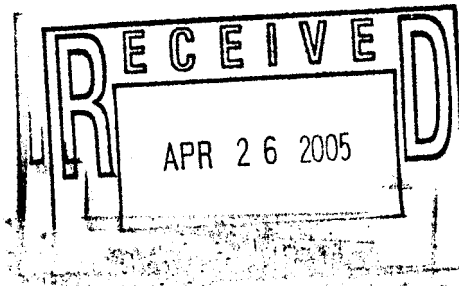


Volney Landfill
Volney, New York



Well Abandonment Report

April 2005

File on eDOCs Yes No
Site Name ~~Volney~~ Volney Landfill
Site No. 738003
County Oswego
Town Volney
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Syracuse, New York 13220

Well Abandonment Report

for

Volney Landfill
Volney, New York

April 2005

Prepared for:

Prepared by:

Barton & Loguidice, P.C.
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Sheet 1 – Environmental Monitoring Locations

1.0 Introduction

The approved Operation, Maintenance and Monitoring (OM&M) Manual for the Volney Landfill, Volney, New York, specified the proper decommissioning (abandonment) of monitoring wells that had been damaged or become unnecessary for the groundwater monitoring program. A total of 94 groundwater monitoring wells and piezometers were abandoned during February 2005. Decommissioning procedures were conducted per appendix F of the approved OM&M Manual; a copy of the approved well decommissioning specification is attached to this report. The well abandonment process was observed by Barton and Loguidice, P.C. (B&L) and the Oswego County Health Department (OCHD).

2.0 Methodology

2.1 Well Abandonment

During the period of February 1, 2005 through February 28, 2005, a total of 94 damaged or unnecessary monitoring wells were abandoned at the Volney Landfill (table 1 - sheet 1). These wells were installed during various subsurface investigations and were no longer used for sampling purposes. SJB Services, Inc. was contracted by the OCHD to perform the monitoring well decommissioning. OCHD and B&L observed the work and maintained records.

Monitoring wells were abandoned using the method of in-place pressure grouting, where cement bentonite grout (prepared in accordance with ASTM D5299-92) was injected into the well to a height above the top of the well screen interval using the tremie method. Once it was determined that the height of the grout column within the well was 1 foot or above the top of the well screen, the grout was allowed between 20 to 24 hours to cure. The adequacy of the grout seal was then tested by mounting an

expandable plug pressure gauge from being achieved, thus resulting in test failure. It was concluded that failures in pressure testing was not a result of incompetent seals, but rather degradation of the physical integrity of the well.

2.3 Well Completion

Upon completion of grouting and pressure testing, wells were grouted to the top of the well casing and cut off at ground surface with a cutting torch or a demolition saw. Remaining void space within or around the well was then topped off with grout to complete the well abandonment process.

3.0 **Summary**

During the month of February 2005 a total of **94** groundwater monitoring wells and piezometers that were damaged or unnecessary for the existing groundwater monitoring program were decommissioned. Monitoring wells were grouted, pressure tested and cut off-at the ground surface to eliminate the potential for surficial runoff to be introduced into the subsurface. The results of decommissioning activities are provided in table 1.

The competency of the grout seal for the abandoned wells will be re-evaluated during the late spring or early summer when bare ground enables better visibility of the base of the protective casings. Repairs will be performed as needed.

Appendix A
Well Decommissioning Specification

SPECIFICATIONS

SECTION 02523

ABANDONMENT OF ENVIRONMENTAL MONITORING LOCATIONS BY PRESSURE GROUTING IN-PLACE

PART 1 - GENERAL

1.1 DESCRIPTION:

1.1.1 Under ~~this~~ Section, the Contractor **shall furnish all** labor, **materials** and equipment for the Abandonment of Environmental Monitoring **Locations** by **Pressure Grouting In-Place**, including, but not **limited to**, gas monitoring wells, groundwater monitoring wells, groundwater piezometers, and **injection wells, as specified, and/or directed**. The abandonment of environmental monitoring locations by pressure grouting in-place will be approved in the field by the Engineer.

1.2 REFERENCES: The Abandonment of Environmental Monitoring Locations by Pressure Grouting In-Place will be performed in accordance with the following references:

ASTM D5299	Decommission of Groundwater Wells, Vadose Zone Monitoring Devices , Boreholes, and Other Devices for Environmental Activities
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Part 360-2.11 (a)(8)(vi)(b)	6 NYCRR Part 360 Solid Waste Management Facilities, NYSDEC
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1.3 DELIVERY, STORAGE AND **PROTECTION**: Deliver materials in **an** undamaged condition. Store materials **off** the ground to protect **against** weathering. Replace defective or **damaged** materials with new materials.

1.4 **GENERAL REQUIREMENTS**: Perform abandonment of environmental monitoring locations in accordance with the references cited herein, and to the satisfaction of the Engineer.

PART 2 - PRODUCTS

2.1 **MATERIALS**: Shall conform to the respective procedures **as** referenced herein and **as** shown on the Plans.

SECTION 02523

ABANDONMENT OF **ENVIRONMENTAL**, MONITORING LOCATIONS BY PRESSURE GROUTING IN-PLACE

PART 3 - EXECUTION

3.1 ABANDONMENT PROCEDURES: Remove protective casings and/or well riser stickups level to ground surface. Inject cement bentonite grout, prepared in accordance with ASTM D5299-92, to a height above the top of the well screen interval using the tremie method. Once it **has been** determined that the height of the grout column within the well is above the screen, the adequacy of the grout seal **within** the well screen interval will be tested by **filling** the remaining length of the well with water and applying a pressure of **10** psi to the system. **The** system **must** be able to **maintain 10** psi for a **period** of one hour. The remaining well riser section is to be grouted to the surface to complete abandonment. In the event that the **number of units** abandoned exceeds the estimated quantity presented in Section **00100**, "Information For Bidders", the Contract price and time for completion will be adjusted in accordance with the Contract.

PART 4 - MEASUREMENT & PAYMENT

4.1 MEASUREMENT - ABANDONMENT OF ENVIRONMENTAL MONITORING LOCATIONS BY PRESSURE GROUTING IN-PLACE:

4.1.1 Measurement for the Abandonment of Environmental Monitoring Locations by Pressure Grouting In-Place **shall** include the cost of **all** materials, equipment and labor for **the** complete decommission of wells to include, but not limited to, mobilization, demobilization, site restoration, removal of waste materials, standby time and **any** other **costs** associated with the work

4.2 PAYMENT - ABANDONMENT OF ENVIRONMENTAL MONITORING LOCATIONS BY PRESSURE GROUTING IN-PLACE:

4.2.1 For Abandonment of Environmental Monitoring Locations by Pressure Grouting In-Place, not included in other unit or lump sum price items, payment for Abandonment of Environmental Monitoring Locations by Pressure Grouting In-Place will be made at the applicable price stated in **the** Bid.

END OF SECTION

TABLE 1
Well Abandonment Summary

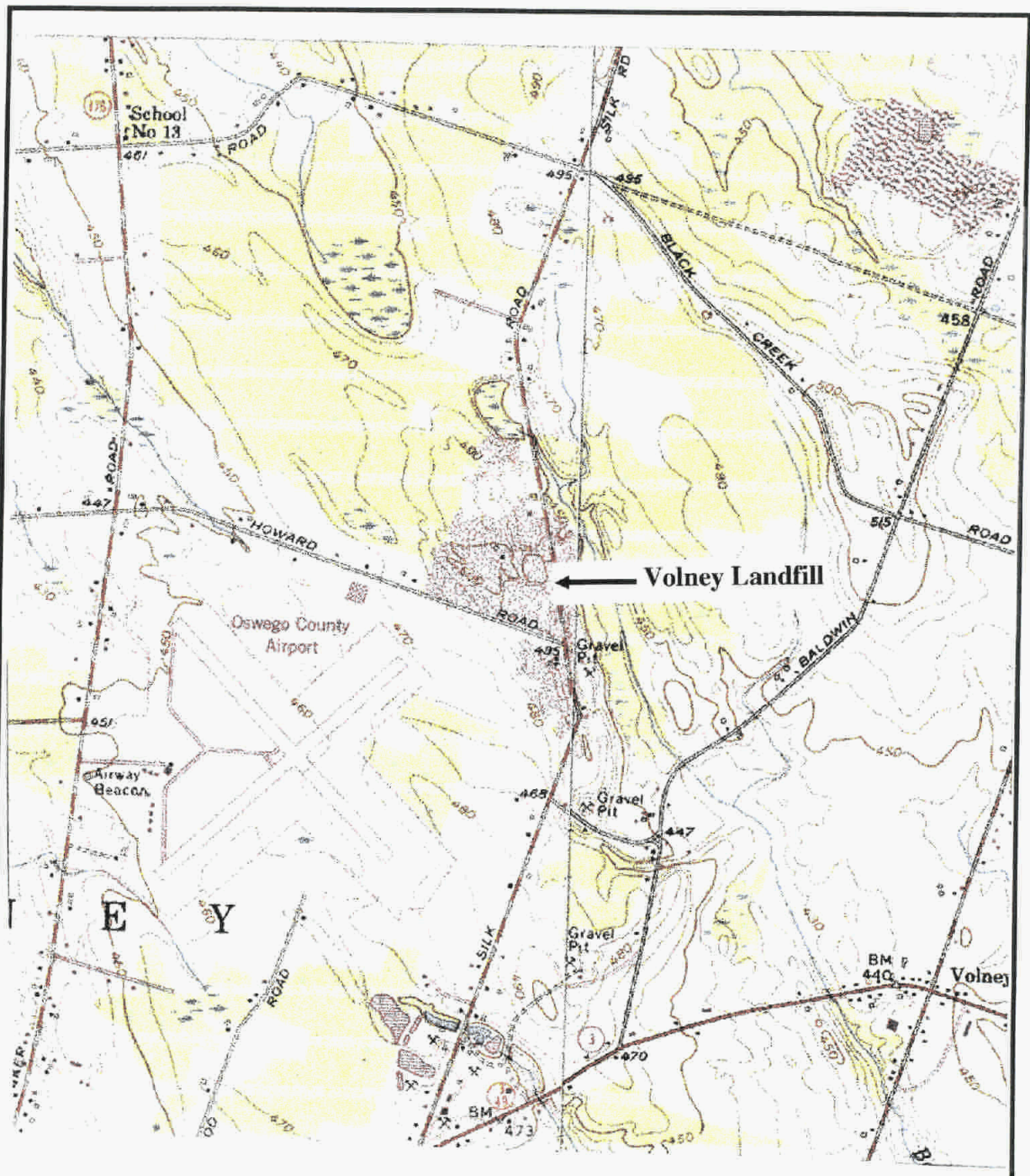
Well Number	Well Depth (ft.)	Well Dia. (In.)	Screen Length(ft.)	1st Grouting Date	1st Pressure Test Date	Pass	Fail	2nd Grouting Date	2nd Pressure Test Date	Pass	Fail	Well Completion Date	Approximate Qty of Grout Used (gal)
VBW-15	14	2	10.5	2/1	2/3		X	2/3	2/7		X	2/8	3
VBW-17A	15.1	2	10.1	2/1	2/3		X	2/3	2/3		X	2/8	3
SHW-5	12	4	7.5	2/1	2/4		X	2/4	2/7		X	2/7	10
LTW-7	33	4	10	2/1	2/4		X	2/4	2/7		X	2/7	27
GW-15R	18	2	10	2/1	2/1		X	2/3	2/7		X	2/7	4
SGW-34	23	2	10	2/1	2/3	X		Na	Na			2/8	5.5
SGW-33	15	2	10	2/7	2/8		X	2/8	2/9		X	2/9	3
VBW-17	16.3	2	5	2/1	2/3		X	2/3	2/7		X	2/8	3
GW-16	17.8	2	NA	2/1	2/3	X		Na	Na			2/8	5
GW-9RR	35 app.	2	10	2/1	*Casing Damage			Na	Na			2/1	4.5
BRW-3	85	4	10	2/1	2/4		X	2/4	2/4		X	2/7	60
LTW-5	63	4	10	2/1	2/3	X		Na	Na			2/7	45
BRW-4	86	4	10	2/1	2/3	X						2/4	60
LTW-6	63	4	10	2/1	2/4		X	2/4	2/7		X	2/8	45
BRW-5	67	4	10	2/1	2/3		X	2/4	2/7		X	2/7	48
VBW-8BR	56.5	3	5	2/2	2/7		X	2/7	2/8		X	2/8	23
LTW-4	44	4	5	2/2	2/7	X						2/25	33
SP-12	20	2	5	2/2	2/7		X	2/7	2/8		X	2/8	6.5
SP-13	17	2	5	2/2	2/7	X						2/8	7
SP-11	10.5	2	10	2/2	2/9		X	2/9	2/10	X		2/10	5.5
SP-10	10	2	5	2/2	2/9	X						2/9	4.5
SP-9	10	2	5	2/2	2/9		X	2/9	2/10		X	2/10	5.5
VBW-6	16	2	10	2/2	2/9	X						2/9	6
LTW-2	33	4	10.5	2/2	2/9		X					2/9	35
BRW-1	55	4	10	2/2	2/9		X	2/9	2/10	X		2/17	59
SP-8	10	2	5	2/2	2/9	X						2/9	5
SP-1	30	2	10	2/2	2/9		X	2/9	2/10	X		2/17	10
LTW-13	26	4	10	2/2	*Casing Damage							2/9	9
LTW-12	34	4	10	2/2	2/10		X	2/10	2/11	X		2/11	34
LTW-12A	62	4	10	2/2	2/10		X	2/10	2/11	X		2/25	59
SGW-28R	19	2	15	2/2	2/10		X	2/10	2/11	X		2/15	12
VBW-5	11	2	5	2/2	2/10	X						2/10	7
SP-5	14.5	2	9.5	2/2	2/11		X	2/11	2/15	X		2/15	8
SGW-27B	37	2	15	2/2	2/11		X	2/14	2/15		X	2/15	8
PZ-3	42.5	2	35	2/2	2/10	X						2/10	13
WP-3	5	2	NA	2/3	2/7		X	2/7	2/7		X	2/8	2
WP-2	5	2	NA	2/3	2/7		X					2/7	2
WP-1	5	2	NA	2/9	2/10		X					2/7	2
GW-10R	20	2	10	2/3	2/7		X	2/7	2/8	X		2/8	4
PZ-4	41.5	2	35	2/9	2/10		X	2/10	2/11	X		2/15	18
PZ-2	41.5	2	35	2/9	2/10		X	2/10	2/11		X	2/15	17
PZ-1	42.8	2	35	2/9	2/10		X	2/10	2/11		X	2/15	16
VBW-3BR	92	4	6.3	2/9	2/11		X	2/14	2/14	X		2/15	62
VBW-3D	47	2	15	2/9	2/11		X	2/11	2/14		X	2/15	14
VBW-3S	19.5	2	10	2/9	2/11		X	2/11	2/14		X	2/15	9
LTW-11	33	4	10	Previously Abandoned								2/23	NA
SP-6	15	2	10	2/10	2/11		X	2/11	2/16	X		2/16	5
LTW-1	30	4	7	2/10	2/11		X	2/11	2/16	X		2/16	10
SGW-29	20.5	2	15	2/10	2/11		X	2/11	2/16	X		2/16	7.5

TABLE 1 CONTINUED
Well Abandonment Summary

Well Number	Well Depth (ft.)	Well Dia. (In.)	Screen Length(ft.)	1st Grouting Date	1st Pressure Test Date	Pass	Fail	2nd Grouting Date	2nd Pressure Test Date	Pass	Fail	Well Completion Date	Approximate Qty of Grout Used (gal)
GMPW-1	40.3	6	35	2/10	2/11		X	2/11	2/15	X		2/15	123
GW-8R	38.5	2	10 app.	2/8	2/14	X		2/14	2/16	X		2/22	10
GW-18R	18.25	2	10	2/8	2/14		X	2/14				2/16	7
VBW-3I	28.5	2	10	2/11	2/14		X	2/14	2/15	X		2/15	7
RW-6	31	6	NA	2/15	2/16		X	2/16	2/23		X	2/23	48
GW-5R	10	2	6	2/15	2/16		X	2/16	2/23	X		2/23	2
MW-1S	11	4	6	2/15	2/16		X	2/16	2/23	X		2/23	6.5
DTP-1	78	4	10	2/14	2/15	X		2/15				2/16	55
MW-5S	18	4	10	2/14	2/16		X	2/16	2/22	X		2/22	14
GW-17	31	2	NA	2/14	2/16	X						2/16	9
WP-4	8	2	NA	2/15	2/23	X						2/24	3
SP-14C	10	2	5	2/17	2/18		X	2/21	2/24	X		2/24	5
SP-7	10	2	5	2/17	2/18		X	2/21	2/24	X		2/24	4
SGW-26	25	2	20	2/17	2/18		X	2/21	2/24	X		2/24	7
MW-2S	10	4	7	2/17	2/18		X	2/21	2/24		X	2/24	11
MW-2I	20	4	8	2/17	2/18	X		2/21				2/22	21
GW-12A	17	2	4	2/17	2/18		X	2/22	2/24		X	2/24	3
MW-4S	20	4	10	2/17	2/18	X						2/22	15
GW-14A	17	2	NA	2/17	2/18		X	2/22	2/24	X		2/24	4
RW-3B	>100	6	NA	2/17	2/25		X	2/25	2/28		X	2/28	150
SGW-30A	19	2	15	2/21	2/23		X	2/23	2/24	X		2/25	3
VBW-14	12	2	10.5	2/21	2/22		X	2/22	2/24		X	2/24	2
VBW-7D	29	2	10.5	2/21	2/22		X	2/22	2/24	X		2/24	4
VBW-7S	15	2	10.5	2/21	2/22		X	2/22	2/24		X	2/24	3
LTW-3	40	4	5	2/21	2/22		X	2/22	2/24		X	2/24	14
BRW-2	60	4	10	2/21	2/22		X	2/22	2/24		X	2/24	40
SHW-2	40	4	10	2/21	2/23	X		2/23				2/25	28
LTW-8	38	4	10	2/21	2/23	X						2/28	26
VBW-12	14	2	10.1	2/22	2/23		X	2/23	2/25	X		2/25	5
GW-7R	22	2	10	2/21	2/23		X	2/23	2/25		X	2/25	4
LTW-9	34.2	4	10	2/23	2/25		X	2/25	2/28		X	2/28	12
SHW-7	12	4	5	2/21	2/23		X	2/23	2/23		X	2/25	4.5
GW-6R	20.5	2	10	2/21	2/23		X	2/23	2/25		X	2/26	3.5
LTW-10	60	4	10	2/21	2/22		X	2/22	2/25		X	2/25	40
SHW-9	44	4	10	2/21	2/22	X		2/22	2/24			2/24	30
GW-3D	10	2	2	2/21	2/22		X	2/22	2/24	X		2/24	2
VBW-13	9	2	5.7	2/21	2/24		X	2/24	2/28		X	2/28	2
SP-2	50	2	10	2/21	2/23	X		2/23	2/23		X	2/24	10
USGS-1(byGW-3D)	30	2	NA	2/21	2/22		X					2/24	6
USGS-2(byGW-3D)	11	2	NA	2/21	2/22	X		2/22	2/24			2/24	6
VBW-11	22.5	2	11.7	2/22	2/23		X	2/23	2/23		X	2/24	6
GW-11AR	19.3	2	10	2/22	2/23	X						2/24	6
USGS-3(byGW-7R)	11	1.5	NA	2/22	Filled to surface and cut off.							2/23	6
RW-6B	97	6	NA	2/22	2/24		X	2/24	2/25		X	2/25	145
WP-5	5	1	NA	2/25	2/28		X					2/28	2

NA - Information Unavailable

* - Unable to obtain pressure gauge seal due to casing damage.



Site Location Map
 Volney Landfill
 Volney, New York

Barton
& Loguidice, P.C.
 Consulting Engineers

Oswego county

New York