Gray, weathered shale	
7.0				End of Boring @ 6.0'	Split Spoon Refusal @ 5.8'
8.0					Auger Refusal @ 6.0
9.0					Begin roller bit augering at 6.0-55.0' bgs (Black Shale) See Core Log for MW-6D'
13.0					
15.0					
17.0					
18.0					
20.0					

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Boring ID:

Page __1__ of __1__

Project Name/No. Troy Belting 2011-31

Location: Watervliet, NY

Drilling Contractor/Personnel:

SJB Drilling Services / TomFarrell, Stew Brodell (Assistant) CME 550 Rig

Drilling Equip./Method:

Inspector: Joseph Spaulding
Size/Type of Bit: 2' L, 2.0" ID SS Sampler

Sampling Method: Split Spoon Auger 29.85

Start/Finish Date: 9/14/2015

Elevation/Ground Surface:

MW-7S

Depth to Groundwater (date):

N/A

Proportions: Trace = 0 - 10%

Well Type: 2" Monitoring Well

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0				0.0-0.5' Asphalt	
1.0	S-1	15-3-2 1.25'	0.0/0.0	Dark Brown to Black Clayey Silt; Trace Fine	
3.0	S-2	1-4-2-5 1.15'	0.0/0.1	Dark Brown to Brown Clayey Silt with some Fine	No odors or staining
5.0	S-3	50/0.2 -0.1'	0.0/0.0	to Medium Gravel; brick pieces; (fill); moist; loose.	
6.0				End of Boring @ 5.2'	S.S. refusal at 4.2' bgs
7.0					Auger refusal at 5.2' bgs
9.0					Begin roller bit augering of 5.2'-20.8' bgs (Black Shale)
10.0					See Core Log for MW-7S
11.0					
13.0					
14.0					
15.0					
16.0 					
18.0					
19.0					
20.0					

Little = 10 - 20%

Some = 20 - 35%

And = 35 - 50%

SERLING		Page <u>1</u>	of	1
Sterling Environmental Engineering, P.	c.	Boring ID:	MW-7D)
Project Name/No. Troy Belting 20	011-31	Location: Watervliet, NY		
Drilling Contractor/Personnel:	SJB Drilling Services/ TomFa	arrell, Stew Brodell (Assistant)		
Drilling Equip./Method:	CME 550 Rig	Inspector: Josep	h Spaulding	<u></u>

Size/Type of Bit: 2' L, 2.0" ID SS Sampling Method: 2.0' Split Spoon Sampler 2" ID Start/Finish Date: 9-15-15/9-17-15
Well Type: 2" PVC Elevation/Ground Surface: 29.88

Depth to Groundwater (date): N/A

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0				0.0-0.5' Asphalt	
1.0	S-1	1-2-1-4 0.3'	0.0/0/0	Black to Dark Brown Clayey Silt with	
3.0	S-2	1-4-5-7 0.4'	0.0/0.1	some Medium to Fine Gravel; slightly moist; loose.	No odors or staining
_	S-3	50/0.1	0.0/0.0		
5.0 6.0		<0.1'		End of Boring @ 4.8'	SS refusal @ 4.1' bgs
7.0					Auger refusal @ 4-8' bgs
8.0					Begin roller bit augering of 4.8'-40.5' bgs (Black
9.0					Shale) See Core Log for MW-7D
10.0					loce core Log for MW-7D
11.0					
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0					

SERLING		Page	1 of1
Sterling Environmental Engineering, P.	.c.	Boring ID:	MW-8S
Project Name/No. Troy Belting 2	011-31	Location: Watervliet, NY	
Drilling Contractor/Personnel:	SJB Drilling Services / Tom	Farrell, Jason Langdon (A	ssistant)
Drilling Equip./Method:	CME 550	Inspector:	Mark Williams
Sampling Method: 2.0' Split Spoo	on	Size/Type of Bit:	2' L, 2.0" I, SS. Sam
Elevation/Ground Surface:	30.38'	Start/Finish Date:	12/11/12-12/11/1
Depth to Groundwater (date):	N/A	Well Type:	Monitoring Well

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0	S-1	6-6-6-6 15"	0.0/0.0	Dark brown silt and clay; some gravel; trace roots; moist	
3.0	S-2	4-5-5-5 9.0"	0.0/0.0	Gray silt and clay; trace roots; moist	No solvent odors or soil staining
<u> </u>	S-3	50/0.3	0.0/0.0	Grey weathered shale; trace silt and clay;moist	
5.0				End of Boring @ 4.3'	
_					Split Spoon Refusal @ 4.3'
6.0					D 0 7/0" - 1' 1 '-
					Begin 3 7/8" diameter air
7.0					rotary roller bit at 4.3-18.0' bgs (Black Shale)
8.0					See Core Log for MW-8S
9.0					
10.0					
11.0					
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0					
		<u> </u>	. Trace 0	400/ Little 40 200/ Come 20 250/ And 25 5	00/

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Sterling	Environmen	tal Engineering, P.	с.	Boring ID:	MW-8D
		Troy Belting 20		Location: Watervliet, NY	
				Services / TomFarrell, Jason Langdon (Assistan	
	quip./Meth		CME 550	Inspector: Mark	
Sampling	/Ground S	2.0' Split Spoo	30.56'	Size/Type of Bit: 2' L, 2 Start/Finish Date: 12/11	
		iter (date):	N/A	Well Type: Monit	
D op in to	or our lawa	itor (dato).	14/7		omig vvon
Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0					
1.0					
2.0					*Dellar b !4 a
3.0					*Roller bit auger drilled to bedrock where rock coring
4.0					began. *No soil samples were
5.0					collected for lab analysis *See Boring Log for MW-
6.0					8S for Soil Description
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0	ļ				

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Sterling Environmental Engineering,	P.C.	Boring ID:	MW-9S	
Project Name/No. Troy Belting	2011-31	Location: Watervliet, NY		
Drilling Contractor/Personnel:	SJB Drilling Services / Ton	nFarrell, Jason Langden (As	ssistant)	
Drilling Equip./Method:	CME 550	Inspector: I	Mark Williams	
Sampling Method: 2.0' Split Spo	oon	Size/Type of Bit: 2	2' L, 2.0" I, SS. Sam	
Elevation/Ground Surface:	32.13'	Start/Finish Date:	12/11/12-12/11/1	
Depth to Groundwater (date):	N/A	Well Type: I	Monitoring Well	

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0 1.0 2.0 3.0 4.0					*No boring log recorded, Roller bit auger drilled to top of bedrock at 7.5' bgs *No VOC headspace measurements, no soil samples collected for laboratory analysis
5.0 6.0 7.0 8.0					
9.0					
13.0 14.0 15.0					
17.0 18.0 19.0 20.0					

S	H	R	L	-	-	1-	G
	-		4			7.5	

Sterling Environmental Engineering, P.C.

Page _ 1 _ of _ 1 _

Boring ID: MW-10D

Project Name/No. Troy Belting 2011-31 Location: Watervliet, NY

Drilling Contractor/Personnel: SJB Drilling Services / TomFarrell, Stew Brodell (Assistant)

Drilling Equip./Method: CME 550 Auger Inspector: Joseph Spaulding

Sampling Method: Split Spoon Auger Size/Type of Bit: 2' L, 2.0" ID SS Sampler Elevation/Ground Surface: 33.18 Start/Finish Date: 9/10/2015

Depth to Groundwater (date): N/A Well Type: 2" Monitoring Well

Depth (ft.)	Sample No.	Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0				0.0-0.5' Asphalt	
1.0	S-1	6-16-27-35 1.0'		1.0'-1.5': Light Brown Silty Sand with some Fine Gravel; Dry; Loose 1.5'-2.0': Black weathered Shale fragments; Dry; Loose	No odors or staining
3.0	S-2	38-50/0.3 0.3	0.0/0.4	Black weathered Shale fragments; dry; loose.	5
				End Boring @ 4.0']
5.0				_	SS refusal @ ~3.3' bgs
6.0					Auger refusal @ 4.0' bgs
7.0					Begin roller bit augering at 4.0'-40.5' bgs (Black Shale)
8.0					See Core Log for MW-10D
9.0					
10.0					
11.0					
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0		Dron		0 400/ Little 40 200/ Corne 20 250/ And 25 500/	

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Sterling Environmental Engineering, P.C.

Boring ID: MW-11S

Page 1 of

1

Project Name/No. Troy Belting 2011-31 Location: Watervliet, NY

Drilling Contractor/Personnel: SJB Drilling Services / TomFarrell, Stew Brodell (Assistant)

Drilling Equip./Method: CME 550 Rig Inspector: Joseph Spaulding

Sampling Method: Split Spoon Auger Size/Type of Bit: 2' L, 2.0" ID SS Sampler

Elevation/Ground Surface: 35.30' Start/Finish Date: 11-9-15/11-9-15

Depth to Groundwater (date): N/A Well Type: 2" Monitoring Well

Depth (ft.)	Sample No.	Blow Count & Recovery (ft.)	PID (Bkgd/Reading)	Geologic Description	Comments:
0.0				0.0-0.5' Asphalt	
1.0	S-1	2-3-5-8 0.5'	0.0/0.0	Brown to Dark Brown Clayey Silt; little fine sand;	
3.0	S-2	4-4-12-15 1.5'	0.0/0.0	little fine to medium gravel; dry; loose to medium dense.	No odors or staining
5.0	S-3	13-18-15-50/0.3 1.8'	0.0/0.0	Dark Brown Clayey Silt; little fine sand; little fine to medium gravel; 0.25" pieces of black shale; dry; medium dense to loose.	
7.0					Split Spoon refusal at 5.8' and auger refusal at 6.0'
9.0	-				Begin Coring Black Shale at 6.0'-21.0'
10.0	-				See Core Log for MW-11S
11.0					
12.0					
14.0	-				
15.0	-				
16.0 	-				
18.0					
19.0	-				
20.0	-				

Page	1	of	1



Boring No. MW-1S **Project Name:** Troy Belting – Additional Environmental Investigation **Project No.:** 2011-31 **Client Name:** 4/17/2012 Nixon Peabody, LLP Date: 70 Cohoes Road, Watervliet, NY 12189 **Location:** Logged By: NJS Weather/Temp.: Sunny, Breezy, 60°F Checked By: **EMD** 19' (from grade) **Drilling Co.:** SJB Services, Inc. Depth: CME 550 – 4 1/4" **Driller:** Tom Farrell, Jason Langden (Assistant) **Equipment:** OD H.S. Auger **Date Started:** 4/17/2012 **Surface Elev.:** 32.38' 2.5" 4/17/2012 **Date Completed:** Core Dia.: Core Rec. % Recovery Depth (ft.) Run No. Run Length RQD **DESCRIPTIVE LOG** (rock type, color, grain size, texture, bedding, minerals, remarks) 0.3/0.5 5 1 60 0 5.5-6' gray, weathered SHALE 6 7 2 3/3 100 61 8 9 10 0.5/0.5 0 3 100 11 4 4.5/5 90 69 12 13 6-19' gray, fractured SHALE 14 15 16 5 4.9/5 98 41 17 18 19 End of boring = 19'

Page	1	of	1



				Boring No.	MW-1D	<u> </u>
Projec	t Name:	Troy Belting and Supply		Project No.:	2011-31	
Client	Name:	Nixon Peabody, LLC		Date:	12-9-14	
Locati	on:	70 Cohoes Road, Cohoes, NY		Logged By:	Joseph Spauldi	ng
Weath	er/Temp	Sunny, 20° F		Checked By:	Mark Williams	
Drillin		SJB Services			22.5' - 40.5' by CME 550 - 4 ¹ / ₄ "	gs
Driller		Tom Farrell and Stew Brodell (Assistant)			D.D. HS Auger	
Date S	tarted:	12-9-14			N/A	
Date C	Complete	d: 12-16-14		Core Dia.:	2.5"	
Formation	Depth 20.0	DESCRIPTIVE LOG (rock type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length Core Rec. (ft.)	% Recovery	RQD
	21.0	20.0'-24.0': SHALE; Black; highly fractured; slight brown iron				
	22.0	staining; Moderate to high angle fractures; no odors from	1	4.0 / 4.0	100%	43% Poor
	23.0	fractures; no VOC headspace 24.0'-25.0': SHALE; Black; highly fractured; slight brown iron			100,0	
	24.0	staining; Moderate to high angle fractures; no odors from	2	1.0 / 1.0	100%	75% Good
	25.0	fractures; no VOC headspace				Good
	26.0					
	27.0	25 02 20 02. CHALE, Divil				
	28.0	.0'-30.0': SHALE; Black; moderately fractured; low angle ctures; no odors; no VOC headspace		5.0 / 5.0	100%	68% Fair
4)	29.0	•				
Shale	30.0					
	31.0					
Normanskill	33.0	30.0'-35.0': SHALE; Black; moderately fractured; low angle	4	5.0 / 5.0	80%	53% Poor
Norn	34.0	fractures; no odors; no VOC headspace		210 / 210	30,0	
	35.0					
	36.0					
	37.0	35.0'-40.3': SHALE; Black; moderately fractured; low angle fractures; no odors; no VOC headspace				
	38.0	nactures, no odors, no voe neadspace	5	5.0/5.0	100%	50%
	39.0					Fair
	40.3					
		End Core @ 40.5'				

Page	1	of	1



Boring No. MW-2S **Project Name:** Troy Belting – Additional Environmental Investigation **Project No.:** 2011-31 **Client Name:** 4/18/2012 Nixon Peabody, LLP Date: 70 Cohoes Road, Watervliet, NY 12189 **Location:** Logged By: NJS Weather/Temp.: Overcast, Breezy, 37°F Checked By: **EMD** 20' (from grade) **Drilling Co.:** SJB Services, Inc. Depth: CME 550 – 4 1/4" **Driller:** Tom Farrell, Jason Langden (Assistant) OD H.S. Auger **Equipment: Date Started:** 4/18/2012 **Surface Elev.:** 33.29' 2.5" 4/18/2012 **Core Dia.: Date Completed:** Core Rec. % Recovery Depth (ft.) Run No. Run Length RQD **DESCRIPTIVE LOG** (rock type, color, grain size, texture, bedding, minerals, remarks) 10 1 0.6/1 60 86 11 12 13 2 4.8/5 96 87 14 15 8.5-20.0' gray, fractured SHALE 16 17 18 3 4/4 100 56 19 End of boring = 20.0' 20

Page	1	of	1



Boring No. MW-3S **Project Name:** Troy Belting – Additional Environmental Investigation **Project No.:** 2011-31 **Client Name:** Date: 4/19/2012 Nixon Peabody, LLP 70 Cohoes Road, Watervliet, NY 12189 **Location:** Logged By: NJS Weather/Temp.: Overcast, Breezy, 35°F Checked By: **EMD** 17' (from grade) **Drilling Co.:** SJB Services, Inc. Depth: CME 550 – 4 1/4" **Driller:** Tom Farrell, Jason Langden (Assistant) OD H.S. Auger **Equipment: Date Started:** 4/19/2012 **Surface Elev.:** 32.18' 2.5" 4/19/2012 **Date Completed:** Core Dia.: Core Rec. % Recovery Depth (ft.) Run No. Run Length RQD **DESCRIPTIVE LOG** (rock type, color, grain size, texture, bedding, minerals, remarks) 5 1 3/4 65 0 6 7 8 9 10 2 4.2/5 84 38 11 5-17' gray, fractured SHALE 12 13 14 15 3 3.5/3 117 83 16 17 End of boring = 17'

Page	1	of	1



Boring No. MW-4S **Project Name:** Troy Belting – Additional Environmental Investigation **Project No.:** 2011-31 **Client Name:** Date: 4/19/2012 Nixon Peabody, LLP 70 Cohoes Road, Watervliet, NY 12189 **Location:** Logged By: NJS Weather/Temp.: Overcast, Breezy, 35°F Checked By: **EMD** 17' (from grade) **Drilling Co.:** SJB Services, Inc. Depth: CME 550 – 4 1/4" **Driller:** Tom Farrell, Jason Langden (Assistant) OD H.S. Auger **Equipment: Date Started:** 4/19/2012 **Surface Elev.:** 30.18' 2.5" 4/19/2012 **Date Completed:** Core Dia.: Core Rec. % Recovery Depth (ft.) Run No. Run Length RQD **DESCRIPTIVE LOG** (rock type, color, grain size, texture, bedding, minerals, remarks) 5 1 3/4 65 0 6 7 8 9 10 2 4.2/5 84 38 11 5.5'-17' gray, fractured SHALE 12 13 14 15 3 3.5/3 117 83 16 17 End of boring = 18'

Page	1	of	1



Boring No. MW-5S **Project Name:** Troy Belting – Additional Environmental Investigation **Project No.:** 2011-31 **Client Name:** 4/18/2012 Nixon Peabody, LLP Date: 70 Cohoes Road, Watervliet, NY 12189 **Location:** Logged By: NJS Weather/Temp.: Overcast, Breezy, 37°F Checked By: **EMD** 20' (from grade) **Drilling Co.:** SJB Services, Inc. Depth: CME 550 – 4 1/4" **Driller:** Tom Farrell, Jason Langden (Assistant) OD H.S. Auger **Equipment: Date Started:** 4/18/2012 **Surface Elev.:** 33.69' 2.5" 4/18/2012 **Core Dia.: Date Completed:** Core Rec. % Recovery Depth (ft.) Run No. Run Length RQD **DESCRIPTIVE LOG** (rock type, color, grain size, texture, bedding, minerals, remarks) 10 1 1/1 100 86 11 12 13 2 4.8/5 96 50 14 15 5.5-18.5' gray, fractured SHALE 16 17 18 3 4/4 100 75 19 End of boring = 18.5' 20

Page	1	Of	1



					Boring No	MW-6	<u> </u>
Pro	ject Na	me:	Troy Belting and Supply		Project No.:	2011-31	
Client Name:		ne:	Nixon Peabody	_	Date:	12-9-14	
Loc	ation:		70 Cohoes Road, Cohoes, NY	_	Logged By:	Joseph Spaul	ding
We	ather/T	emp.:	Sunny, 70° F	_	Checked By:	Mark Willian	ns
	lling Co	:	SJB Services	_	Depth:	40.5' (from g CME 550 – 4 ¹ / ₄ "	rade)
	ller:		Tom Farrell and Stew Brodell (Assistant)	_	Equipment:	O.D. HS Auger	
	e Starte		9-17-15	_	Surface Elev.:	N/A	
Dat	e Comp	leted:	9-17-15	_	Core Dia.:	2.5'	
Formation	Depth (ro		DESCRIPTIVE LOG k type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length	% Recovery	RQD
	26		0.0': SHALE; Dark Gray to Black; moderate to high angle es; no odors; no VOC headspace or odors				
	27	25 0'-3					0%
	28				5.0 / 5.0	100%	V Poor
	30						
	31						
	32						
	33		5.0': SHALE; Dark Gray to Black; highly fractured and high angle fractures; no odors, no VOC headspace or odors	2	5.0 / 5.0	100%	40% Poor
	34	jointed,	ted, fight angle fractures, no odors, no voe headspace of odors				
kill Shale	35						
kill S	36						
Normansl	38		'-39.5': SHALE; Dark Gray to Black; high angle fractures; no staining apparent in fractures; highly fractured and jointed; no		5.0 / 5.0	100%	39% Poor
Norı	39		eadspace or odors				
	39.5						
			End Core @ 39.5'				

Page	1	of	1



					Boring	110.	<u>v-oD</u>
Pro	ject Naı	me:	Troy Belting and Supply Company		Project No.:	2011-31	
Client Name:		e:	Troy Belting		Date:	9-18-15	
Loc	ation:		70 Cohoes Road, Cohoes, NY		Logged By:	Joseph Sp	aulding
Wea	ather/To	emp.:	Sunny, 75° F		Checked By:	Mark Wil	liams
Dril	lling Co	.:	SJB Services	_	Depth:	70' (from CME 550 –	grade)
Dril			Tom Farrell and Stew Brodell (Assistant)		Equipment:	O.D. HS Au	
Dat	e Starte	d:	9-18-15	_	Surface Elev.:	N/A	
Dat	e Comp	leted:	9-18-15		Core Dia.:	2.5"	
Formation	Depth	(rock	DESCRIPTIVE LOG s type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length Core Rec.	% Recovery	RQD
	56						
	57		: SHALE; Black to Dark Gray; no iron staining apparent in	1			
	58 59	fracture odors	es; moderate to low angle fractures; no VOC headspace, no		5.0 / 4.4	88%	87%Good
	60	04015					
	61						
	62			ures; no 2			
	63		5.5': SHALE; Dark Gray to Black; low angle fractures; no ining apparent; no VOC headspace; no odors		5.0 / 4.7	94%	77% Good
4)	64						
kill Shale	65						
kill S	66						
Normans	68	65.5'-70	0.5': SHALE; Dark Gray to Black; moderate to high angle	3	5.0 / 4.2	84%	52% Fair
Norr	69	fracture	s; no iron staining apparent; no VOC headspace; no odors				
	70						
			End Core @ 70.5'				

Page	1	of	1

Boring No. MW-7S



Project Name:		me:	Troy Belting and Supply Company		Project No.:	2011-31	
Client Name:		ie:	Nixon Peabody, LLP		Date:	9-14-15	
Loc	ation:		70 Cohoes Road, Cohoes, NY		Logged By:	Joseph Spau	ılding
Wea	ather/T	emp.:	Overcase, Breezy, 65° F		Checked By:	Mark Willia	ums
Dril	lling Co	.:	SJB Services	<u> </u>	Depth:	20.8' (from CME 550 – 41/2	grade)
Dril	ller:		Tom Farrell and Stew Brodell (Assistant)		Equipment:	O.D. HS Auge	
Dat	e Starte	ed:	9-14-15		Surface Elev.:	N/A	
Dat	e Comp	leted:	9-14-15		Core Dia.:	2.5"	
Formation	Depth	(rock	DESCRIPTIVE LOG type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length Core Rec. (ft.)	% Recovery	RQD
	6	6'-9': S	SHALE, Dark Gray to Black; highly fractured; evidence of				221
	7		ron staining (water movement+); no VOC headspace, no	1	3.0 / 3.0	100%	0% VPoor
	8	odors	CHAIF D. I.C. (DI 1 1 1 1 C (1 1 1 1	ļ			00/
	9		-10.5': SHALE; Dark Gray to Black; highly fractured; high gle fractures; iron staining in fractures; no VOC headspace		1.5 / 1.2	80%	0% VPoor
	10	10.5'-11	': SHALE; Dark Gray to Black; highly fractured; high actures; iron staining in fracture zones	3	0.5 / 0.5	100%	0% VPoor
	11						
ale	12 13 14 15		SHALE, Dark Gray to Black; highly fractured; lower actures; no VOC headspace, no odors	4	5.0 / 4.8	96%	55% Fair
nskill Shale	16		5': SHALE; Dark Gray to Black; highly fractured; midactures; no VOC headspace, no odors	5	1.0 / 0.8	80%	33% Poor
Normans	17 18 19 20		0.8': Dark Gray to Black; less *very poor RQD (no pieces over); no VOC headspace, no odors	6	5.0 / 4.0	80%	88% Good
			End Core @ 20.8'				

Page	1	of	1



					Boring N	0. <u>MW-71</u>)
Pro	ject Na	me:	Troy Belting and Supply	_	Project No.:	2011-31	
Clie	ent Nam	ne:	Nixon Peabody	_	Date:	9-17-15	
Loc	ation:		70 Cohoes Road, Cohoes, NY	_	Logged By:	Joseph Spauld	ing
We	ather/T	emp.:	Sunny, 70° F	_	Checked By:	Mark William	<u>s</u>
Dri	lling Co).:	SJB Services		Depth:	40.5' (from gr.	ade)
	ller:		Tom Farrell and Stew Brodell (Assistant)	_	Equipment:	40.5' (from gr. CME 550 – 41/4" O.D. HS Auger	
	e Starte	. 4 .	9-17-15	_	Surface Elev.:	N/A	
	e Comp		9-17-15	_	Core Dia.:	2.5'	
D	Comp			_	0010 21411		
Formation	Depth	(roc	DESCRIPTIVE LOG k type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length	% Recovery	RQD
	25.5						
	26.5			1			
	27.5 28.5		0.5': SHALE; Dark Gray to Black; low to moderate angle		5.0 / 4.9	98%	750/ G 1
	29.5		res; no iron staining apparent in fracture; no odors; no VOC pace or odors		5.0 / 4.9	98%	75% Good
	30.5						
	31.5						
	32.5	30.5'-3:	5.5': SHALE; Dark Gray to Black; low angle fractures; no				
	33.5		ining apparent in fracture zones; no odors, no VOC	2	5.0 / 4.8	96%	84% Good
e	34.5 35.5	neauspa	ace or odors				
kill Shale	36.5						
skill	37.5						
Normansl	38.5	35.5'-40	0.5': SHALE; Dark Gray to Black; low angle fractures; no ining apparent in fractures; no VOC headspace or odors	3	5.0 / 4.9	98%	73% Good
Nor	39.5	HOII Sta.	ining apparent in fractures, no voe neadspace of odors				
	40.5						
			End Core @ 40.5'				

Page	1	of	1



					Boring N	No. MW	-8S
Project Name: Client Name: Location: Weather/Temp.:		ne:	Troy Belting and Supply Company Nixon Peabody, LLP 70 Cohoes Road, Cohoes, NY Breezy, 20° F		Project No.: Date: Logged By: Checked By:	2011-31 12-11-14 Joseph Spau Mark Willia	
Drilling Co.: Driller: Date Started: Date Completed:		ed:			Depth: Equipment: Surface Elev.: Core Dia.:	20.8' (from CME 550 – 4½ O.D. HS Auge N/A 2.5"	4
Formation	Depth 4	(rock	DESCRIPTIVE LOG s type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length Core Rec. (ff.)	% Recovery	RQD
	5 6 7 8 9	8.0'-10	O': SHALE, Dark Gray to Black; highly fractured and ; no VOC headspace, no odors O': SHALE; Dark Gray to Black; highly fractured; high ractures; no VOC headspace	2	4.0 / 4.0 2.5 / 2.0	100%	22% VPoor 42% Poor
ale	10 11 12 13 14		10'-15': SHALE, Dark Gray to Black; highly fractured; lower to moderate angle fractures; no VOC headspace, no odors		5.0 / 5.0	100%	43% Poor
Normanskill Shale	15 16 17 18 19		5.0'-19.0': Dark Gray to Black; highly fractured; lower to oderate angle fractures; no VOC headspace, no odors		4.0 / 4.0	100%	88% Good
			End Core @ 19.0'				

Page	1	Of	1



					Boring I	No. MW-	-8D
Project Name: Client Name: Location: Weather/Temp.:		ne:	Troy Belting and Supply Nixon Peabody 70 Cohoes Road, Cohoes, NY Sunny, 70° F		Project No.: Date: Logged By: Checked By:	2011-31 12-11-14 Joseph Spat Mark Willia	
Drilling Co.: Driller: Date Started: Date Completed:		ed:	SJB Services Tom Farrell and Stew Brodell (Assistant) 9-17-15 9-17-15		Depth: Equipment: Surface Elev. Core Dia.:	40.5' (from CME 550 – 4½ O.D. HS Auge N/A 2.5'	4"
Formation	upted 25	(roc	DESCRIPTIVE LOG k type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length Core Rec.	% Recovery	RQD
Normanskill Shale	26 27 28 29 30		0'-30.0': SHALE; Dark Gray to Black; low to moderate angle ctures; no odors; no VOC headspace or odors			100%	48% Poor
	31 32 33 34 35		.0'-35.0': SHALE; Dark Gray to Black; highly fractured; low gle fractures; no odors, no VOC headspace or odors			96%	40% Poor
	36 37 38 39 40	iron sta	o'-40.0': SHALE; Dark Gray to Black; low angle fractures; no staining apparent in fractures; Highly Fractured; no VOC dispace or odors		5.0 / 4.9	98%	48% Poor
			End Core @ 41.0'				

Page	1	of	1	



					Boring I	No. MW-	-9S
Project Name:		me:	Troy Belting and Supply Company		Project No.:	2011-31	
Client Name:		ne:	Nixon Peabody, LLP		Date:	12-10-14	
Loc	ation:		70 Cohoes Road, Cohoes, NY		Logged By:	Joseph Spau	ılding
Wea	ather/T	emp.:	Overcase, Breezy, 65° F		Checked By:	Mark Willia	ims
Drilling Co.:		·:	SJB Services		Depth:	20.8' (from CME 550 – 41/2	,,,
Dril	uer: e Starte	d.	Tom Farrell and Stew Brodell (Assistant) 9-14-15		Equipment: Surface Elev.:	O.D. HS Auger	<u>r</u>
	e Starte e Comp		9-14-15		Core Dia.:	2.5"	
Dat	e Comp	neteu.	7-14-13		Core Dia	2.3	
Formation	Depth	(rock	DESCRIPTIVE LOG s type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length Core Rec. (ft.)	% Recovery	RQD
Normanskill Shale	7.5 8.5 9.5 10.5		-10.5': SHALE, Dark Gray to Black; highly fractured; low to lerate angle fractures; no VOC headspace, no odors		3.0 / 3.0	100%	42% Poor
	11 12 13 14 15		5.0': SHALE, Dark Gray to Black; highly fractured; lower ractures; no VOC headspace, no odors	2	5.0 / 4.8	96%	55% Fair
	16 17 18 19 20	15'-20 angle fr	'-20.5': SHALE; Dark Gray to Black; highly fractured; mid- gle fractures; no VOC headspace, no odors 3		5.0 / 4.0	80%	75% Good
			End Core @ 20.5'				

Page	1	of	1



					Boring	NO. WIW	-10D
Project Name:		me:	Troy Belting and Supply		Project No.:	2011-31	
Client Name:		ie:	Nixon Peabody, LLC		Date:	9-16-15	
Location:			70 Cohoes Road, Cohoes, NY		Logged By:	Joseph Spa	ulding
Wea	ather/T	emp.:	Sunny, 75° F		Checked By:	Mark Will	ams
	lling Co	.:	SJB Services		Depth:	$\frac{22.5^{\circ} - 40.}{\text{CME } 550 - 4}$	5' bgs
Dril	ller:		Tom Farrell and Stew Brodell (Assistant)		Equipment:	O.D. HS Aug	
Dat	e Starte	ed:	9-16-15		Surface Elev.		
Dat	e Comp	leted:	9-16-15		Core Dia.:	2.5"	
Formation	Formation Pepth Croc		DESCRIPTIVE LOG a type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length Core Rec.	% Recovery	RQD
	26.5			1			
	27.5		0.5': SHALE; Black; moderately fractured; slight brown				
	28.5 29.5		ining; Moderate to high angle fractures; no odors from s; no VOC headspace		5.0 / 4.1	84%	20% Very Poor
	30.5	Tractare	ictures, no voe neadspace				
	31.5						
	32.5						
	33.5		2-35.5': SHALE; Black; moderately fractured; low angle ures; no odors; no VOC headspace		5.0 / 5.0	100%	68% Fair
6	34.5		, , , , , , , , , , , , , , , , , , ,				
kill Shale	35.5 36.5						
kill 9	37.5						
Normans	38.5		0.5': SHALE; Black; moderately fractured; low angle	3	5.0 / 4.0	80%	53% Poor
Norı	39.5	fracture	s; no odors; no VOC headspace				
	40.5						
			End Core @ 40.5'				

Page	1	of	1



					Borin	ng No.	MW-11S
Project Name:		me:	Troy Belting and Supply Company		Project No.:	2011-31	
Client Name:		ie:	Nixon Peabody, LLP	Date:		11-9-15	
Loc	ation:		70 Cohoes Road, Cohoes, NY		Logged By:	Joseph Sp	aulding
Wea	ather/T	emp.:	Sunny, 40° F		Checked By:	Mark Wil	liams
Dril	lling Co	.:	SJB Services		Depth:	21.0' (from CME 550 –	m grade) 4½"
Dril	ller:		Tom Farrell and Stew Brodell (Assistant)	_	Equipment:	O.D. HS Auger	
Dat	e Starte	ed:	11-9-15		Surface Elev.:	29.85	
Dat	e Comp	leted:	11-9-15		Core Dia.:	2.5"	
Formation	Depth	(rock	DESCRIPTIVE LOG a type, color, grain size, texture, bedding, minerals, remarks)	Run No.	Run Length	%Recovery	RQD
	8	72 102.	CHAIF Disk Madison to bish and for those Nation				400/
	9	7'-10': SHALE, Black; Medium to high angle fractures; No iron staining; No VOC headspace reading, no odors		1	3.0 / 3.0	100%	10% V.Poor
	10 11						
	12	11'-15': SHALE; Dark Gray to Black; Medium to high angle fractures; No iron staining; No VOC headspace reading, no odors		2	4/4	100%	17% V.Poor
	13 14						
	15		: SHALE; Dark Gray to Black; Medium to high angle es; No iron staining; No VOC headspace reading, no odors	3	1/1	100%	60% Fair
Shale	16 17	16'-20': SHALE; Black to Dark Gray; Medium angle fractures; No VOC headspace reading, no odors		4	4/4	100%	70% Fair
Ξij	18	, , ,					
Normansk	19	• • • • • • • • • • • • • • • • • • • •			24.5		200/ 7
Z	20		: SHALE; Black to Dark Gray; Medium to high angle s; No VOC headspace reading, no odors	5	2/1.5	75%	38% Poor
	21		5,				
			End Com @ 21.0'				
			End Core @ 21.0'				





Photograph 1: Bedrock core of MW-6D' starting at 55.0' below ground surface in top left of photograph.



Photograph 2: Bedrock core of MW-6D' ending at 65.5' below ground surface in bottom right of photograph.



Photograph 3: Bedrock core of MW-6D' starting at 65.5' below ground surface in top left of photograph. Bottom of core also present at 70.5' below ground surface.



Photograph 4: Bedrock core of MW-6D' ending at 70.5' below ground surface in middle left of photograph.



Photograph 5: Bedrock core of MW-7S starting at 6.0' below ground surface in top left of the photograph.



Photograph 6: Bedrock core of MW-7S ending at 16.5' below ground surface in bottom of photograph.



Photograph 7: Bedrock core of MW-7S starting at 16.5' below ground surface in top left of the photograph. End of bedrock core is also shown at 21.5' below ground surface.



Photograph 8: Bedrock core of MW-7S at 17.0'-19.0' below ground surface.



Photograph 9: Bedrock core of MW-7D starting at 25.5' below ground surface in top left of photograph.



Photograph 10: Bedrock core of MW-7D ending at 35.5' below ground surface in top left of photograph.



Photograph 11: Bedrock core of MW-7D at 35.5' – 40.5' below ground surface.



Photograph 12: Bedrock core of MW-10D starting at 25.5' below ground surface in top left of photograph.

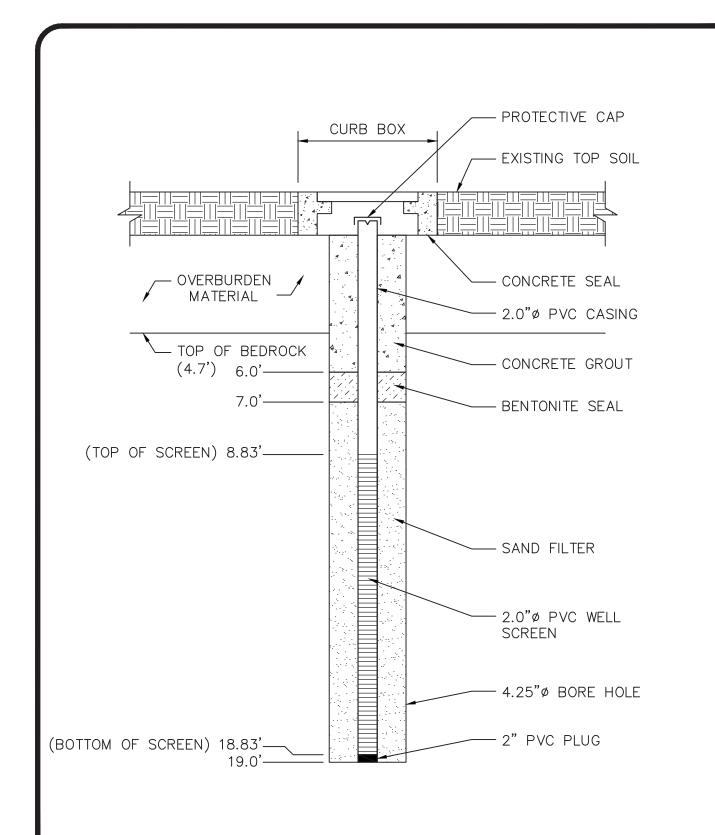


Photograph 13: Bedrock core of MW-10D ending at 35.5' below ground surface in bottom right of photograph.



Photograph 14: Bedrock core of MW-10D at 35.5' – 40.5' below ground surface.

APPENDIX E MONITORING WELL CONSTRUCTION FORMS



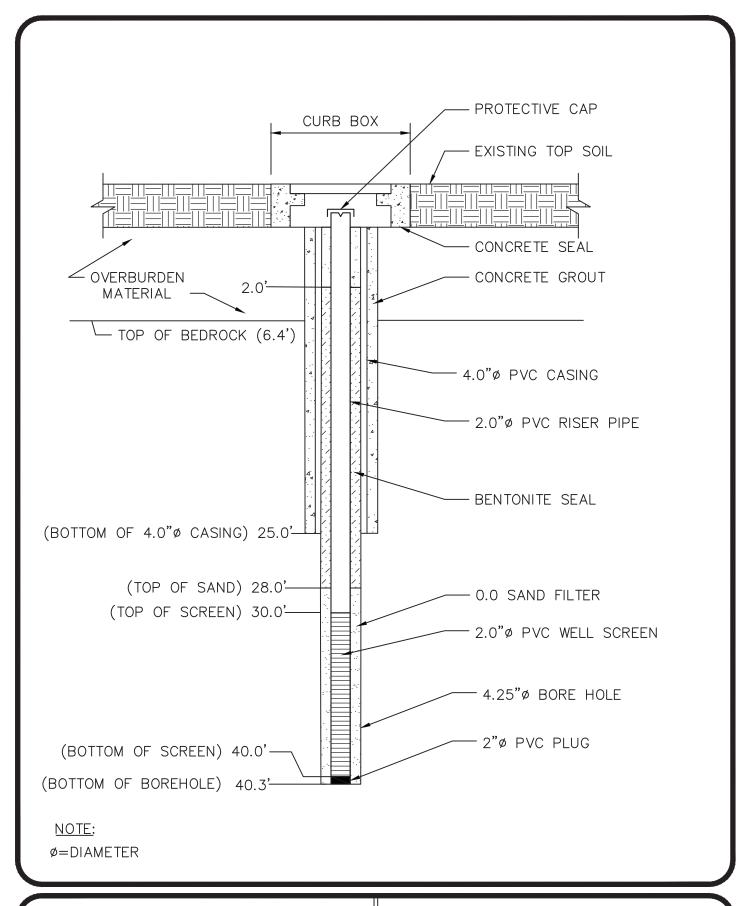
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WELL COMPLETION DETAILS FOR MW-1S TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF COLONIE

ALBANY CO., N.Y.

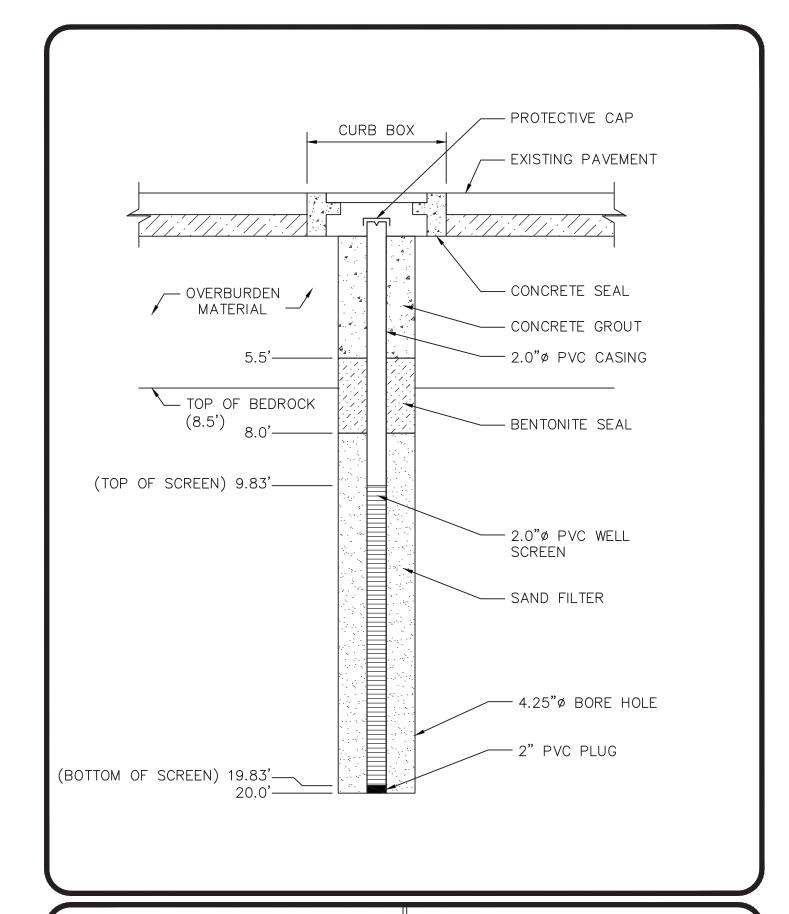


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WELL COMPLETION DETAILS FOR MW-1D TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET ALBANY CO., N.Y.



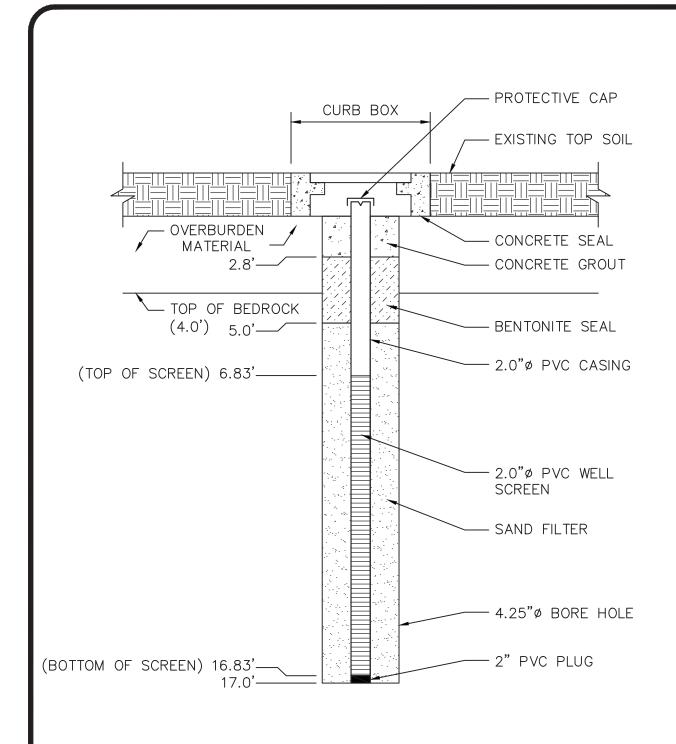
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WELL COMPLETION DETAILS FOR MW-2S TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF COLONIE

ALBANY CO., N.Y.



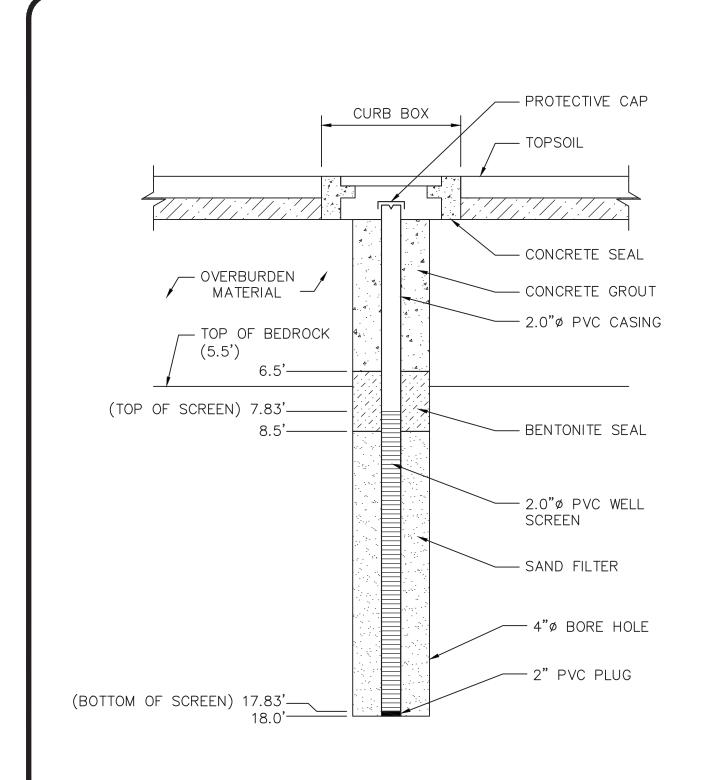
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WELL COMPLETION DETAILS FOR MW-3S TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF COLONIE

ALBANY CO., N.Y.



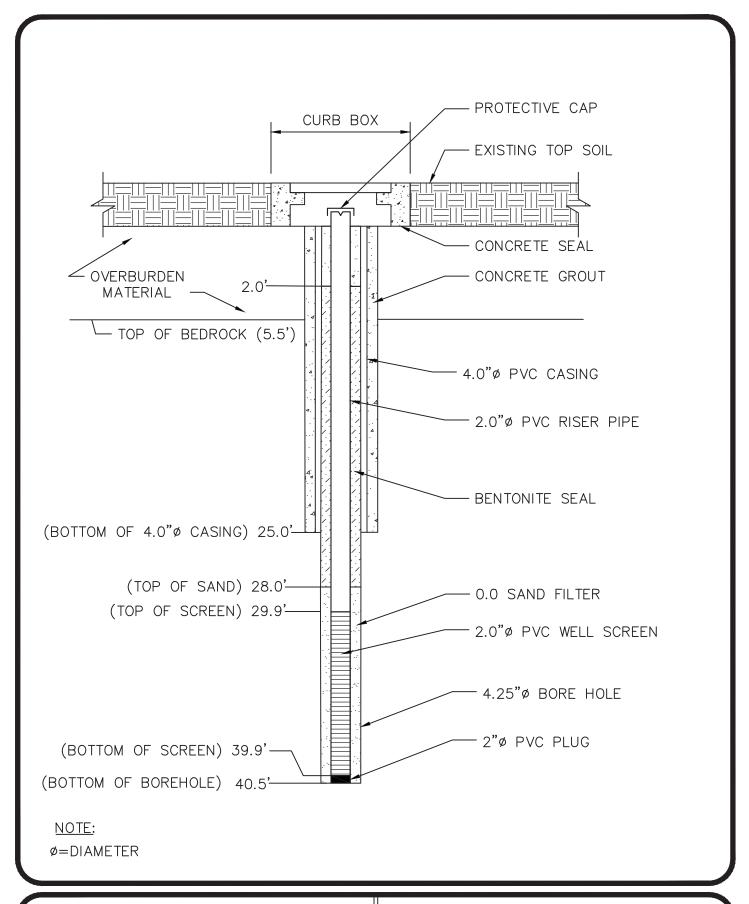
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WELL CONSTRUCTION DETAILS FOR MW-4S ONSITE MONITORING WELL INSTALLATION TROY BELTING & SUPPLY CO. 70 COHOES ROAD

TOWN OF COLONIE

ALBANY CO., N.Y.

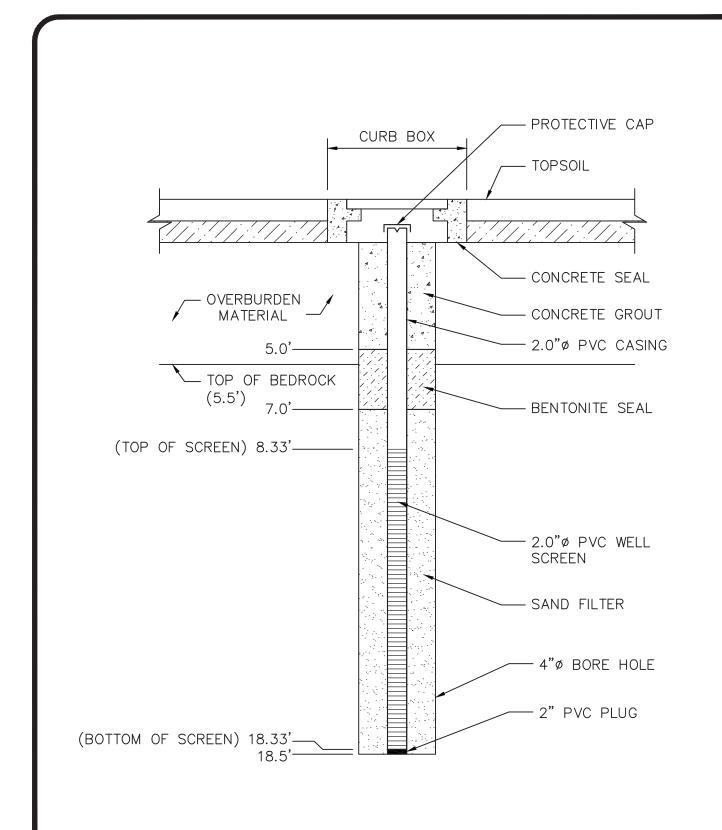


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WELL COMPLETION DETAILS FOR MW-4D TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET ALBANY CO., N.Y.



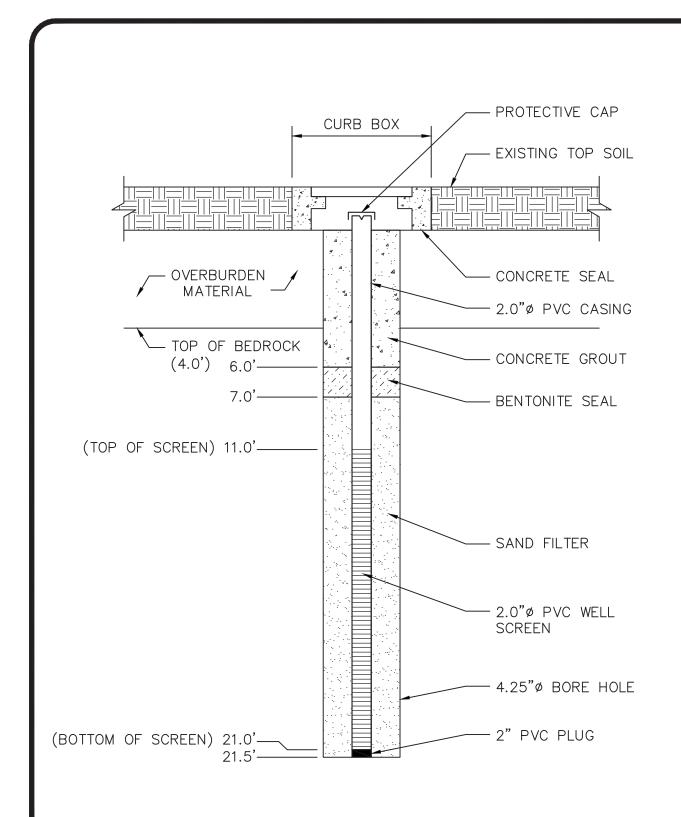
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WELL CONSTRUCTION DETAILS FOR MW-5S ONSITE MONITORING WELL INSTALLATION TROY BELTING & SUPPLY CO. 70 COHOES ROAD

TOWN OF COLONIE

ALBANY CO., N.Y.



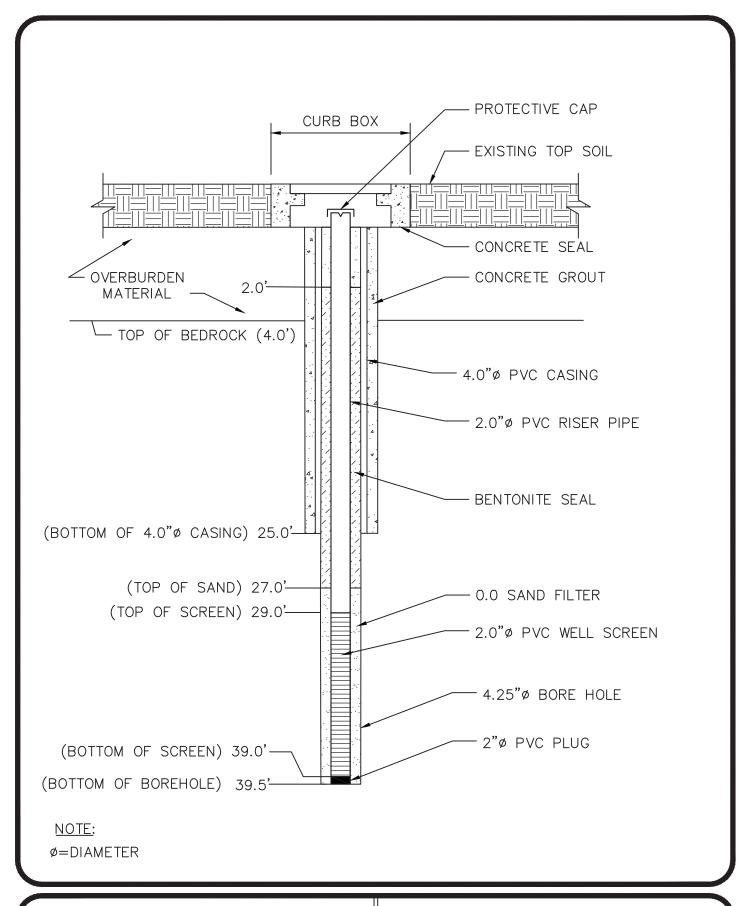
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WELL COMPLETION DETAILS FOR MW-6S TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF COLONIE

ALBANY CO., N.Y.

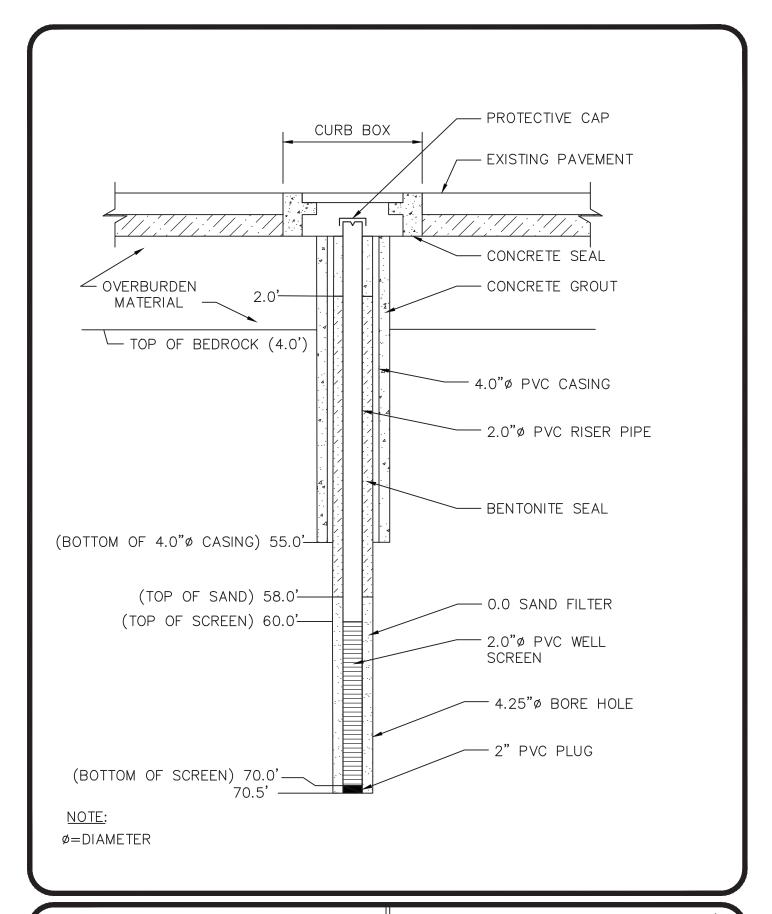


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WELL COMPLETION DETAILS FOR MW-6D TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET ALBANY CO., N.Y.

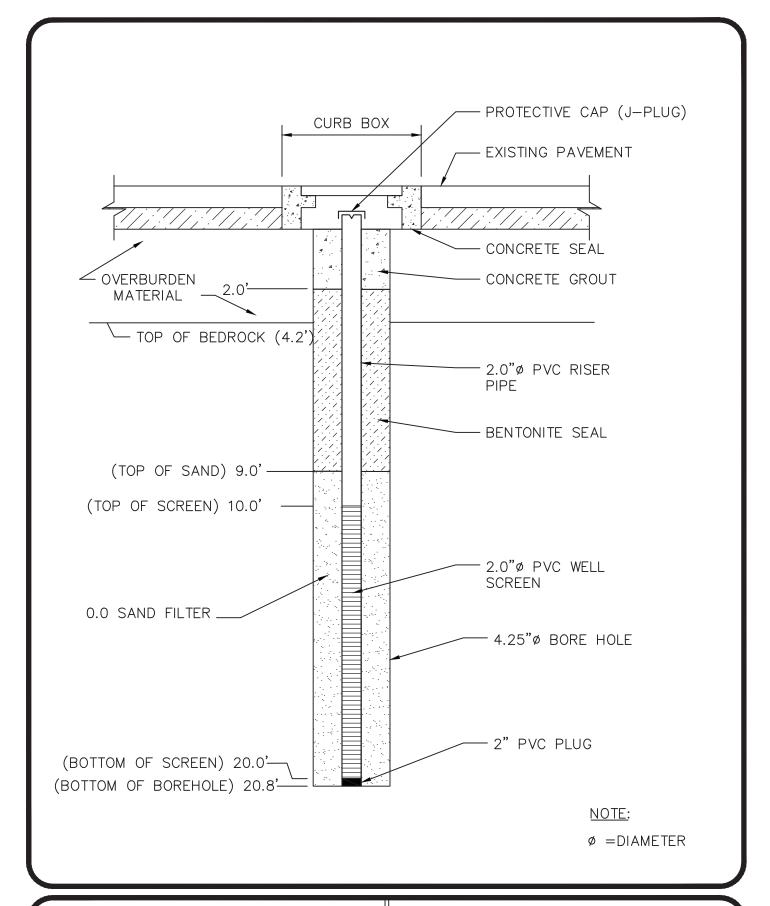


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WELL COMPLETION DETAILS FOR MW-6D'
TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET ALBANY CO., N.Y.

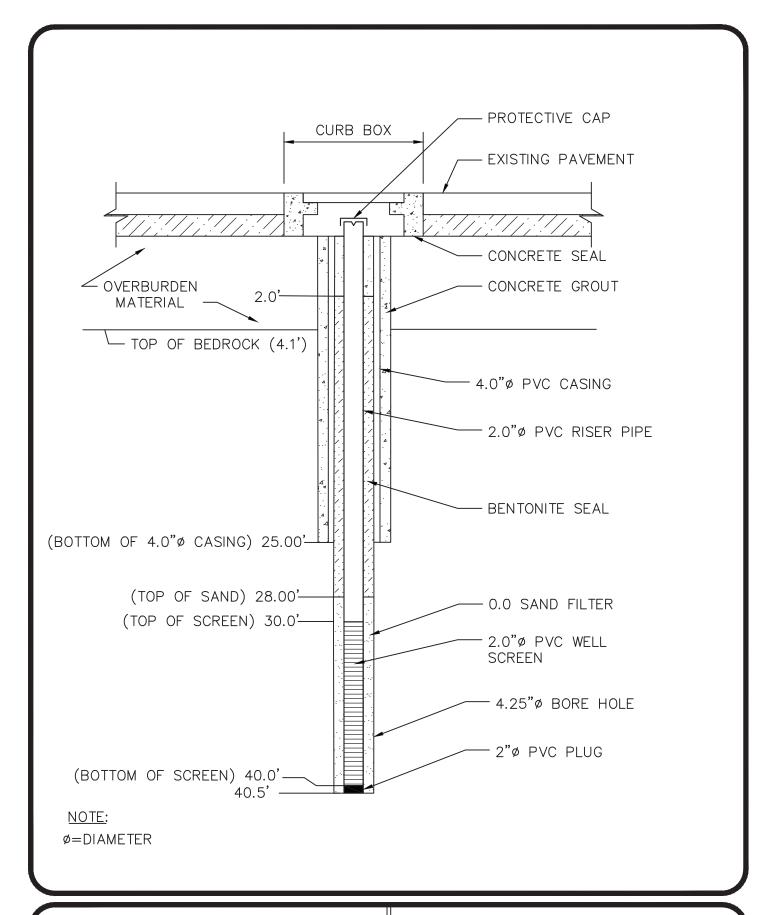


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WELL COMPLETION DETAILS FOR MW-7S TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET ALBANY CO., N.Y.

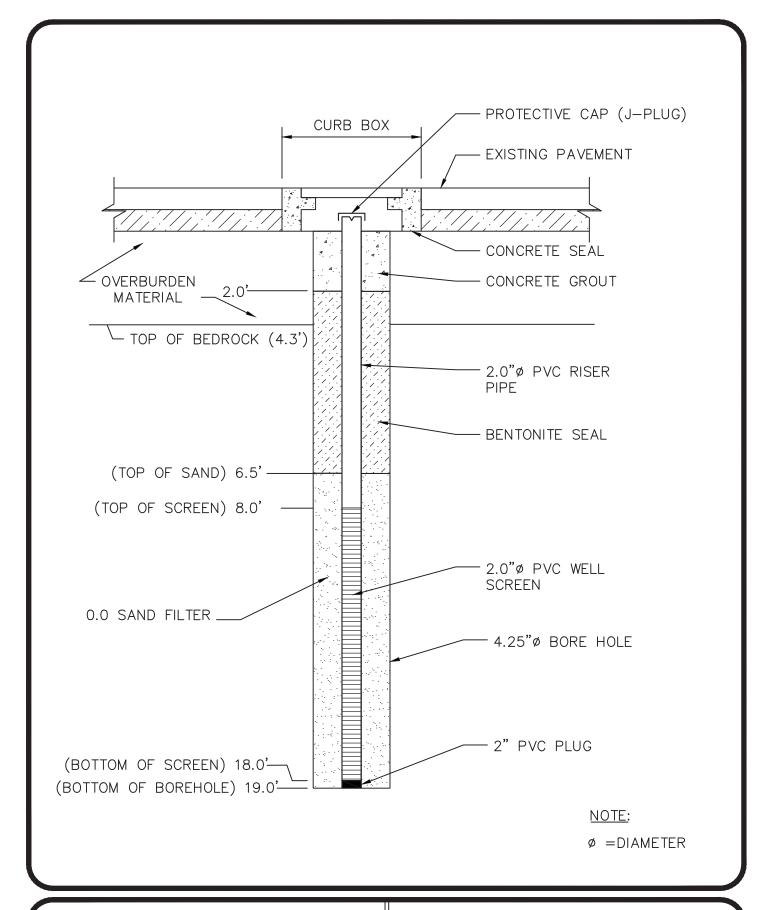


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WELL COMPLETION DETAILS FOR MW-7D TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET ALBANY CO., N.Y.

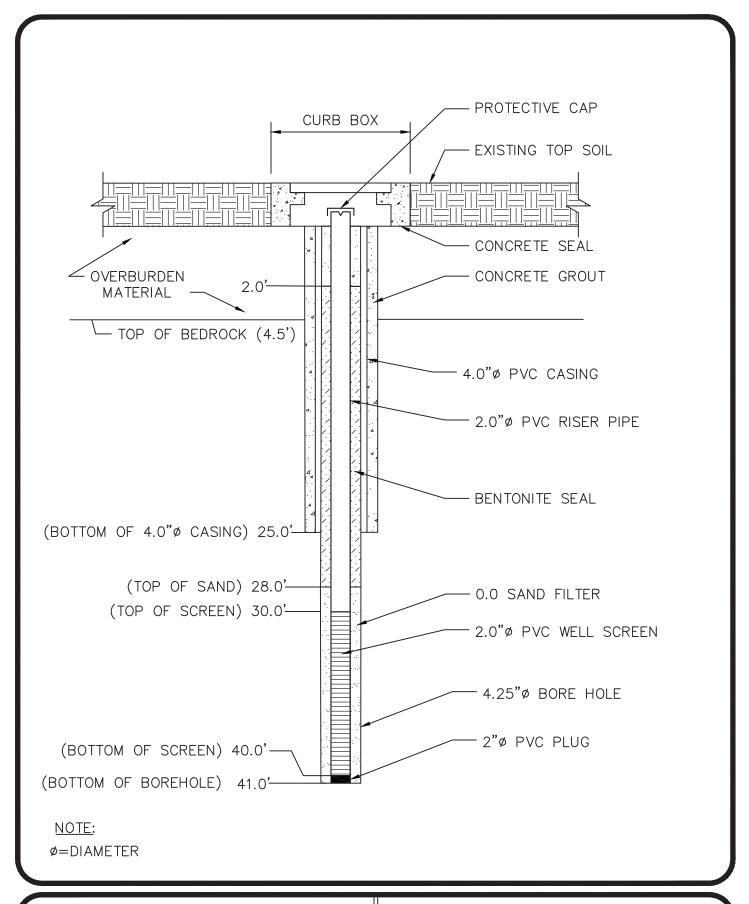


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WELL COMPLETION DETAILS FOR MW-8S TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET ALBANY CO., N.Y.

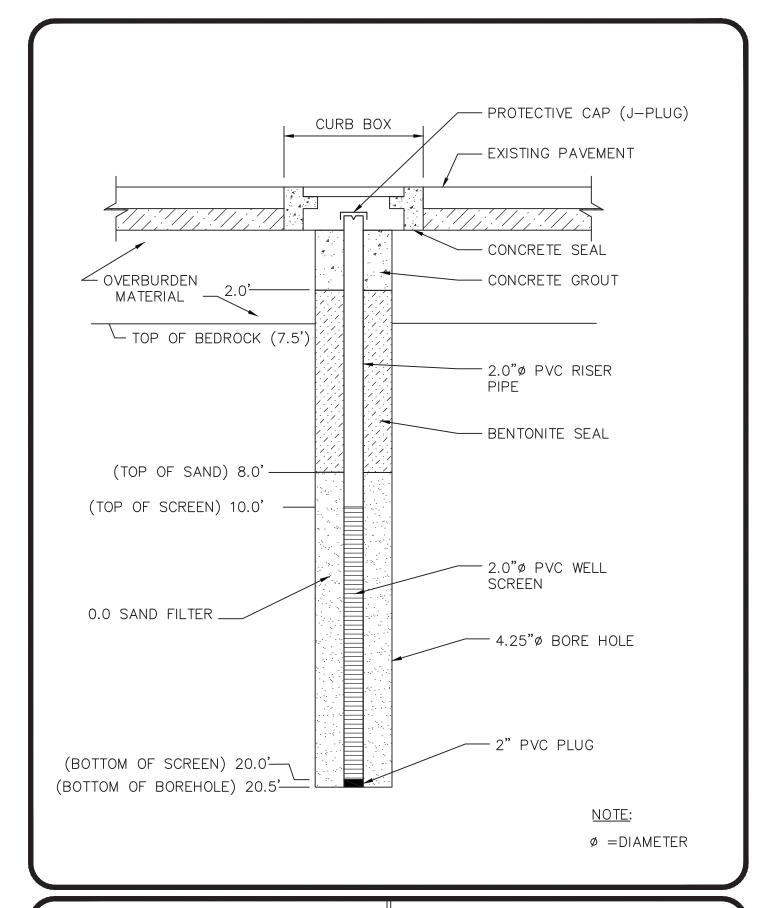


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WELL COMPLETION DETAILS FOR MW-8D TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET ALBANY CO., N.Y.



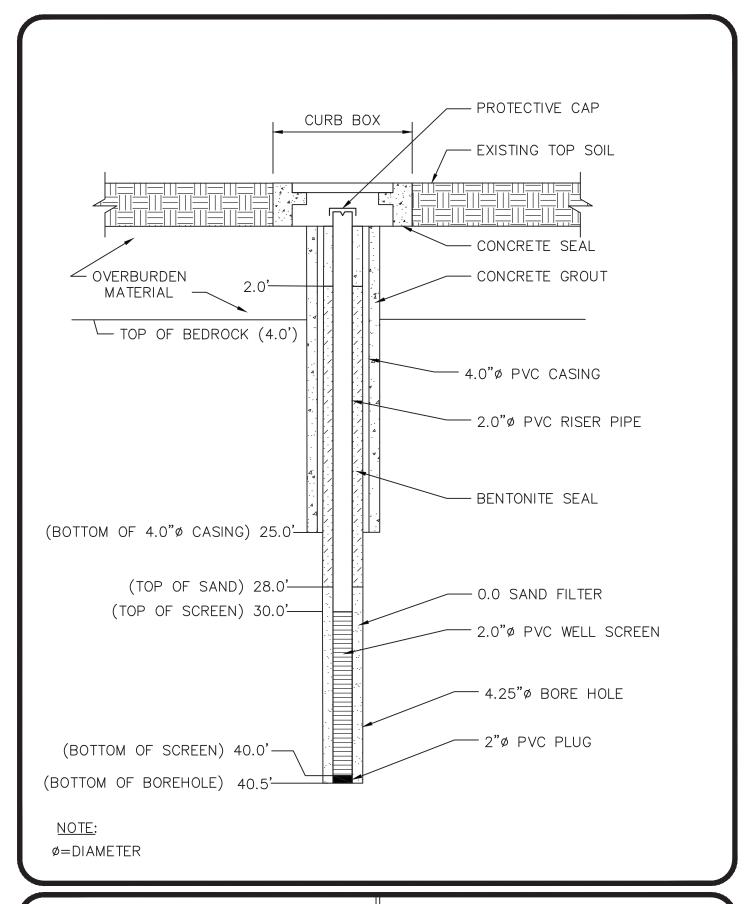
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WELL COMPLETION DETAILS FOR MW-9S TROY BELTING & SUPPLY CO. 70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET

ALBANY CO., N.Y.



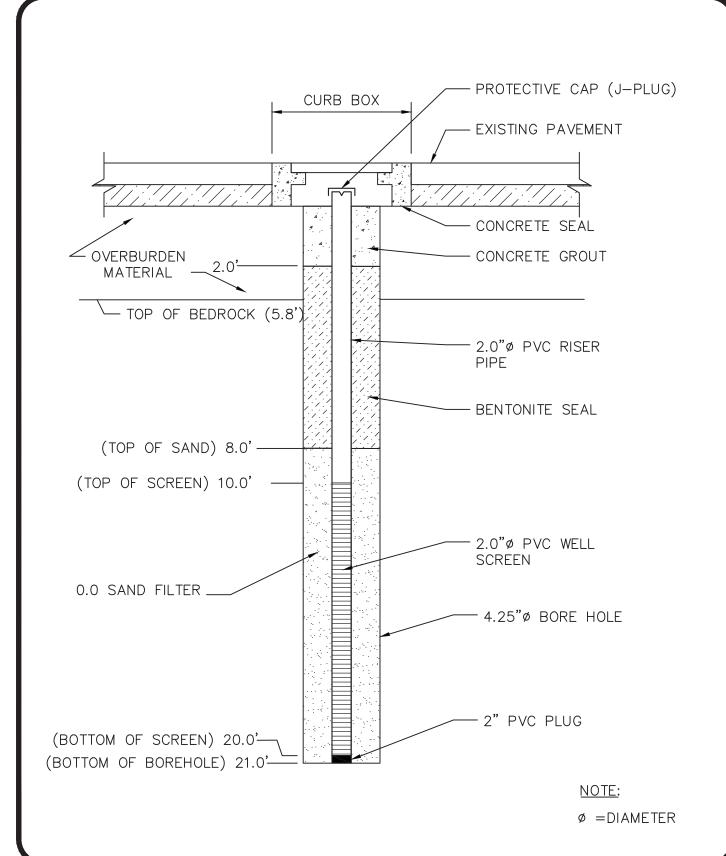
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WELL COMPLETION DETAILS FOR MW-10D TROY BELTING & SUPPLY CO.
70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET

ALBANY CO., N.Y.



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WELL COMPLETION DETAILS FOR MW-11S TROY BELTING & SUPPLY CO. 70 COHOES ROAD

ONSITE MONITORING WELL INSTALLATION

TOWN OF WATERVLIET

ALBANY CO., N.Y.

APPENDIX F

DATA USABILITY SUMMARY REPORTS (PROVIDED ON CD)