

September 12, 2012

Ms. Valerie Woodward Eng. Geologist New York State Dept. of Environmental Conservation 625 Broadway, 12th Floor Albany, New York 12233-7017

RE: August 2012 Well Decommissioning Letter Report Storonske Cooperage 2425 Kraft Road Schodack, Rensselaer County, New York NYSDEC Site No. 442021

Dear Ms. Woodward,

This letter serves as the well decommissioning report summarizing the well close out procedures for the above referenced site (see Figure 1 – Site Location Map). The well decommissioning events were conducted on August 2, 10, 14, 15, and 17, 2012 and consisted of locating and gauging the depth to water and depth to well bottoms, clearing two wells of obstructions for proper grout placement, grouting the wells in-place, excavating to accommodate the removal of the upper well casings, and performing site restoration.

Well Location and Gauging

On August 2, 2012 representatives of Precision Environmental Services, Inc. (PES) mobilized to the site (Figure-1, Site Location Map) to locate and clear access to the required wells. A representative of the NYSDEC accompanied PES during the site procedures.

A total of (25) monitoring wells were identified for closure (See Table -1, well details). During the gauging activities, it was determined that (2) of the monitoring wells (MW-8DD and MW-11D) had obstructions (as previously noted by others) and would require additional methods to insure proper grouting of the boreholes. Due to the rural location of the monitoring wells and the need to get grouting equipment to the well locations, access was cleared via a brush hog field mower and mini excavator.

Obstruction Clearing

As previously discussed with the department, on August 10, 2012 PES personnel mobilized to the site to clear the obstructions from MW-8DD and MW-11D. Beginning with MW-8DD, PES utilized a tow-

behind air compressor and poly piping to airlift and blow out the well. With the compressor operating the poly piping was slowly lowered down the well resulting in discharge of water and debris from the well head. Using this method the well was cleared to the reported depth of 164'.

PES planned the same methodology for MW-11D. However further investigation of the well indicated that the well was actually broken at a depth of 5' and not blocked. Utilizing a mini excavator, PES was able to locate the lower portion of the well. Upon clearing the top of the exposed well, gauging of the well indicated that the well was clear to the reported depth of 50'. It is PES's opinion that the well was damaged at the time of construction of the "Rite Aid" pharmacy, and the upper portion was replaced in a manner to disguise the damage.

Grouting and Closure

A total of twenty five (25) monitoring wells (MW-5D, MW-4D, MW-6DD, Mw-6D, MW-6S, MW-8s, MW-8D, MW-8DD, MW-21, MW-11D, MW-14D, MW-14S, MW-12S, MW-10D, MW-13S, MW-13D, MW-13DD, MW-20D, MW-9s, MW-9D, MW-15D, MW-15S, MW-7S, MW-16D, and MW-16S) were selected to undergo decommissioning procedures (see Figure 2 – Well Identification and Locations). Wells differed in depth, diameter, and type. Well depths ranged from 7' (MW-21) to 180' (MW-13DD). The following is a breakdown of well size, construction, and total lengths of said well sizes:

2" PVC	73.4'
4" PVC	635.75′
2" Steel	82.55′
2" Stainless Steel	235.03'
3" Stainless Steel	505.7'
Total Length of Grouted Borehole	1,532.43'

Table 1 - Well Quantities

On August 14 & 15, 2012, PES utilized the services of Earth Energy Connections, Inc. (EEC) of Hudson, NY to assist in the grouting procedures. EEC provided and operated a Geo-Loop 50-500 positive displacement grout pump for the purposes of placing the grout into the wells.

Monitoring wells were filled with grout from the bottom of well to grade via pressurized injection. The grout mixtures were mixed using the Geo-Loop 50-500 until a homogenous, smooth consistency was attained. Using a tremie pipe, grout was injected filling the well from bottom to top. Upon completion of grouting, each well location was excavated to a depth of approximately 5' and the casing was cut off. Site restoration was completed subsequent to all well decommissioning activities. The excavations were backfilled and the grouted monitoring well locations were restored with materials similar to those found in the surrounding location.

Grouting mixtures were composed of one (1) 94-lbs. bag of Portland cement, 4-lbs. of bentonite powder, and 8-gallons of water, proportionally, per batch. A total of seventy three (73) batches were



required to fill a calculated volume of 718-gallons for all twenty five (25) monitoring wells (1,532.43 feet of borehole).

Following grout injection procedures, PES removed the protective casing (i.e. standpipe) and associated concrete from all monitoring well locations.

PES greatly appreciates the opportunity to provide continuing quality environmental consulting, investigation, and remediation services to the NYSDEC. If you have any questions or comments regarding the above information, please contact us at (518) 885-4399.

Sincerely,

PRECISION ENVIRONMENTAL SERVICES, INC.

Pames C. Tuxi

James A. Tucci Project Manager

Enclosures:

Table 2 – Well Details

Figure 1 – Site Location Map Figure 2 – Well Identification and Locations

Photo Log

Stephen M. Phelps Operations Manager



Tables



Storonske Cooperage Table 2 Well Details

	Depth to water	Depth to bottom		Well Diameter	Well Volume
Well ID	(feet)	(feet)	Well Construction	(inches)	(gallons)
5D	4.88	39.8	рус	4	26
4D	8.5	11.9	рус	4	8
6DD	15.8	130.7	рус	4	86
6D	18.75	41.8	рус	4	28
6S	17.32	20.95	steel	2	4
8S	38.3	42.9	steel	2	7
8D	37	72.6	рус	4	48
8DD	-	164	рус	4	108
MW-21	-	7	рус	2	5
11D	37	50	рус	4	33
14D	37.2	98.1	SS	3	65
14S	36.9	49.9	SS	2	8
12S	bees	64.33	SS	2	11
10D	bees	85.65	PVC	4	15
13S	23.55	53.8	SS	2	9
13D	23.95	93	SS	3	61
13DD	23.3	180	SS	3	119
20D	28.53	36	рус	2	6
9S	16.54	18.7	steel	2	3
9D	16.1	39.3	рус	4	26
15D	16	50.6	SS	3	33
15S	15.3	20	SS	2	3
7S	24.9	30.4	рус	2	5
16D	-	84	SS	3	55
16S	-	47	SS	2	8

Well volumes

2"

3"

4"

gal/ft

0.17

0.37

0.66

Total grout required (gallons)

718

Figures





Courtesy of: Bing Maps

	PRECISION ENVIRONMENTAL SERVICES, INC.	Storonske Cooperage Site Location Map	LOCATION: 2425 Kraft Road, S	Schodack, NY
PES	831 RT. 67, LOT 38 A BALLSTON SPA, NY 12020 TEL: 518-885-4399 FAX: 518-885-4416		NYSDEC SITE NO. 442021	Not to Scale
CERTIFIED WOMEN-OW	NED BUSINESS ENTERPRISE		DATE: August 2012	FIGURE: 1



Map Courtesy of NYSDEC

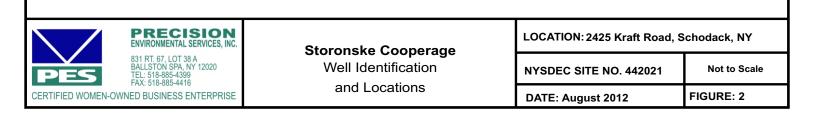


Photo Log





Tremie line installed in 2" well



Storonske Cooperage Well Closure Photos LOCATION: 2425 Kraft Road, Schodack, NY

NYSDEC SITE NO. 442021Typical for all wellsDATE: August 2012Photos



Grouted wells



Storonske Cooperage Well Closure Photos

NYSDEC SITE NO. 442021	Typical for all wells
DATE: August 2012	Photos



Grouted wells cut ~ 5' below ground surface



Storonske Cooperage Well Closure Photos

NYSDEC SITE NO. 442021	Typical for all wells
DATE: August 2012	Photos



Grouted wells cut ~ 5' below ground surface Notice removed upper casings



Storonske Cooperage Well Closure Photos

NYSDEC SITE NO. 442021	Typical for all wells
DATE: August 2012	Photos



Backfilled and graded well locations



Storonske Cooperage Well Closure Photos

NYSDEC SITE NO. 442021	Typical for all wells
DATE: August 2012	Photos