APPENDIX E

ERM

WELL : MW-1DD

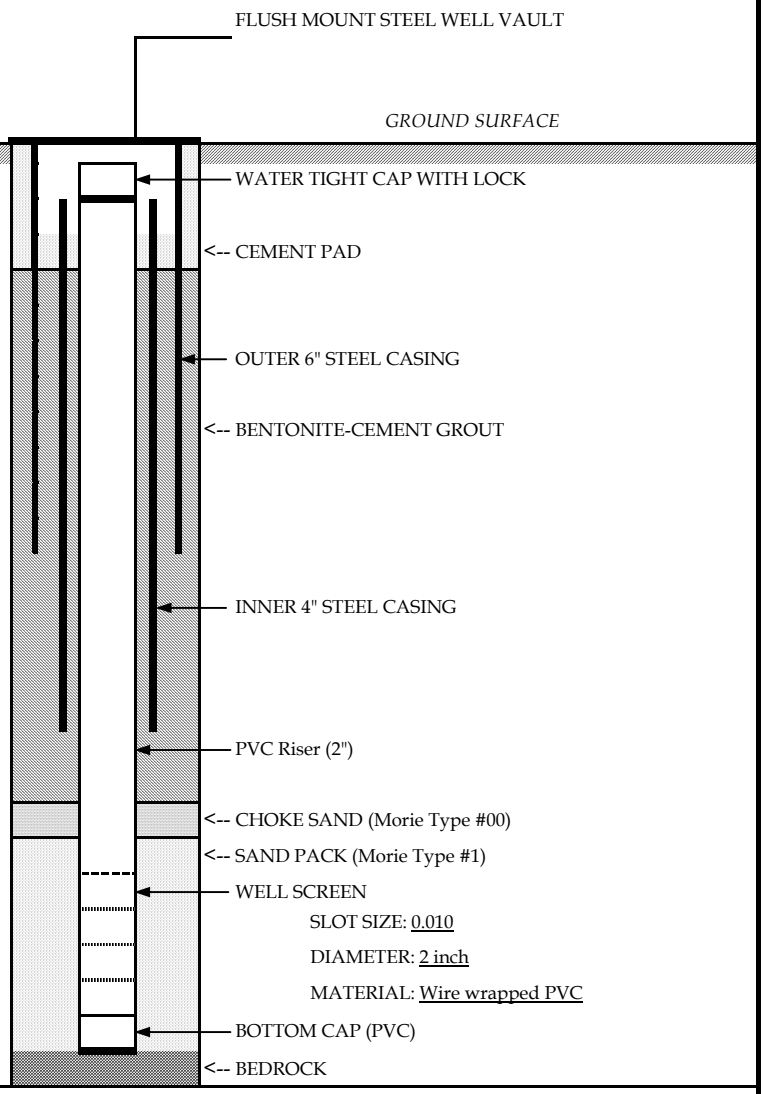
1159 Pittsford-Victor Road, Suite 200, Pittsford, NY 14534 (585) 387-0510

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	Project No.	Water Level(s) (ft below top of 4" steel casing)			Site Elevation Datum (feet)
Former Raeco Products Site	**21427**				
Drilling Company	*Foreman*	Date	Level (feet)	Elevation (feet)	*Ground Elevation (feet)*
Nothnagle Drilling Inc.	Steve L.				NA
Surveyor					*Top of Flush Mount Well Vault Elevation (feet)*
Larsen Engineers					481.51
Date and Time of Completion	*Geologist*				*Top of 2" PVC Riser Pipe Elevation (feet)*
16-May-05	Jeremy Wolf - ERM				481.25

Generalized Description	*Elevation	**Depth
See boring log for MW-1DD for full details.	481.51	0.0
Top of 2" PVC Riser	481.25	0.26
Top of Bentonite-Cement Grout	480.51	1.0
Begin Rock Socket (Top of Weathered Rock)	473.51	8.0
Top of Competent Rock	468.51	13.0
End Rock Socket	465.51	16.0
Bottom of 4" Steel Casing	436.51	45.0
Top of Choke Sand (Type #00)	429.51	52.0
Top of Sand Pack (Type #1)	428.51	53.0
Top of PVC Screen	426.51	55.0
Bottom of PVC Screen	406.51	75.0

CONSTRUCTION DETAILS



REMARKS 6 1/4" Hollow Stem Auger to 13' bgs. 7 7/8" roller bit 13' - 16' bgs.

5 7/8 roller bit 16' - 36' bgs. NX core followed by 5 7/8" roller bit 36' to 45' bgs.

NX core followed by 3 7/8" roller bit 45' - 75' bgs.

* Vertical information referenced to NGVD'29. ** Depth in feet below ground surface (bgs).

ERM

WELL : MW-2DD

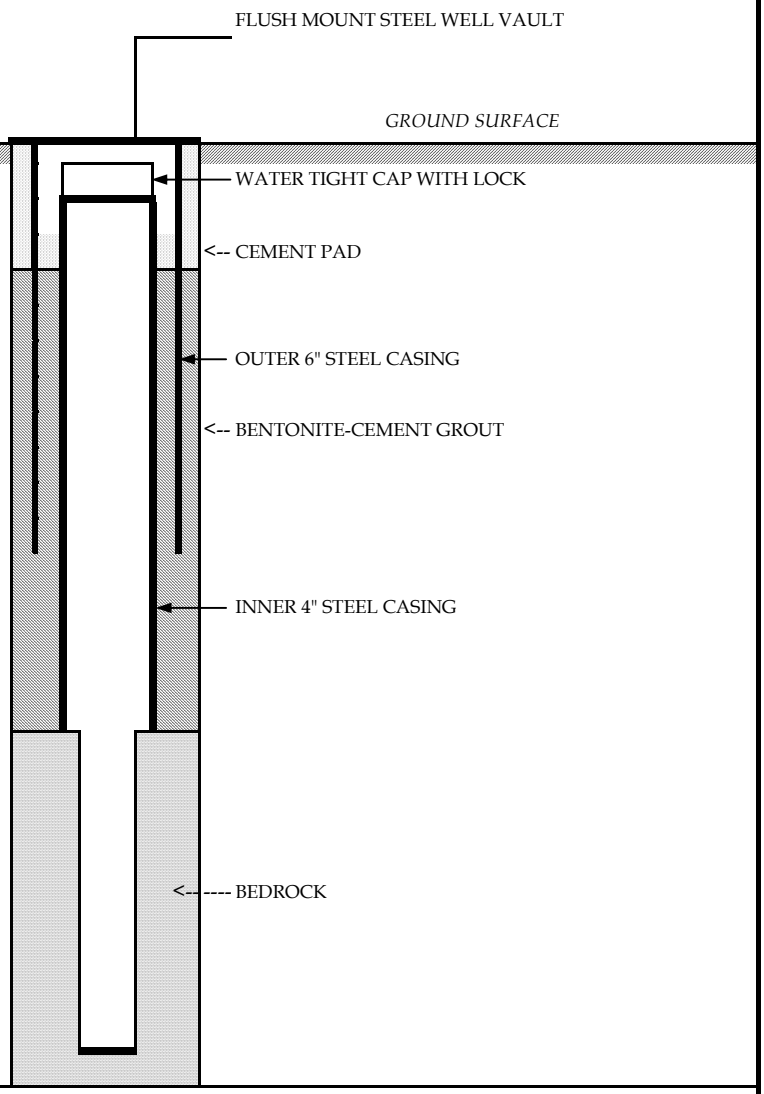
1159 Pittsford-Victor Road, Suite 200, Pittsford, NY 14534 (585) 387-0510

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	Project No.	Water Level(s) (ft below top of 4" steel casing)			Site Elevation Datum (feet)
Former Raeco Products Site	**21427**				
Drilling Company	*Foreman*	Date	Level (feet)	Elevation (feet)	*Ground Elevation (feet)*
Nothnagle Drilling Inc.	Steve L.				NA
Surveyor					*Top of Flush Mount Well Vault Elevation (feet)*
Larsen Engineers					480.07
Date and Time of Completion	*Geologist*				*Top of 4" Steel Riser Pipe Elevation (feet)*
11-May-05	Jeremy Wolf - ERM				479.85

Generalized Description	*Elevation	**Depth
See boring log for MW-2DD for full details.	480.07	0.0
Top of 4" inner steel casing	479.85	0.22
Top of Bentonite-Cement Grout	479.07	1.0
Begin Rock Socket (Top of Weathered Rock)	467.07	13.0
Top of Competent Rock	466.07	14.0
End Rock Socket	464.07	16.0
Top of Open Borehole	425.07	55.0
Bottom of Open Borehole	400.07	80.0

CONSTRUCTION DETAILS



REMARKS 6 1/4" Hollow Stem Auger to 14' bgs. 7 7/8" roller bit 14' - 16' bgs.
5 7/8 roller bit 16' - 46' bgs. NX core followed by 5 7/8" roller bit 46' to 55' bgs.
NX core followed by 3 7/8" roller bit 55' - 80' bgs.

* Vertical information referenced to NGVD'29. ** Depth in feet below ground surface (bgs).

ERM

WELL : MW-3DD

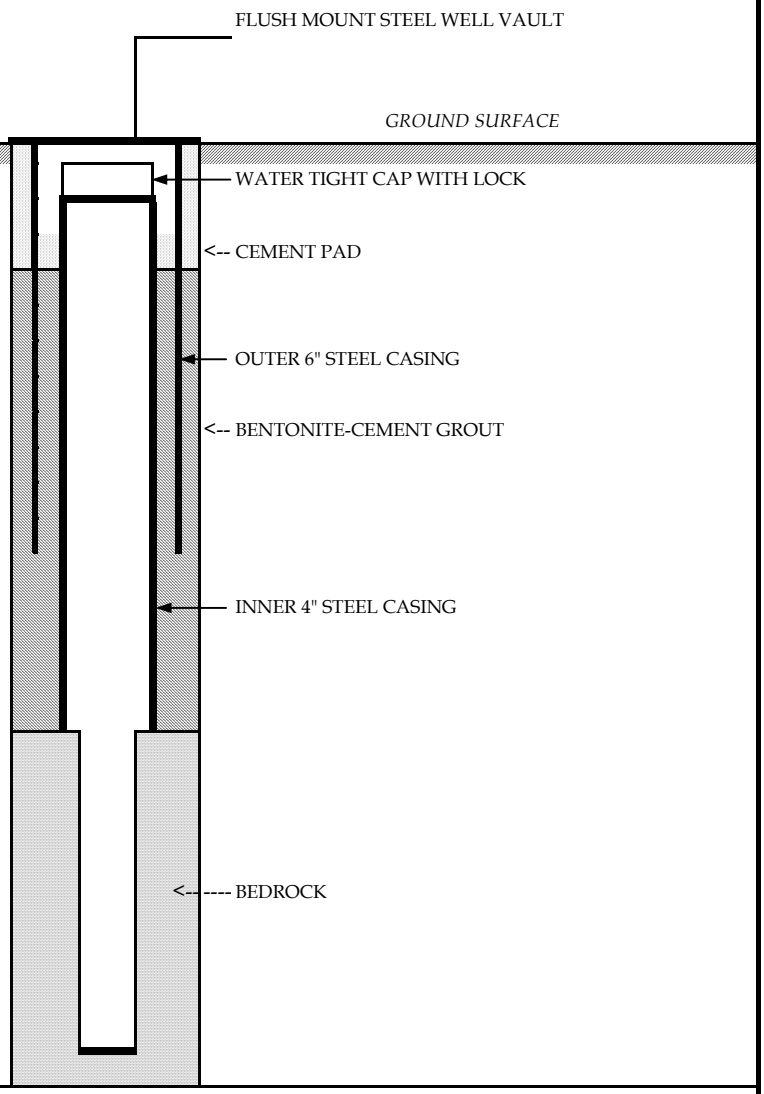
1159 Pittsford-Victor Road, Suite 200, Pittsford, NY 14534 (585) 387-0510

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	Project No.	Water Level(s) (ft below top of 4" steel casing)			Site Elevation Datum (feet)
Former Raeco Products Site	**21427**				
Drilling Company	*Foreman*	Date	Level (feet)	Elevation (feet)	*Ground Elevation (feet)*
Nothnagle Drilling Inc.	Steve L.				NA
Surveyor					*Top of Flush Mount Well Vault Elevation (feet)*
Larsen Engineers					480.84
Date and Time of Completion	*Geologist*				*Top of 4" Steel Riser Pipe Elevation (feet)*
12-May-05	Jeremy Wolf - ERM				480.57

Generalized Description	*Elevation	**Depth
See boring log for MW-3DD for full details.	480.84	0.0
Top of 4" inner steel casing	480.57	0.27
Top of Bentonite-Cement Grout	479.84	1.0
Begin Rock Socket (Top of Weathered Rock)	462.84	18.0
Top of Competent Rock	457.84	23.0
End Rock Socket	455.84	25.0
Top of Open Borehole	425.84	55.0
Bottom of Open Borehole	405.84	75.0

CONSTRUCTION DETAILS



REMARKS 6 1/4" Hollow Stem Auger to 18' bgs. 7 7/8" roller bit 18' - 25' bgs.

5 7/8 roller bit 25' - 46' bgs. NX core followed by 5 7/8" roller bit 46' - 55' bgs.

NX core followed by 3 7/8" roller bit 55' - 75' bgs.

* Vertical information referenced to NGVD'29. ** Depth in feet below ground surface (bgs).

ERM

WELL : MW-4D

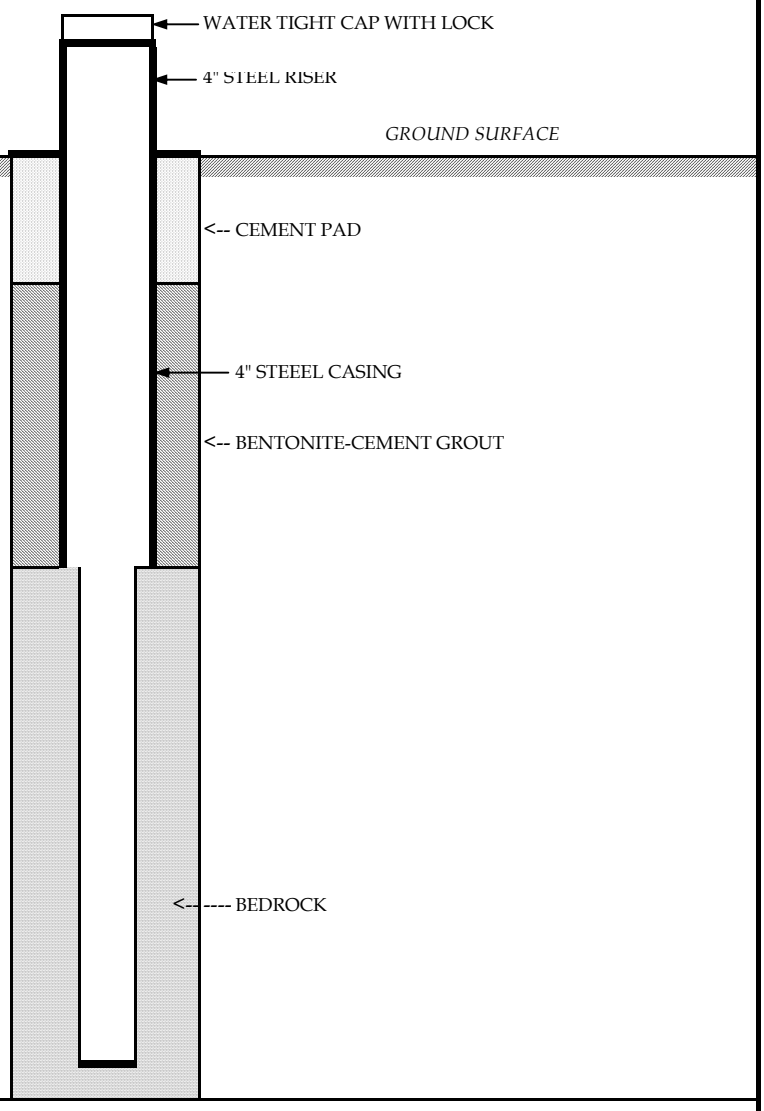
1159 Pittsford-Victor Road, Suite 200, Pittsford, NY 14534 (585) 387-0510

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	*Project No.*	*Water Level(s)* (ft below top of 4" steel casing)			*Site Elevation Datum (feet)*
Former Raeco Products Site	**21427**				
Drilling Company	*Foreman*		Level	Elevation	*Ground Elevation (feet)*
Nothnagle Drilling Inc.	Steve L.	Date	(feet)	(feet)	NA
Surveyor					*Top of 4" Steel Riser Elevation (feet)*
Larsen Engineers					485.46
Date and Time of Completion	*Geologist*				*Top of Cement Pad Elevation (feet)*
11-May-05	Jeremy Wolf - ERM				482.94

Generalized Description	*Elevation	**Depth
See boring log for MW-4D for full details.	485.46	-2.5
Top of Cement Pad	482.94	0.0
Top of Bentonite-Cement Grout	481.94	1.0
Begin Rock Socket (Top of Weathered Rock)	462.94	20.0
Top of Competent Rock	461.94	21.0
End Rock Socket (Top of open borehole)	459.94	23.0
Bottom of Open Borehole	437.94	45.0

CONSTRUCTION DETAILS



REMARKS 4 1/4" Hollow Stem Auger to 20' bgs. 5 7/8" roller bit 20' - 23' bgs.

3 7/8 roller bit 23' - 45' bgs.

* Vertical information referenced to NGVD'29. ** Depth in feet below ground surface (bgs).

ERM

WELL : MW-4DD

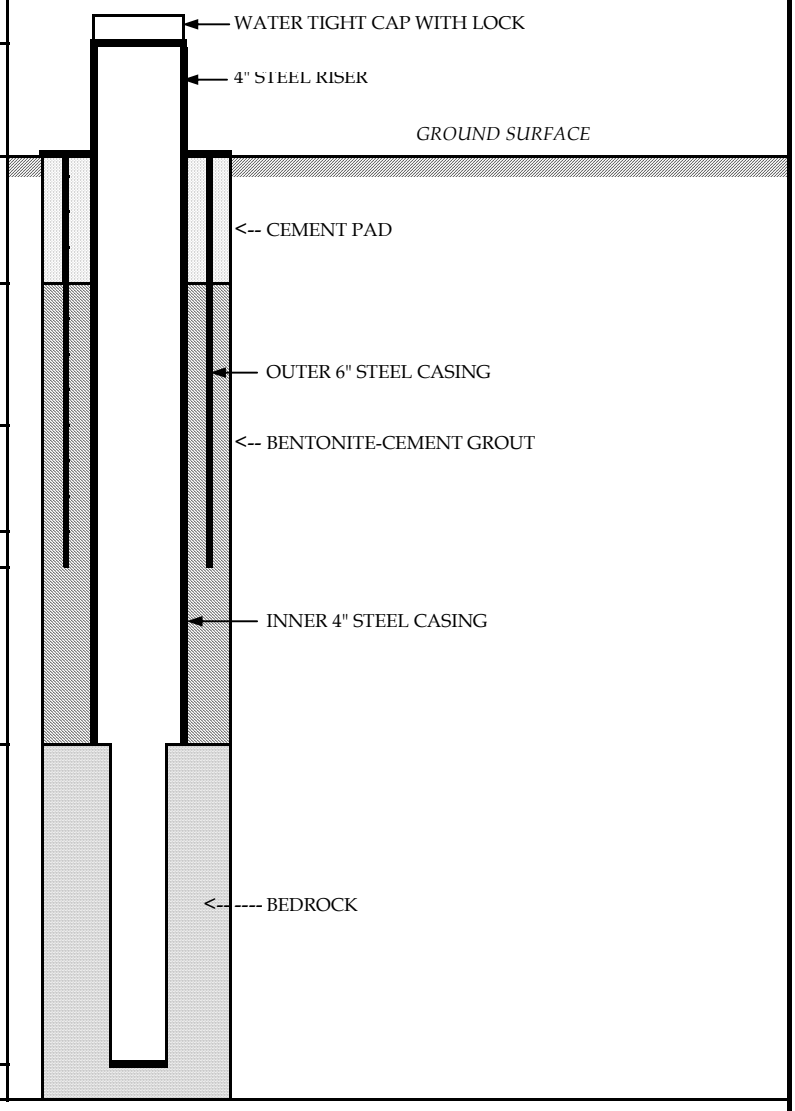
1159 Pittsford-Victor Road, Suite 200, Pittsford, NY 14534 (585) 387-0510

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	*Project No.*	*Water Level(s)* (ft below top of 4" steel casing)			*Site Elevation Datum (feet)*
Former Raeco Products Site	**21427**				
Drilling Company	*Foreman*	Date	Level (feet)	Elevation (feet)	*Ground Elevation (feet)*
Nothnagle Drilling Inc.	Steve L.				NA
Surveyor					*Top of 4" Steel Riser Elevation (feet)*
Larsen Engineers					485.20
Date and Time of Completion	*Geologist*				*Top of Cement Pad Elevation (feet)*
16-May-05	Jeremy Wolf - ERM				482.76

Generalized Description	*Elevation	**Depth
See boring log for MW-4DD for full details.	485.20	-2.4
Top of Cement Pad	482.76	0.0
Top of Bentonite-Cement Grout	481.76	1.0
Begin Rock Socket (Top of Weathered Rock)	467.76	15.0
Top of Competent Rock	466.76	16.0
End Rock Socket	464.76	18.0
Top of Open Borehole	414.76	68.0
Bottom of Open Borehole	392.76	90.0

CONSTRUCTION DETAILS



REMARKS 6 1/4" Hollow Stem Auger to 15' bgs. 7 7/8" roller bit 15' - 18' bgs.

NX core followed by 5 7/8 roller bit 18' - 68' bgs.

NX core followed by 3 7/8" roller bit 68' - 90' bgs.

* Vertical information referenced to NGVD'29. ** Depth in feet below ground surface (bgs).

ERM

WELL : MW-5D

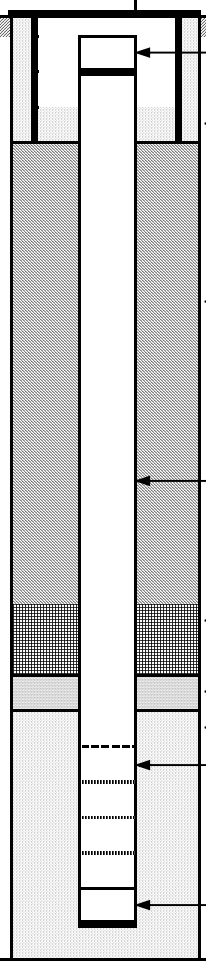
1159 Pittsford-Victor Road, Suite 200, Pittsford, NY 14534 (585) 387-0510

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	Project No.	Water Level(s) (ft below top of 4" steel casing)			Site Elevation Datum (feet)
Former Raeco Products Site	**21427**				
Drilling Company	*Foreman*	Date	Level (feet)	Elevation (feet)	*Ground Elevation (feet)*
Parratt Wolff Inc.	Layne Pech				NA
Surveyor					*Top of Flush Mount Well Vault Elevation (feet)*
Larsen Engineers					483.50
Date and Time of Completion	*Geologist*				*Top of 2" PVC Riser Pipe Elevation (feet)*
02-Aug-06	Jeremy Wolf - ERM				482.85

Generalized Description	*Elevation	**Depth
See boring log for MW-5D for full details.	483.50	0.0
Top of 2" PVC Riser	482.85	0.65
Top of Bentonite-Cement Grout	481.50	2.0
Top of Bentonite Seal	458.50	25.0
Top of Choke Sand (Type #00)	456.50	27.0
Top of Sand Pack (Type #1)	455.50	28.0
Top of PVC Screen	453.50	30.0
Bottom of PVC Screen	443.50	40.0

CONSTRUCTION DETAILS



FLUSH MOUNT STEEL WELL VAULT

GROUND SURFACE

WATER TIGHT CAP WITH LOCK

<-- CEMENT PAD

<-- BENTONITE-CEMENT GROUT

PVC Riser (2")

<-- BENTONITE SEAL

<-- CHOKE SAND (Morie Type #00)

<-- SAND PACK (Morie Type #1)

WELL SCREEN

SLOT SIZE: 0.010

DIAMETER: 2 inch

MATERIAL: Wire wrapped PVC

BOTTOM CAP (PVC)

REMARKS 6 1/4" Hollow Stem Auger to 49' bgs, bedrock not encountered.

* Vertical information referenced to NGVD'29.

** Depth in feet below ground surface (bgs).

ERM

WELL : MW-6D

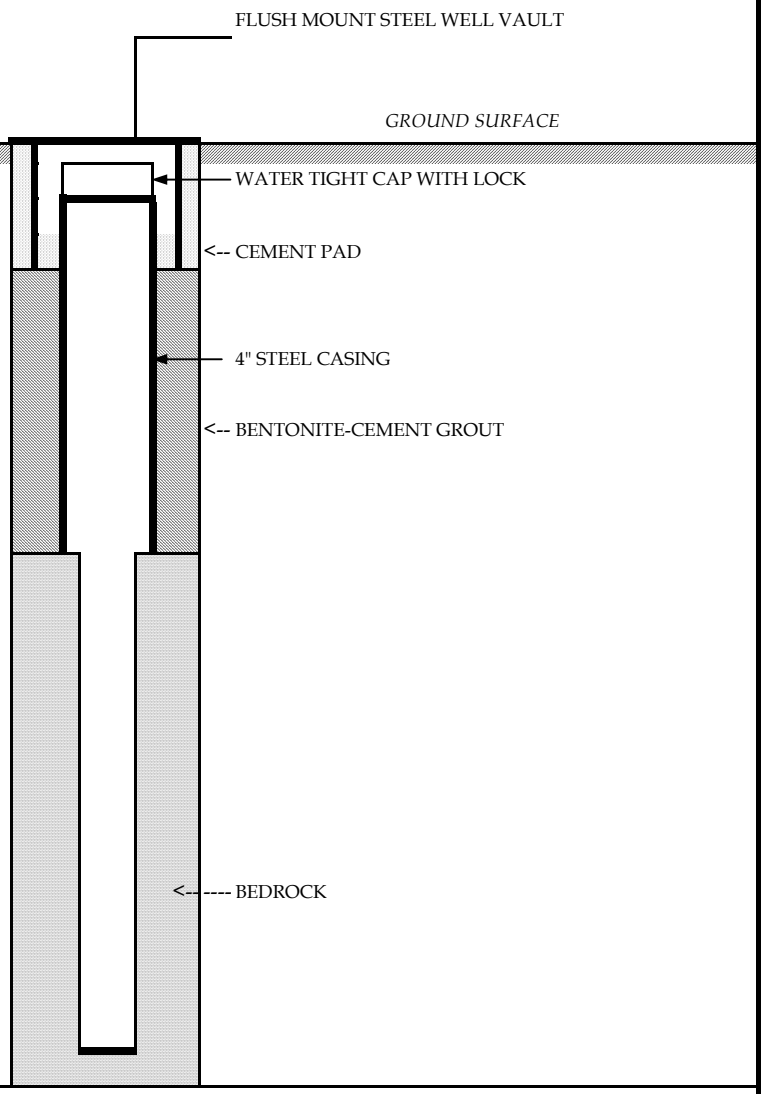
1159 Pittsford-Victor Road, Suite 200, Pittsford, NY 14534 (585) 387-0510

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	*Project No.*	*Water Level(s)* (ft below top of 4" steel casing)			*Site Elevation Datum (feet)*
Former Raeco Products Site	**21427**				
Drilling Company	*Foreman*	Date	Level (feet)	Elevation (feet)	*Ground Elevation (feet)*
Parratt Wolff Inc.	Layne Pech				NA
Surveyor					*Top of Flush Mount Well Vault Elevation (feet)*
Larsen Engineers					484.13
Date and Time of Completion	*Geologist*				*Top of 4" Steel Riser Pipe Elevation (feet)*
07-Aug-06	Jeremy Wolf - ERM				483.54

Generalized Description	*Elevation	**Depth
See boring log for MW-6D for full details.	484.13	0.0
Top of 4" inner steel casing	483.54	0.59
Top of Bentonite-Cement Grout	483.13	1.0
Begin Rock Socket (Top of Weathered Rock)	438.73	45.4
Top of Competent Rock	437.13	47.0
End Rock Socket (Top of open borehole)	434.63	49.5
Bottom of Open Borehole	426.73	57.4

CONSTRUCTION DETAILS



REMARKS 3 1/4" Hollow Stem Auger (HSA) to 45' bgs. Blind drill with 6 1/4" HSA 0' to 47' bgs.
5 7/8" roller bit 47' - 49.5' bgs. HQ core 49.5' - 57.4' bgs.

* Vertical information referenced to NGVD'29. ** Depth in feet below ground surface (bgs).