URS

February 25, 2020

Mr. George F. Momberger, P.E.
Environmental Engineer
New York State Department of Environmental Conservation
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233-7013

RE – Stuart Olver Holtz Well Decommissioning

Stuart Olver Holtz Remedial Construction
39 Commerce Drive, Henrietta, NY
NYSDEC Site N0. 828079
URS WA D007622-08.1

Dear Mr. Momberger,

On March 26, 2018, the Department approved URS Corporation's (URS) amendment for Work Assignment (WA) D007622-8 which included decommissioning of monitoring wells and piezometers not used for site monitoring per the Site Monitoring Plan (URS, March 2019) at the Stuart Olver Holtz (SOH) Site. This letter has been prepared to document the activities associated with the May 28 - May 31, 2019 monitoring well and piezometer decommissioning at the SOH Site.

There were 44 monitoring wells and piezometers located on and off site. Twenty-five monitoring wells and piezometers have been designated to be sampled as per the Site Management Plan (URS, March 2019). It was anticipated that up to 19 monitoring wells and piezometers would be decommissioned in accordance with NYSDEC's CP-43: Groundwater Monitoring Well Decommissioning Policy. In April of 2019, the Department requested an additional five wells be decommissioned, bringing the total number of wells to be decommissioned to 24.

SITE ACTIVITIES

URS mobilized to the site on May 28, 2019. Well decommissioning services were provided by Nothnagle Drilling, Inc., a URS standby drilling subcontractor. Between May 28 and May 31, 2019, a total of 22 wells were decommissioned. Two wells could not be located. In an attempt to locate IPZ-2, the expected location was overdrilled to five feet below ground surface, however no evidence of a well was observed. On June 13, 2019, 2019, Nothnagle remobilized to the site to remove the stockpile of well construction materials from the decommissioning for off-site disposal.

Daily construction reports were prepared and include well construction and well decommissioning logs for each monitoring well and piezometer decommissioned. The Daily Construction Reports are provided as an attachment to this letter.

URS Corporation
257 West Genesee Street, Suite 400
Buffalo, NY 14202

URS

Please call me at (716) 856-5636 with any questions or comments.

Sincerely,

URS Corporation

Charles E. Dusel Jr.
Sr. Project Manager

Attached: Daily inspection Report No. 65 through 69.

File: 11176715/ C-1

ATTACHMENTS

DAILY CONSTRUCTION REPORTS

URS

DAILY INSPECTION REPORT No. _65__
DATE: __May 28th, 2019_____

STUART OLVER HOLTZ MONITORING WELL DECOMMISSIONING
CONTRACTOR: NOTHNAGLE DRILLING INC.
NYSDEC SITE No. 828079 **NYSDEC CONTRACT No. D007622-8.1**

TEMPERATURE: 50S **SKIES:** Overcast
WIND: MODERATE **PRECIPITATION:** MID DAY DRIZZLE

DESCRIPTION OF WORK PERFORMED BY CONTRACTOR

Nothnagle Drilling Inc., represented by Neal Short and Anthony Farrell, arrived on site at 0800 and mobilized equipment to prepare for well decommissioning in accordance with the requirements of NYSDEC's CP-43 *Groundwater Monitoring Well Decommissioning Policy*. A total of 24 monitoring wells and piezometers were slated for decommissioning at the Site.

Four wells were decommissioned (OW-3R, URS-01, URS-03, URS-14). The monitoring well protective casing and two-inch diameter PVC riser for URS-01, URS-03 and URS-14 were removed entirely using a winch cable. The boreholes were grouted in place with approximately 5 gallons of grout to the ground surface. The outer steel protective casing was also removed.

The area around wells OW-03R and OW-4R were excavated to five feet below ground surface to expose the steel pipe. The four-inch diameter black iron riser and eight-inch diameter outer steel casing were cut at approximately five feet below ground surface. The remaining riser pipe for OW-3R were tremie grouted in place with approximately 30 gallons of grout. Approximately 35 gallons of grout were used for OW-4R. After grouting was complete, the excavation was backfilled using the excavated soil. Nothnagle will complete the decommissioning OW-04R on May 29th.

PERSONNEL ON-SITE:

Affiliation		Hours Logged
Nothnagle Drilling Inc.	Neal Short Anthony Farrell	0800 – 1600

VISITORS:

Name	Representing	Time (from – to)	Comments

EQUIPMENT AT SITE:

Contractor	Equipment	Hours Logged
Nothnagle Drilling Inc.	Skid Steer	0800 – 1600
Nothnagle Drilling Inc.	CME Truck Mounted Drill Rig	0800 – 1600
Nothnagle Drilling Inc.	Delivery and equipment truck	0800 – 1600

PREPARED BY: Ernest Thalhamer TITLE: Staff Geologist

REVIEWED BY: Chuck Dusel TITLE: Project Manager

STUART OLVER HOLTZ MONITORING WELL DECOMMISSIONING
CONTRACTOR: NOTHNAGLE DRILLING INC.
NYSDEC SITE No. 828079 **NYSDEC CONTRACT No. D007622-8.1**

Photo No. 1 – Driller set up on URS-03 to begin well abandonment

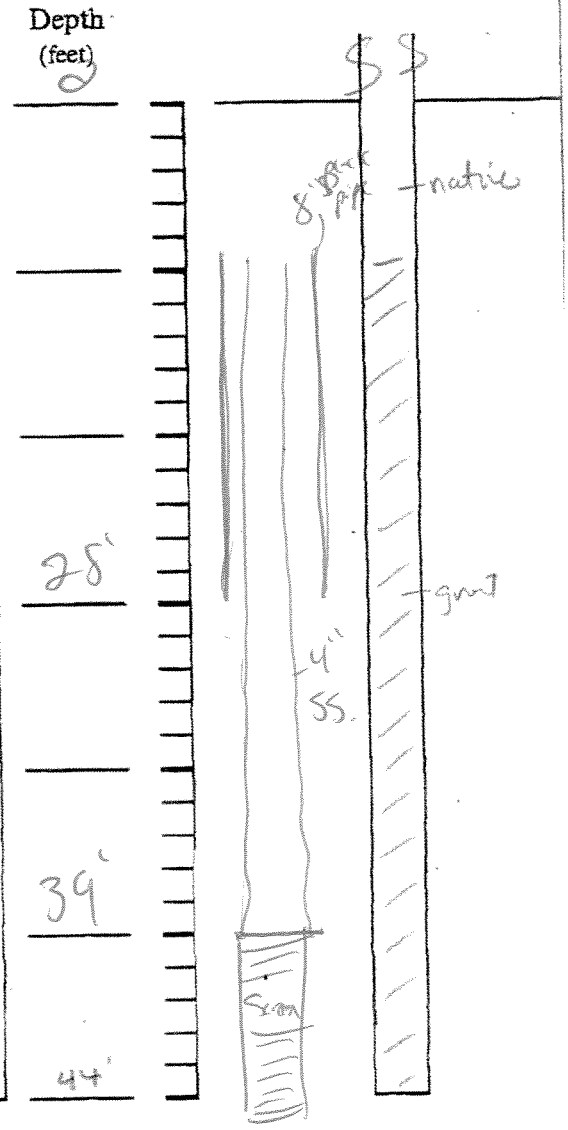
WELL DECOMMISSIONING RECORD

Site Name: STOART OLIVER HOLTZ SITE	Well I.D.: OW-3R
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/28/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	N/A
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grant mpr
Casing retrieved (feet)	~7'
Casing type/dia. (in)	OP/SS 4"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	44'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	24
Quantity of cement used (lbs.)	282
Cement type	1
Quantity of bentonite used (lbs.)	12
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	35
Volume of grout used (gal.)	30

WELL SCHEMATIC*



COMMENTS: excavate to ~5' BGS. cut off 8" and 4" BIP @ ~5' BGS. tremie grout in place to ~5' BGS. native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK 364 NAGEL DRIVE, BUFFALO, NEW YORK ENGINEERS AND SCIENTISTS	PROJECT Stuart-Olver-Holtz Rochester, New York	BORING No. OW-3R SHEET 1 OF 3 FILE No. 19078.10 CHKD. BY GJK

CONTRACTOR Nothnagle Drilling
DRILLER Steve Lorantz
GZA GEOENVIRONMENTAL REPRESENTATIVE Steve Blair

BORING LOCATION N1123827.84 E751121.32
GROUND SURFACE ELEVATION _____ DATUM _____
START DATE 10/28/94 END DATE 11/14/94

TYPE OF DRILL RIG CME-75, Bk81 for 28'-45'
CASING SIZE AND TYPE 2-1/4 inch ID Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD _____

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
10/31/94	0730	11.5'	22'	Stabilized 2 days.
10/31/94	1430	dry	28'	Stabilized 15 mins.
11/11/94	1420	38'	46'	Stabilized 15 mins.
11/14/94	0800	8.8'	45'	Stabilized 64 hrs.

DEPTH	BLOWS / 6"	NO.	SAMPLE DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	OVM(1) Read (ppm)	EQUIPMENT INSTALLATION
1	3	S-1	0-2	16	25	Brown, fine to medium SAND, some Clayey Silt, moist.	ND	concrete surface seal 0-2.5 ft.
	7							
	9							
2	7							
	8	S-2	2-4	16	25		ND	
3	8							
	8							
4	10							
	3	S-3	4-6	16	65		ND	
5	7					[FILL] 4.7'		
	9					Very stiff, brown, CLAY and SILT, some fine to coarse SAND, moist.		
6	10							
	5	S-4	6-8	17	75		ND	
7	6					[LACUSTRINE]		4-inch black steel riser pipe from 0 to 39 ft.
	11							
8	14							
	3	S-5	8-10	14	65	same, except stiff, with trace Sand.	ND	
9	6							
	8							
10	10							
	4	S-6	10-12	11	60	Soft, brown, SILTY CLAY, wet.	ND	cement/bentonite grout seal from 2.5 to to 34 ft.
11	4							
	7							
12	8							
	1	S-7	12-14	3	100	same.	ND	
13	2							
	1							
14	2							
	1	S-8	14-16	2	100	same.	ND	
15	1							
	1							
16	1					[LACUSTRINE]		
	1	S-9	16-18	2	100	same.	ND	

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-3R
SHEET 2 OF 3
FILE No. 19078.10
CHKD. BY GJK

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
17	1					[LACUSTRINE]	ND		
	1					trace Sand. 17.3 ft.			
18	1					Loose, brown, SAND, some Clayey Silt, trace gravel, wet.			
	1	S-10	18-20	4	40		ND		
19	1					[UPPER TILL]			
	3								
20	4								
	1	S-11	20-22	3	40	same, except very loose and little Gravel.	ND		
21	2								
	1					[UPPER TILL] 22 ft.		4-inch black steel riser pipe to 39 ft.	
22	2								
	32	S-12	22-23	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND		
23	100/6"								
						[LOWER TILL]			
24									
	27	S-13	24-25.3	>100	100	same.	ND		
25	54								
	100/4"								
26									
	30	S-14	26-27	>100	75	same.	ND		
27	100/6"								
28									
	79	S-15	28-28.8	>100	50	same.	ND		
29	100/3"								
30									
	34	S-16	30-30.9	>100	30	same.	ND		
31	100/5"								
						[LOWER TILL]			
32									
	100/6"	S-17	32-32.5	>100	100	same.	ND		
33									
34									
	100/6"	S-18	34-34.5	>100	100	same.	ND		
35								bentonite pellet seal from 34 to 37 ft.	
36									
	69	S-19	36-36.8	>100	100	same.	ND		

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES:
Organic Vapor Meter (OVM) reading of headspace using H-NU PI-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES:
1) STRATIFICATION LINES REPRESE T APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

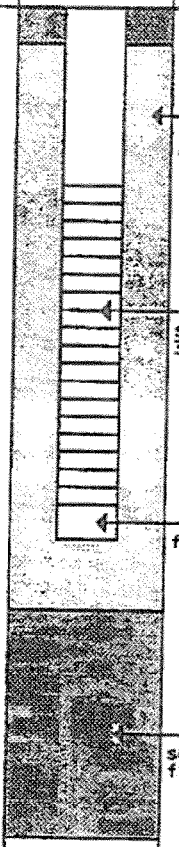
GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-3R
SHEET 3 OF 3
FILE No. 19078.10
CHKD. BY GJK

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	PEAK OVM READ (PPM)
37	100/3"						ND
38	100/6"	S-20	38-38.5	>100	100	Very dense, brown, fine to coarse SAND, some clayey Silt, trace gravel, moist.	ND
39						[LOWER TILL] 39.7'	
40	100/6"	S-21	40-40.5	>100	100	Very Dense, Black to green, weathered rock fragments, moist to wet.	ND
41						[SEVERELY WEATHERED BEDROCK]	
42	100/2"	S-22	40-40.2	>100	100	same, except moist.	ND
43							
44	100/2"	S-23	44-44.2	>100	100	same.	ND
45							
46	100/2"	S-24	46-46.2	>100	100	same.	ND
47						[SEVERELY WEATHERED BEDROCK]	
48	100/2"	S-25	48-48.2	>100	100	same.	ND
49						Bottom of boring at 48.2'.	

EQUIPMENT INSTALLATION LOG



No. 00 size sand filter pack from 37 to 45 ft.

No. 10 slot stainless steel well screen from 39 to 43.5 ft.

stainless steel sump from 43.5 to 44 ft.

bentonite pellet seal from 45 to 48.2 ft.

NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

WELL DECOMMISSIONING RECORD

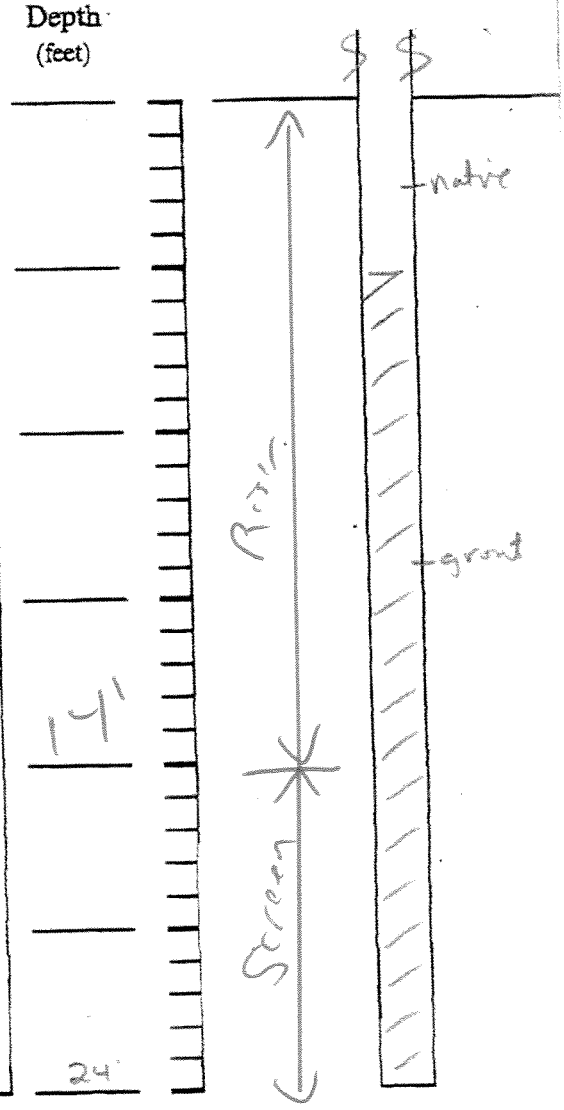
Site Name: STUART OLIVER HOLTZ SITE
Site Location: 39 COMMERCE DRIVE HENRIETTA NY
Drilling Co.: NOTHNAGLE DRILLING INC

Well I.D.: ORS-01
Driller: NEAL SHORT
Inspector: ERNIE THALHAMER
Date: 5/28/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	CABLE
Casing retrieved (feet)	24'
Casing type/dia. (in)	PVC 2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	24'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: PULL 2" PVC (complete), Heme grout to ~5' BGS, native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

DRILLING SUMMARY

Geologist: Kevin J. McGovern

Contractor: Nothnagle Drilling

Operator: Steve Loranty

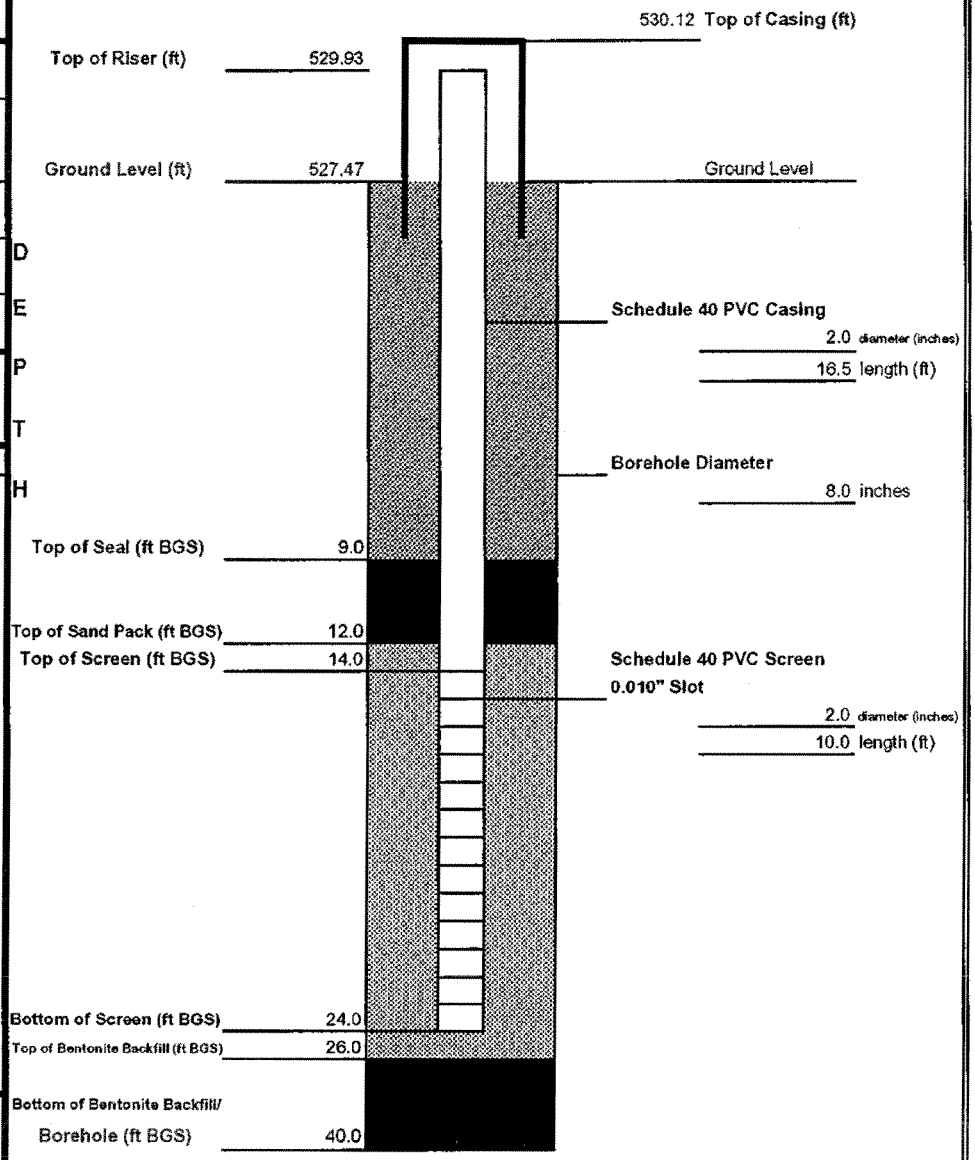
Model: CME-85

Date: February 20, 2007

GEOLOGIC LOG

Depth (ft.)	Description
0-4	Fill/ Asphalt
4-7.9	Lacustrine
7.9-26	Upper Glacial Till
26-39	Lower Glacial Till
39-40	Weathered Shale

WELL DESIGN



CASING MATERIAL

Surface: 4" Steel protective cover (Stick Up)

Monitor: 2" Schedule 40 PVC

SCREEN MATERIAL

Type: 2" Schedule 40 PVC

Slot Size: 0.010"

FILTER MATERIAL

Type: 00N well sand
Setting: 12'-26'

SEAL MATERIAL

Type 1: Bentonite chips
Setting: 9'-12'
Type 1: Cement/ Bentonite Grout
Setting: 0'-9'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Sand Pack

Client: NYSDEC	**Location:** Stuart-Olver-Holtz	**Project No.:** 11174465.00002
URS Corporation	**MONITORING WELL CONSTRUCTION DETAILS**	**Well Number: URS-01**

Q:/Exchange/Montroy/Well Construction Diagrams URS1-URS14/URS-01-10/18/2007-2:46 PM

WELL DECOMMISSIONING RECORD

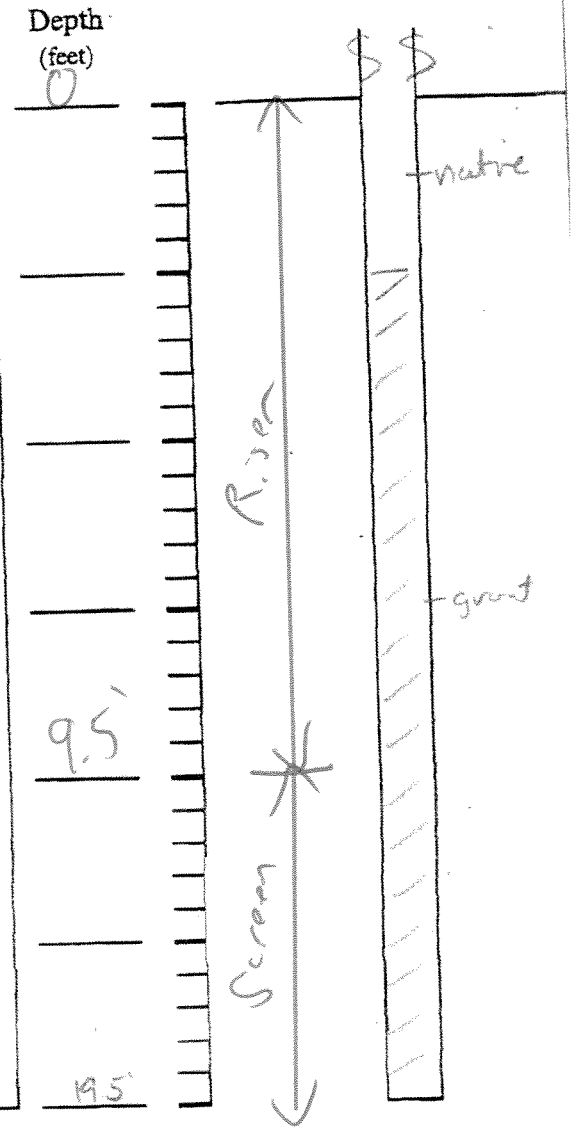
Site Name: STOART OLIVER HOLTZ SITE
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY
Drilling Co.: NOTHNAGLE DRILLING INC

Well I.D.: URS-03
Driller: NEAL SHORT
Inspector: ERNIE THALHAMER
Date: 5/28/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	N/A
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	CABLE
Casing retrieved (feet)	19.5'
Casing type/dia. (in)	PVC/2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	19.5
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: Pull 2" PVC (complete) Fenie grout to ~5' BGS, native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

DRILLING SUMMARY

Geologist: Kevin J. McGovern

Contractor: Nothnagle Drilling

Operator: Steve Loranty

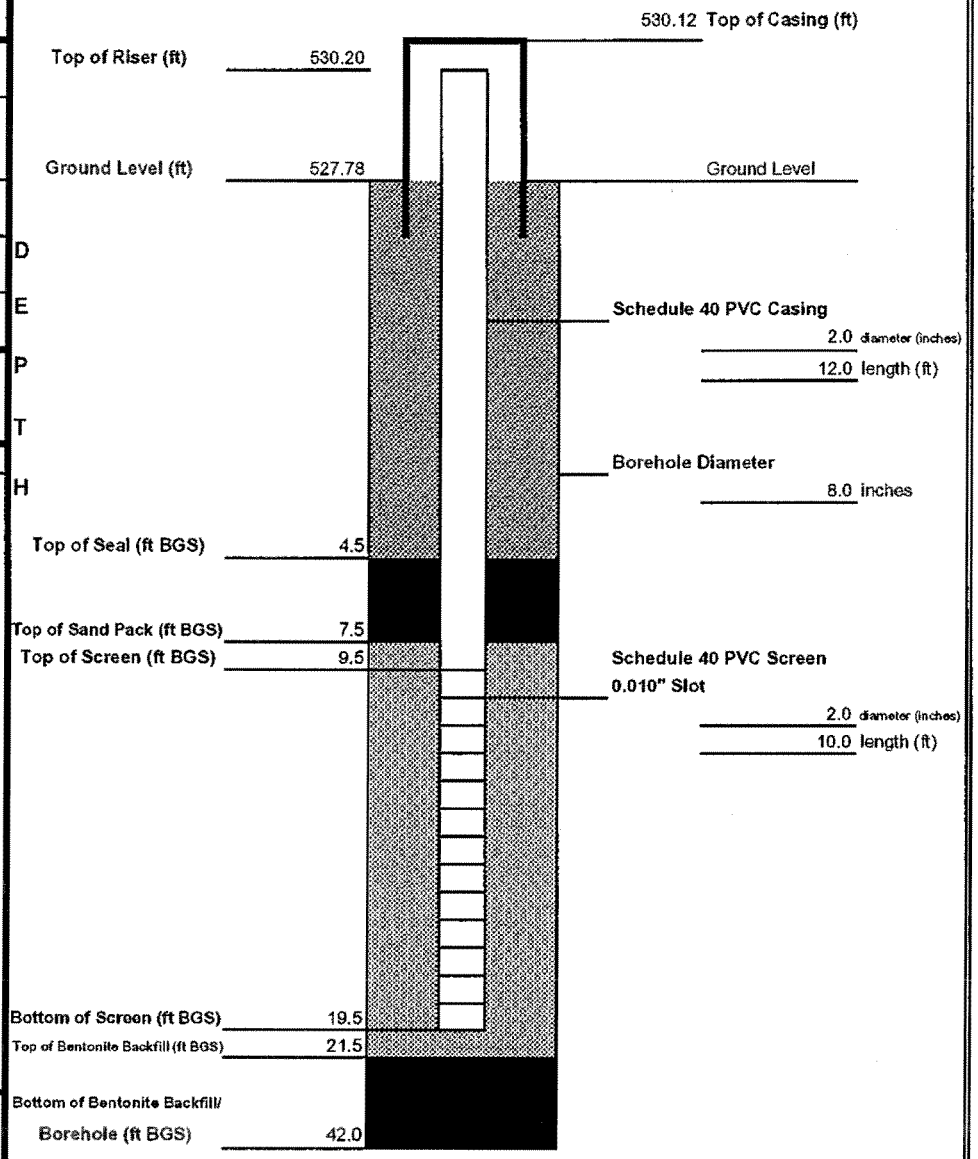
Model: CME-85

Date: February 19, 2007

GEOLOGIC LOG

Depth (ft.)	Description
0-2	Fill/ Asphalt
2-4	Lacustrine
4-21.5	Upper Glacial Till
21.5-40	Lower Glacial Till
40-42	Weathered Shale

WELL DESIGN



CASING MATERIAL

Surface: 4" Steel protective cover (Stick Up)

Monitor: 2" Schedule 40 PVC

SCREEN MATERIAL

Type: 2" Schedule 40 PVC

Slot Size: 0.010"

FILTER MATERIAL

Type: 00N well sand

Setting: 7.5'-21.5'

SEAL MATERIAL

Type 1: Bentonite chips

Setting: 4.5'-7.5'

Type 1: Cement/ Bentonite Grout

Setting: 0'-4.5'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Sand Pack

Client: NYSDEC	**Location:** Stuart-Olver-Holtz	**Project No.:** 11174465.00002
URS Corporation	**MONITORING WELL CONSTRUCTION DETAILS**	**Well Number: URS-03**

WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: URS-14
Site Location: 39 COMMERCE DRIVE HENRIETTA NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/28/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	N/A
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	CABLE
Casing retrieved (feet)	19'
Casing type/dia. (in)	PVC/2"

CASING PERFORATING

Equipment used	N/A
Number of perforations/foot	
Size of perforations	
Interval perforated	

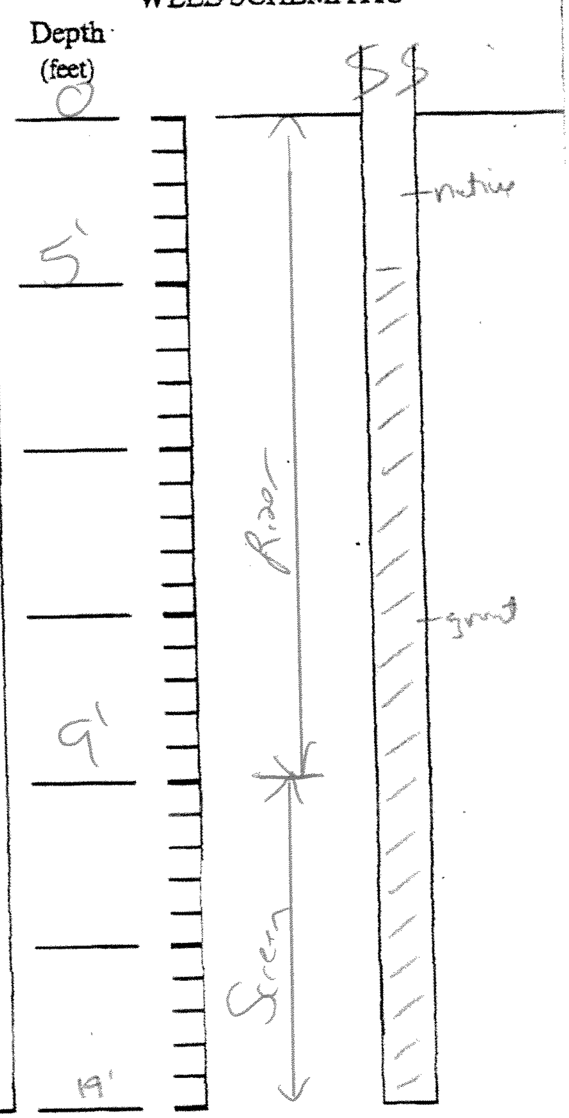
GROUTING

Interval grouted (FBLS)	19'
# of batches prepared	1

For each batch record:

Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: Pull 2" PVC & tremie grout to ~5' BGS
native backfill (?/complete)

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

DRILLING SUMMARY

Geologist: Kevin J. McGovern

Contractor: Nothnagle Drilling

Operator: Steve Loranty

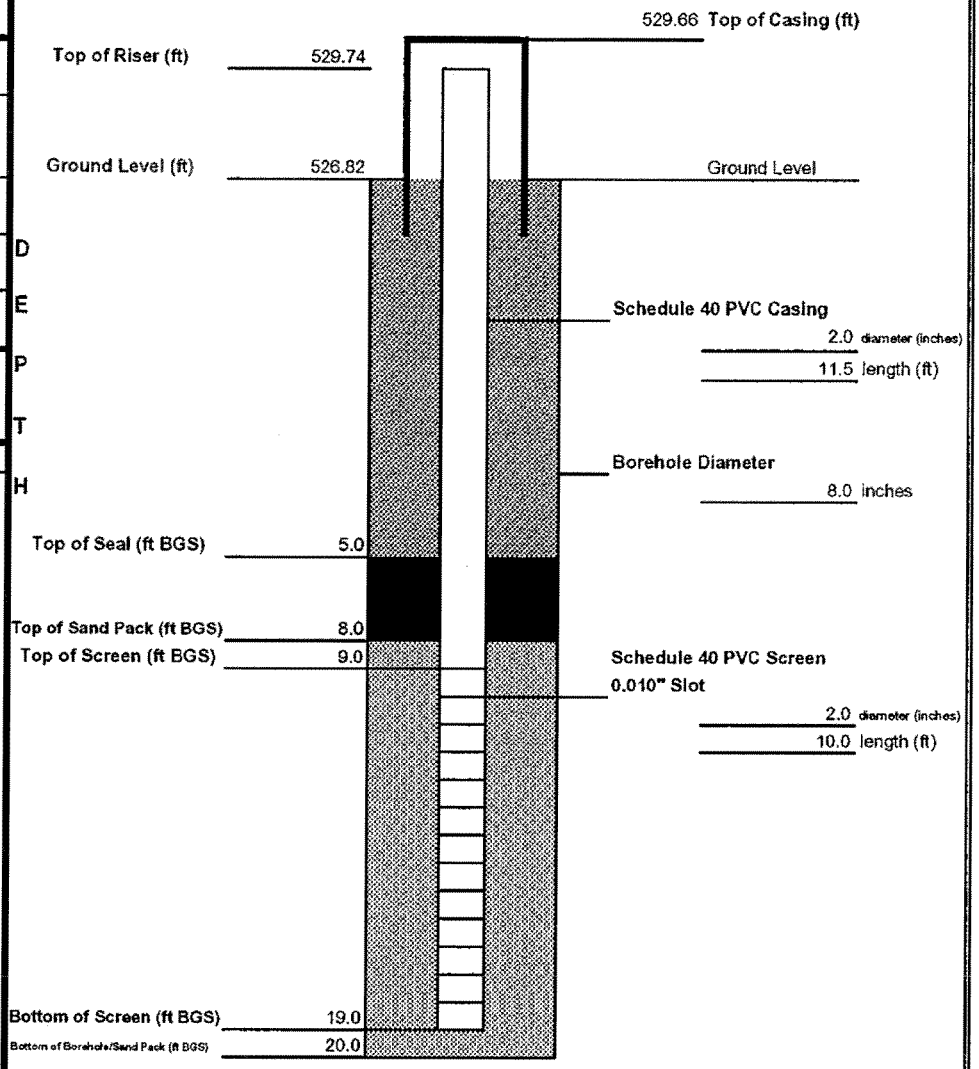
Model: CME-85

Date: February 23, 2007

GEOLOGIC LOG

Depth (ft.)	Description
0-4	Fill
4-8	Lacustrine
8-17	Upper Glacial Till
17-20	Lower Glacial Till

WELL DESIGN



CASING MATERIAL

Surface: 4" Steel protective cover (Stick Up)

Monitor: 2" Schedule 40 PVC

SCREEN MATERIAL

Type: 2" Schedule 40 PVC

Slot Size: 0.010"

FILTER MATERIAL

Type: 00N well sand
Setting: 8'-20'

SEAL MATERIAL

Type 1: Bentonite chips
Setting: 5'-8'
Type 1: Cement/ Bentonite Grout
Setting: 0'-5'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Sand Pack

Client: NYSDEC	**Location:** Stuart-Oliver-Holtz	**Project No.:** 11174465.00002
URS Corporation	**MONITORING WELL CONSTRUCTION DETAILS**	**Well Number: URS-14**

URS

DAILY INSPECTION REPORT No. _66__
DATE: __May 29th, 2019_____

STUART OLVER HOLTZ MONITORING WELL DECOMMISSIONING
CONTRACTOR: NOTHNAGLE DRILLING INC.
NYSDEC SITE No. 428079 **NYSDEC CONTRACT No. D007622-8.1**

TEMPERATURE: 50S **SKIES:** Overcast
WIND: MODERATE **PRECIPITATION:** NONE

DESCRIPTION OF WORK PERFORMED BY CONTRACTOR

Nothnagle Drilling Inc., represented by Neal Short and Anthony Farrell, arrived on site at 0730 and mobilized equipment to prepare for well decommissioning in accordance with the requirements of NYSDEC's CP-43 *Groundwater Monitoring Well Decommissioning Policy*. Four of 24 monitoring wells and piezometers have been decommissioned prior to the start of fieldwork today.

The decommissioning of monitoring well OW-4R that was started on May 28, 2019 was completed by backfilling the excavation using the excavated soil. The monitoring well protective casing and two-inch diameter PVC riser for six wells (B3/PZ-2, MW-2, SW-33, SW-37, URS-10, URS-12) were removed entirely using a winch cable. The 2-inch diameter by 22-foot deep PVC riser of URS-11 broke off at approximately seven feet below ground surface during removal. The screens were left in place. The outer steel protective casing was also removed. The boreholes were grouted in place with approximately 5 gallons of grout to the ground surface (bgs).

PERSONNEL ON-SITE:

Affiliation		Hours Logged
Nothnagle Drilling Inc.	Neal Short Anthony Farrell	0730 – 1600

VISITORS:

Name	Representing	Time (from – to)	Comments

EQUIPMENT AT SITE:

Contractor	Equipment	Hours Logged
Nothnagle Drilling Inc.	Skid Steer	0730 – 1600
Nothnagle Drilling Inc.	CME Truck Mounted Drill Rig	0730 – 1600
Nothnagle Drilling Inc.	Delivery and equipment truck	0730 – 1600

PREPARED BY: Ernest Thalhamer TITLE: Staff Geologist

REVIEWED BY: Chuck Dusel TITLE: Project Manager

STUART OLVER HOLTZ MONITORING WELL DECOMMISSIONING
CONTRACTOR: NOTHNAGLE DRILLING INC.
NYSDEC SITE No. 428079 **NYSDEC CONTRACT No. D007622-8.1**

Photo No. 1 –Drilling rig set up at URS-07

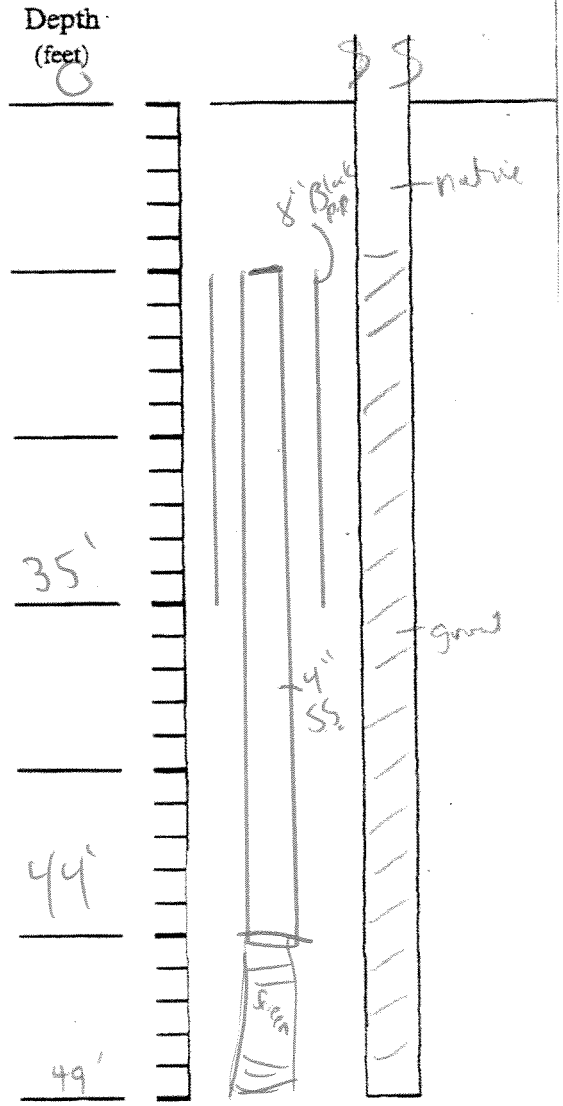
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-4R
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THRUHAMER
	Date: 5/29/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout Pipe
Casing retrieved (feet)	~35'
Casing type/dia. (in)	BIP/SS 4"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	49'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	24
Quantity of cement used (lbs.)	282
Cement type	I
Quantity of bentonite used (lbs.)	12
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	35
Volume of grout used (gal.)	35

WELL SCHEMATIC*



COMMENTS: excavated to ~5' BGS cut off 8" and 4" BIP @ ~5' BGS tremie grout in place to ~5' BGS, native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-4R
SHEET 1 OF 3
FILE No. T9078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Steve Lorantz
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123612.12 E751057.40
GROUND SURFACE ELEVATION 529.6 DATUM NVGD
START DATE 11/15/94 END DATE 11/21/94

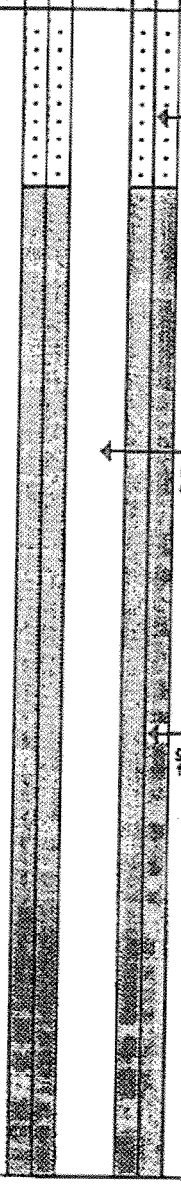
TYPE OF DRILL RIG CME-75
CASING SIZE AND TYPE 2-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
11/15/94	1100	Dry	36'	Stabilized 15 mins.
11/21/94	0800	17.3'	48'	Stabilized 66 hrs.

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	(1) Peak OVM Read (ppm)
1	1	S-1	0-2	16	50	Medium dense, brown, fine to coarse SAND, trace Clayey Silt, moist roots.	14
	11						
	5					Grey, medium Gravel, moist	
	8						
2	17	S-2	2-4	38	70	Medium dense, brown, fine to coarse SAND, little clayey Silt, trace gravel, moist.	1
	14						
3	24					same, grades dense, moist.	
	13						
4	3	S-3	4-6	16	50	grades to Medium Dense, some clayey Silt, moist.	ND
	7						
5	9						
	14					[FILL] 6.0'	
6	3	S-4	6-8	13	55	Stiff, brown, CLAY & SILT, trace fine Sand, moist.	4
	6						
7	7					[LACUSTRINE]	
	10						
8	2	S-5	8-10	11	55	same, except mottled Grey, Reddish Brown, moist.	8
	4						
9	7						
	11						
10	3	S-6	10-12	16	60	same.	8
	7						
11	9					[LACUSTRINE]	
	13						
12	2	S-7	12-14	10	65	same.	1
	5						
13	5						
	5						
14	1	S-8	14-16	3	60	Grades to soft, moist. Grades to some fine Sand.	ND
	1					[LACUSTRINE] 15.0'	
15	2					[UPPER TILL]	
	3						
16	1	S-9	16-18	7	10	Loose brown, fine to coarse SAND, moist.	ND

EQUIPMENT INSTALLATION



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-4R
SHEET 2 OF 3
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
17	2					[UPPER TILL]			
	5								
	5								
18	7	S-10	18-20	20	100	Medium dense, Grey, fine to coarse SAND, trace Gravel, wet.	ND		
	8								
19	12					[UPPER TILL]			
	15								
20	2	S-11	20-22	15	100	same.	ND		
	7								
21	8								
	8								
22	6	S-12	22-24	22	100	same.	ND		
	13								
23	9					[UPPER TILL] 23.5'			
	9					Medium dense, Gray, fine to coarse SAND, little clayey Silt, moist.			
24	10	S-13	24-26	57	100	same, grades Very Dense, moist.	ND		
	19								
25	38								
	51					[LOWER TILL]			
26	48	S-14	26-26.9	>100	100	Very dense, Gray, fine to coarse SAND, some clayey Silt, trace Gravel, moist.	ND		
	100/5"								
27						[LOWER TILL]			
28	41	S-15	28-29.5	>100	100	same, with a medium Sand parting 28.0 to 28.7 ft.	ND		
	50								
29	100/6"								
								4-inch black steel riser pipe to 44 ft.	
30	48	S-16	30-30.9	>100	100	same, except without sand partings, moist.	ND		
	100/5"								
31									
32	56	S-17	32-33	>100	100	same.	ND		
	100/6"								
33									
34	64	S-18	34-35	>100	100	same.	ND		
	100/6"								
35									
						[LOWER TILL]			
36	26	S-19	36-37.5	>100	100	same.	ND		

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-4R
SHEET 3 OF 3
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	SAMPLE NO.	SAMPLE DEPTH (FT.)	SAMPLE N-VALUE /RQD(%)	SAMPLE RECOVERY (%)	SAMPLE DESCRIPTION	(1) PEAK OVM READ (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
37	42						ND		
	100/6"					Very dense, grey to green, SILT with rock fragments, moist.			
38	36	S-20	38-38.9	>100	100	Very dense, Grey to green, CLAY & SILT and weathered rock fragments, moist.	ND		
	100/5"								
39						[LOWER TILL]			
40	13	S-21	40-42	63	75	Very dense, mottled red to green, CLAY & SILT, trace fine to coarse SAND, weathered rock fragments, moist.	ND		
	25								
41	38								
	46								
42	10	S-22	42-44	53	75	same.	ND		
	16								
43	37								
	70								
44	19	S-23	44-44.8	>100	100	same, grades grey to red moist to wet.	ND		
	100/3"					[LOWER TILL] 44.7'			
45						Grey weathered rock fragments.			
						[SEVERELY WEATHERED BEDROCK]			
46	44	S-24	46-46.8	>100	100	Very dense, grey to green, weathered rock fragments, moist.	ND		
	100/3"								
47									
48	100/5"	S-25	48-48.4	>100	100	same, moist.	ND		
49									
50	100/3"	S-26	50-50.3	>100	100	same, moist. SEVERELY WEATHERED BEDROCK	ND		
						Bottom of boring at 50.3'.			

bentonite pellet seal from 39 to 42 ft.

No. 00 size sand filter pack from 42 to 50.3 ft.

No. 10 slot stainless steel well screen from 44 to 48.5 ft.

stainless steel sump from 48.5 to 49 ft.

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Organic Vapor Meter (OVM) reading of headspace using H-Nu P1-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

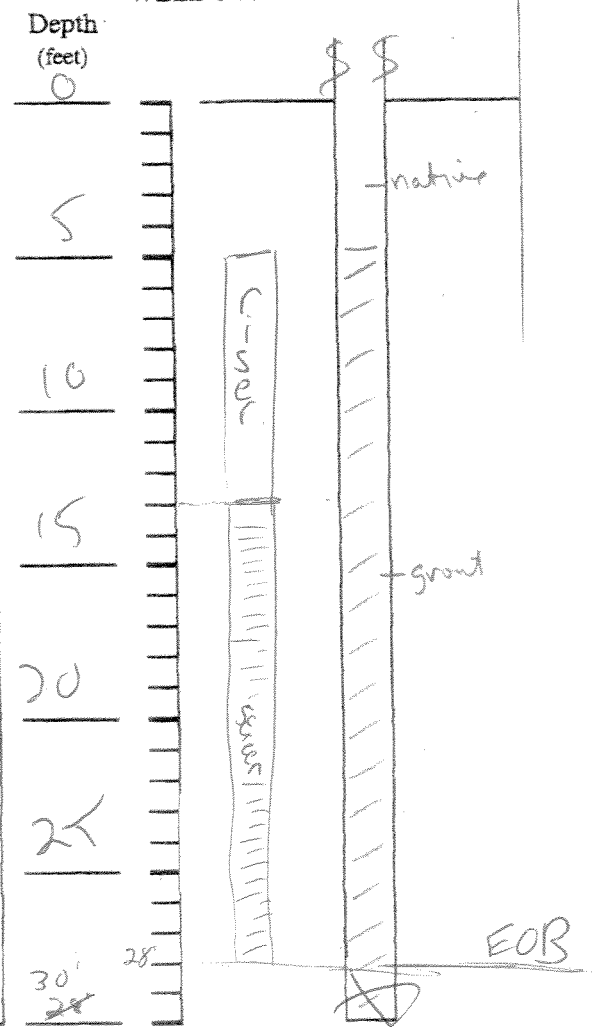
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: B-3/PZ-2
Site Location: 39 COMMERCE DRIVE HENRIETTA NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/29/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout in place
Casing retrieved (feet)	~7'
Casing type/dia. (in)	PVC/2"
CASING PERFORATING	
Equipment used	N/A
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	28'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: tremie grout to surface; excavate to ~5' BGS; native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

IT CORPORATION
A Member of the IT Group

Drilling Log

Monitoring Well B-3/PZ-2

Project SOH — Owner Metalade
Location Henrietta, NY — Proj. No. 784222
Surface Elev. ____ Total Hole Depth 42 ft. Diameter ____
Top of Casing ____ Water Level Initial ____ Static ____
Screen: Dia 2 in. Length 15 ft. Type/Size ____
Casing: Dia 2 in. Length 14.5 ft. Type ____
Fill Material ____ Rig/Core ____
Drill Co. SJB Method HSA
Driller A. Morris Log By T. Maynard Date 05/25/00 Permit # ____
Checked By ____ License No. ____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2 to 0						
0 to 4						0-4': Augered to 4'.
4 to 6		NA				4-6': Attempted shelby tube, crushed.
6 to 8		NA				6-8': Shelby tube #3, ~3/4 full.
8 to 10		11.1	9-7-11-14 98%			8-10': Tan-brown, dry clay, dense.
10 to 12		10.7	5-14-20-19 95%			10-12': Tan-brown, dry clay, dense bottom 3", little medium sand.
12 to 14		15.2	12-11-11-10 80%		CL	12-14': Tan/brown, dry, clay, dense.
14 to 16		29.3	13-18-12-10 80%			14-16': Tan/brown, moist clay, dense, black discoloration in a vertical streak throughout.
16 to 18		12.4	7-18-4-9 80%			16-18': Brown, moist clay, medium dense plastic, some silt, trace sand.
18 to 20		10.0	28-30-33-22 80%		SC	18-20': Brown, wet silty sand, little-some clay, trace gravel, trace cobble.
20 to 22		7.8	30-31-39-28 80%			20-22': Same as above, last 3" till.
22 to 24		0.8	10-14-22-50/.4 40%		SM	22-24': Brown, wet silty sand (equal parts), trace gravel, clay.
					GM	

IT CORPORATION
A Member of the IT Group

Drilling Log

Monitoring Well B-3/PZ-2

Project SOH Owner Metalade
Location Henrietta, NY Proj. No. 784222

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24						24-26': Brown, moist silty sand, little gravel, trace cobble, dense, Till.
26		4.5	50/.4 15%			26-28': Same as above, very dense.
28		5.2	50/.4 10%			28-30': Same as above.
30		7.1	50/.3 15%		GM	30-32': Same as above.
32		2.8	50/.3 10%			32-34': Same as above.
34		5.2	50/.4 20%			34-36': No recovery (sluff only).
36		NA	50/.2 5%			36-38': Brown, moist, silty sand, little gravel, trace cobble, very dense, Till.
38		8.3	50/.4 10%		GM	38-40': No recovery (rock in spoon).
40		NA	50/0 0%			40-42': Brown, silty sand, little gravel, trace cobble, feldspar in basket.
42		5.4	50/.4 20%		GM	
44						
46						
48						
50						
52						
54						
56						

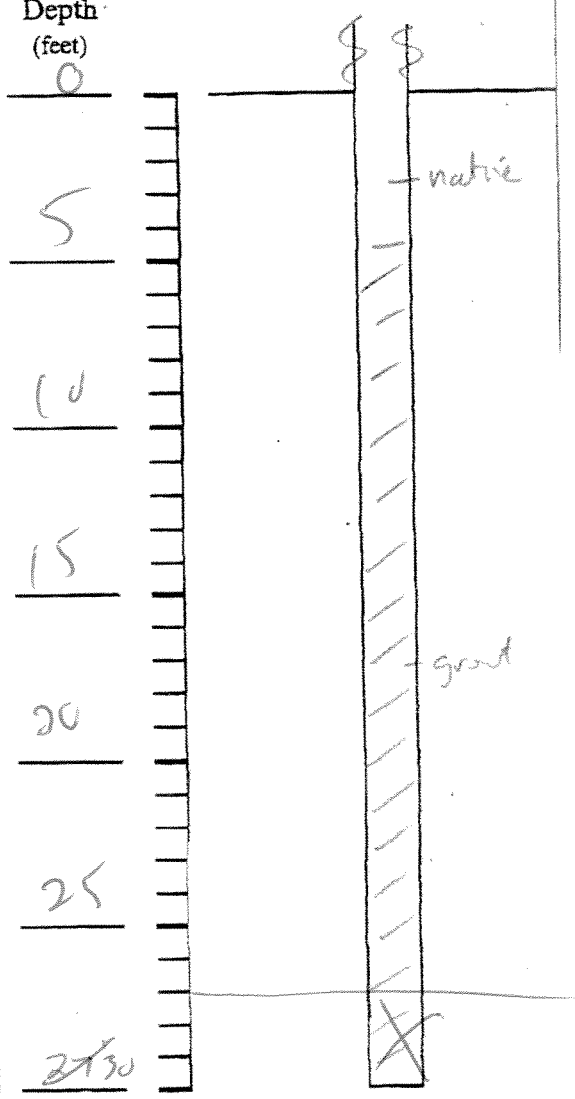
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: MW-2
Site Location: 39 COMMERCE DRIVE HENRIETTA NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/29/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	N/A
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout in Place
Casing retrieved (feet)	~7'
Casing type/dia. (in)	PVC 2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	27'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: trench grout to surface, excavate to ~5' BGS, native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

WELL DEVELOPMENT LOG

URS Corporation

PROJECT TITLE: Stuart Olver Holtz WELL NO.: MW-2

PROJECT NO.: 11174465.00002

STAFF: Matt Kandefer, Tim Ifkovich

DATE(S): 4/6/2007

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	27.11	1"	0.04
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	8.10	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	19.01	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	3.23	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x ___)	=	19.3902	6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	180	8"	2.60

OR

$V=0.0408 \times (\text{CASING DIAMETER})^2$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	5	10	20	30	40	50	60	70	80	90	100
pH	7.71	7.74	7.81	7.87	7.3	7.1	7.1	6.8	7.36	7.88	7.95
SPEC. COND. (umhos)	1640	1630	1620	1420	1440	1420	1430	1390	1380	1400	1380
APPEARANCE	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy
TEMPERATURE (°C)	6.9	7.5	8.5	8.4	-	-	-	10.1	9.3	9.8	10.5
TURBIDITY	>1100	>1100	>1100	>1100	120	>1100	544	130	49.4	270	900
WATER LEVEL	9.8	9.23	9.41	10.43	11.35	14.61	14.8	17.51	18.71	16.18	18.2

COMMENTS:

Purged 30 gallons with bailer. Purged 30-160 gallons with a whale. Purged 160-180 gallons with a peristoltic pump. Recharge approxiamately 5-10g/hr.

WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: SW-33
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/29/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING

Interval Drilled	N/A
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	CABLE
Casing retrieved (feet)	24'
Casing type/dia. (in)	PVC / 2"

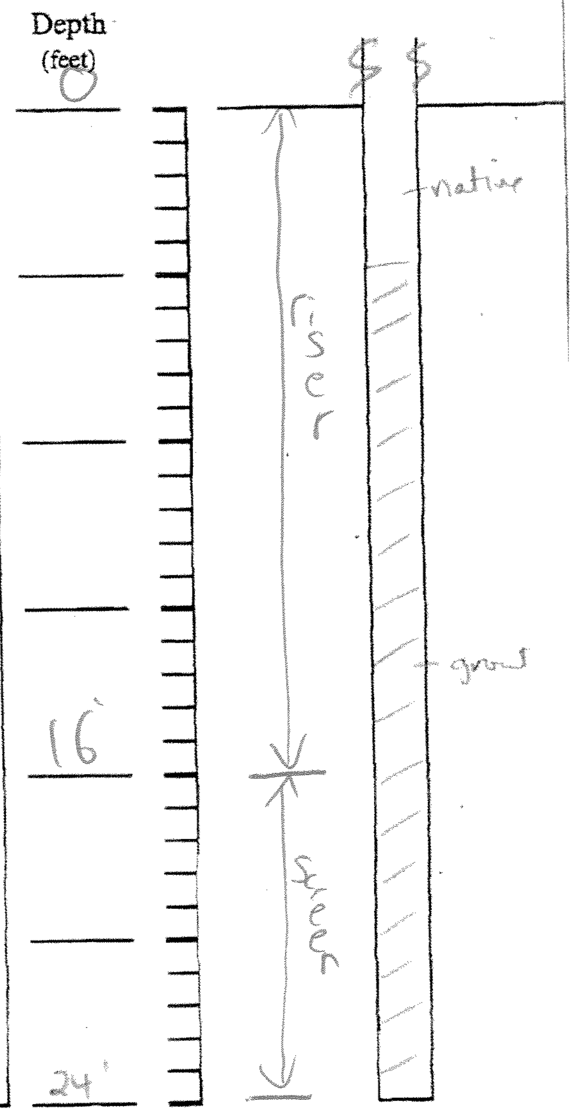
CASING PERFORATING

Equipment used	N/A
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLS)	24'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: pull 2" PVC (complete) tremie grout to ~5' BGS; native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GeoLogic
PO Box 350, Homer, NY 13077
607-749-5000 / 607-749-5053 (fax)

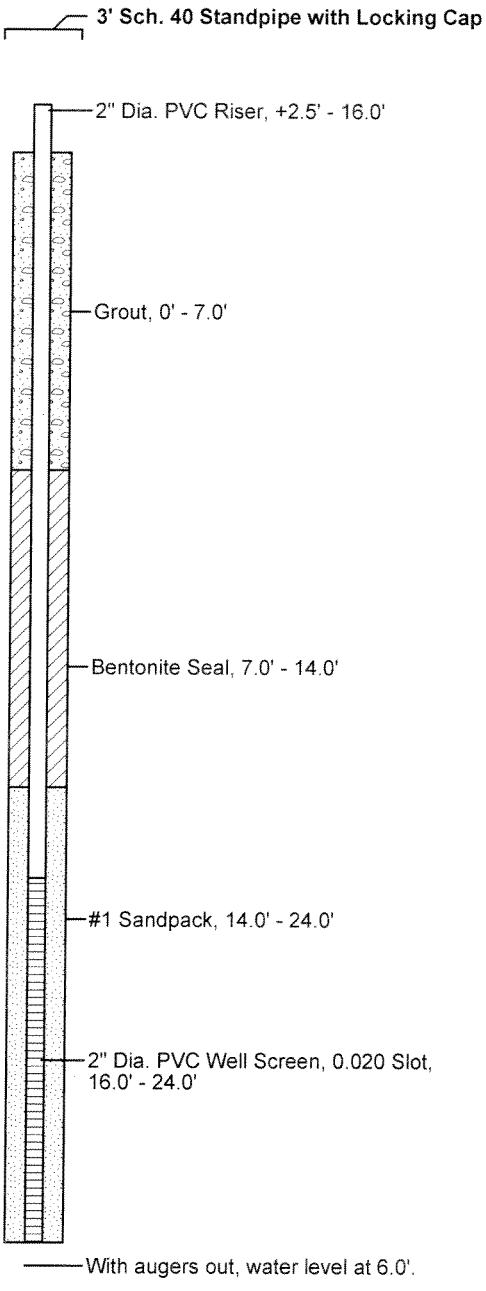
SUBSURFACE LOG

Stuart Olver

Rochester, New York

Boring No: : SW-33
Project No.: : 210001D
Date Started: : 02/09/11
Date Completed: : 02/09/11

Depth (ft)	DESCRIPTION
0	1.1' Concrete Slab Black/Brown SILT, little fine-coarse sand, trace gravel, moist
5	similar
	Brown SILT and CLAY, moist
	Brown SILT, Some fine-coarse Sand, saturated
10	
	Gray SILT and fine SAND, little medium-coarse sand, trace gravel, wet
15	
	Brown SILT and fine-coarse SAND, Some Gravel, wet Driller noted harder drilling at 16.0'
20	
	Driller noted easier drilling at 23.0' Brown fine-coarse SAND and GRAVEL, little to Some Silt, saturated
	BORING TERMINATED AT 24.0'
25	



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: Geologist
File: 210001D/tech/SW-33

02-17-2011 P:\PROJECTS\2010\210001D-Stuart Olver Holtz-Rochester\TECH\SW-33.bor

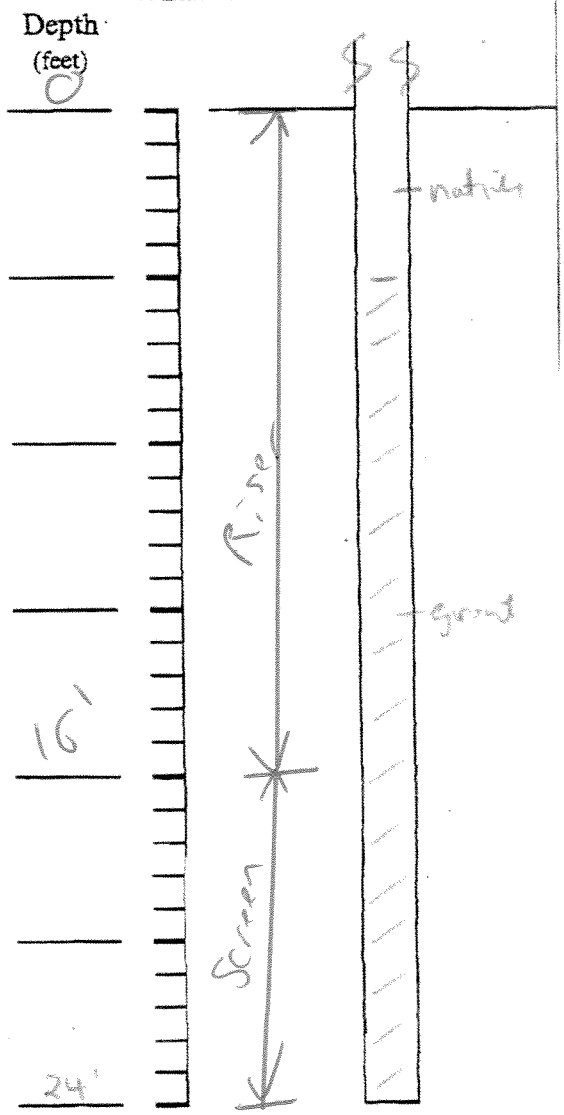
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: SW-37
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/29/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	CABLE
Casing retrieved (feet)	24'
Casing type/dia. (in)	PVC/2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	24'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	n/a
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: Pull 2" PVC (complete) then grout to 16' BGS

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GeoLogic
PO Box 350, Homer, NY 13077
607-749-5000 / 607-749-5063 (fax)

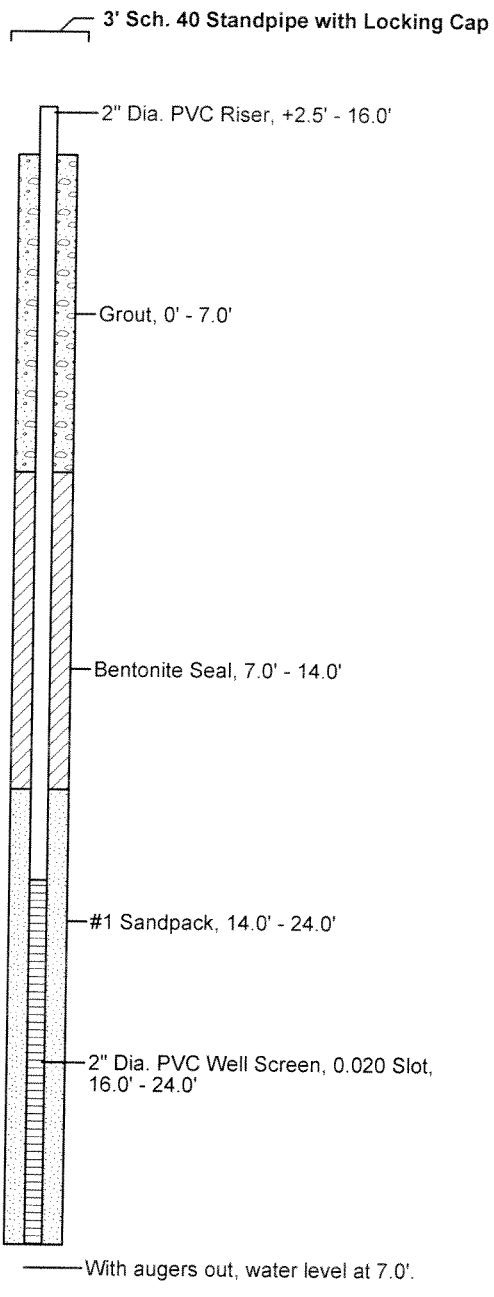
SUBSURFACE LOG

Stuart Olver

Rochester, New York

Boring No: : SW-37
Project No.: : 210001D
Date Started: : 02/03/11
Date Completed: : 02/03/11

Depth (ft)	DESCRIPTION
0	Concrete Slab Brown GRAVEL, Some fine-coarse Sand, little silt, moist
	Brown Organic SILT, little fine-coarse sand, moist - wet
5	Brown SILT, Some fine Sand, little medium-coarse sand, little gravel, wet
10	
	Brown SILT and fine-coarse SAND, little gravel, moist
15	
	Brown SILT, and fine SAND, little medium-coarse sand, trace gravel, saturated
	Driller noted harder drilling at 19.5' Brown SILT and fine-coarse SAND, little gravel, moist - wet
20	
	BORING TERMINATED AT 24.0'
25	



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: Geologist
File: 210001D/tech/SW-37

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WELL DECOMMISSIONING RECORD

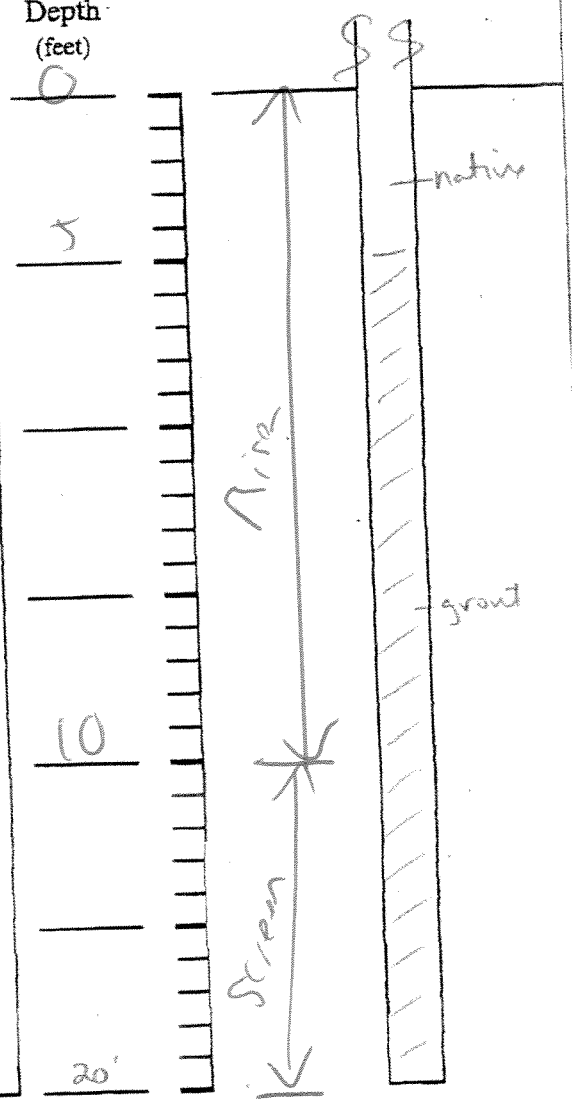
Site Name: STUART OLIVER HOLTZ SITE
Site Location: 89 COMMERCE DRIVE HENRIETTA, NY
Drilling Co.: NOTHNAGLE DRILLING INC

Well I.D.: URS-10
Driller: NEAL SHORT
Inspector: ERNIE THALHAMER
Date: 5/29/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	CABLE
Casing retrieved (feet)	20'
Casing type/dia. (in)	PVC 2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	20'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: pull 2" PVC (complete), tremie grout to ~5' BGS, native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

DRILLING SUMMARY

Geologist: Kevin J. McGovern

Contractor: Nothnagle Drilling

Operator: Steve Loranty

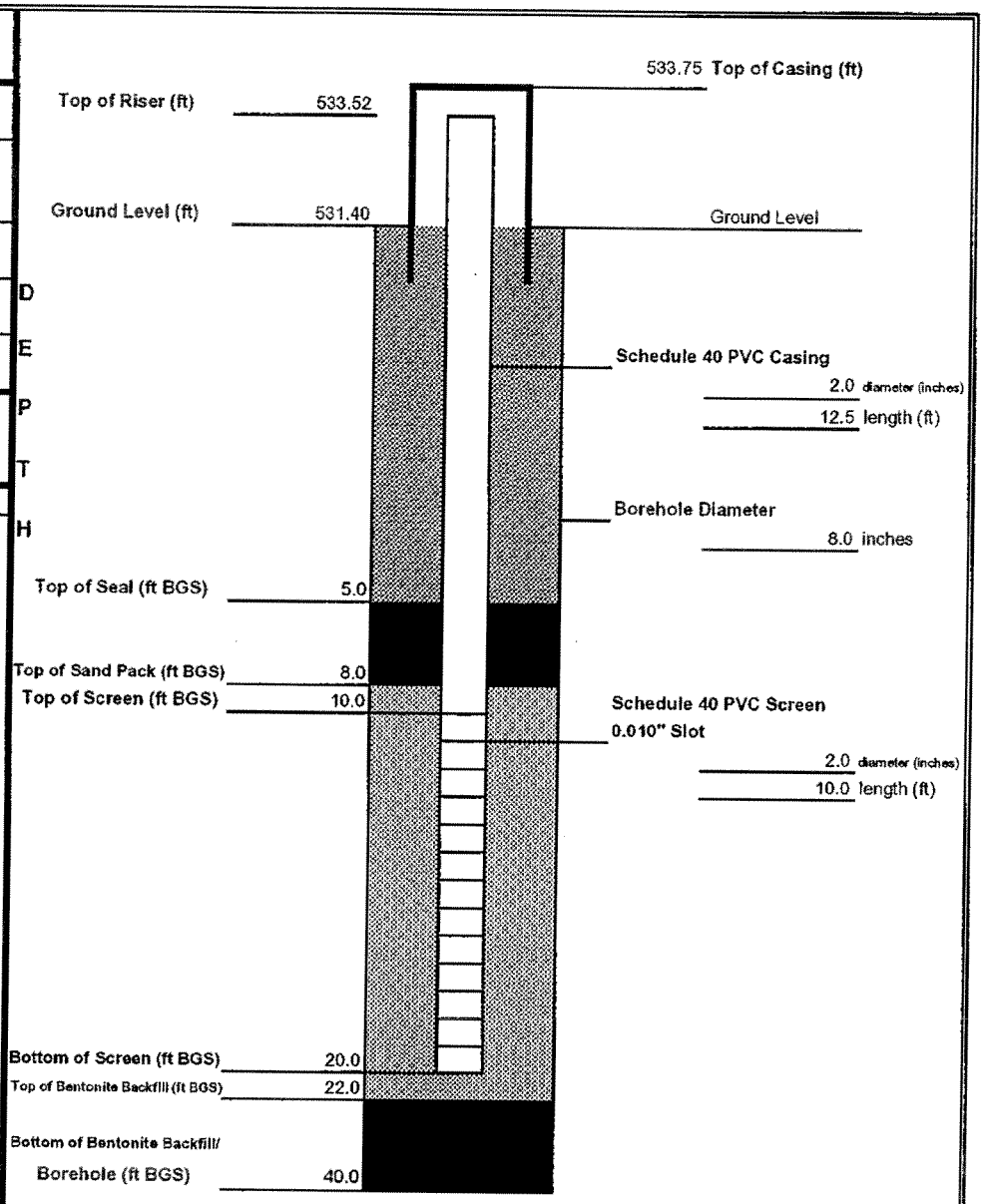
Model: CME-85

Date: February 14, 2007

GEOLOGIC LOG

Depth (ft.)	Description
0-6	Fill/ Concrete
6-22	Upper Glacial Till
22-40.5	Lower Glacial Till
40.5'-40.6'	Weathered Shale

WELL DESIGN



CASING MATERIAL

Surface: 4" Steel protective cover (Stick Up)

Monitor: 2" Schedule 40 PVC

SCREEN MATERIAL

Type: 2" Schedule 40 PVC

Slot Size: 0.010"

FILTER MATERIAL

Type: 00N well sand

Setting: 8'-22'

SEAL MATERIAL

Type 1: Bentonite chips

Setting: 5'-8'

Type 1: Cement/ Bentonite Grout

Setting: 0'-5'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Sand Pack

Client: NYSDEC

Location: Stuart-Olver-Holtz

Project No.: 11174465.00002

URS Corporation

MONITORING WELL CONSTRUCTION DETAILS

Well Number: URS-10

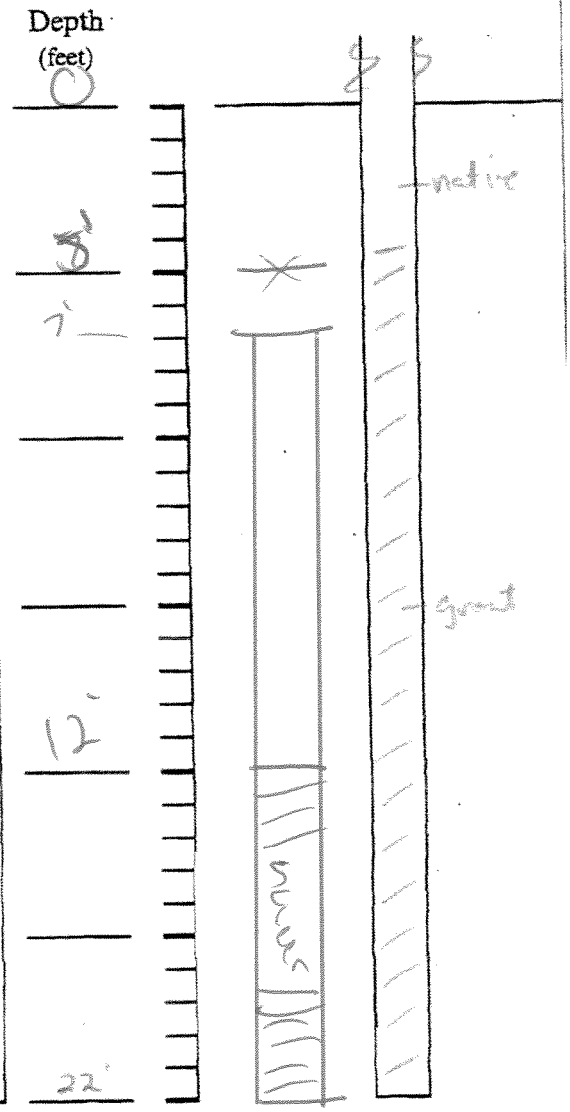
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: URS-11
Site Location: 39 COMMERCE DRIVE HENRIETTA NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/29/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	cable
Casing retrieved (feet)	7'
Casing type/dia. (in)	PVC/2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	22'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: pull 2" PVC - broke off ~7' BGS; tremie grout in place to ~5 BGS native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

DRILLING SUMMARY

Geologist: Kevin J. McGovern

Contractor: Nothnagle Drilling

Operator: Steve Loranty

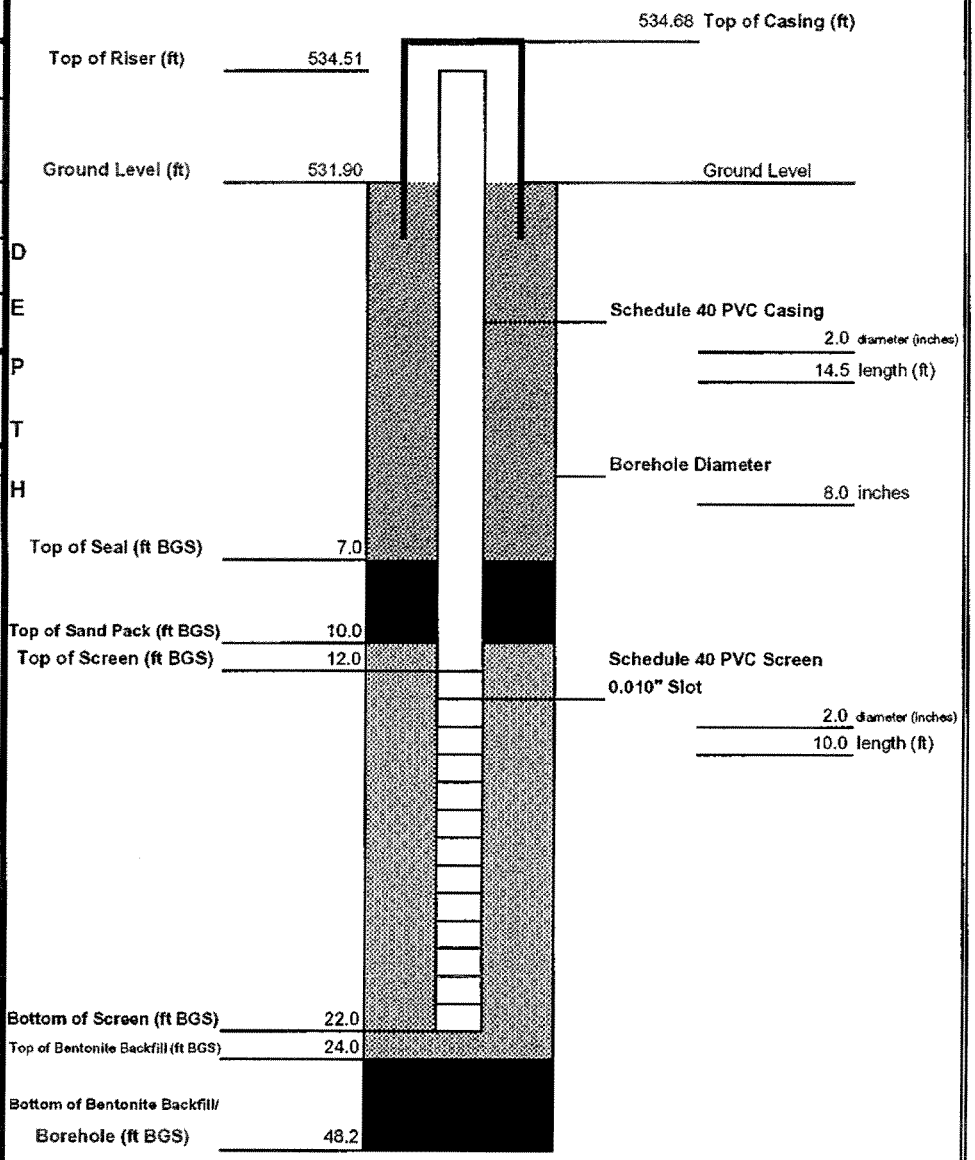
Model: CME-85

Date: February 6, 2007

GEOLOGIC LOG

Depth (ft.)	Description
0-6	Fill/ Concrete
6-24	Upper Glacial Till
24-28	Lower Glacial Till
28-32	mf SAND
32-48	Lower Glacial Till
48-48.2	Weathered Shale

WELL DESIGN



CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: 4" Steel protective cover (Stick Up)	**Type:** 2" Schedule 40 PVC	**Type:** 00N well sand **Setting:** 10'-24'
Monitor: 2" Schedule 40 PVC	**Slot Size:** 0.010"	**SEAL MATERIAL** **Type 1:** Bentonite chips **Setting:** 7'-10' **Type 1:** Cement/ Bentonite Grout **Setting:** 0'-7'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Sand Pack

Client: NYSDEC	**Location:** Stuart-Olver-Holtz	**Project No.:** 11174465.00002
URS Corporation	**MONITORING WELL CONSTRUCTION DETAILS**	**Well Number: URS-11**

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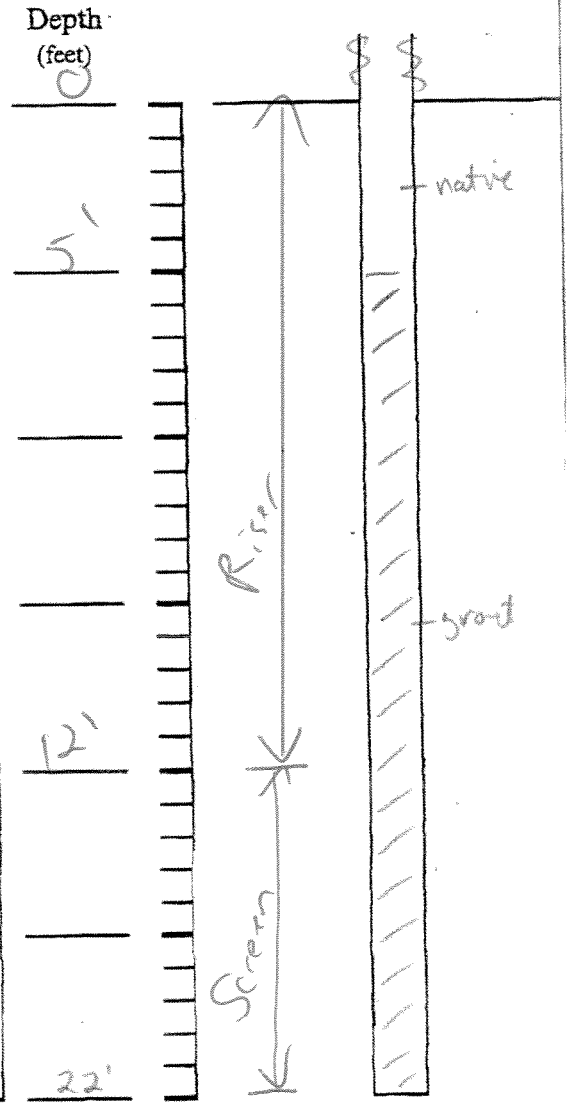
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: URS-12
Site Location: 39 COMMERCE DRIVE HENRIETTA NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/29/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	CABLE
Casing retrieved (feet)	22'
Casing type/dia. (in)	PVC / 2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	N/A
Interval perforated	
GROUTING	
Interval grouted (FBLS)	22'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: Drill 2" PVC (complete) tremie grout
to ~5' BGS. native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

DRILLING SUMMARY

Geologist: Kevin J. McGovern

Contractor: Nothnagle Drilling

Operator: Steve Loranty

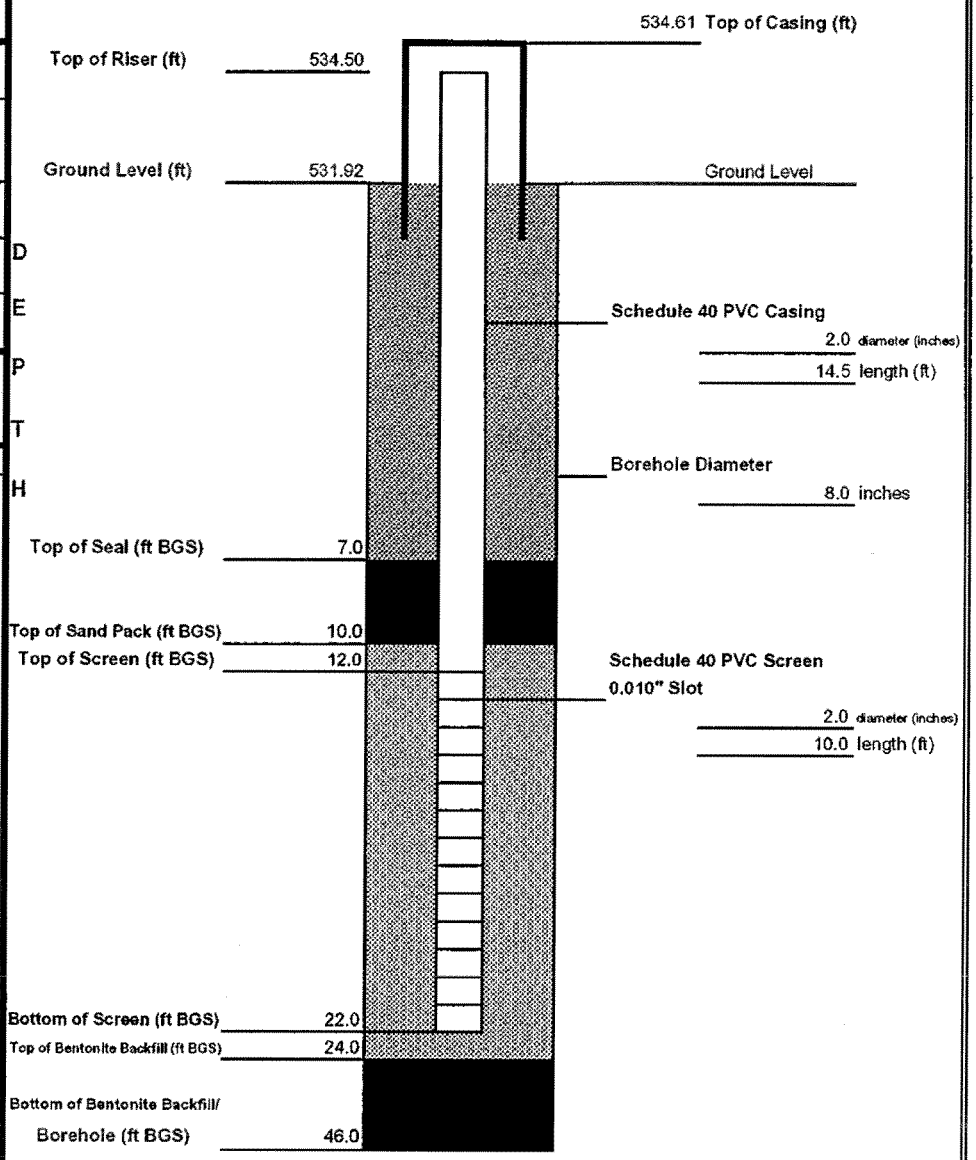
Model: CME-85

Date: February 8, 2007

GEOLOGIC LOG

Depth (ft.)	Description
0-5.5	Fill/ Concrete
5.5-24	Upper Glacial Till
24-32	Lower Glacial Till
32-34	mf SAND
34-45.5	Lower Glacial Till
45.5'-46	Weathered Shale

WELL DESIGN



CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: 4" Steel protective cover (Stick Up)	**Type:** 2" Schedule 40 PVC	**Type:** 00N well sand **Setting:** 10'-24'
Monitor: 2" Schedule 40 PVC	**Slot Size:** 0.010"	**SEAL MATERIAL** **Type 1:** Bentonite chips **Setting:** 7'-10' **Type 1:** Cement/ Bentonite Grout **Setting:** 0'-7'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Sand Pack

Client: NYSDEC	**Location:** Stuart-Olver-Holtz	**Project No.:** 11174465.00002
URS Corporation	**MONITORING WELL CONSTRUCTION DETAILS**	**Well Number:** URS-12

URS

DAILY INSPECTION REPORT No. _67__
DATE: __May 30th, 2019_____

STUART OLVER HOLTZ WELL MONITORING WELL DECOMMISSIONING
CONTRACTOR: NOTHNAGLE DRILLING INC.
NYSDEC SITE No. 828079 **NYSDEC CONTRACT No. D007622-8.1**

TEMPERATURE: 50S **SKIES:** Overcast
WIND: MODERATE **PRECIPITATION:** NONE

DESCRIPTION OF WORK PERFORMED BY CONTRACTOR

Nothnagle Drilling Inc., represented by Neal Short and Anthony Farrell, arrived on site at 0730 and mobilized equipment to prepare for well decommissioning in accordance with the requirements of NYSDEC's CP-43 *Groundwater Monitoring Well Decommissioning Policy*. Twelve of 24 monitoring wells and piezometers have been decommissioned prior to the start of fieldwork today.

Six wells were decommissioned (OW-1S, OW-1R, OW-2S, OW-2R, SW-32, URS-07). Well SW-32 steel protective casing and 2-inch PVC riser was removed entirely using a winch cable and grouted to the ground surface. URS-07 broke at ground surface during removal using a winch cable. URS-07 was therefore overdrilled to five feet below ground surface and then grouted to the ground surface. Well IPZ-2 appeared to have been previously abandoned. The location of where IPZ-2 was expected was overdrilled to 5' below ground surface, with no signs of an existing well and then grouted to the ground surface.

The area around wells OW-1S, OW-1R, OW-2S and OW-2R, were excavated to approximately five feet below ground surface to expose the outer steel pipe. The four-inch diameter black iron riser and eight-inch diameter outer steel casing were cut at approximately five feet below ground surface. The remaining riser pipe were tremie grouted in place with approximately 16 gallons of grout for OW-1S; 15 gallons of grout for OW-2S; 30 gallons of grout for OW-1R; and 32 gallons of grout for OW-2R. After grouting was complete, each excavation was backfilled using the excavated soil.

PERSONNEL ON-SITE:

Affiliation		Hours Logged
Nothnagle Drilling Inc.	Neal Short Anthony Farrell	0730 – 1600

VISITORS:

Name	Representing	Time (from – to)	Comments

EQUIPMENT AT SITE:

Contractor	Equipment	Hours Logged
Nothnagle Drilling Inc.	Skid Steer	0730 – 1600
Nothnagle Drilling Inc.	CME Truck Mounted Drill Rig	0730 – 1600
Nothnagle Drilling Inc.	Delivery and equipment truck	0730 – 1600

PREPARED BY: Ernest Thalhamer TITLE: Staff Geologist

REVIEWED BY: Chuck Dusel TITLE: Project Manager

Photo No. 1 –Excavating to 5' BGS at wells OW-2S and OW-2R

Photo No. 2 –OW-2S and OW-2R exposed to 5' BGS

Photo No. 3 –OW-2S with casing and riser cut at 5'BGS. The demolished pieces of concrete surface seal and cement/bentonite grout was left at the bottom of the excavation.

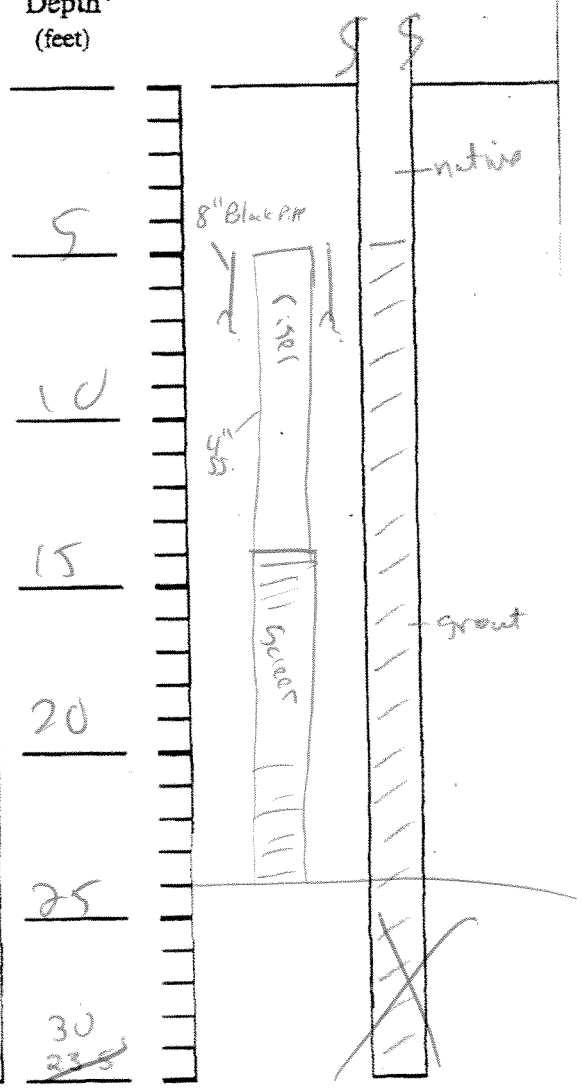
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-1S
Site Location: 39 COMMERCE DRIVE HENRIETTA NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/30/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout in Place
Casing retrieved (feet)	~7'
Casing type/dia. (in)	BIP/SS 4"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	N/A
Interval perforated	
GROUTING	
Interval grouted (FBLS)	23.5
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	12
Quantity of cement used (lbs.)	141
Cement type	1
Quantity of bentonite used (lbs.)	6
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	16
Volume of grout used (gal.)	16

WELL SCHEMATIC*



COMMENTS: excavate to ~5' BGS. cut off 8" and 4" BIP ~5' BGS. trench around in place to ~5' BGS. native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 HAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester New York

BORING No. OW-1S
SHEET 1 OF 2
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Steve Lorantz
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123946.72, E751635.30
GROUND SURFACE ELEVATION 529.0 DATUM NGVD
START DATE 10/20/94 END DATE 11/1/94

TYPE OF DRILL RIG CME-75
CASING SIZE AND TYPE 6-1/4 inch ID HSA
OVERBURDEN SAMPLING METHOD 2 inch OD x 24 inch long split spoon (ASTM 1586)
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
10/20/94	1215	23.7	24'	Stabilized 0.5 hrs.
10/20/94	1400	23	24'	Stabilized 1 hr.
11/1/94	1000	9'3"	24'	Stabilized 12 days

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)
1	2	S-1	0-2	10	50	Medium Dense, brown, fine to coarse SAND little clayey silt, trace Gravel moist. (with root fragments)	ND
	4						
	6						
2	6						
	4	S-2	2-4	26	60	same, moist.	ND
	8					[FILL] 2.8'	
3	18					Very stiff, brown, SILT & CLAY, little fine Sand, moist.	
	28						
4	7	S-3	4-6	20	20	same.	ND
	8						
5	12						
	14					[LACUSTRINE] 6.0'	
6	9	S-4	6-8	27	70	Medium Dense, brown, fine to coarse SAND, little clayey Silt, trace Gravel, moist.	NS
	10						
7	17						
	20					[UPPER TILL]	
8	6	S-5	8-10	28	80	Same.	ND
	12						
9	16						
	20						
10	6	S-6	10-12	46	80	Same, dense, moist to wet.	ND
	18						
11	28						
	34						
12	13	S-7	12-14	64	75	Same, very dense.	1
	27						
13	37					[UPPER TILL]	
	56						
14	9	S-8	14-16	44	80	grades dense to some Silt, wet.	1
	20						
15	24						
	26						
16	9	S-9	16-18	49	75	grades to dense, gray, fine to coarse SAND	

EQUIPMENT
I STALLATI N
LOG

- 6 inch OD protective casing
- Concrete surface seal 0 to 2.5 ft.
- Cement/bentonite grout seal from 2.5 to 9 ft.
- 4 inch O.D. flush couple black steel riser 0 to 14 ft.
- Bentonite pellet seal from 9 to 12 ft.
- No.00 size sand filter pack from 12 to 24.5 ft.

NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.
NS-No Sample.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

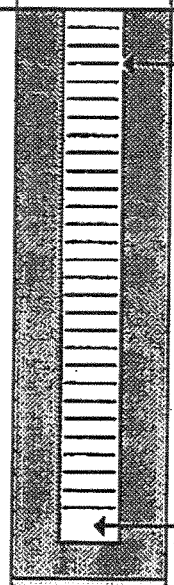
BORING No. OW-1S

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-1S
SHEET 2 OF 2
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVER (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
17	29					same Clayey Silt, moist.	ND		
	20								
	28								
18	6	S-10	18-20	9	80	same, medium dense, moist to wet.	1		
	6								
19	3								
	9								
20	3	S-11	20-22	10	80	[UPPER TILL]	ND		
	4					Medium dense, grey, medium to coarse SAND, trace Gravel, wet. (SAND STRATUM 20.2 to 22.8 ft.)			
21	6								
	10								
22	17	S-12	22-24	>100	80	[UPPER TILL]	ND		
	60								
23	100/1"					Very dense, grey, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	22.8 ft.		
24	100/2"	S-13	24-24.2	>100	NR		ND		
						[LOWER TILL]			
25									
26	21	S-14	26.27.4	>100	85	grades to some Silt & Clay, moist.	ND		
	64								
27	100/5"								
28	100/6"	S-15	28-28.5	>100	90	same, moist.	ND		
29									
30	40	S-16	30-31.3	>100	100	same, moist.	ND		
	55								
31	100/3"								
32	51	S-17	32-32.8	>100	100	same.	ND		
	100/3"								
33						[LOWER TILL]			
34						34.7			
	18	S-18	34-35	>100	100	Green weathered rock fragments, moist. SEVERELY WEATHERED BEDROCK	ND		
35	100/6"								
						Bottom of Boring at 35.0 ft.			
36									



LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace H-NU PI-101 photoionization detector.
ND-not detected above 1 ppm.
NS - No Sample.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. OW-1S

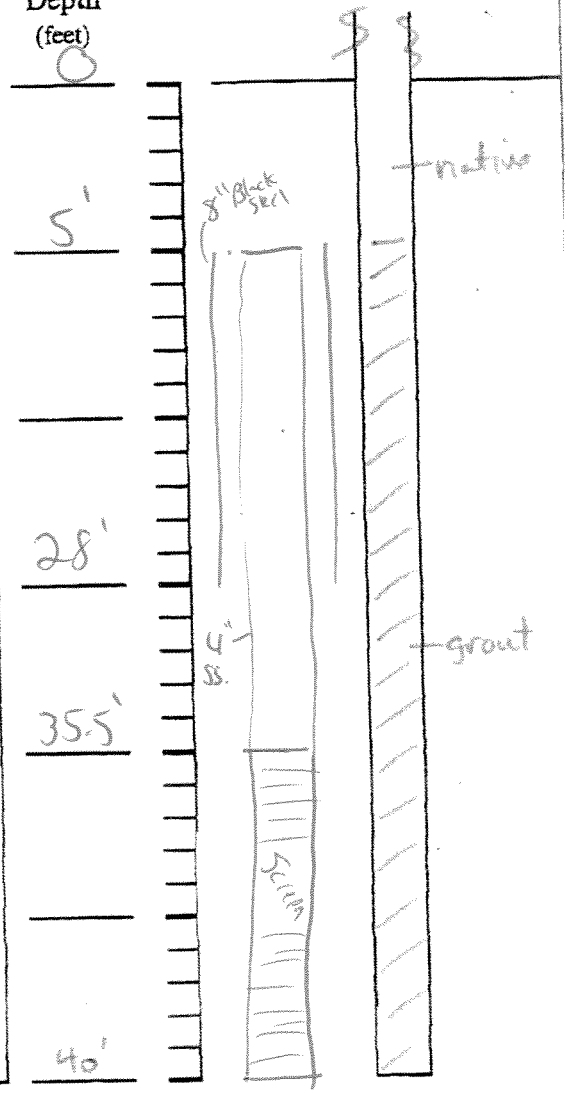
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-1R
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/30/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout in Place
Casing retrieved (feet)	~7'
Casing type/dia. (in)	BIP/SS 4"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	N/A
Interval perforated	
GROUTING	
Interval grouted (FBLS)	40'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	24
Quantity of cement used (lbs.)	282
Cement type	1
Quantity of bentonite used (lbs.)	12
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	32
Volume of grout used (gal.)	30

WELL SCHEMATIC*



COMMENTS: excavate to ~5' BGS. cut off 8" and 4" BIP ~5' BGS. frame grout in place to 5' BGS. native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-1R
SHEET 1 OF 3
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Steve Lorantz
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123937.21 E751630.42
GROUND SURFACE ELEVATION 529.2 DATUM NGVD
START DATE 10/25/94 END DATE 11/08/94

TYPE OF DRILL RIG CME-75
CASING SIZE AND TYPE 2-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD NX Rock Core

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
10/25/94	1330	Dry	26'	Stabilized 15 mins.

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (ppm)
1	2	S-1	0-2	18	50	Medium Dense, brown SAND, little clayey Silt, trace Gravel, moist, with root fragments.	ND
	9						
	9						
2	9					[FILL] 2.3'	
	5	S-2	2-4	18	60	Very stiff, brown, SILT & CLAY, little fine to coarse Sand, moist.	ND
	5						
3	13					[LACUSTRINE]	
	13						
4	4	S-3	4-6	30	10	same.	ND
	15						
5	15						
	19					[LACUSTRINE] 6.0'	
6	6	S-4	6-8	32	80	Medium Dense, brown, fine to coarse SAND, little Clayey Silt, trace Gravel, moist to wet.	ND
	14						
7	18					[UPPER TILL]	
	14						
8	6	S-5	8-10	44	85	grades to Dense.	ND
	10						
9	34						
	10						
10	11	S-6	10-12	35	90	same, moist.	ND
	17						
11	18						
	18						
12	23	S-7	12-13.5	<100	75	same, grades to very dense, moist.	ND
	64						
13	100/6"						
14	16	S-8	14-15.8	85	100	grades to trace Clayey Silt, moist to wet.	ND
	38						
15	47					[UPPER TILL]	
	100/1"						
16	16	S-9	16-17.3	<100	100		

EQUIPMENT INSTALLATION LOG

- Concrete surface seal from 0-2.5 ft.
- 4 inch black steel riser pipe from 0-35.5 ft.
- cement/bentonite grout seal from 2.5-30.5 ft.

NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

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364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-1R
SHEET 2 OF 3
FILE No. 19078.10
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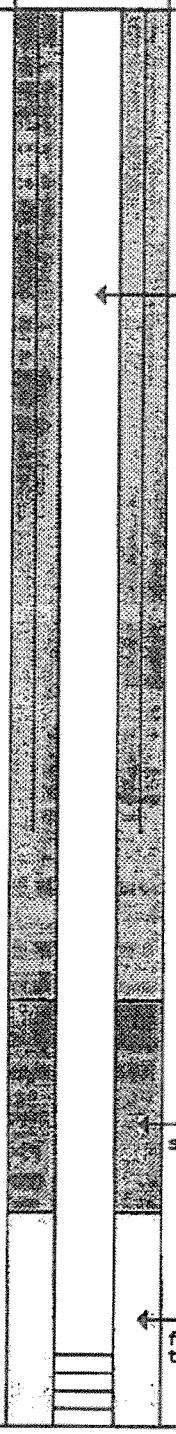
DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)
17	48					Very dense, gray, fine to coarse SAND, some Clayey Silt, moist. [UPPER TILL]	ND
	100/4"						
18	54	S-10	18-18.9	<100	100	same.	ND
	100/5"						
19							
20	7	S-11	20-22	36	70	Dense, Grey, fine to coarse SAND, trace Gravel, wet. [UPPER TILL]	1
	17						
21	19						
	24					(SAND STRATUM 19.6 to 23.7 ft.)	
22	10	S-12	22-24	23	75	same.	ND
	11						
23	12						
	48					[UPPER TILL] 23.7	
24	58	S-13	24-24.8	<100	100	Very dense, Grey, fine to coarse SAND, some clay & silt, trace gravel, moist.	ND
	100/4"						
25						[LOWER TILL]	
26	24	S-14	26-27.2	<100	90	same.	ND
	62						
27	100/2"						
28	40	S-15	28-29	>100	100	same, moist.	ND
	100/6"						
29						[LOWER TILL]	
30	25	S-16	30-31.4	>100	100	same, with medium to coarse SAND seam from 30.4 to 30.6 ft., moist.	
	55						
31	100/5"						
32	18	S-17	32-33.5	>100	100	same, moist.	ND
	32						
33	100/6"						
34	52	S-18	34-34.9	>100	100	same, moist. .. and clayey SILT	ND
	100/5"						
35						[LOWER TILL]	
36	45	S-19	36-37	>100	100	same, some Clayey SILT, moist.	ND

EQUIPMENT INSTALLATION LOG



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES:
Organic Vapor Meter (OVM) reading of headspace using H-NU PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESE T APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

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364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-1R
SHEET 3 OF 3
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	PEAK OVM READ (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
37	100/6"					same. [LOWER TILL] 36.9' weathered rock fragments [SEVERELY WEATHERED BEDROCK]			
38	100/2"	S-20	38-38.2	>100	100	green and red-brown, weathered rock fragments, moist.	ND		
39		C1	38-42 ft.			Green, weathered rock fragments. Green to brown, CLAY & SILT, little gravel, weathered rock fragments, moist.		No. 10 slot stainless steel well screen from 35.5-40 ft.	
40								Stainless steel sump from 40-40.5 ft.	
41									
42						Bottom of Boring at 42'. NOTE: the R.Q.D. for the rock core (C1) is zero percent.			

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-NU PI-101 photoionization detector.
ND-not detected above 1 ppm.
C1 = Cored Severely Weathered Bedrock 38-42 feet.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

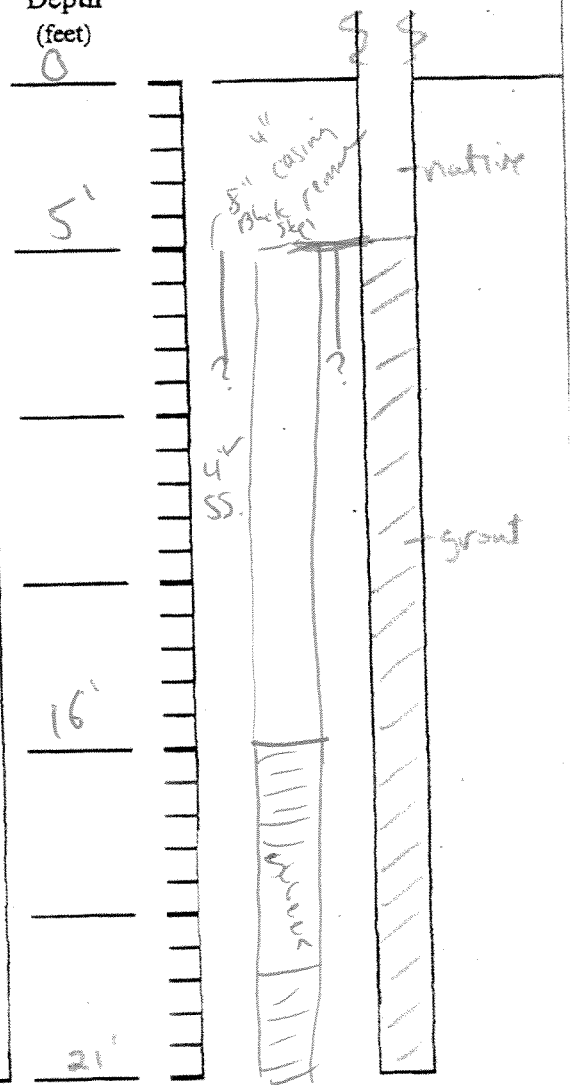
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-2S
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/30/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grinding
Casing retrieved (feet)	~7
Casing type/dia. (in)	BIPISS 4"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	21
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	12
Quantity of cement used (lbs.)	141
Cement type	1
Quantity of bentonite used (lbs.)	6
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	15
Volume of grout used (gal.)	15

WELL SCHEMATIC*



COMMENTS: excavate to ~5' BGS. cut off 4" BIP ~5' BGS. tremie grout in place to ~5' BGS native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-2S
SHEET 1 OF 2
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Steve Lorantz
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123571.07 E751474.99
GROUND SURFACE ELEVATION 531.8 DATUM NGVD
START DATE 11/10/94 END DATE 11/11/94

TYPE OF DRILL RIG CME-75
CASING SIZE AND TYPE 6-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
11/11/94	0810	8.2'	16'	Stabilized 16 hrs.

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (ppm)
1						See OW-2R log for overburden soil descriptions from 0.0 - 10.0 ft.	
2							
3							
4							
5							
6							
7							
8							
9						[FILL]	
10						Advanced augers to 10.0 ft. without sampling. 10.0'	
	4	S-1	10-12	47	100	Dense, brown, fine to coarse SAND, trace Gravel, wet.	ND
11	18						
	29					[UPPER TILL]	
	46						
12	27	S-2	12-14	99	100	Same, wet.	ND
	35						
13	64						
	64						
14	15	S-3	14-16	94	100	Grades to some Clayey SILT, moist.	ND
	28						
15	66					[UPPER TILL]	
	84						
16	8	S-4	16-18	>100	100	Grey, very dense, fine to medium SAND.	16.0 ft. ND

EQUIPMENT
I STALLATI N
LOG

- 6 inch OD protective casing
- Concrete surface seal to 2.5 ft.
- Cement/bentonite grout from 2.5 to 11 ft.
- 4 inch O.D. flush couple black steel riser to 11 ft.
- Bentonite pellet seal from 11 to 14 ft.
- No.00 size filter pack from 14 ft. to 21.5 ft.

NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

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364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-2S
SHEET 2 OF 2
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
17	24						ND	No. 10 slot stainless steel well screen from 16 to 20.5 ft.	
	38								
18	64					(Sand stratum 16.0 to 21.5 ft.)			
	24	S-5	18-19	>100	100	Very dense, grey, fine to coarse SAND, some clayey Silt, trace Gravel, moist.	ND		
19	100/6"								
20									
	65	S-6	20-20.2	>100	100	Same.	ND		
21	100/2"					[UPPER TILL]		stainless steel sump from 20.5 to 21 ft.	
						Bottom of Boring at 21.5'			
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES:
Organic Vapor Meter (OVM) reading of headspace using M-NU PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESE T APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

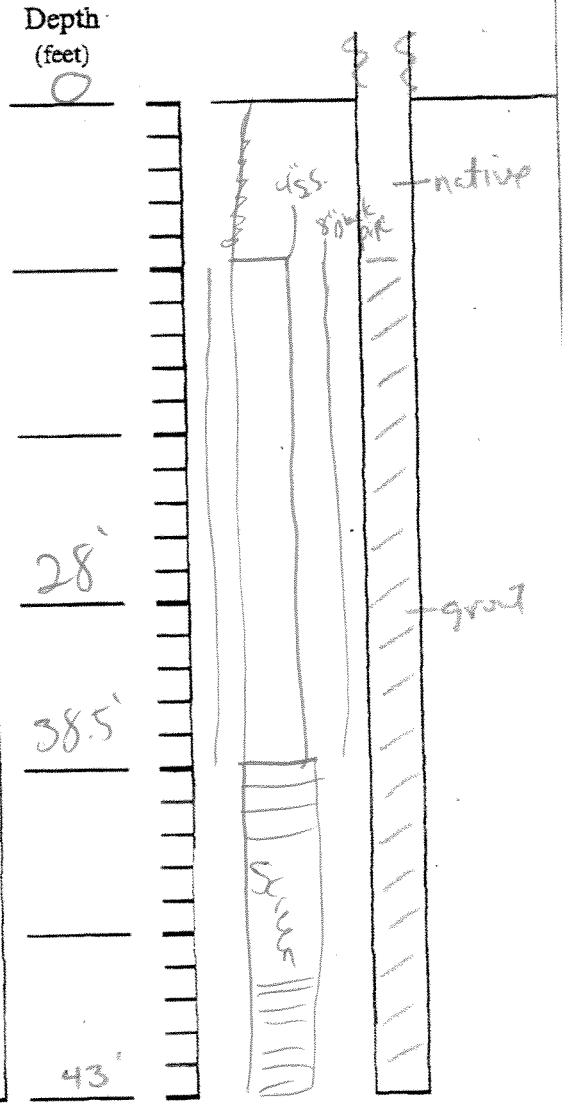
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-2R
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/30/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout in pl
Casing retrieved (feet)	~7
Casing type/dia. (in)	BIP/SS 4"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	43
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	24
Quantity of cement used (lbs.)	282
Cement type	1
Quantity of bentonite used (lbs.)	12
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	32
Volume of grout used (gal.)	32

WELL SCHEMATIC*



COMMENTS: excavate to ~5' BGS, cut off 8" and 4" BIP ~5' BGS, tremie grout in place to ~5' BGS; native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 WAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-2R
SHEET 1 OF 3
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Steve Lorantz
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123568.93 E751481.53 (NYSDC)
GROUND SURFACE ELEVATION 532.0 DATUM NGVD
START DATE 10/27/94 END DATE 11/10/94

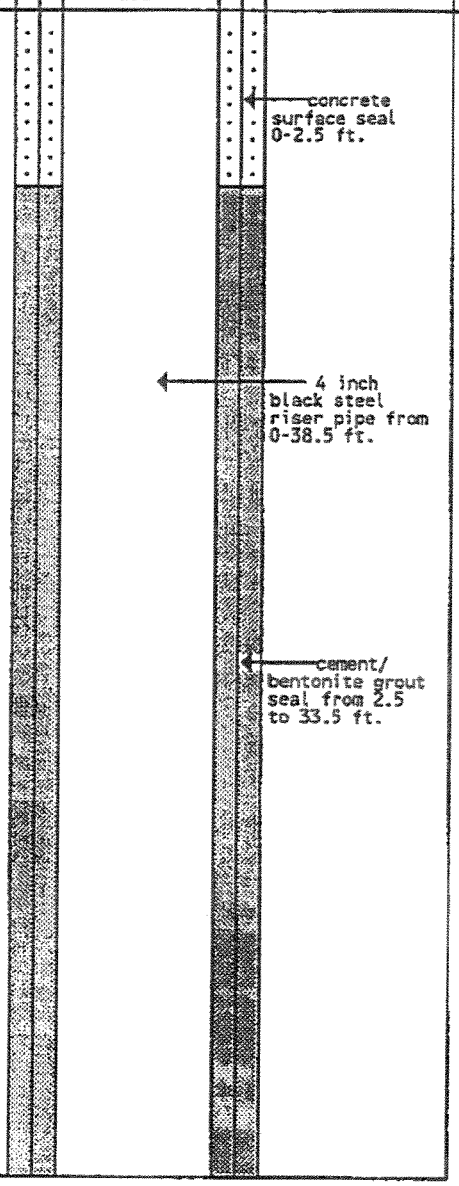
TYPE OF DRILL RIG CME-75
CASING SIZE AND TYPE 2-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
10/27/94	1300	12.3'	24'	Stabilized 0.5 hrs.
11/9/94	1435	18.9'	47'	Stabilized 0.5 hrs.

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (ppm)
1	4	S-1	0-2	14	40	Medium Dense, Brown, fine to coarse SAND, little Clayey Silt, moist, with root fragments.	ND
	6						
	8					[FILL]	
2	11						
	10	S-2	2-4	30	55	same, except with steel nails in sample.	1
3	13						
	17						
4	23						
	3	S-3	4-6	15	75	same.	ND
5	4						
	11						
6	12					[FILL]	
	8	S-4	6-8	31	75	Medium Dense, Brown, Gray and Black, medium to coarse SAND, trace Gravel, moist to wet.	ND
7	14						
	17						
8	11						
	9	S-5	8-10	32	100	same, wet.	ND
9	13						
	19						
10	19					[FILL] 10.0'	
	18	S-6	10-12	52	75	grades to very dense, fine to coarse SAND, wet.	ND
11	28						
	24					[UPPER TILL]	
12	28						
	23	S-7	12-13.8	72	90	grades to some Clayey Silt, moist to wet.	ND
13	33						
	39						
14	100/3"						
	26	S-8	14-15.4	>100	95	same	ND
15	49						
	100/5"					[UPPER TILL]	
16							
	18	S-9	16-18	44	95	Dense, grey, fine to medium SAND, little Silt, wet.	

EQUIPMENT INSTALLATION LOG



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

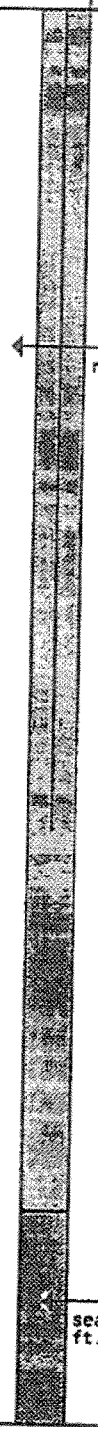
GZA GEOENVIRONMENTAL OF NEW YORK
364 MAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Diver-Holtz
Rochester, New York

BORING No. OW-2R
SHEET 2 OF 3
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)
17	20						ND
	24						
	46						
18	10	S-10	18-19.5	<100	100	grades to very dense, some Silt, moist to wet.	ND
	18						
19	100/6"					(SAND STRATUM 16.0-19.7 FT.)	
20						[UPPER TILL] 20.0'	
	100/6"	S-11	20-20.5	>100	100	Very dense, grey, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND
21						[LOWER TILL]	
22							
	25	S-12	22-23.2	<100	20	same, moist.	ND
23	29						
	100/2"						
24							
	23	S-13	24-25.5	>100	100	same, moist.	ND
25	40						
	100/5"						
						[LOWER TILL]	
26	100/6"	S-14	26-26.5	>100	100	same, moist.	ND
27							
28							
	54	S-15	28-28.8	>100	100	same, moist.	ND
29	100/3"						
30							
	28	S-16	30-31	>100	100	same, moist.	ND
31	100/6"						
32							
	32	S-17	32-34	98	75	[LOWER TILL] same, moist.	ND
33	41						
	57						
	85						
34							
	24	S-18	34-34.8	>100	100		ND
	100/4"					34.7'	
35						Same. Green to red weathered rock fragments. 34.7 - 34.8, moist.	
36						SEVERELY WEATHERED BEDROCK grey weathered rock fragments.	ND
	100/3"	S-19	36-36.3	>100	100		

EQUIPMENT INSTALLATION LOG



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES:
Organic Vapor Meter (OVM) reading of headspace using H-NU PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES:
1) STRATIFICATION LINES REPRESE T APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. OW-2R

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-2R
SHEET 3 OF 3
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	PEAK OVM READ (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
37						moist.			
						[SEVERELY WEATHERED BEDROCK]			
38	31	S-20	38-39.3		>100 75	Grey to Green, weathered rock fragments, moist to dry.	ND	No. 00 size sand filter pack from 36.5 to 44.5 ft.	
	57								
39	100/4"								
40	100/6"	S-21	40-40.5		>100 75	Black, weathered rock fragments, moist.	ND		
41	100/3"	S-22	41-41.3		>100 85	same.	ND	No. 10 slot stainless steel well screen from 38.5 to 43.0 ft.	
						[SEVERELY WEATHERED BEDROCK]			
42									
43	72	S-23A	43-44.8	29	100	Reddish Brown, CLAYEY SILT, moist.	ND	stainless steel sump from 43 to 43.5 ft.	
	16	S-23B				Greenish weathered rock fragments, moist.	ND		
44	13					Pink, Red weathered rock fragments, moist.	ND		
	100/3"								
45	100/3"	S-24	45-45.3		>100 100	Pink, Red weathered rock fragments, moist.	ND		
46								bentonite pellet seal from 44.5 to 47.5 ft.	
47	100/6"	S-25	47-47.5		>100 100	Severely weathered CLAYEY Silt partings. [SEVERELY WEATHERED BEDROCK]	ND		
48						Bottom of Borings 47.5'.			
49									
50									

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-NU PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. OW-2R

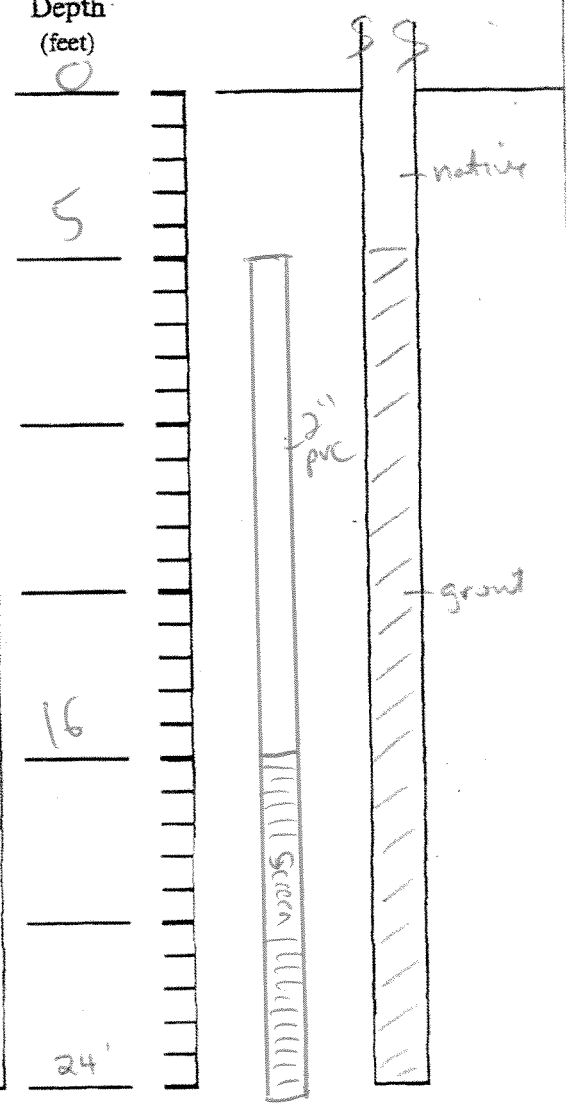
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: SW-32
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/30/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grouting
Casing retrieved (feet)	7.5'
Casing type/dia. (in)	PVC/2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	24'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: tremie grout in place to surface excavate to ~5' BGS native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GeoLogic
PO Box 350, Homer, NY 13077
607-749-5000 / 607-749-5053 (fax)

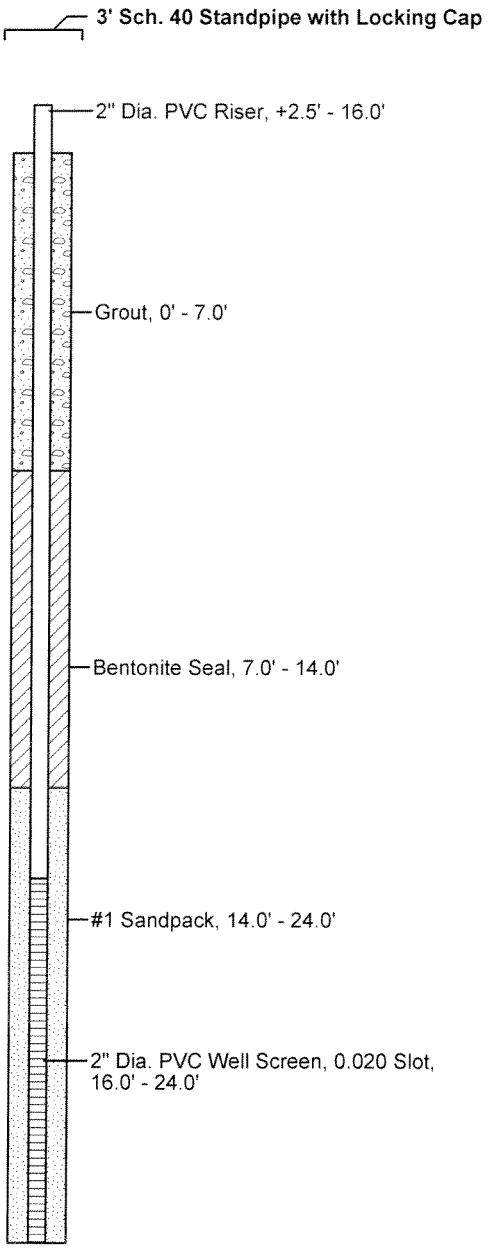
SUBSURFACE LOG

Stuart Olver

Rochester, New York

Boring No: : SW-32
Project No.: : 210001D
Date Started: : 02/07/11
Date Completed: : 02/07/11

Depth (ft)	DESCRIPTION
0	Brown GRAVEL, Some fine-coarse Sand, little silt, moist
	Brown SILT, little fine-coarse sand, little gravel, moist
5	
10	similar, wet
15	Brown SILT, Some fine-coarse Sand, little gravel, wet Driller noted harder drilling at 14.0'
20	
	Driller noted easier drilling at 22.0' Brown fine-coarse SAND and GRAVEL, Some Silt, saturated
25	BORING TERMINATED AT 24.0'



Sampling Method: ASTM D-1586, unless otherwise noted.
Notes: 4 1/4" ID Hollow Stem Augers
Visually Classified by: Geologist
File: 210001D/tech/SW-32

02-17-2011 P:\PROJECTS\2010\210001D-Stuart Olver Holtz-Rochester\TECH\SW-32.bor

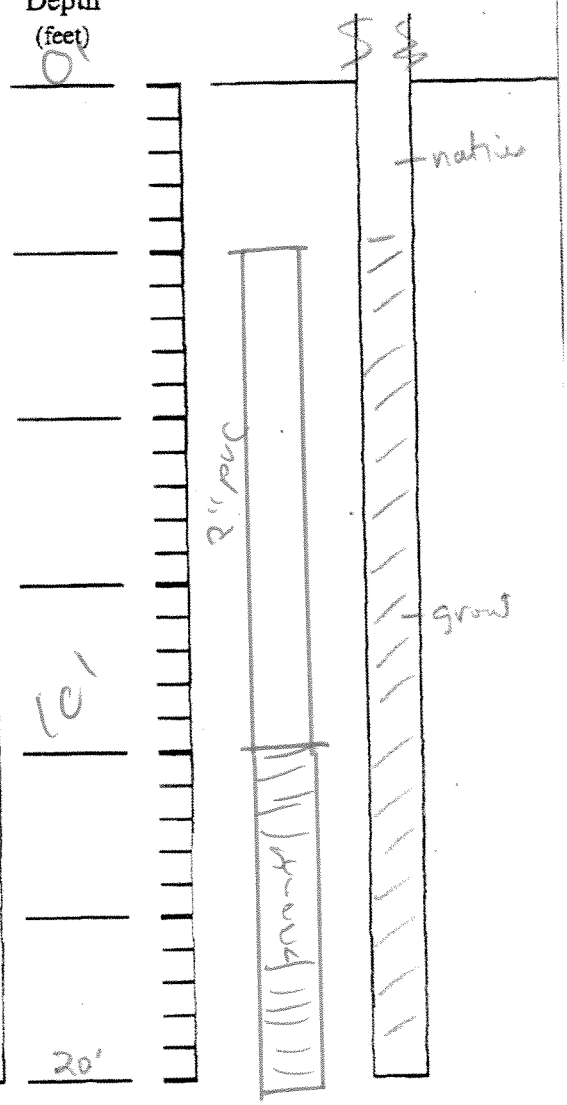
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: URS-07
Site Location: 39 COMMERCE DRIVE HENRIETTA NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/30/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	0-5'
Drilling Method(s)	auger
Borehole Dia. (in.)	4"
Temporary Casing Installed? (y/n)	N/A
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grout in place
Casing retrieved (feet)	~7'
Casing type/dia. (in)	PVC/2"
CASING PERFORATING	
Equipment used	N/A
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	20'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	1
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: tremie grout to surface, excavate to 5' BGS native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

DRILLING SUMMARY

Geologist: Kevin J. McGovern

Contractor: Nothnagle Drilling

Operator: Steve Loranty

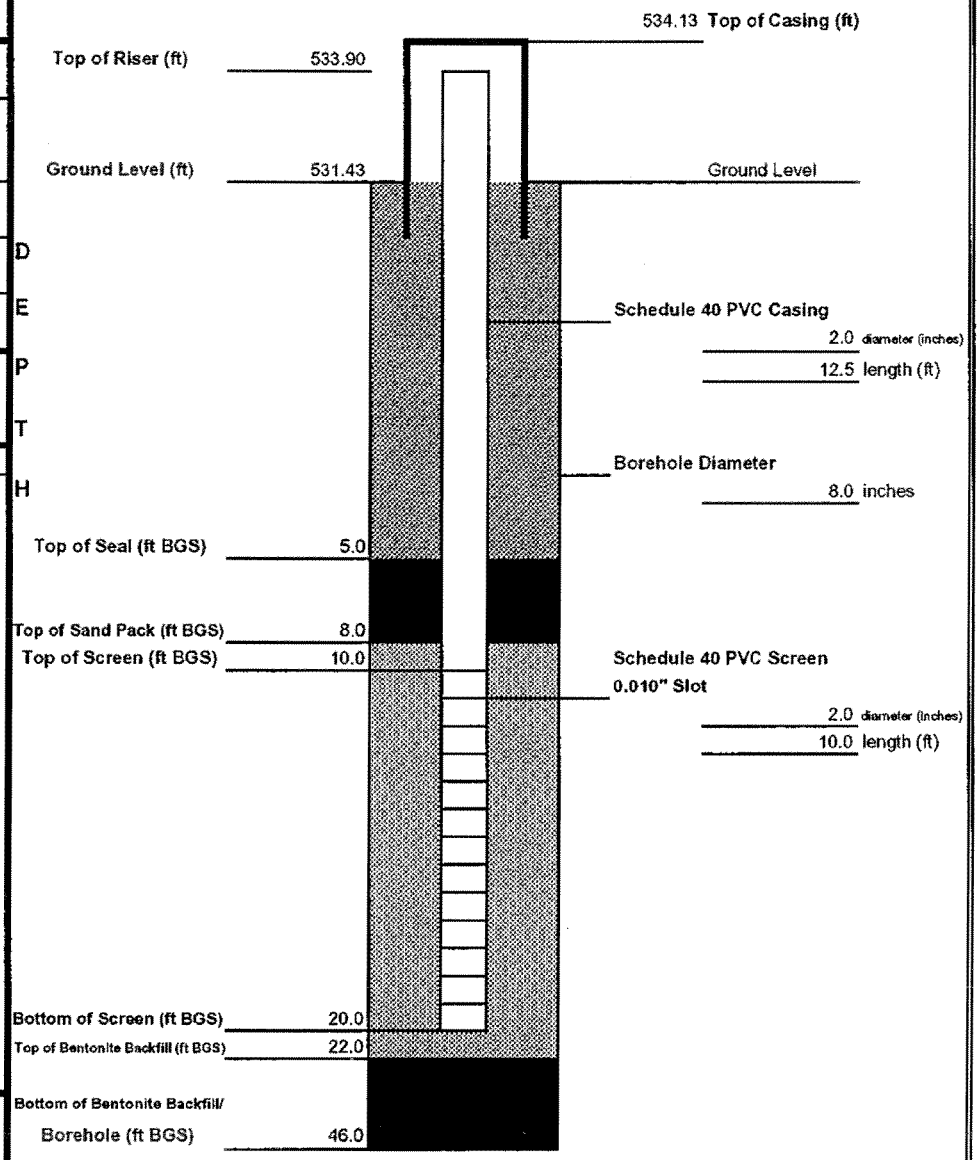
Model: CME-85

Date: February 9, 2007

GEOLOGIC LOG

Depth (ft.)	Description
0-4	Fill/ Concrete
4-6	Lacustrine
6-22	Upper Glacial Till
22-45.5	Lower Glacial Till
45.5'-46	Weathered Shale

WELL DESIGN



CASING MATERIAL

Surface: 4" Steel protective cover (Stick Up)

Monitor: 2" Schedule 40 PVC

SCREEN MATERIAL

Type: 2" Schedule 40 PVC

Slot Size: 0.010"

FILTER MATERIAL

Type: 00N well sand
Setting: 8'-22'

SEAL MATERIAL

Type 1: Bentonite chips
Setting: 5'-8'
Type 1: Cement/ Bentonite Grout
Setting: 0'-5'

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Sand Pack

Client: NYSDEC

Location: Stuart-Olver-Holtz

Project No.: 11174465.00002

URS Corporation

MONITORING WELL CONSTRUCTION DETAILS

Well Number: URS-07

WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE
Site Location: 39 COMMERCE DRIVE HENRIETTA NY
Drilling Co.: NOTHNAGLE DRILLING INC

Well I.D.: IPZ-2
Driller: NEAL SHORT
Inspector: ERNIE THALHAMER
Date: 5/30/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING
- Interval Drilled
- Drilling Method(s)
- Borehole Dia. (in.)
- Temporary Casing Installed? (y/n)
- Depth temporary casing installed
- Casing type/dia. (in.)
- Method of installing

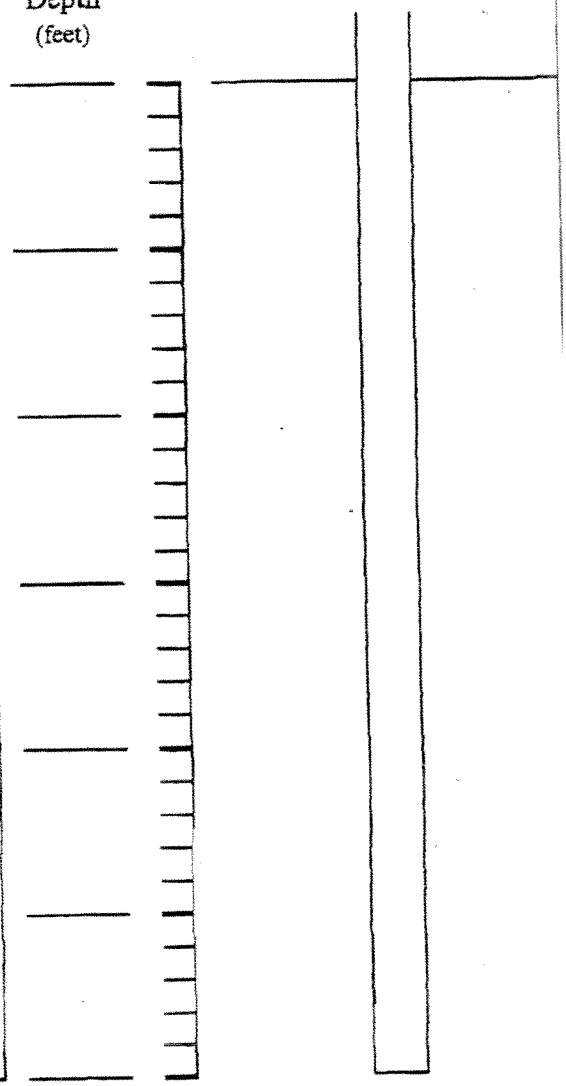
CASING PULLING
- Method employed
- Casing retrieved (feet)
- Casing type/dia. (in)

CASING PERFORATING
- Equipment used
- Number of perforations/foot
- Size of perforations
- Interval perforated

GROUTING
- Interval grouted (FBLS)
- # of batches prepared

For each batch record:
- Quantity of water used (gal.)
- Quantity of cement used (lbs.)
- Cement type
- Quantity of bentonite used (lbs.)
- Quantity of calcium chloride used (lbs.)
- Volume of grout prepared (gal.)
- Volume of grout used (gal.)

WELL SCHEMATIC*



COMMENTS: no visible PVC. looked to be previously abandoned. 4½" HSA to ~9' BGS to confirm. no PVC noted. native backfill

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

IT CORPORATION
A Member of the IT Group

Drilling Log

Monitoring Well IPZ-2

Project SOH — Owner Metalade
Location Henrietta, NY — Proj. No. 784222
Surface Elev. ____ Total Hole Depth 24 ft. Diameter 4 1/4 in.
Top of Casing ____ Water Level Initial ____ Static ____
Screen: Dia 2 in. Length 10 ft. Type/Size 0.02 in.
Casing: Dia 2 in. Length 14 ft. Type PVC
Fill Material ____ Rig/Core ____
Drill Co. SJB Method HSA
Driller ____ Log By T. Maynard Date 06/27/00 Permit # ____
Checked By ____ License No. ____

See Site Map For Boring Location

COMMENTS:

Well not sampled for soil.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0							
2							
4							
6							
8							
10							
12							
14							
16							
18							
20							
22							
24							

URS

DAILY INSPECTION REPORT No. _68__
DATE: __May 31st, 2019_____

STUART OLVER HOLTZ MONITORING WELL DECOMMISSIONING
CONTRACTOR: NOTHNAGLE DRILLING INC.
NYSDEC SITE No. 828079 **NYSDEC CONTRACT No. D007622-8.1**

TEMPERATURE: 50S **SKIES:** Overcast
WIND: MODERATE **PRECIPITATION:** NONE

DESCRIPTION OF WORK PERFORMED BY CONTRACTOR (at the time of URS site visit)

Nothnagle Drilling Inc., represented by Neal Short and Anthony Farrell, arrived on site at 0730 and mobilized equipment to prepare for well decommissioning in accordance with the requirements of NYSDEC's CP-43 *Groundwater Monitoring Well Decommissioning Policy*. Nineteen of 24 monitoring wells and piezometers have been decommissioned prior to the start of fieldwork today.

Nothnagle completed abandonment of four wells (OW-7R, OW-8S, OW-10S, OW-11S). Well OW-11S steel protective casing and 2-inch steel riser was removed entirely using a winch cable and grouted to the ground surface. The area around wells OW-10S was overdrilled to approximately five feet below ground surface. The two-inch diameter black iron riser pipe was cut at approximately five feet below ground surface. The area around wells OW-7R, OW-8S were excavated to approximately five feet below ground surface to expose the outer steel pipe. The four-inch diameter black iron riser and eight-inch diameter outer steel casing were cut at approximately five feet below ground surface. The remaining riser pipe were tremie grouted in place with approximately 30 gallons of grout for OW-7R; 20 gallons of grout for OW-8S; 5 gallons of grout for OW-10S; and 5 gallons of grout for OW-11S. After grouting was complete, each excavation was backfilled using the excavated soil. The surface of OW-10S was restored with approximately 4-inches of blacktop patch.

Monitoring well OW-9S could not be located. No action was taken at the location the OW-9S was expected to be. At the completion of well decommissioning, Nothnagle demobilized their equipment from the site. The well materials (i.e., well risers and protective casings) removed from the wells were left on site for off-site disposal by Nothnagle at a later date.

In summary, 22 wells were decommissioned. Two wells slated for abandonment could not be located. One of the locations where the well was expected but not located was overdrilled and grouted to the surface.

PERSONNEL ON-SITE:

Affiliation		Hours Logged
Nothnagle Drilling Inc.	Neal Short Anthony Farrell	0730 – 1530

VISITORS:

Name	Representing	Time (from – to)	Comments

EQUIPMENT AT SITE:

Contractor	Equipment	Hours Logged
Nothnagle Drilling Inc.	Skid Steer	0730 – 1530
Nothnagle Drilling Inc.	CME Truck Mounted Drill Rig	0730 – 1530
Nothnagle Drilling Inc.	Delivery and equipment truck	0730 – 1530

PREPARED BY: Ernest Thalhamer TITLE: Staff Geologist

REVIEWED BY: Chuck Dusel TITLE: Project Manager

URS

DAILY INSPECTION REPORT No. _68__
DATE: __May 31st, 2019_____

STUART OLVER HOLTZ MONITORING WELL DECOMMISSIONING
CONTRACTOR: NOTHNAGLE DRILLING INC.
NYSDEC SITE No. 828079 **NYSDEC CONTRACT No. D007622-8.1**

Photo No. 1 – Overdrilling top 5' of riser at OW-10S

Photo No. 2 – OW-10S after completion of abandonment and asphalt patched at surface

Photo No. 3 – Well construction materials stockpiled after the completion of decommissioning.

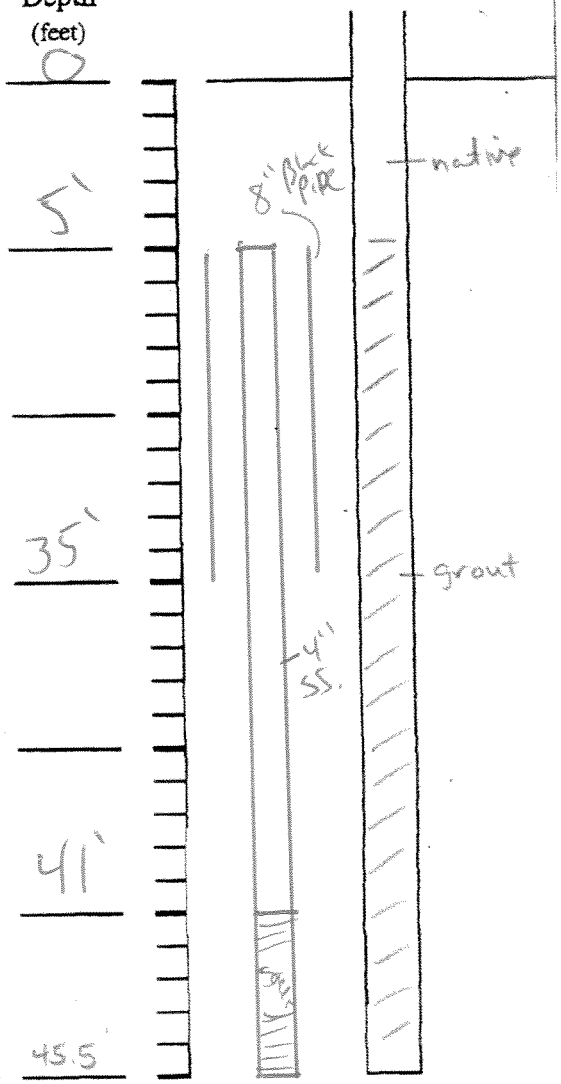
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-7R
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/31/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	N/A
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	GeoAmpe
Casing retrieved (feet)	5'
Casing type/dia. (in)	BIP/SS 4"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	45 5
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	24
Quantity of cement used (lbs.)	282
Cement type	1
Quantity of bentonite used (lbs.)	12
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	30
Volume of grout used (gal.)	30

WELL SCHEMATIC*



COMMENTS: overwade to ~5' BGS. cut off 8" and 4" BIP @ ~5' BGS, tremie grout to ~5' BGS, native backfill in place

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-7R
SHEET 1 OF 3
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Steve Lorantz
GZA GEOENVIRONMENTAL REPRESENTAYIVE Dave Belaskas

BORING LOCATION N1123681.74 E751312.20
GROUND SURFACE ELEVATION 528.2 DATUM NGVD
START DATE 11/16/94 END DATE 11/23/94

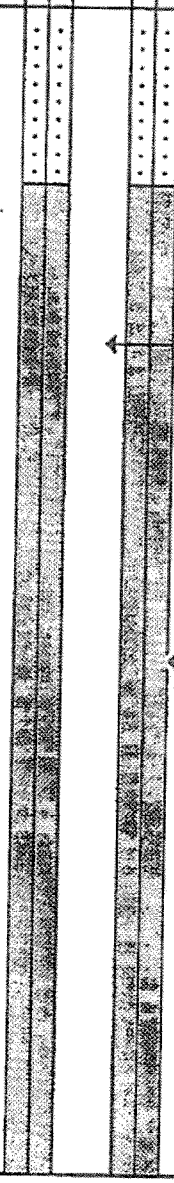
TYPE OF DRILL RIG CME-75
CASING SIZE AND TYPE 2-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
11/17/94	0815	7	20'	Stabilized 16 hrs.
11/22/94	1510	10	44'	" " 15 mins.

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (ppm)
		S-1	0.5-2	19	75	0.05 Pavement & Subbase	ND
1	7					Medium Dense, brown, fine to coarse SAND, trace clayey Silt, trace gravel, moist.	
	12						
	15					[FILL] 2.4'	
2	12	S-2	2-4	13	30	Stiff, brown CLAY & SILT, trace Sand, moist.	ND
3	6						
	7						
	12					[LACUSTRINE]	
4	4	S-3	4-6	13	75	Same.	ND
5	6						
	7						
	8						
6	3	S-4	6-8	13	95	[LACUSTRINE] 6.4'	15
7	4					Medium, Dense, brown, fine to coarse SAND, little clayey Silt, trace Gravel, moist to wet.	
	9						
	11					[UPPER TILL]	
8	6	S-5	8-10	56	95	same, except grades to some Clayey Silt, moist.	12
9	26						
	30						
	24						
10	11	S-6	10-12	47	95	same.	15
11	23						
	24						
	21					[UPPER TILL]	
12	16	S-7	12-13.5	>100	90	(SAND STRATUM 6.4 to 12.5 ft.)	8
13	36					Very dense, brown, fine to coarse SAND, little Clayey Silt, trace gravel, moist.	
	100/6"						
						[UPPER TILL]	
14	32	S-8	14-15.5	>100	95	grades to little Clayey Silt, moist.	2
15	45						
	100/6"						
16	38	S-9	16-18	>100	70	grades to some Clayey Silt, moist.	9

EQUIPMENT INSTALLATION



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. OW-7R

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-7R
SHEET 2 OF 3
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
17	67								
	48								
	38								
18	17	S-10	18-19.5	>100	80	Very Dense, gray fine to coarse Sand, some clayey Silt, trace Gravel, moist.	1		
	38								
19	100/6"					[UPPER TILL]			
20	35	S-11	20-21	>100	100	Same, moist.	ND		
	100/6"								
21									
22	32	S-12	22-23	>100	100	same, except grades to little clayey Silt, moist.	200		
	100/6"								
23									
24	26	S-13	24-26	72	100	Same.	500		
	38					[UPPER TILL]			
25	34								
	24					Very Dense, Gray, fine to coarse Sand, trace clayey Silt, moist to wet grades medium dense, fine to medium Sand, little Silt, wet. (SAND STRATUM 25.1 to 30.7 ft.)			
26	7	S-14	26-28	27	50		400		
	10								
27	17					[UPPER TILL]			
	17								
28	7	S-15	28-30	41	80	Same.	400		
	17								
29	24								
	24								
30	6	S-16	30-32	68	85	Same.	100		
	30					[UPPER TILL] 30.7'			
31	38					Very Dense, brown fine to coarse SAND, some clayey Silt, trace Gravel, moist.			
	100/4"					[LOWER TILL]			
32	12	S-17	32-34	60	100	Same.	20		
	30								
33	30								
	30								
34	15	S-18	34-36	64	90	Same.	ND		
	28								
35	36					[LOWER TILL]			
	45								
36	17	S-19	36-38	82	75	Same.	ND	Bentonite pellet seal from 36 to 39 ft.	

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES:
Organic Vapor Meter (OVM) reading of headspace using H-NU PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES:
1) STRATIFICATION LINES REPRESE T APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. OW-7R

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364 NAGEL DRIVE, BUFFALO, NEW YORK
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BORING No. OW-7R
SHEET 3 OF 3
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DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
37	33								
	49								
	45								
38	21	S-20	38-40	73	75	Very Dense, fine to coarse Sand, some clayey Silt, trace Gravel, moist.	ND		
	34								
39	39					[LOWER TILL]			
	47								
40	22	S-21	40-41.9	74	70	Same	ND		No. 00 size sand filter pack from 39 to 47 ft.
	35								
41	39								
	100/4"					[LOWER TILL] 41.9			
42	100/1"	S-22	42-42.1	>100	100	Very Dense, Green weathered rock fragments, moist to wet.	ND		
43						[SEVERELY WEATHERED BEDROCK]			No. 10 slot stainless steel well screen from 41 to 45.5 ft.
44	100/1"	S-23	44-44.1	>100	100	Same, except white and pink weathered rock fragments, moist to wet.	ND		
45									
46	100/3"	S-24	46-46.3	>100	100	Same, except moist. [SEVERELY WEATHERED BEDROCK]	ND		stainless steel sump 45.5 to 46 ft.
47						Bottom of Boring at 47.0 ft.			
48									
49									
50									

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES:
Organic Vapor Meter (OVM) reading of headspace using H-NU PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESE T APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TINE MEASUREMENTS WERE MADE.

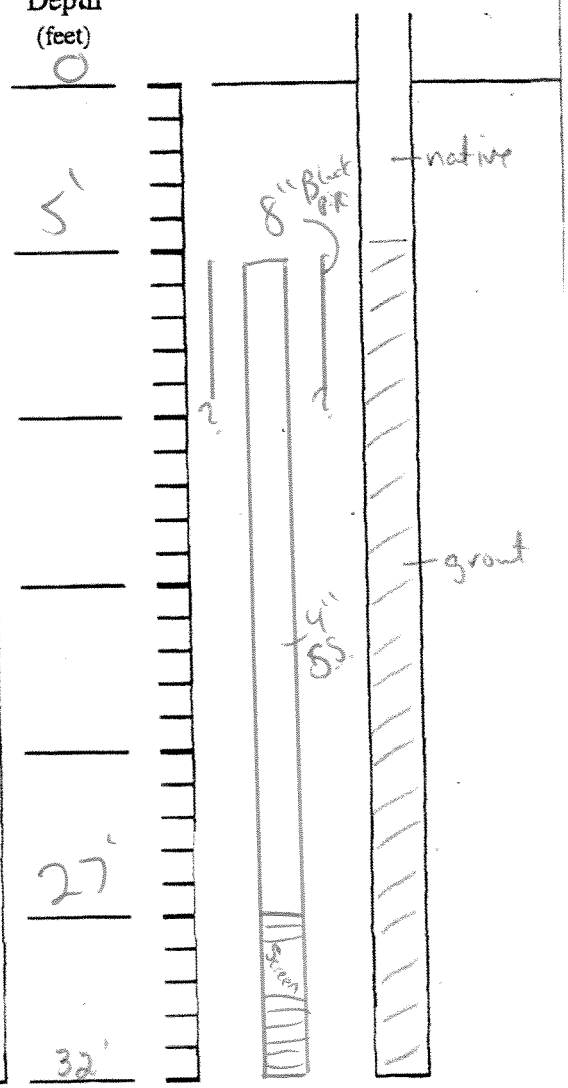
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-8S
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/31/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	N/A
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	Grouting
Casing retrieved (feet)	~7'
Casing type/dia. (in)	BIP/SS 4"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	32
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	16
Quantity of cement used (lbs.)	188
Cement type	I
Quantity of bentonite used (lbs.)	8
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	20
Volume of grout used (gal.)	20

WELL SCHEMATIC*



COMMENTS: excavate to ~5' BGS cut off 8" & 4" BIP @ ~5' BGS, tremie grout to ~5' BGS, native backfill in place

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-8S
SHEET 1 OF 2
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Kevin Busch
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123552.12 E751170.61
GROUND SURFACE ELEVATION 525.6 DATUM NGVD
START DATE 6/26/95 END DATE 6/27/95

TYPE OF DRILL RIG Bk 81
CASING SIZE AND TYPE 6-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
6/27/95	0815	17.2'	32'	Stabilized 10 hrs.

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (ppm)
1	6	S-1	0-2	16	60	Medium dense, fine to coarse SAND, little Clayey Silt, trace Gravel, moist.	ND
	7						
	9					[FILL]	
2	13						
	8	S-2	2-4	26	30	Same, except with root fragments.	ND
3	12						
	14						
4	12						
	9	S-3	4-6	19	40	Medium dense, fine to coarse SAND, some Clayey Silt, trace Gravel, wet.	ND
5	7						
	12						
6	23					[FILL] 6.0'	
	12	S-4	6-8	32	75	Dense, fine to coarse SAND, little Clayey Silt, wet.	ND
7	14						
	18					[UPPER TILL]	
8	14						
	100/5"	S-5	8-8.4	>100	30	Same.	ND
9							
10							
	23	S-6	10-12	75	100	Same.	ND
11	31						
	44					(Sand Stratum at 6.0 to 12.6 ft.)	
12	40						
	52	S-7	12-12.9	>100	100	[UPPER TILL]	
13	100/5"					Same. 12.6'	ND
						Very dense, brown, fine to coarse SAND, little Clayey Silt, trace Gravel, moist.	
14							
	38	S-8	14-16	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND
15	52						
	53						
16	83					[UPPER TILL]	
	40	S-9	16-17	>100	100	Same.	ND

EQUIPMENT INSTALLATION LOG

- Concrete surface seal to 2.5 ft. *
- Cement/bentonite grout seal from 2.5 to 22 ft.
- 4 inch O.D. flush couple black steel riser to 27 ft.

NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

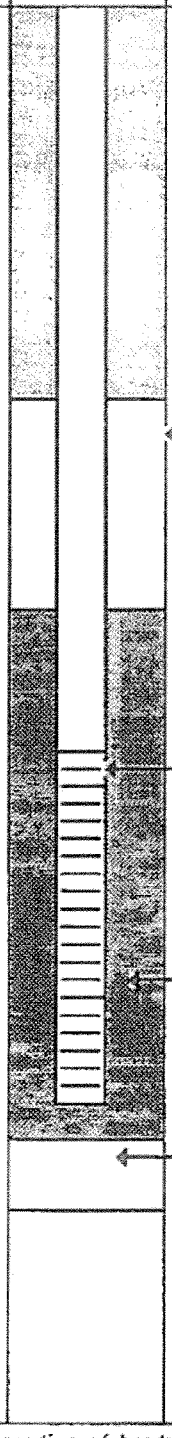
GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-8S
SHEET 2 OF 2
FILE No. 19078.10
CHKD. BY GJK

DEPTH	SAMPLE SLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)
17	100/6"						
18	52	S-10	18-20	>100	100	Same.	ND
	61						
19	60						
	66					Same, except with little Clayey Silt, wet.	
20	30	S-11	20-21.5	>100	100	Very dense, brown, fine to coarse SAND, little Clayey Silt, trace Gravel, moist.	ND
	45						
21	100/6"						
22	21	S-12	22-24	>100	100	Same, wet.	ND
	42						
23	62						
	70						
24	40	S-13	24-26	>100	100	Very dense, brown, fine to coarse SAND, some Silty Clay, moist to wet.	ND
	55						
25	78						
	90						
26	66	S-14	26-27	>100	100	[UPPER TILL] Same.	ND
	100/6"					Very dense, brown, fine to medium SAND, little Clayey Silt, wet.	
27							
						(Sand Stratum at 26.5 to 32.0 ft.)	
28	45	S-15	28-30	61	100	Very dense, brown, fine to medium SAND, little Silt, wet.	ND
	27						
29	34						
	43						
30	7	S-16	30-32	42	100	Same, except dense, trace Silt, wet.	ND
	12						
31	30						
	34					[UPPER TILL] 32.0'	
32	60	S-17	32-33.5	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND
	92						
33	100/6"					[LOWER TILL] 33.5'	
						Bottom of boring at 33.5'.	
34							
35							
36							

EQUIPMENT INSTALLATION LOG



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

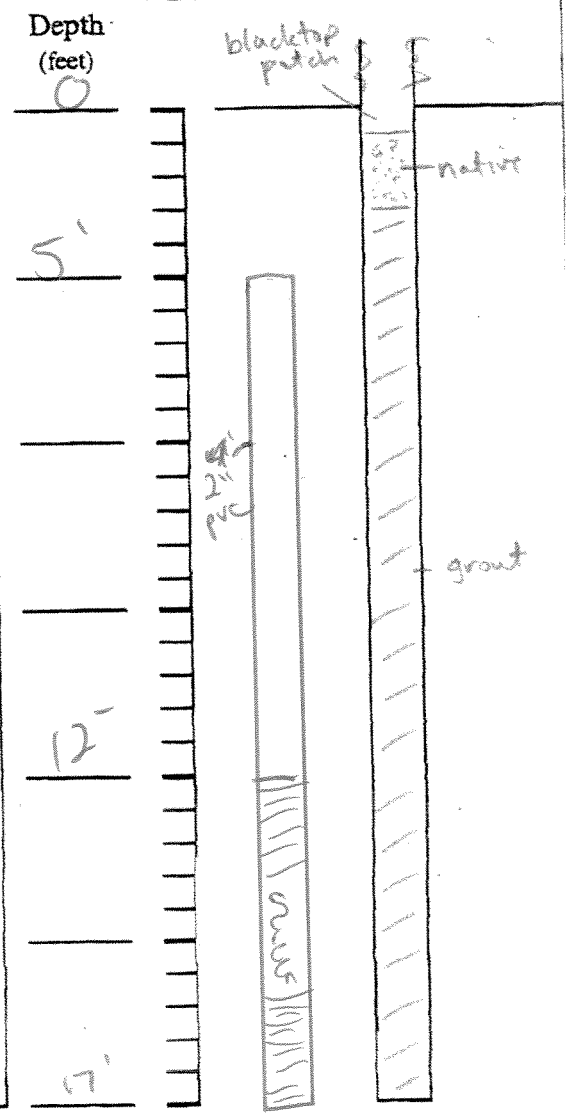
WELL DECOMMISSIONING RECORD

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-10S
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/31/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	0-5'
Drilling Method(s)	auger
Borehole Dia. (in.)	4¼
Temporary Casing Installed? (y/n)	n
Depth temporary casing installed	=
Casing type/dia. (in.)	=
Method of installing	=
CASING PULLING	
Method employed	Grout imp.
Casing retrieved (feet)	5'
Casing type/dia. (in)	2" PVC
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	17'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	I
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	n/a
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: tremie grout to surface, cut off casing -5' BGS, blacktop patch

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-10S
SHEET 1 OF 2
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Kevin Busch
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123336.27 E751209.95
GROUND SURFACE ELEVATION 531.6 DATUM NGVD
START DATE 6/21/95 END DATE 6/22/95

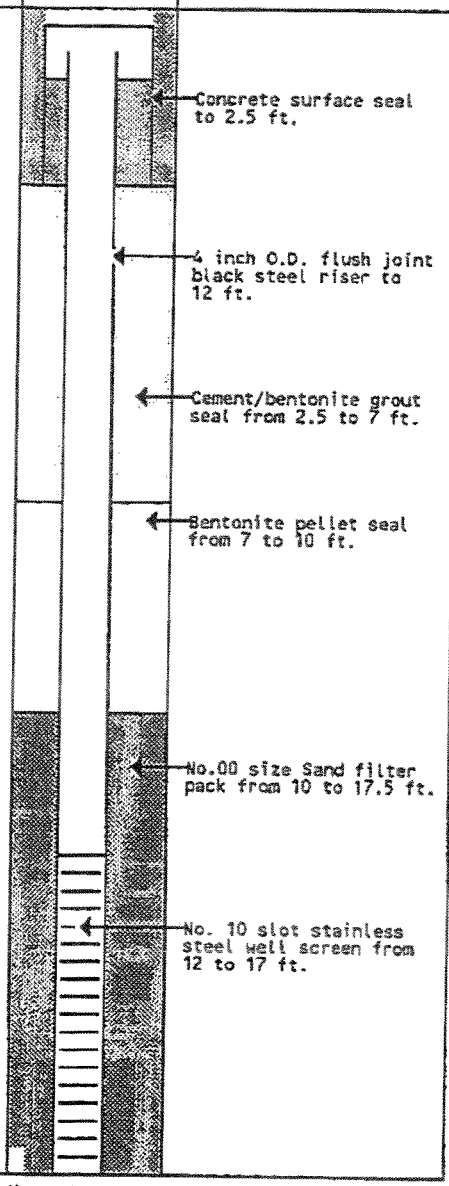
TYPE OF DRILL RIG Bk-81
CASING SIZE AND TYPE 4-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
6/22/95	0815	8.5'	24'	Stabilized 16 hrs.

DEPTH	SAMPLE BLOWS / 6"	SAMPLE NO.	SAMPLE DEPTH (FT.)	SAMPLE N-VALUE /RQD(%)	SAMPLE RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (ppm)
1		S-1	0.5-2	56	100	Augered through pavement.	ND
	12					Very dense, brown, SILT & CLAY, and fine to coarse SAND, little Gravel, moist. (possible subbase)	
	44						
2	47						
	36	S-2	2-4	56	80	[FILL] Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND
3	30						
	26						
	20						
4	9	S-3	4-6	27	95	same.	ND
	11						
5	16						
	16						
6	11	S-4	6-8	45	75	Same.	ND
	23						
7	22						
	21					[FILL] 7.6'	
8	10	S-5	8-10	41	100	Dense, brown, fine to medium SAND, trace Clayey Silt, wet.	ND
	20						
9	21					[UPPER TILL]	
	36						
10	13	S-6	10-12	56	75	Same, except very dense with Gravel, wet.	ND
	26						
11	30						
	55						
12	42	S-7	12-14	41	80	Same, except dense.	ND
	20						
13	21						
	21						
14	13	S-8	14-16	63	95	Same, except very dense.	ND
	29						
15	34						
	40					[UPPER TILL]	
16	14	S-9	16-17.5	>100	100	Brown, fine to coarse SAND and Silt, wet. [UPPER TILL] Very dense, brown, fine to coarse SAND and Silt, wet.	ND

EQUIPMENT INSTALLATION LOG



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-10S
SHEET 2 OF 2
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	SAMPLE NO.	SAMPLE DEPTH (FT.)	SAMPLE N-VALUE /RQD(%)	SAMPLE RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
17	45					(Sand Stratum 15.2 to 17.0 ft.			
	100/6"					[UPPER TILL] 17.0'			
18	100/6"	S-10	18-18.5	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist. Same.	ND	← Bentonite pellet seal from 17.5 to 24.5 ft.	
19						[LOWER TILL]			
20	38	S-11	20-20.9	>100	100	Same.	ND		
	100/5"								
21									
22	41	S-12	22-23.9	>100	100	Very dense, brown, fine to coarse SAND, little Clayey Silt, trace gravel, wet.	ND		
23	53								
	71								
24	100/5"								
	100/6"	S-13	24-24.5	>100	100	[LOWER TILL]	ND		
25						Bottom of boring at 24.5'			
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

WELL DECOMMISSIONING RECORD

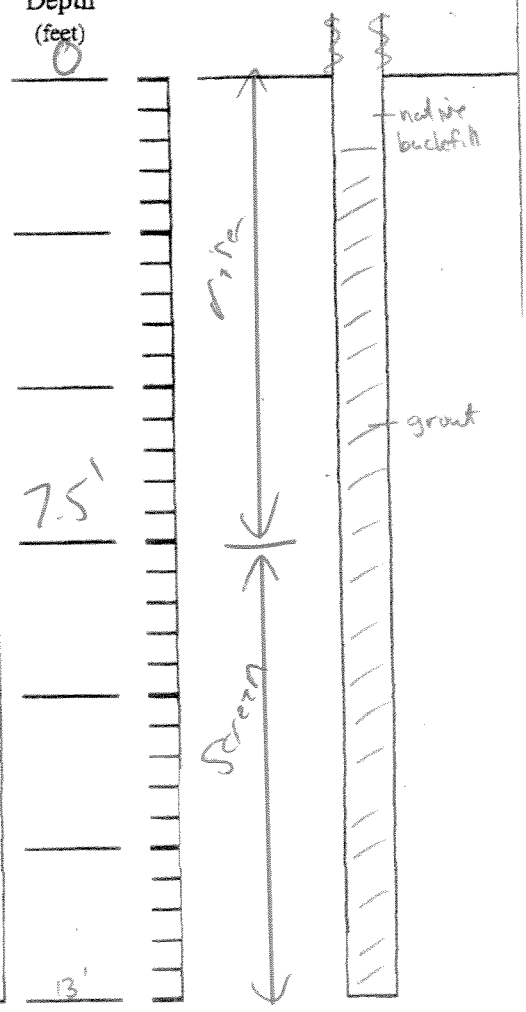
Site Name: STUART OLIVER HOLTZ SITE
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY
Drilling Co.: NOTHNAGLE DRILLING INC

Well I.D.: OW-11S
Driller: NEAL SHORT
Inspector: ERNIE THALHAMER
Date: 5/31/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	N/A
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	CABLE
Casing retrieved (feet)	13'
Casing type/dia. (in)	BIP/SS 2"
CASING PERFORATING	
Equipment used	
Number of perforations/foot	N/A
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	13'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	3
Quantity of cement used (lbs.)	47
Cement type	I
Quantity of bentonite used (lbs.)	2
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	5
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: pull pvc casing and 2" well complete recovery, tremie grout to ~3' BGS, native backfill to surface

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 WAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-11S
SHEET 1 OF 2
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Steve Lorantz
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123308.96 E750922.77
GROUND SURFACE ELEVATION 528.7 DATUM NGVD
START DATE 6/22/95 END DATE 6/23/95

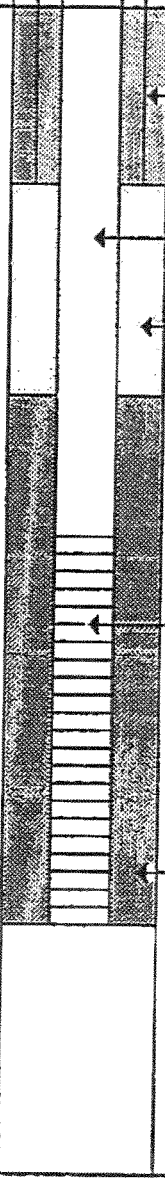
TYPE OF DRILL RIG CME-75
CASING SIZE AND TYPE 4-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
6/23/95	0830	9.7'	30'	Stabilized 16 hrs.

DEPTH	SAMPLE BLOWS / 6"	SAMPLE NO.	SAMPLE DEPTH (FT.)	SAMPLE N-VALUE /RQD(%)	SAMPLE RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (ppm)
1	22	S-1	0-2	42	60	Dense, brown fine to coarse SAND, some Clay & Silt, trace Gravel, moist. [FILL]	ND
	28						
	14						
2	13						
	20	S-2	2-4	60	65	Very dense, brown, fine to coarse SAND, little Clayey Silt, moist.	ND
3	27						
	33						
4	33						
	16	S-3	4-6	26	65	Very dense, brown, fine to coarse SAND, little Clayey Silt, moist to wet.	ND
5	11						
	15					[FILL] 5.6'	
6	17						
	3	S-4	6-8	18	65	Medium dense, brown, fine to coarse SAND and CLAY and SILT, wet.	ND
7	9						
	9						
8	18					[LACUSTRINE] 8.0'	
	23	S-5	8-10	48	65	Dense, brown, fine to coarse SAND, little Clayey Silt, wet.	ND
9	22						
	26					[UPPER TILL]	
10	27						
	18	S-6	10-12	33	75	Dense, brown, fine to coarse SAND, little Clayey Silt, wet.	ND
11	19						
	14						
12	19					[UPPER TILL] 12.0'	
	46	S-7	12-14	>100	95	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND
13	59						
	66					[LOWER TILL]	
14	71						
	24	S-8	14-16	62	90	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND
15	40						
	22						
16	18					Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND
	11	S-9	16-18	70	85		

EQUIPMENT INSTALLATION



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES:1. Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.
2. Well OW-11S was installed in an adjacent borehole.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. OW-11S

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-11S
SHEET 2 OF 2
FILE No. 19078.10
CHKD. BY

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
17	22								
	48								
	45								
18	33	S-10	18-20	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND		
	47								
19	69								
	75								
20	38	S-11	20-22	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND		
	100/6"								
21									
						[LOWER TILL]			
22	66	S-12	22-23	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND		
	100/6"								
23									
						[LOWER TILL]			
24	59	S-13	24-25	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND		
	100/6"								
25									
26	47	S-14	26-27.4	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND		
	62								
27	100/5"								
28	100/1"	S-15	28-28.1	>100	100	Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, moist.	ND		
29									
30						[LOWER TILL] 30.0'			
	59	S-16	30-31.3	>100	100	Grey to green, weathered bedrock, fragments, wet.	ND		
31	63								
	100/3"					[SEVERELY WEATHERED BEDROCK]			
						Red weathered, rock fragments.			
32	100/2"	S-17	32-32.2	>100	100				
						Bottom of boring at 32.2 ft.			
33									
						NOTE: This borehole was backfilled to ground surface with cement/ bentonite grout. Monitoring well OW-11S was installed in an adjacent borehole.			
34									
35									
36									

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector. ND=not detected above 1 ppm.
Overburden monitoring well OW-11S was installed adjacent borehole see log OW-11S for well completion details.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. OW-11S

WELL DECOMMISSIONING RECORD

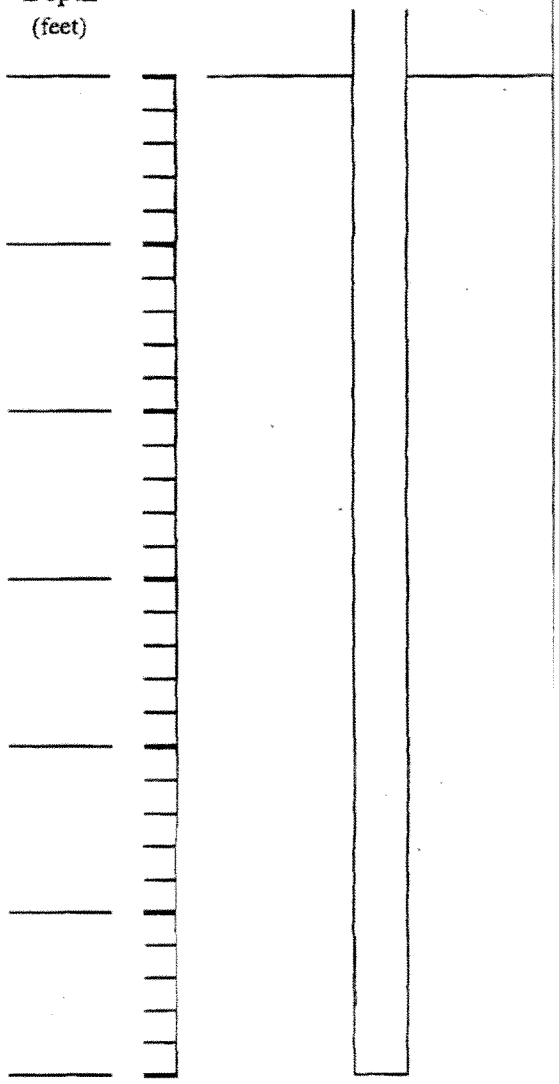
* COULD NOT LOCATE

Site Name: STUART OLIVER HOLTZ SITE	Well I.D.: OW-9S
Site Location: 39 COMMERCE DRIVE HENRIETTA, NY	Driller: NEAL SHORT
Drilling Co.: NOTHNAGLE DRILLING INC	Inspector: ERNIE THALHAMER
	Date: 5/31/19

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	
# of batches prepared	
For each batch record:	
Quantity of water used (gal.)	
Quantity of cement used (lbs.)	
Cement type	
Quantity of bentonite used (lbs.)	
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	
Volume of grout used (gal.)	

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Department Representative

GZA GEOENVIRONMENTAL OF NEW YORK
364 NAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Oliver-Holtz
Rochester, New York

BORING No. OW-9S
SHEET 1 OF 2
FILE No. 19078.10
CHKD. BY

CONTRACTOR Nothnagle Drilling
DRILLER Kevin Busch
GZA GEOENVIRONMENTAL REPRESENTATIVE Dave Belaskas

BORING LOCATION N1123509.87 E750947.23
GROUND SURFACE ELEVATION 525.4 DATUM NGVD
START DATE 6/20/95 END DATE 6/21/95

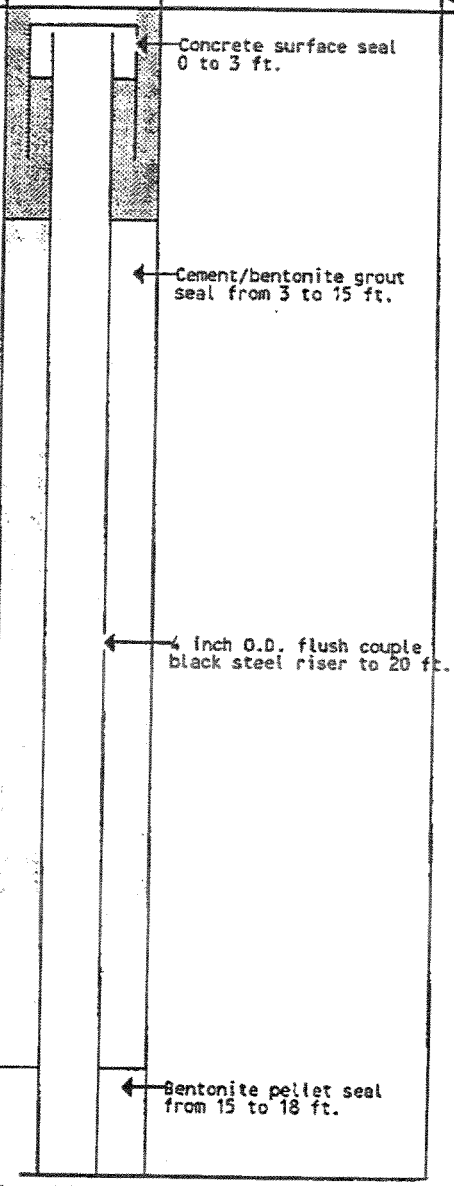
TYPE OF DRILL RIG BK-81
CASING SIZE AND TYPE 4-1/4 inch Hollow Stem Augers
OVERBURDEN SAMPLING METHOD 2 inch O.D. x 24" long split spoon
ROCK DRILLING METHOD

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS
6/21/95	0800	3.9'	20'	Stabilized 16 hrs.

DEPTH	BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (ppm)
1	9	S-1	0-2	11	80	Medium dense, brown, fine to medium SAND, trace Clayey Silt, trace Gravel, with root fragments, moist.	ND
	6						
	5						
2	5					[FILL] 2.0'	
	3	S-2	2-4	10	75	Stiff, reddish brown CLAY & SILT, trace Sand, moist.	ND
3	4						
	6					[LACUSTRINE]	
	7						
4	4	S-3	4-6	15	85	Same.	ND
5	6						
	9						
	14						
6	4	S-4	6-8	13	100	Same. 6.8'	ND
	6						
7	7					Brown, fine to coarse SAND, trace Clayey Silt, wet.	
	8						
8	6	S-5	8-10	12	30	Stiff, reddish brown CLAY & SILT, trace fine Sand, moist. [LACUSTRINE]	ND
	4						
9	8					Medium dense, brown, fine to coarse Sand, trace Clayey Silt, wet.	
	4						
10	4	S-6	10-12	8	25	[LACUSTRINE]	
	4					Same.	ND
11	4						
	8					[LACUSTRINE] 11.8'	
12	32	S-7	12-14	88	100	Very dense, brown, fine to coarse Sand, some Clayey Silt, trace Gravel, moist to wet.	ND
	33						
13	55						
	35					[UPPER TILL]	
14	20	S-8	14-16	99	100	Very dense, brown, fine to coarse Sand, little Silt, moist to wet. SAND STRATUM 14.0-16.0 ft.	ND
	46						
15	53					[UPPER TILL]	
	50						
16	26	S-9	16-18	34	100	Medium dense, brown, fine to coarse SAND, trace Clayey Silt, wet.	ND

EQUIPMENT INSTALLATION LOG



NOTES

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector.
ND-not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA

BORING No. OW-9S

GZA GEOENVIRONMENTAL OF NEW YORK
364 HAGEL DRIVE, BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

PROJECT
Stuart-Olver-Holtz
Rochester, New York

BORING No. OW-9S
SHEET 2 OF 2
FILE No. 19078.10
CHKD. BY GJK

DEPTH	SAMPLE BLOWS / 6"	NO.	DEPTH (FT.)	N-VALUE /RQD(%)	RECOVERY (%)	SAMPLE DESCRIPTION	Peak OVM Read (PPM)	EQUIPMENT INSTALLATION LOG	NOTES
17	17								
	17								
	34								
18	29	S-10	18-20	99	100	Medium Dense, brown, fine to coarse SAND, trace Clayey Silt, wet.	ND		
	44								
19	55								
	45					[UPPER TILL]			
20	32	S-11	20-22	72	100	Same.	ND		
	40								
21	32								
	28								
22	9	S-12	22-24	41	95	Same.	ND		
	18								
23	23								
	29								
24	29	S-13	24-26	99	100	Same.	ND		
	47					[UPPER TILL] 24.7'			
25	52					Very dense, brown, fine to coarse SAND, little Clayey Silt, moist.			
	56					[LOWER TILL]			
26	11	S-14	26-27.9	93	80	Same.	ND		
	23								
27	70								
	100/5"								
28	93	S-15	28-28.9	>100	90	Same.	ND		
	100/4"					[LOWER TILL]			
29						Bottom of test boring at 28.9 ft.			
30									
31									
32									
33									
34									
35									
36									

No.00 size Sand filter pack from 18 to 25.5 ft.

No. 10 slot stainless steel well screen from 20 to 25 ft.

Bentonite pellet seal from 25.5 to 28.9 ft.

LEGEND
S - Split Spoon Soil Sample
U - Undisturbed Soil Sample
C - Rock Core Sample

NOTES: (1) Organic Vapor Meter (OVM) reading of headspace using H-Nu PI-101 photoionization detector. ND=not detected above 1 ppm.

GENERAL NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

URS

DAILY INSPECTION REPORT No. _69__
DATE: __June 13th, 2019_____

STUART OLVER HOLTZ MONITORING WELL DECOMMISSIONING
CONTRACTOR: NOTHNAGLE DRILLING INC.
NYSDEC SITE No. 828079 **NYSDEC CONTRACT No. D007622-8.1**

TEMPERATURE: 60S **SKIES:** Partly cloudy
WIND: MODERATE **PRECIPITATION:** NONE

DESCRIPTION OF WORK PERFORMED BY CONTRACTOR (URS was not on site)

Nothnagle Drilling Inc., arrived on site, loaded well construction material stockpile for off-site disposal. Before and after pictures below.

PERSONNEL ON-SITE:

Affiliation		Hours Logged
Nothnagle Drilling Inc.		0830 – 0900

VISITORS:

Name	Representing	Time (from – to)	Comments
None			

EQUIPMENT AT SITE:

Contractor	Equipment	Hours Logged
Nothnagle Drilling Inc.	Equipment truck	0830 - 0900

PREPARED BY: Ernest Thalhamer TITLE: Staff Geologist

REVIEWED BY: Chuck Dusel TITLE: Project Manager