

**PERIODIC REVIEW REPORT
FEBRUARY 1, 2012 THROUGH JANUARY 31, 2013**

**STRIPPIT, INC.
AKRON, NEW YORK
NYSDEC SITE NUMBER: 915053**

Prepared by:	Day Environmental, Inc. 1563 Lyell Avenue Rochester, New York 14606
Prepared for:	Strippit, Inc. 12975 Clarence Center Road Akron, New York 14001
Date:	February 2013
Project No.:	4653R-12

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EXECUTIVE SUMMARY

Strippit, Inc. is located at 12975 Clarence Center Road in Akron, New York. Historically an approximate 2-acre area on the Strippit, Inc. property (designated herein as the Site) was used to dispose of various materials including suspected hazardous waste until 1979, when disposal ceased. As a result, the New York State Department of Environmental Conservation (NYSDEC) listed the disposal area as an in-active hazardous waste site (NYSDEC Site No. 9-15-053). Subsequently, various studies were completed to evaluate that nature and extent of contamination, and to develop/implement an Interim Remedial Measure (IRM). This IRM was completed in 1994 and it included the consolidation of waste materials and the covering of these waste materials with a composite soil/geomembrane cover. Subsequently, a post-closure monitoring program consisting of site inspections to evaluate the condition of the landfill cover and groundwater monitoring to assess the effectiveness of the IRM was implemented beginning in 1995. The post-closure monitoring has been on-going on a routine basis since 1995, with reports submitted to the NYSDEC annually, or more frequently (as warranted).

This Periodic Review Report (PRR) describes the monitoring conducted during the reporting period between February 1, 2012 and January 31, 2013 to assess the condition and function of the remedial activities conducted at the Site. Based on the monitoring completed during the reporting period, the Engineering Controls implemented at the Site (i.e., construction of a soil/geomembrane cover and installation of a groundwater monitoring network to evaluate the effectiveness of the cover system) are functioning as designed and modifications are not required at this time. However, during site inspections conducted on July 5, 2012 and January 16, 2013 some minor water seepage at the base of the landfill was observed, and during a site inspection conducted on January 16, 2013 minor cracking to the landfill cover (due to apparent animal burrows) was observed, and these should be monitored during future landfill inspection events to determine if repairs are warranted. In addition, it is recommended that clearing of a retention basin of accumulated vegetation be completed as a precautionary measure. The groundwater monitoring conducted during the reporting period did not identify evidence of the degradation of groundwater quality when compared to historic data. Specifically, with the exception of pH levels, which were measured at elevated concentrations (compared to historic averages) in samples collected from each of the monitoring wells except for GW-2, concentrations of the parameters tested have typically stabilized or decreased with time. Remedial actions are not recommended at this time to address possible groundwater impacts. [Note: As requested by the NYSDEC in a letter dated June 11, 2012, the pH of groundwater in the monitoring wells installed at the Site will continue to be measured and reported at the frequency currently being conducted.]

The next monitoring event is tentatively scheduled to occur on or around July 10, 2013. The next sampling event would occur on or around January 16, 2014.

1.0 INTRODUCTION

Strippit, Inc. (Strippit) is located at 12975 Clarence Center Road in Akron, New York. A Locus Plan is included as Figure 1. An approximate 2-acre area located behind (south) of the Strippit facility was historically used to dispose of various materials including suspected hazardous waste until 1979, when disposal ceased. This former disposal area is defined herein as (the Site).

Beginning in 1981, several studies were completed by various parties to evaluate the nature and extent of contamination at the Site. In accordance with an Interim Remedial Measure (IRM) work plan dated October 1993 prepared by Day Engineering, P. C. [an affiliate of Day Environmental, Inc. (DAY)], an IRM that generally consisted of the consolidation of waste materials at the Site and the covering of these materials with a composite soil and geomembrane liner was conducted in the summer of 1994. The results of the previous studies, including the history of the Site, and the IRM implemented to address impacts at the Site are included in the document titled *Record of Decision, Houdaille Industrial – Strippit Division Site, Town of Newstead, Erie County, Site Number 9-15-053* dated March 1995 prepared by the NYSDEC (the ROD).

As documented in the ROD, the Site received a No Further Action designation, however, post-closure monitoring and maintenance was required to evaluate the effectiveness of the IRM. Specific post-closure monitoring and maintenance requirements are described in a document prepared by DAY titled *Post-Closure Monitoring and Maintenance Plan; Interim Remedial Measure; Strippit, Inc.; Akron, New York* dated February 1995 (the Post-Closure Plan). The Post-Closure Plan was reviewed and approved by the NYSDEC prior to implementation.

In accordance with a June 24, 1998 letter prepared by the NYSDEC, the frequency of groundwater sampling outlined in the Post-Closure Plan was reduced from quarterly to bi-annually. During the remaining two quarters, a limited monitoring event that included the measurement of groundwater levels and field parameters (e.g., pH, specific conductivity, etc.), and completion of a site inspection was conducted.

In accordance with an August 21, 2002 letter prepared by the NYSDEC, the testing program outlined in the Post-Closure Plan was further modified to include testing for the following parameters:

- Indicator Parameters: pH, specific conductance, turbidity and temperature
- Total barium, iron, magnesium, and manganese
- Total Phenols

In accordance with a February 10, 2010 letter prepared by the NYSDEC, the frequency of groundwater sampling outlined in the Post-Closure Plan was reduced from bi-annually to annually.

The testing program outlined in the Post-Closure Plan was further modified to include testing for the following parameters:

- Indicator Parameters: pH, specific conductance, turbidity and temperature
- Total barium, iron, magnesium, and manganese

Further, the frequency of the limited monitoring event that included the measurement of groundwater levels and field parameters (e.g., pH, specific conductivity, etc.) and completion of a site inspection was reduced from quarterly to bi-annually (i.e., the groundwater sampling event and one additional event per year).

In accordance with a March 24, 2009 letter prepared by the NYSDEC, a Periodic Review Report (i.e., this document) describing work completed during the preceding calendar year is required for the Site. This report is to be submitted, on or before, mid-March of the following year (i.e., the Periodic Review Report (PRR) for calendar year 2012 is due on, or before, March 4, 2013). The PRR includes the following items:

- Identification of the Engineering Controls required by the remedy for the Site, and the results of observations completed to assess the effectiveness of these controls;
- Inspection forms generated for the Site during the reporting period;
- A summary of monitoring data generated during the reporting period;
- Historic data summary tables and graphical representations of contaminants of concern by media (i.e., groundwater); and
- Copies of the required laboratory data deliverables for samples collected during the reporting period.

The PRR also includes an evaluation consisting of the following:

- The compliance of the remedy with the requirements of the ROD;
- Conclusions regarding Site contamination based on inspections and/or data generated by the Monitoring Plan for the media being monitored;
- Recommendations regarding necessary changes to the remedy and/or Monitoring Plan; and
- The overall performance and effectiveness of the remedy.

2.0 ENGINEERING CONTROL EVALUATION

The Engineering Controls at the Site consist of a cover system (i.e., landfill cap consisting of multiple layers of soil and a geomembrane liner) over the former disposal area and a groundwater monitoring well network to evaluate the effectiveness of the landfill cap. The approximate boundary of the former disposal area and the locations of the groundwater monitoring wells installed at the Site are depicted on Figure 2.

The integrity of the Engineering Controls at the Site and monitoring well network were evaluated on the following dates during the reporting period July 10, 2012 and January 16, 2013. Copies of the observation reports completed during each quarterly monitoring event are included in Appendix A.

During previous reporting periods, an approximate 1,600 square foot area on the north face of the landfill cap (i.e., approximately 100 feet west of monitoring well GW-4) was found to contain animal burrows with areas of cracking and erosion. In June/July 2010, repairs were made to this area (i.e., animal holes were filled with a low permeability soil, linear parting features (cracks and fissures) were repaired, and the area was covered with topsoil and re-seeded). The repair area appeared to be in generally good condition during the subsequent monitoring events conducted on July 19, 2011, July 5, 2012, and January 16, 2013 (i.e., the monitoring events conducted since the repair, during which snow cover was not present) and additional repair of this area does not appear to be warranted at this time.

As indicated in the site inspection reports included as Appendix A, during this reporting period:

- The landfill cap was observed to be in generally good condition.
- Apparent animal burrows, observed as a series of surficial holes and shallow trenches approximately 2 to 6 inches wide and extending north-south on the northern slope of the landfill cap in lines approximately 20 to 30 feet in length, were observed the January 16, 2013 monitoring event in an area located between 200 and 300 feet to the west of monitoring well GW-4 (i.e., not in the same location that was repaired in Jun/July 2010). The apparent animal burrows observed extended 2 to 3 inches into the soil cap of the landfill, but these apparent animal burrows did not appear to compromise the cover system, and thus repair does not appear to be warranted at this time. However, the areas should be monitored during the 2013/2014 monitoring events for further evidence of erosion.
- Water seepage from the side slopes of the landfill cap was not observed during the July 5, 2012 or the January 16, 2013 monitoring events. However, a small quantity of pooled water was observed at the base of the landfill cap during the July 5, 2012 and the January 16, 2013 monitoring events. Dry weather conditions were noted on both July 5, 2012 and January 16, 2013, and pooled water was not observed on other portions of the asphalt pavement (indicating that the pooled water observed at the base of the landfill was likely not from parking lot run-off). The pooled water was located at the northern edge of the asphalt pavement, and approximately 150 feet to the west of monitoring well GW-4. This area should be monitored for evidence of further seepage or erosion during future monitoring events.

- No evidence of settlement was observed on or at the perimeter of the landfill cap.
- Vegetation on and around the landfill cap was observed to be present and apparently healthy.
- Groundwater monitoring wells and the gas well were observed to be in good, functioning condition. Locks that were replaced on each of the groundwater monitoring wells in 2011 were in working order, and the protective casings of the monitoring wells appeared to have been cleaned and re-painted.
- Drainage ways located to the north and northwest of the landfill cap were observed to be functioning (i.e., not blocked). However, vegetation was observed in the retention basin, and although it did not block water flow, it is recommended that this vegetation be cleared as a preventative measure.

3.0 GROUNDWATER MONITORING DURING REPORTING PERIOD

The NYSDEC submitted a response letter dated March 14, 2012 for the 2011 PRR. In the March 14, 2012 letter, the NYSDEC commented that the pH measured in the groundwater monitoring wells at the Site have (historically) and continue to be outside the acceptable range, and inquired as to the cause for the elevated pH. In response to the NYSDEC inquiry, DAY submitted a letter dated April 26, 2012, and a copy of this report is attached as Appendix B. The NYSDEC found the response acceptable as documented in a letter dated June 11, 2012 (also included in Appendix B) and requested that the pH of groundwater in the site monitoring wells continue to be measured and reported at the frequency currently being conducted.

During each semi-annual monitoring event (i.e., conducted on July 10, 2012 and January 16, 2013) the depth to groundwater was measured from a monitoring point elevation established on the top of each monitoring well casing using an electronic tape water level indicator. In addition, a sample of the groundwater was collected from each monitoring point and the pH was also measured using a Horriba model U-22 water quality meter. The groundwater depths, elevations, and pH measurements made during the monitoring events completed during this report period are presented in the following table.

WELL	TOP OF CASING ELEVATION (ft.)	GROUNDWATER ELEVATION (ft.) /pH (su) July 10, 2012		GROUNDWATER ELEVATION (ft.) /pH (su) January 16, 2013		Groundwater Elevation variation during reporting period (ft.)	Historic pH Values (su)		
							Average	Max	Min
GW-1	754.32	712.17	10.51	0.79	9.15	0.79	9.03	11.59	5.90
GW-2	770.62	717.20	8.95	0.86	10.21	0.86	10.57	12.23	7.23
GW-3	742.59	708.18	8.10	0.43	8.00	0.43	7.53	11.32	5.57
GW-4	752.24	713.13	10.48	0.87	10.05	0.87	9.12	10.92	6.08
GW-5	771.26	717.11	10.62	1.37	11.02	1.37	10.31	12.27	6.99

Groundwater contour maps, developed based upon the groundwater elevations calculated using the measurements obtained during the July 10, 2012 and the January 16, 2013 monitoring events, are included as Figure 3 and Figure 4 (respectively). As shown, despite the seasonal variation in groundwater elevation as summarized above, groundwater flow is generally to the north-northwest.

As indicated in the above table, the pH levels measured during the reporting period are within the range of historic pH values measured for each location. However, the pH levels measured during the reporting period in monitoring wells GW-1, GW-3, GW-4, and GW-5 are above the historic average for their respective location. With the exception of the samples from monitoring well GW-3, the pH levels measured during the reporting period are elevated (indicating alkaline conditions) and outside the acceptable Class GA range of 6.5 to 8.5 s.u.

Groundwater Sampling

Groundwater samples were collected and submitted for analytical laboratory testing on January 16, 2013. The samples were collected in general accordance with the procedures outlined in the approved post-closure monitoring and maintenance plan. A Site Plan, showing the location of the monitoring wells is included as Figure 2. Groundwater sampling initially included the measurement of static water levels in each of the monitoring wells installed at the Site (designated GW-1 through GW-5) followed by the purging of the wells to remove approximately 3 well volumes (or until wells were dry). The monitoring wells were then allowed to recover so that "fresh" water was retained for testing. Groundwater samples were collected for testing using a dedicated bailer, which is permanently stored above the water within each well casing.

A portion of the groundwater collected from each location was tested in the field for the following parameters using the equipment listed below.

- Specific conductance, temperature, pH, ORP and turbidity: Horiba U-22 Multi-Parameter Water Quality Monitoring System.

In addition to the field-testing, samples were also collected for analytical laboratory testing. These samples were placed in sample containers provided by Paradigm Environmental Services, Inc. (Paradigm), the analytical laboratory. Paradigm also added the necessary preservatives to the sample containers that were provided for the sampling event.

The sample containers were filled by placing approximately equal amounts of sample from the bailer into each container until the container was filled. When the containers were filled they were placed in a plastic cooler containing ice and stored in a locked field vehicle until they were delivered to Paradigm for analytical laboratory testing. Chain-of-custody documentation was maintained throughout the sample collection process.

Copies of the monitoring well sample logs prepared for the January 16, 2013 sampling event are included in Appendix B. These logs summarize in-situ measurements, groundwater depths, purging information and other relative data.

Analytical Laboratory Results

The samples collected during the January 16, 2013 monitoring event were analyzed by Paradigm for the following parameters.

- Barium, Iron, Magnesium and Manganese via USEPA Method 6010

A copy of the analytical laboratory report for this sample event prepared by Paradigm and executed chain-of-custody documentation are included in Appendix B. Tables summarizing historic test results for the groundwater samples collected from the monitoring wells at the Site are presented in Appendix C.

The majority of the parameters detected in the samples collected during the January 16, 2013

sample event were measured at concentrations below Class GA standards established in NYSDEC TOGS 1.1.1 [data source 1998 and amended by NYSDEC Table 1, dated August 1, 2001 (TOGS)] potable groundwater supplies. Specifically:

- Concentrations of total barium in samples collected from monitoring wells GW-1 through GW-5 during the January 16, 2013 sample event were below the TOGS standard of 1.0 mg/l.
- The concentrations of total iron in samples collected from monitoring wells GW-1 through GW-5 during the January 16, 2013 monitoring event exceeded the TOGS standard of 0.3 mg/l.
- With the exception of the total magnesium concentration measured in the sample collected from GW-1 (i.e., 44 mg/l), the concentrations of total magnesium in samples collected from monitoring wells GW-1 through GW-5 during the January 16, 2013 sample event were below the TOGS standard of 35 mg/l.
- Concentrations of total manganese in samples collected from monitoring wells GW-1 through GW-5 during the January 16, 2013 sample event were below the TOGS standard of 0.3 mg/l.

Graphic representations of historic variations in concentrations of total barium, total iron, total magnesium, and total manganese, are included as Figure 5 through Figure 8 (respectively). The concentrations presented in these graphs represent analytical laboratory results for groundwater samples collected from monitoring wells GW-1 through GW-5 between April 1995 and January 2013.

As indicated by Figure 5, concentrations of total barium detected in samples collected from monitoring wells GW-1 through GW-5 during the reporting period were comparable to those measured during recent monitoring events. [Note: The increase in the concentration of total barium in the samples collected during the reporting period shown on Figure 5 is due to the laboratory detection limit (i.e., 0.1 mg/l) and not due to an increase in the total barium concentrations as compared to historic levels.] Further, total barium concentrations measured in samples from monitoring wells GW-1 through GW-5 appear to have stabilized or decreased over time. Historically, the highest barium concentrations have been measured in samples collected from upgradient monitoring well GW-2. However, since October 2008 the samples collected from monitoring well GW-2 have been below the TOGS standard of 1.0 mg/l. Historically the concentrations of total barium have typically been below the TOGS standard of 1.0 mg/l in the samples collected from the remaining monitoring wells since about June 1999.

As indicated by Figure 6, the concentrations of total iron detected in samples collected from monitoring wells GW-1 through GW-5 during the reporting period are generally consistent with historic concentrations. Historically, the concentrations of total iron measured in samples from groundwater monitoring wells GW-1 through GW-5 fluctuate with no apparent trend evident. However, with the exception of samples collected from monitoring well GW-1, which continued to show fluctuation during recent sample events, the iron concentrations measured during recent sample events (i.e., since about December 2008) have exhibited relatively stabilized conditions. The historic concentrations of total iron measured in samples from groundwater monitoring wells GW-1 through GW-5 often exceed the TOGS standard of 0.3 mg/l.

As indicated by Figure 7, concentrations of total magnesium detected in samples collected from monitoring wells GW-1 through GW-5 during the reporting period are generally consistent with historic concentrations. Although the magnesium concentrations are variable, concentrations have generally decreased with time. The highest magnesium concentrations have consistently been detected in samples collected from downgradient monitoring wells GW-1 (i.e., generally samples collected from this location contained the highest magnesium concentrations), GW-3 and GW-4. The magnesium concentrations in upgradient monitoring wells GW-2 and GW-5 have historically been lower than those detected in the downgradient monitoring wells. With the exception of the total magnesium concentration measured in the sample collected from GW-1 (i.e., 44 mg/l), the magnesium concentrations in the samples collected from monitoring wells GW-1 through GW-5 were below the TOGS standard of 35 mg/l during the January 16, 2013 monitoring event. Magnesium concentrations in excess of 35 mg/l have been detected historically in samples collected from downgradient monitoring wells GW-1, GW-3, and GW-4.

As indicated by Figure 8, concentrations of total manganese detected in samples collected from monitoring wells GW-1 through GW-5 during the reporting period are generally consistent with historic concentrations. Historically the concentrations of total manganese measured in samples from groundwater monitoring wells GW-1 through GW-5 fluctuate with no apparent trend evident. Since June 1999, concentrations of total manganese in groundwater samples collected from GW-1 through GW-5 have been below the TOGS standard of 0.3 mg/l.

4.0 INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM

A completed and signed copy of the Institutional and Engineering Controls Certification Form for the reporting period of February 1, 2012 through January 31, 2013 is included in Appendix D.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are based upon the findings of the work completed during this reporting period.

- The integrity of the Engineering Controls at the Site (i.e., a cover system over the former disposal area and a groundwater monitoring well network to evaluate the effectiveness of the landfill cap) was evaluated on the following dates during the reporting period July 10, 2012 and January 16, 2013. This evaluation indicated that the cover system was functioning as designed, and no apparent problems/concerns requiring repair were identified during the monitoring events. Monitoring wells GW-1 through GW-5 were observed to be in good working condition, and each well had a lockable cap and was fitted with a lock, which was locked before and after the January 16, 2013 monitoring event.
- The repairs made to a portion of north face of the landfill cap in June/July 2010 [i.e., animal holes were filled with a low permeability soil, linear parting features (cracks and fissures) were repaired, and the area was covered with topsoil and re-seeded]. The repair area appeared to be in generally good condition during the reporting period and additional repair does not appear to warranted at this time.
- Groundwater elevations varied seasonally (i.e., the groundwater elevations measured on January 16, 2013 ranged from about 0.43 feet to 1.37 feet higher than those measured on July 10, 2012). However, groundwater flow directions remained consistent throughout the reporting period (i.e., flowing generally from south-southeast to north-northwest). Based on this groundwater flow pattern monitoring wells GW-2 and GW-5 are located in hydraulically upgradient positions and the remaining monitoring wells (GW-1, GW-3 and GW-4) are located in hydraulically downgradient positions at the Site.
- With the exception of the samples collected from GW-3 on July 10, 2012 and January 16, 2013 (i.e., pH = 8.10 s. u. and pH = 8.00 s. u., respectively), the pH concentrations measured during the reporting period were elevated (alkaline) and outside the acceptable Class GA range of 6.5 to 8.5 s.u. The pH concentrations measured during the reporting period were within the historic range of pH values measured in samples tested between April 1995 and January 2012. However, the pH concentrations measured in the samples collected from monitoring wells GW-1, GW-3, GW-4, and GW-5 during the reporting period exceeded the historic average pH values calculated for samples collected from these monitoring wells. The pH values measured in samples collected from monitoring well GW-2 during the reporting period were comparable to, or less than the historic average values.
- Concentrations of total barium in samples collected from monitoring wells GW-1 through GW-5 during the January 16, 2013 sample event were below the TOGS standard of 1 mg/l and the reported concentrations were comparable to those measured during previous monitoring events. Further, total barium concentrations measured in samples from monitoring wells GW-1 through GW-5 appear to be stabilized or decreasing over time.
- The concentrations of total iron in samples collected from monitoring wells GW-1 through GW-5 during the January 16, 2013 monitoring event exceeded the TOGS standard of 0.3

mg/l. However, the concentrations of total iron detected in samples collected from monitoring wells GW-1 through GW-5 during the reporting period are generally consistent with historic concentrations. Historically, the concentrations of total iron measured in samples from groundwater monitoring wells GW-1 through GW-5 fluctuate with no apparent trend evident, although the iron concentrations since about December 2008 have exhibited relatively stabilized conditions.

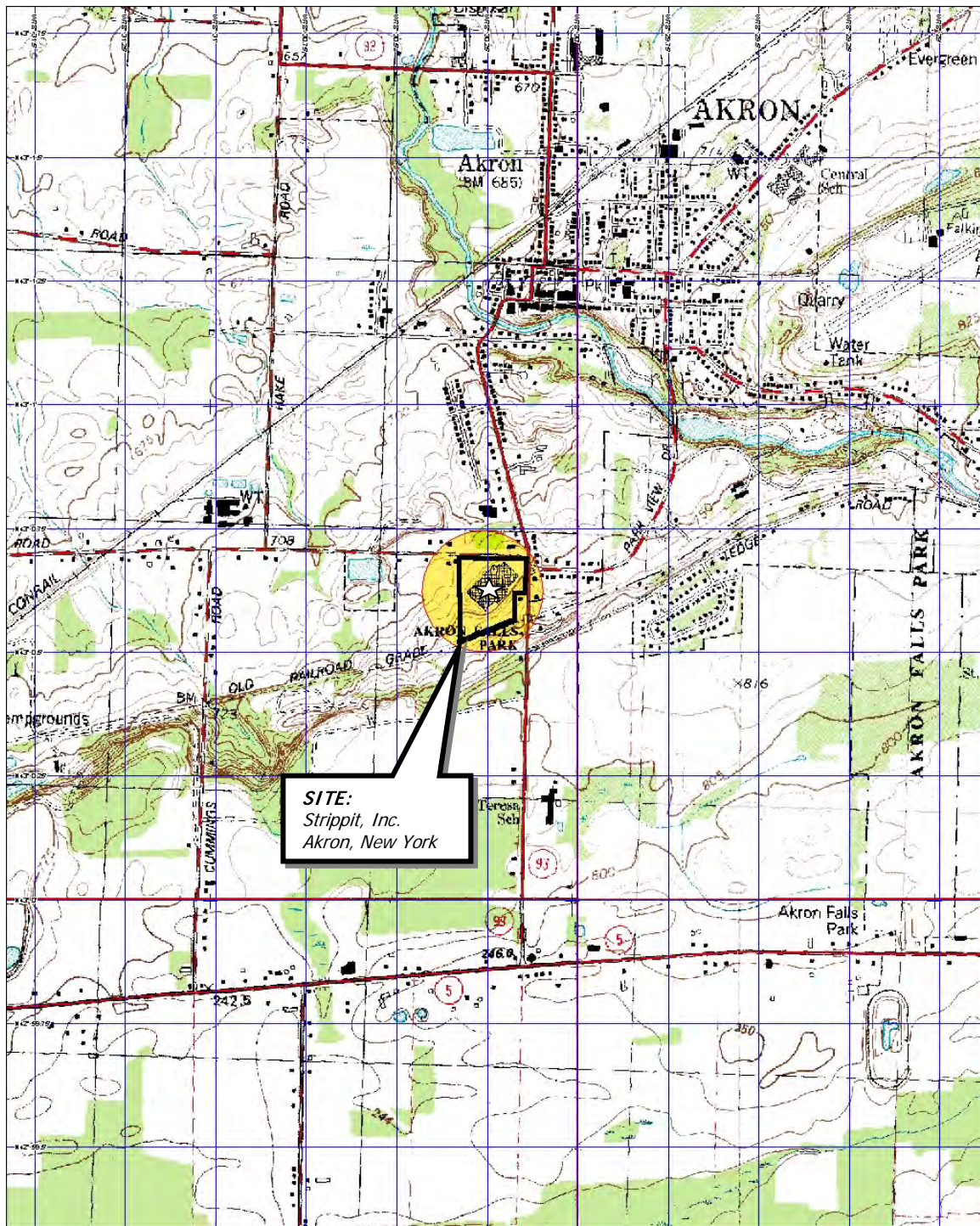
- With the exception of the total magnesium concentration measured in the sample collected from GW-1 (i.e., 44 mg/l), concentrations of total magnesium in samples collected from monitoring wells GW-1 through GW-5 during the January 16, 2013 sample event were below the TOGS standard of 35 mg/l. The concentrations of total magnesium measured in samples collected from monitoring wells GW-1 through GW-5 fluctuate historically, but the results during recent sampling events, including during the reporting period, suggest a stabilized trend in the concentrations measured in the samples collected from each of the monitoring wells.
- Concentrations of total manganese in samples collected from monitoring wells GW-1 through GW-5 during the January 12, 2012 sample event were below the TOGS standard of 0.3 mg/l. The concentrations of total manganese detected in samples collected from monitoring wells GW-1 through GW-5 during the reporting period are generally consistent with historic concentrations. Historically the concentrations of total manganese measured in samples from groundwater monitoring wells GW-1 through GW-5 fluctuate with no apparent trend evident.

Based upon the monitoring conducted during the reporting period, the Engineering Controls implemented at the Site are functioning as designed and modifications are not required at this time. However, some minor water seepage at the base of the landfill and minor cracking to the landfill cover (due to apparent animal burrows) should be monitored during future landfill inspection events. In addition, although surface water drainage exiting the landfill area does not appear to be restricted, it is recommended that the retention basin be cleared of vegetation to preclude potential flow obstructions in the future.

With the exception of pH levels, which were measured at elevated concentrations in samples collected from each of the monitoring wells, concentrations of the parameters tested have typically stabilized or decreased with time. Remedial actions are not recommended at this time to address possible groundwater impacts. As requested by the NYSDEC in a letter dated June 11, 2012, the pH of groundwater in the site monitoring wells will continue to be measured and reported at the frequency currently being conducted.

The next monitoring event is scheduled for around July 10, 2013. The next sampling event would occur on or around January 16, 2014.

FIGURES



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 550 ft Scale: 1 : 19,200 Detail: 14-0 Datum: NAD27

Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Wolcottsville (NY) 1995; Akron (NY) 1995; Lancaster (NY) 1982; & Corfu (NY) 1984. Site Lat/Long: N43d-0.6' - W78d-30.25'

DATE
2-11-2013

DRAWN BY
Tww

SCALE
1" = 2000'

day

DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606

PROJECT TITLE
STRIPPIT, INC.
AKRON, NEW YORK

PERIODIC REVIEW REPORT

DRAWING TITLE
PROJECT LOCUS MAP

PROJECT NO.
4653R-12

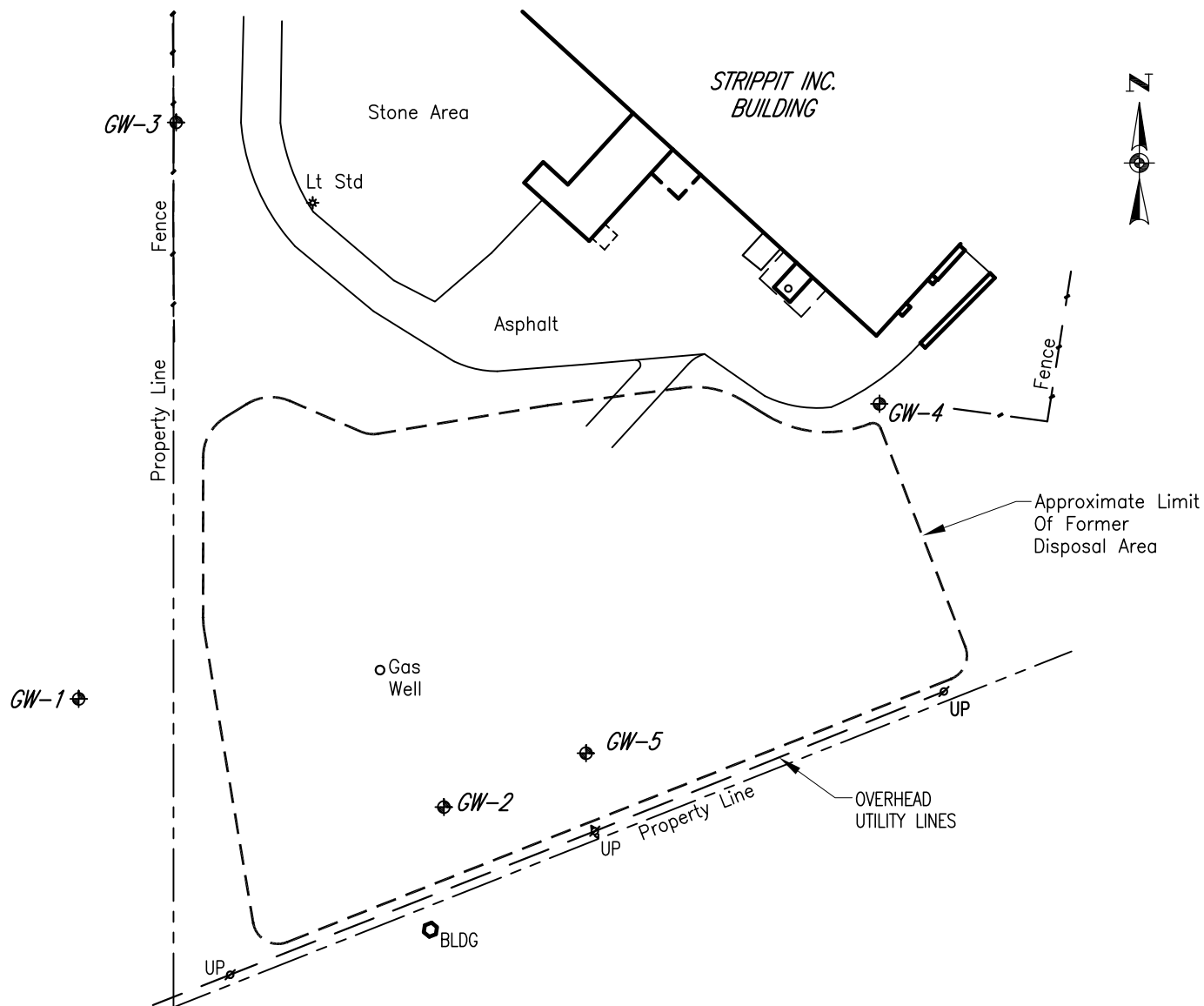
FIGURE 1

NOTES:

1. This drawing produced from a drawing provided by Deborah A. Naybor, PLS, PC. entitled "Topographic Map Of Part Of Lot 5, TWP. 12, Range 5, Section 6, Town Of Newstead, County Of Erie, New York" dated 3/4/93 & revised 3/26/93.
2. No boundary survey was performed by Deborah A. Naybor, PLS, PC.

LEGEND:

- GW-1** ◆ Monitoring Well Designation
- Existing Gas Well
- — — — — Approximate Limits Of Former Disposal Area



DATE
2-11-2013

DRAWN BY
RJM

SCALE
1" = 100'



DAY ENVIRONMENTAL, INC.
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ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
STRIPPIT, INC.
AKRON, NEW YORK

PERIODIC REVIEW REPORT

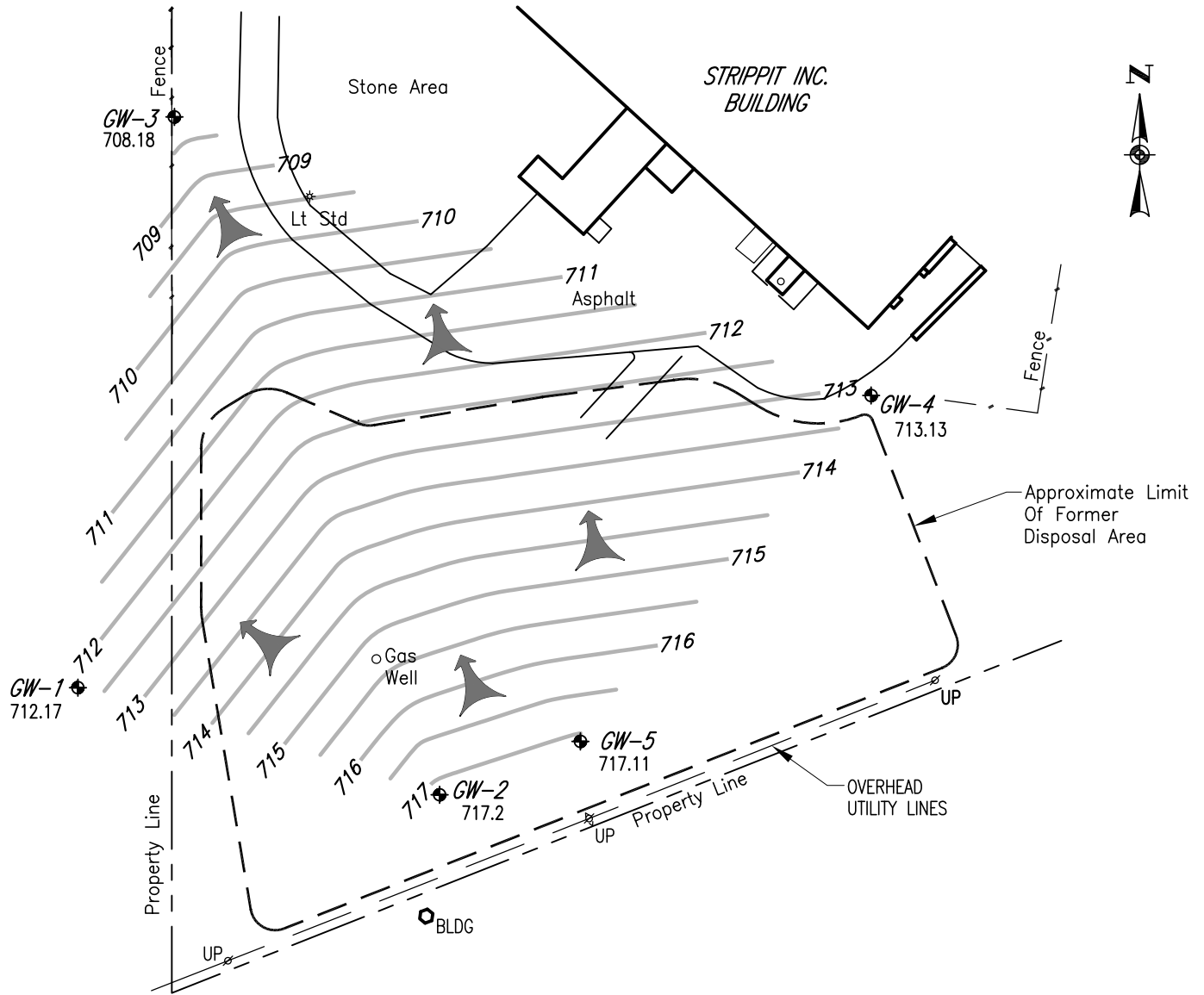
DRAWING TITLE

Site Location Map

PROJECT NO.
4653R-12

FIGURE 2

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Ref3: Layout: Strip68.dwg
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Pen Setting File: 800psFullcolor.ctb



NOTES:

1. This drawing produced from a drawing provided by Deborah A. Naybor, PLS, PC. entitled "Topographic Map Of Part Of Lot 5, TWP. 12, Range 5, Section 6, Town Of Newstead, County Of Erie, New York" dated 3/4/93 & revised 3/26/93.
2. No boundary survey was performed by Deborah A. Naybor, PLS, PC.

LEGEND

GW-1
712.17

Groundwater Monitoring Well With Groundwater Elevation Obtained On July 10, 2012.

Potentiometric Contour Line For July 10, 2012
Created By Golden Software Inc., Surfer8 Program



Apparent Direction Of Groundwater Flow

DATE
2-8-2013

DRAWN BY
RJM

SCALE
1" = 100'



DAY ENVIRONMENTAL, INC.
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NEW YORK, NEW YORK 10016-0710

PROJECT TITLE
STRIPPIT, INC.
AKRON, NEW YORK

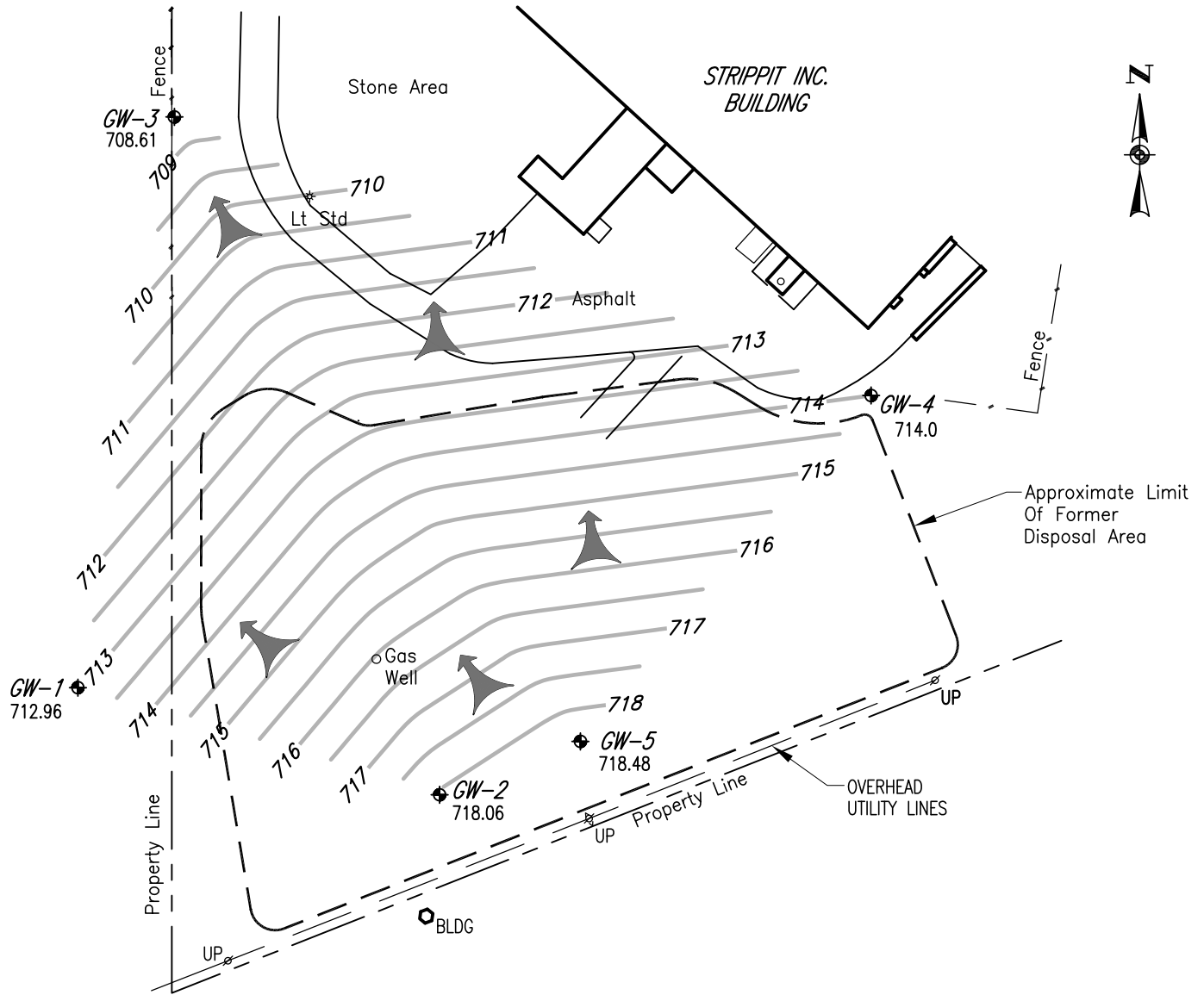
PERIODIC REVIEW REPORT

DRAWING TITLE
Groundwater Potentiometric Contour Map For
July 10, 2012

PROJECT NO.
4653R-12

FIGURE 3




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 Ref3: Layout: Strip69.dwg
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 Pen Setting File: 800psFullcolor.ctb



NOTES:

1. This drawing produced from a drawing provided by Deborah A. Naybor, PLS, PC. entitled "Topographic Map Of Part Of Lot 5, TWP. 12, Range 5, Section 6, Town Of Newstead, County Of Erie, New York" dated 3/4/93 & revised 3/26/93.
2. No boundary survey was performed by Deborah A. Naybor, PLS, PC.

LEGEND

-  **GW-1**
712.96 Groundwater Monitoring Well With Groundwater Elevation Obtained On January 16, 2013.
-  Potentiometric Contour Line For January 16, 2013 Created By Golden Software Inc., Surfer8 Program
-  Apparent Direction Of Groundwater Flow

DATE
2-11-2013

DRAWN BY
RJM

SCALE
1" = 100'



DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10016-0710

PROJECT TITLE
STRIPPIT, INC.
AKRON, NEW YORK

PERIODIC REVIEW REPORT

DRAWING TITLE
Groundwater Potentiometric Contour Map For
January 16, 2013

PROJECT NO.
4653R-12

FIGURE 4

Figure 5

12975 Clarence Center Road
Akron, New York
NYSDEC Site #915053

Summary of Detected Barium (total) - Groundwater Samples 4/95 - 1/13

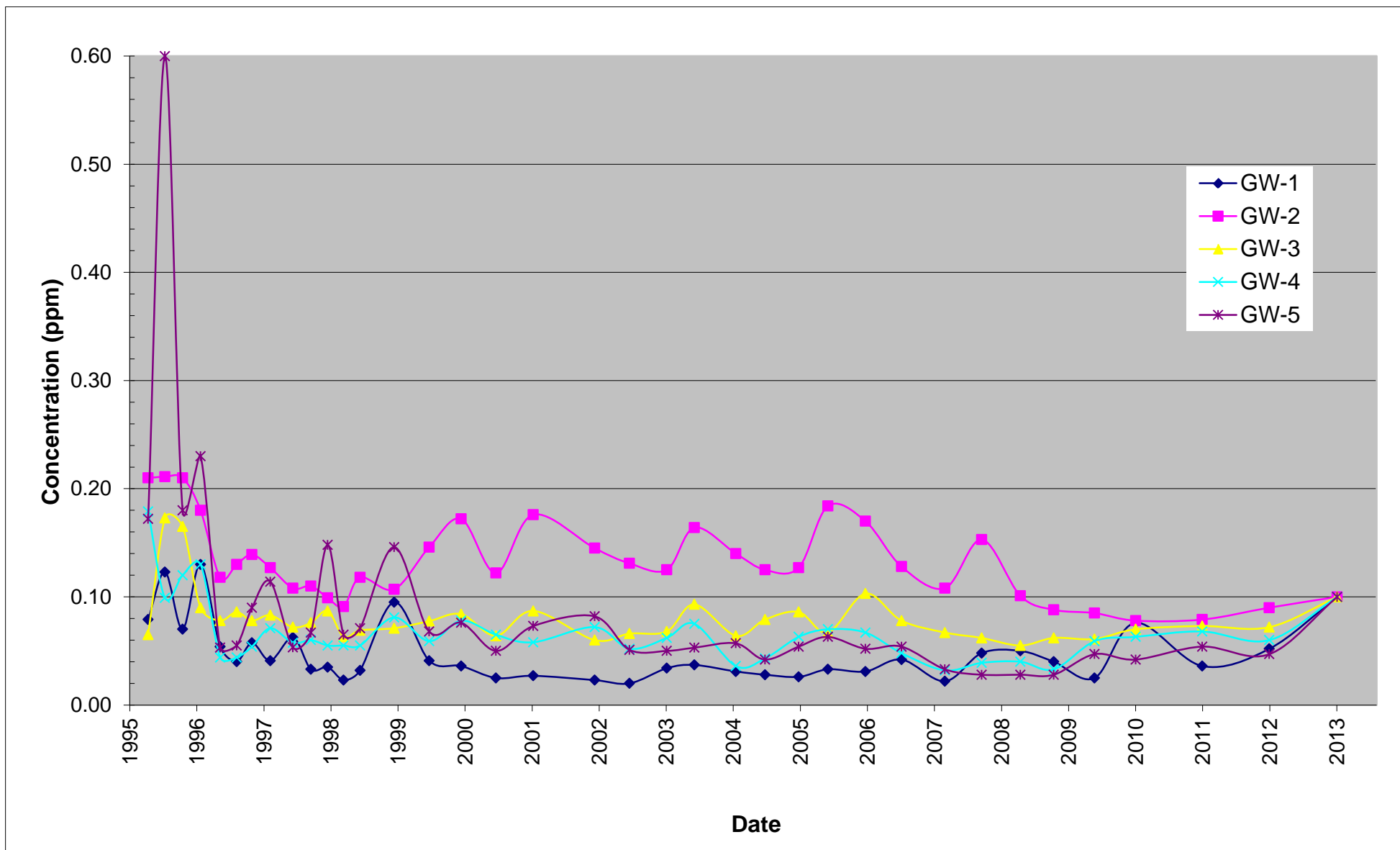


Figure 6

12975 Clarence Center Road
Akron, New York
NYSDEC Site #915053

Summary of Detected Iron (total) - Groundwater Samples 4/95 - 1/13

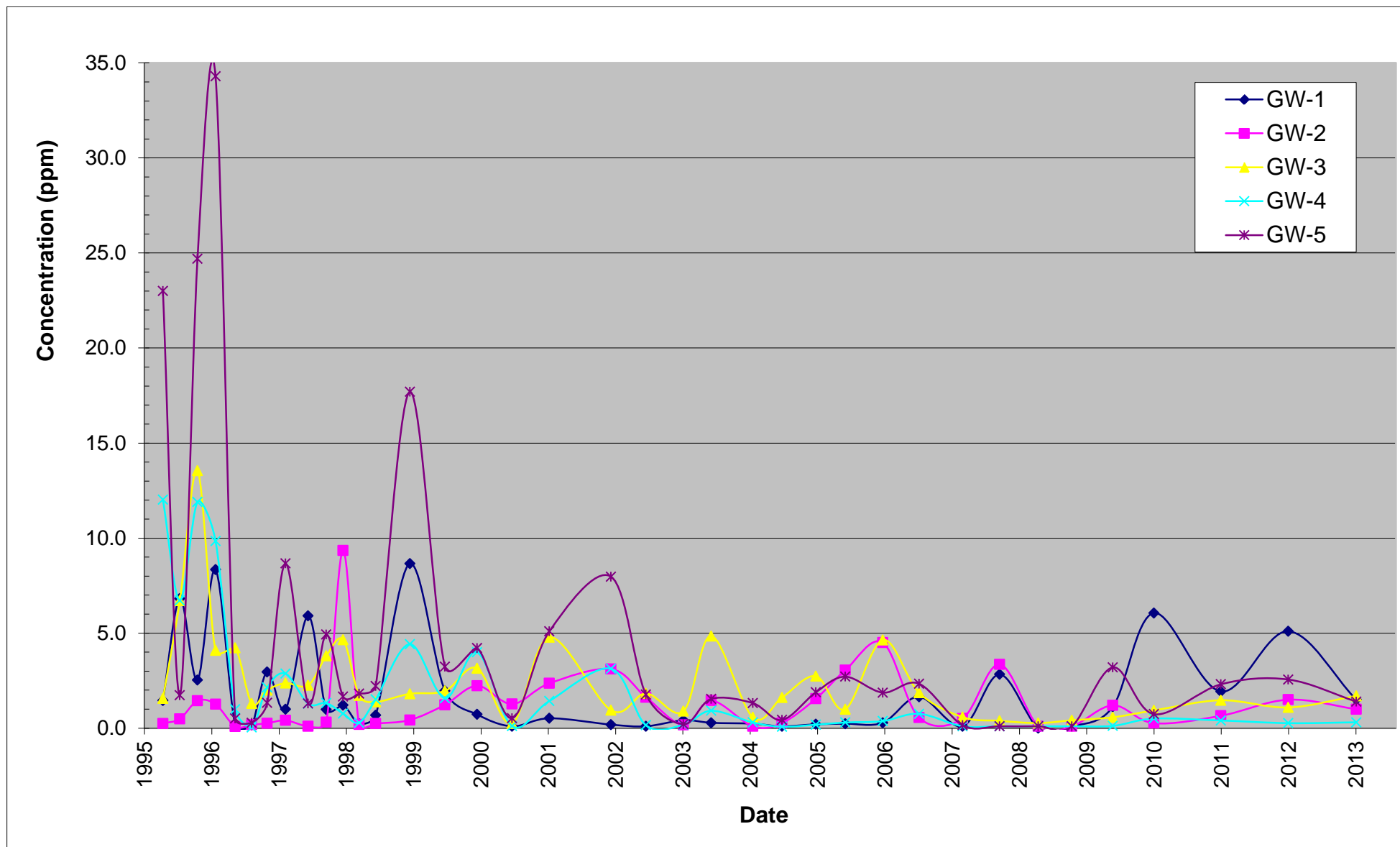


Figure 7

12975 Clarence Center Road
Akron, New York
NYSDEC Site #915053

Summary of Detected Magnesium (total) - Groundwater Samples 4/95 - 1/13

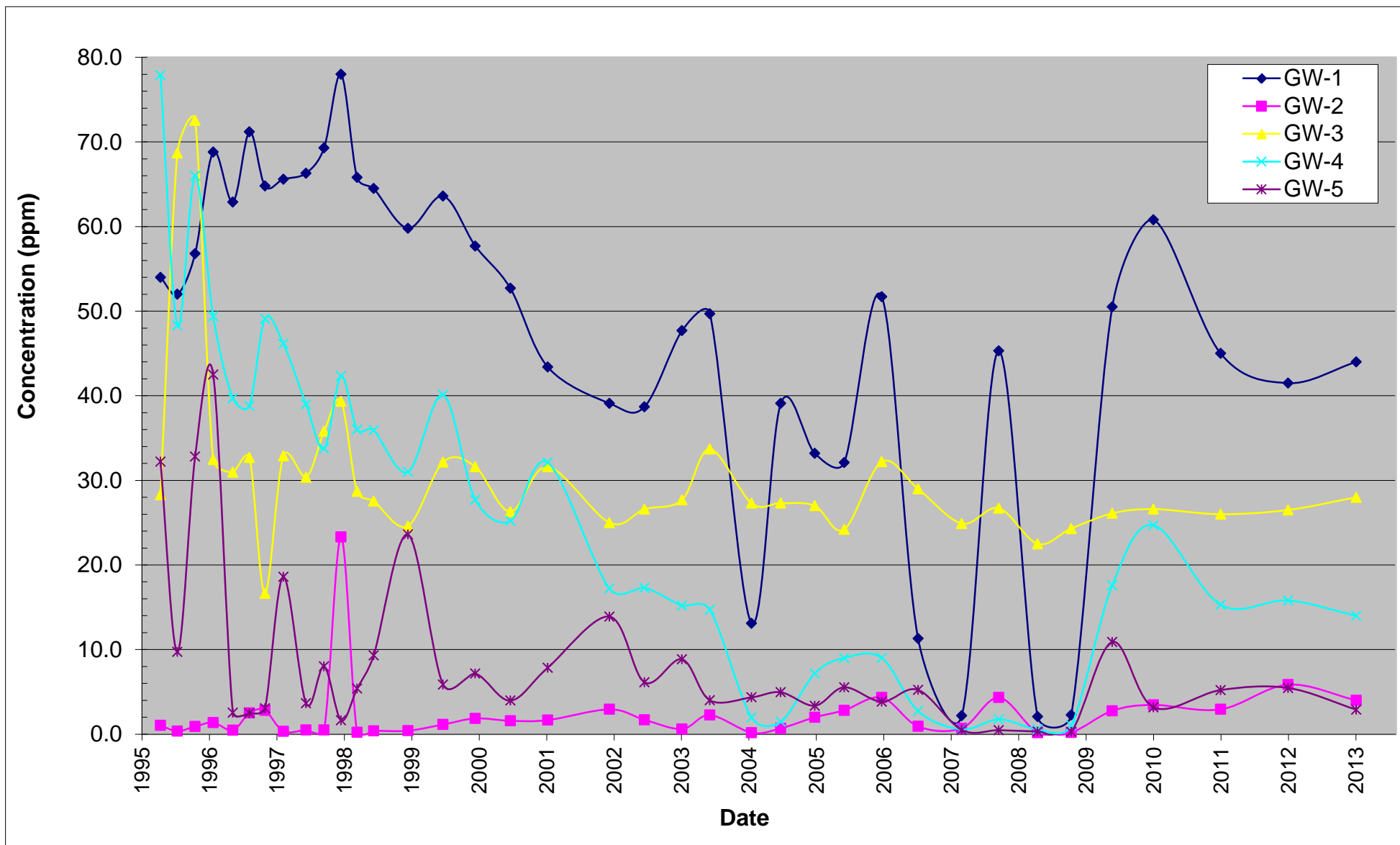
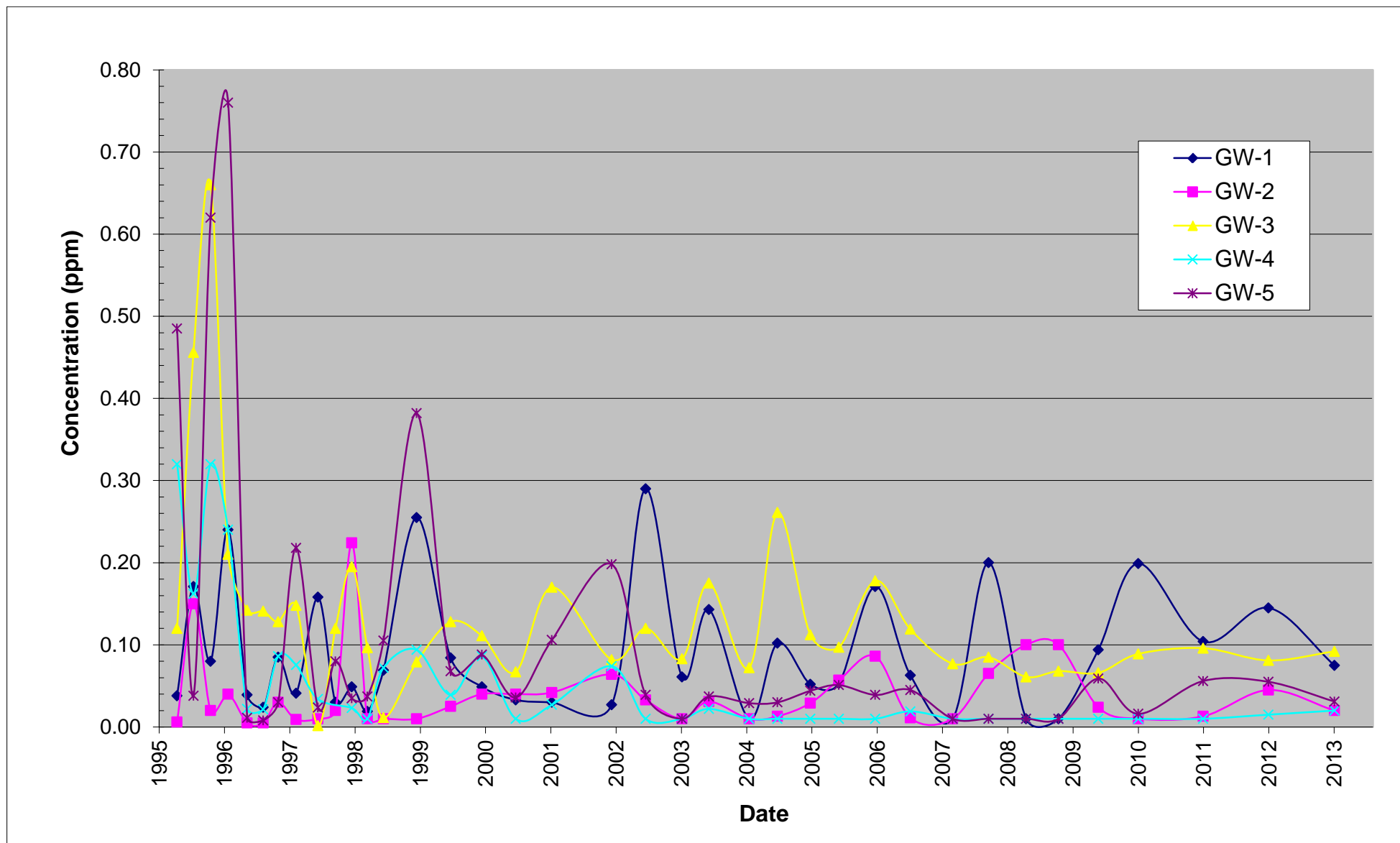


Figure 8

12975 Clarence Center Road
Akron, New York
NYSDEC Site #915053

Summary of Detected Manganese (total) - Groundwater Samples 4/95 - 1/13



APPENDIX A

SITE INSPECTION REPORTS:
JULY 5, 2012 AND JANUARY 16, 2013

**LONG-TERM MONITORING REPORT
INTERIM REMEDIAL MEASURE
STRIPPIT, INC.
AKRON, NEW YORK**

Date of Inspection: July 5, 2012

Inspected By: Charles Hampton

Summary of Observation:

General Condition of Cover: Soil appears in place and stable, vegetation cover is dry, but present across landfill area

Evidence of Erosion, sloughing or other degradation: ☐ Yes ☒ No

Explain (include measurement & site sketch):

No Erosion Sloughing or other degradation observed on landfill top, slopes, or around base of slopes

Evidence of cracking: ☐ Yes ☒ No

Explain (include measurements and site sketch):

Cracking not observed on landfill top, slopes or base of slopes;
however, vegetative cover blocks view of soil

Evidence of water seepage: ☒ Yes ☐ No

Explain:

Small area of ponded water at base of
landfill slope, adjacent to blacktop ~ 1'x2' in size - ~ 0.1' depth

Evidence of Settlement: ☐ Yes ☒ No

Explain:

No depressions observed in landfill top
No sloughing on slopes

Condition of monitoring wells and gas wells: All present & appear to be in working order, locks installed on well casings

Condition of Vegetative Cover: Dry - Vegetation is uniformly stressed from lack of rain; some green, some brown/dormant - No dead/bare areas observed

Condition of drainage ways (discuss amount of water/sediments present, vegetative growth, unusual staining, blockage, etc.). No water/damp soils or sediment observed
Vegetation observed in drainage ways, but not choking drainage ways
Staining not observed, blockage of drainage ways not observed

Additional Comments: Due to new locks, water quality reading delayed until key is retrieved.

Action Item(s) Required: Clear Vegetation from drainage way

Action Item(s) completed since last inspection: locks placed on wells, rope in BW-4 replaced

Signatures:

 July 5, 2012

**LONG-TERM MONITORING REPORT
INTERIM REMEDIAL MEASURE
STRIPPIT, INC.
AKRON, NEW YORK**

Date of Inspection: January 16, 2013

Inspected By: C. Hampton

Summary of Observation:

General Condition of Cover: Cover in good condition - monitor apparent animal holes in linear pattern for possible cracking of landfill cover

Evidence of Erosion, sloughing or other degradation: ☐ Yes ☒ No

Explain (include measurement & site sketch):

N/A

Evidence of cracking: ☒ Yes ☐ No

Explain (include measurements and site sketch):

linear series of apparent animal burrows located on top of landfill & extending down northern slope - 3 locations (refer to figure) - Approximately 20 to 30 feet in length

Evidence of water seepage: ☒ Yes ☐ No

Explain:

Small quantity of pooled water at the base of the landfill - central Northern edge ~ 3 pools ~ 5' x 5' x 0.5' (d) Non-petroleum sheen observed at edge of pool @ edge of slope

Evidence of Settlement: ☐ Yes ☒ No

Explain:

N/A

Condition of monitoring wells and gas wells: Monitoring wells and gas wells are in good condition and appear to be functioning

Condition of Vegetative Cover: Good condition - recently cut - no obvious dead spots

Condition of drainage ways (discuss amount of water/sediments present, vegetative growth unusual staining, blockage, etc.). No standing water or blockage observed along west and North base of slopes. Drainage pipe @ NW corner clear of blockage. Small trees and cuttings growing in drainage swale @ NW edge of landfill area - no staining - no blockage

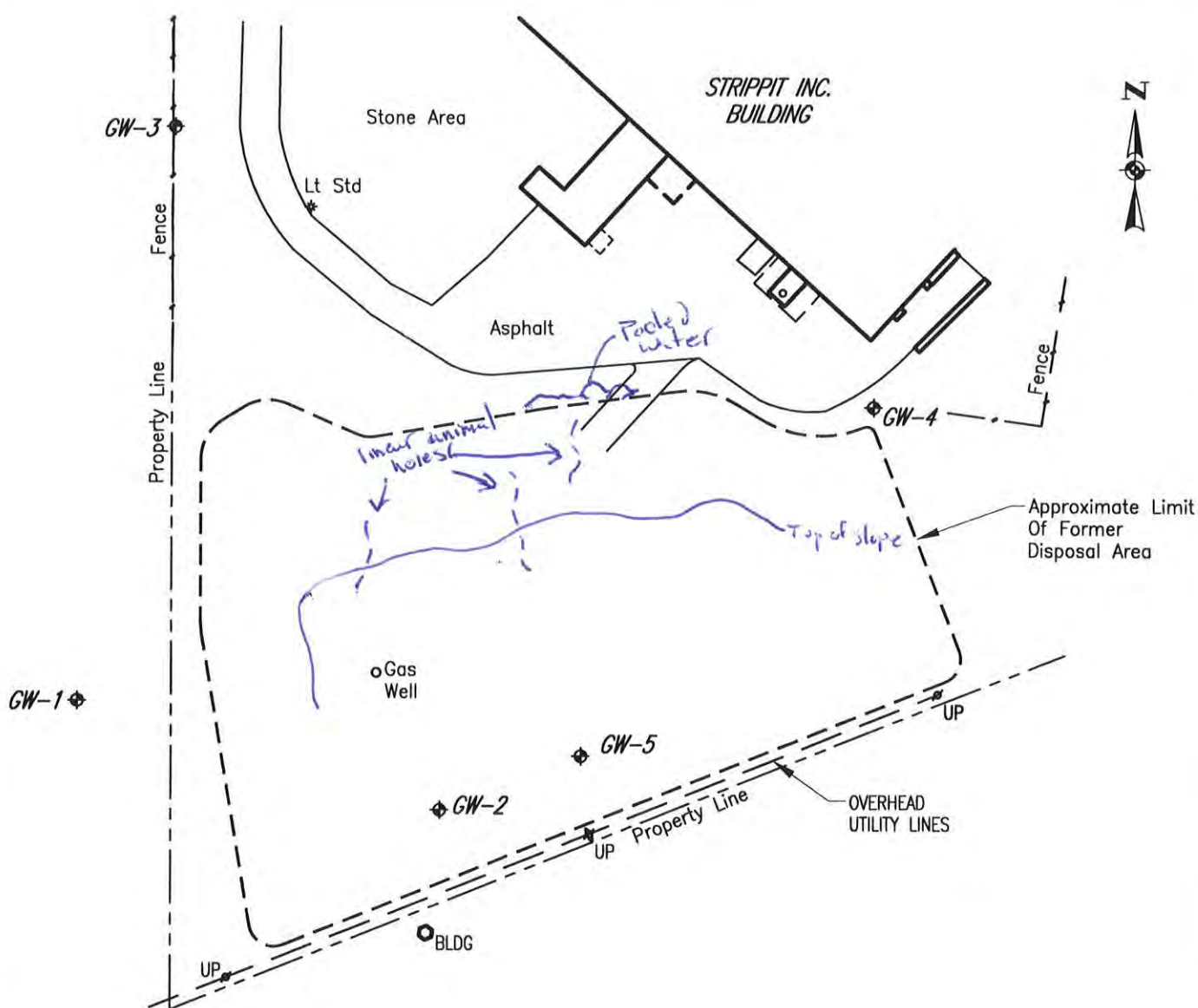
Additional Comments: NONE

Action Item(s) Required: Monitor Apparent Animal burrows (holes) in subsequent inspections for evidence of cracking/erosion to landfill cover - Clear drainage ways of vegetation.

Action Item(s) completed since last inspection: NONE

Signatures:

 January 16, 2013



NOTES:

1. This drawing produced from a drawing provided by Deborah A. Naybor, PLS, PC. entitled "Topographic Map Of Part Of Lot 5, TWP. 12, Range 5, Section 6, Town Of Newstead, County Of Erie, New York" dated 3/4/93 & revised 3/26/93.
2. No boundary survey was performed by Deborah A. Naybor, PLS, PC.

LEGEND:

- GW-1 Monitoring Well Designation
- Existing Gas Well
- Approximate Limits Of Former Disposal Area

DATE
2-1-2010

DRAWN BY
RJM

SCALE
1" = 100'

day

DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14614-1008
NEW YORK, NEW YORK 10016-0710

PROJECT TITLE
STRIPPIT, INC.
AKRON, NEW YORK

GROUNDWATER MONITORING

DRAWING TITLE

Site Location Map - January 16, 2013 INSPECTION

PROJECT NO.
1863R-99

FIGURE 2

APPENDIX B

DAY LETTER DATED APRIL 26, 2012
RE: ELEVATED pH LEVELS IN LANDFILL MONITORING
WELL GROUNDWATER SAMPLES
AND
NYSDEC RESPONSE LETTER DATED JUNE 11, 2012



DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

April 26, 2012

Mr. Brian Sadowski
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2915

Re: Strippit Inc.
Akron, New York
NYSDEC Site No. 9-15-053

Dear Mr. Sadowski:

Day Environmental Inc. (DAY) prepared this letter in response to a question presented in a March 14, 2012 letter from the New York State Department of Environmental Conservation (NYSDEC) to Mr. Anthony Marzullo, Strippit LVD. Specifically, the NYSDEC inquired about the cause of the elevated pH levels measured in groundwater samples collected from monitoring wells located in proximity of the closed landfill at the Strippit facility (the Site). A copy of the NYSDEC letter is included in Attachment A.

In an attempt to identify the potential cause of the elevated pH levels, DAY reviewed historic documentation pertaining to the waste materials placed within the landfill, previous reports prepared for the Site, and other relevant information. This letter summarizes the findings of the review conducted by DAY.

Subsurface Conditions

The capped landfill area contains various waste materials including: lenses of grinding fines, metal pieces, slag, wood debris, brick fragments, deteriorated 55-gallon drums, and electrical wiring intermixed with reworked indigenous soil. The fill within the landfill is underlain by a coarse sandy glacial till that grades to a silty till with depth. This glacial till deposit is approximately 40 to 50 feet thick, and it overlies a water-bearing sandy silt deposit that occurs at a depth of at least 40 feet below the ground surface. The glacial till deposit is not water bearing and it serves as a confining layer that precludes groundwater transport. The bedrock at the Site is a dolomitic limestone, which occurs at depths of about 110 to 120 feet below the ground surface.

Groundwater Monitoring Wells and Historic pH Measurements

Currently, five monitoring wells designated GW-1 through GW-5 are installed in proximity of the closed landfill at the Site, and the screened sections of these monitoring wells are sealed within the water-bearing sandy silt deposit. The locations of these monitoring wells are depicted on Figure 1. Monitoring wells GW-1 through GW-4 were installed between May 11, 1990 and May 25, 1990 as part of a study conducted by Engineering-Science on behalf of the NYSDEC to evaluate the Site and assess the need for remediation. Monitoring well GW-5 was installed on February 5, 1993 as part of additional site characterization studies conducted by DAY on behalf of Strippit. The depth/elevation of the screened interval of monitoring wells GW-1 through GW-5 are summarized below.

Monitoring Well	Surface Elevation (Feet)	Screened Interval	
		Depth (feet)	Elevation (feet)
GW-1	750.00	50 - 55	700.00 - 695.00
GW-2	760.80	60 - 70	700.80 - 690.80
GW-3	738.71	40 - 50	698.71 - 688.71
GW-4	748.90	40 - 50	708.90 - 698.90
GW-5	762.63	54.8 - 64.8	707.83 - 697.83

The historic documentation reviewed by DAY indicates that during the initial sampling round conducted on June 7, 1990 the following pH levels were measured in monitoring wells GW-1 through GW-4.

GW-1	pH = 11.79 s.u.
GW-2	pH = 11.70 s.u.
GW-3	pH = 7.32 s.u.
GW-4	pH = 11.48 s.u.

Following the installation and development of monitoring well GW-5, a round of groundwater samples was collected by DAY on February 22, 1993 and the following pH levels were measured.

GW-1	pH = 10.3 s.u.
GW-2	pH = 11.5 s.u.
GW-3	pH = 8.0 s.u.
GW-4	pH = 9.3 s.u.
GW-5	pH = 11.71 s.u.

The most-recent pH levels were measured on July 19, 2011 and January 12, 2012, and these measurements are summarized below.

	<u>July 19, 2011</u>	<u>January 12, 2012</u>
GW-1	pH = 11.59 s.u.	pH = 9.20 s.u.
GW-2	pH = 9.25 s.u.	pH = 9.48 s.u.
GW-3	pH = 7.04 s.u.	pH = 9.60 s.u.
GW-4	pH = 9.64 s.u.	pH = 9.58 s.u.
GW-5	pH = 9.59 s.u.	pH = 10.61 s.u.

Gas Well

A natural gas well, identified with an API Well Number of 3102913152, is located within the limits of the closed landfill (refer to Figure 1 for location). According to NYSDEC records, drilling of this gas well started on 2/20/1978 and the well was completed on 4/20/1978. This well is reportedly 914 feet deep (i.e., extending through the gas-bearing Medina Sandstone and terminating in the Queenstone Shale). The NYSDEC records indicate that this well is currently in active use, and that this well has been in use since at least 1985 (i.e., the starting date of the NYSDEC records).

Landfill Waste Records

Buffalo Arms Corporation, a manufacturer of machine guns, owned and used the Site for the test firing of machine guns and the disposal of scrap metal between about 1940 and 1950. Houdille Industries – Strippit Division (the predecessor to Strippit LVD) has occupied the Site since 1956. Although there is some discrepancy on the amounts of material disposed in the landfill area, and the dates of this disposal, it appears that the following materials may have been placed in this area.

- Approximately 20,000 gallons of water-based coolant per year;
- about 3 tons per year of heat treat sludge from metal treating operations;
- approximately 450 cubic yards per year of miscellaneous refuse (e.g., cardboard, packing materials, etc.) ; and
- approximately 270 gallons of waste solvent that may have been burned in the landfill area with the ash from this burning being placed in the landfill.

In addition, clean fill generated during a plant expansion was placed in the landfill in 1979.

A summary of the suspected types and quantities of waste disposed within the landfill area is included in Attachment B. [Note: This documentation was originally included as Appendix B of a report titled *Field Investigation Report, Strippit, Inc., Akron, New York, DEC Site No. 915053* dated July 1993 prepared by DAY.]

Discussion

Based upon the available data, it is apparent that the groundwater within the monitoring wells at the Site (i.e., with the exception of GW-3) has historically contained elevated pH levels since at least 1990. An entry on page 16 of the documentation included in Attachment B indicates that a cutting fluid identified as “Norton 203 Grinding SOL (Water Soluble)” with a pollutant identified as “Nitrite Amine”, and a quantity of “20,000 gal/year” was apparently generated and potentially “...dumped in the ditch in the back of the plant”, prior to 1975. Documentation was not obtained during DAY’s review regarding the pH of Norton 203 Grinding Sol, but amines are highly alkaline and pH values of 11 to 12 s.u. are reported for amine solutions. The other waste materials placed within the landfill would typically be expected to be relatively pH neutral or slightly acidic. [Note: During the studies conducted by Engineering-Science in 1990 a sediment sample was collected from a drainage trench located on the west side of the Site (i.e., presumably in proximity of the location where waste materials were disposed) was tested for semi-volatile organic compounds (SVOCs), and the pH reported for this sample was 7.63 s.u. A composite soil sample was also collected from the test boring used to for the subsequent construction of monitoring well GW-4, and this sample was also tested for SVOCs, and it had a pH of 7.80 s.u. During the study completed by DAY in 1993, one composite soil/fill sample collected from test pits advanced in the southwestern portion of the Site was tested for SVOCs, and this sample had a pH of 9.3 s.u.]

Waste products that may have been generated during the installation of the gas well within the landfill area would typically tend to be acidic (e.g., salt brines) to near neutral.

If the source of the elevated pH levels measured in the groundwater is assumed to be the Norton 203 Grinding Sol, it is not clear how the groundwater would have become impacted. The screened sections of monitoring wells GW-1 through GW-5 are all sealed within a water-bearing sandy silt deposit at depths in excess of 40 feet below the ground surface. A 40 to 50 foot thick glacial till deposit that serves as a confining layer overlies the water-bearing sandy silt deposit, and this layer precludes groundwater/contaminant transport. As such, this deposit would appear to impede the downward transport of pH-impacted liquids into the groundwater. While it is possible that during the drilling and installation of the monitoring wells and/or the gas well pH-impacted liquids could have migrated downward into the water-bearing sandy silt deposit this scenario does not explain the elevated pH levels that continue to be measured. Since the wells were sealed with bentonite and cement mixtures during their installation, and further sealed during the construction of the landfill cover, it is anticipated that the pH would have decreased with time, which is not the case. Furthermore, the historic test results for groundwater samples collected from monitoring wells GW-1 through GW-5 do not show evidence on on-going impact from contaminants typical of the materials placed within the landfill (e.g., the concentrations of barium and magnesium are currently below the TOGS 1.1.1 standard, and exhibit a stabilized or decreasing trend with time). Therefore, unless there is a breach in the glacial till confining layer that allows only pH-impacted liquid (if present within the landfill) to continue to migrate downward, the source of the elevated pH levels must be a natural occurrence and/or attributable to an unidentified upgradient source area (i.e., none of which are evident).

Please contact DAY if you have questions regarding this document.

Very truly yours,
Day Environmental, Inc.



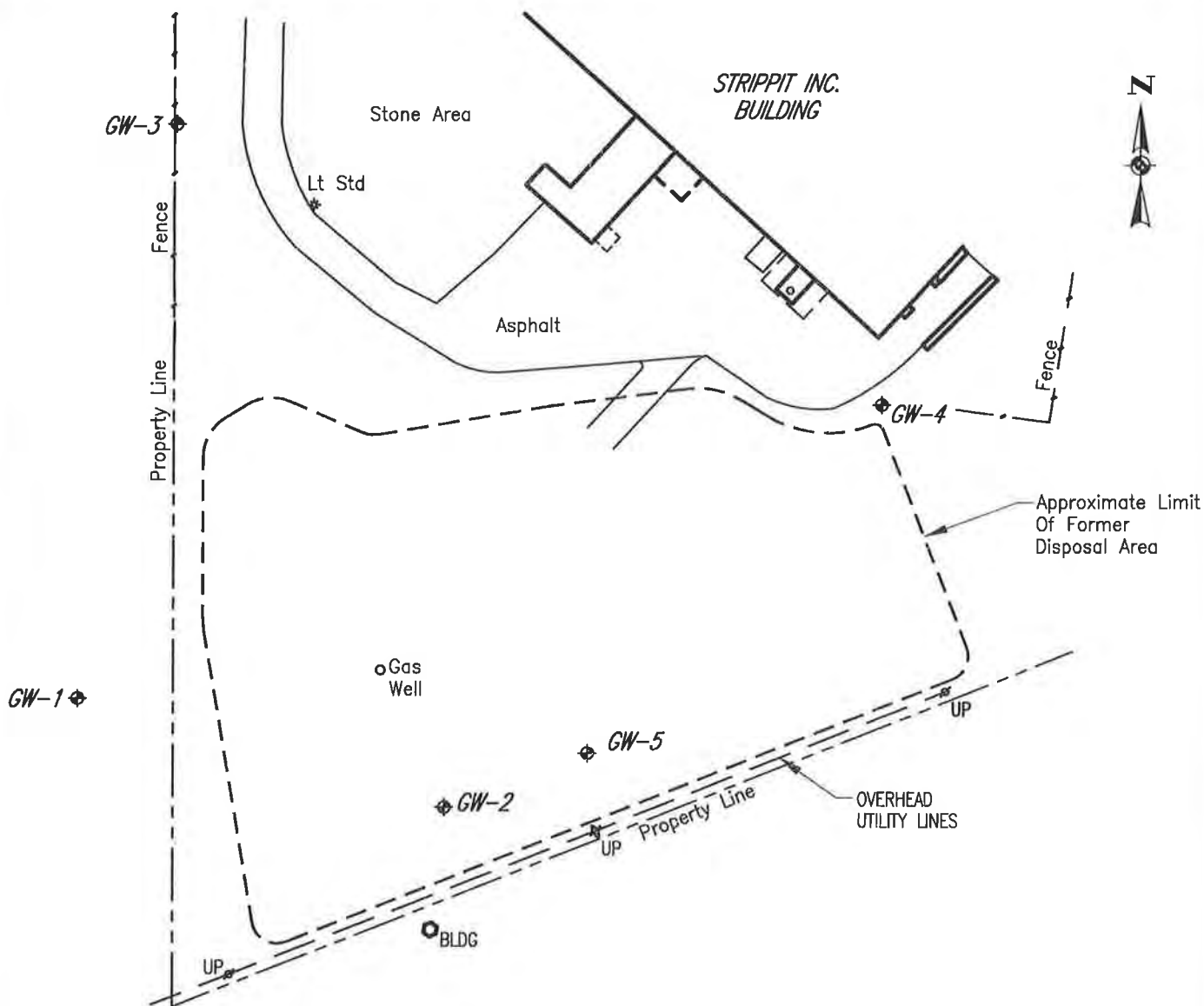
Raymond L. Kampff
Associate

cc: A. Marzullo, Strippit LVD

Attachments:

Figure 1	Site Plan
Attachment A	NYSDEC Letter dated March 14, 2012
Attachment B	Suspected Waste Disposed within the Landfill Area

FIGURES



NOTES:

1. This drawing produced from a drawing provided by Deborah A. Naybor, PLS, PC. entitled "Topographic Map Of Part Of Lot 5, TWP. 12, Range 5, Section 6, Town Of Newstead, County Of Erie, New York" dated 3/4/93 & revised 3/26/93.
2. No boundary survey was performed by Deborah A. Naybor, PLS, PC.

LEGEND:

- GW-1** Monitoring Well Designation
- o Existing Gas Well
- Approximate Limits Of Former Disposal Area

DATE
2-1-2010

DRAWN BY
RJM/Tw

SCALE
1" = 100'



DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14614-1008
NEW YORK, NEW YORK 10016-0710

PROJECT TITLE
STRIPPIT, INC.
AKRON, NEW YORK

GROUNDWATER MONITORING

DRAWING TITLE

Site Location Map

PROJECT NO
1863R-99

FIGURE 1

ATTACHMENT A

New York State Department of Environmental Conservation

Division of Environmental Remediation, Region 9

270 Michigan Avenue, Buffalo, New York 14203-2915

Phone: (716) 851-7220 Fax: (716) 851-7226

Website: www.dec.ny.gov



Joe Martens
Commissioner

March 14, 2012

Mr. Anthony Marzullo
Strippit LVD
Director of Engineering
12975 Clarence Center Road
Akron, New York 14001

Dear Mr. Marzullo:

**SITE MANAGEMENT (SM) PERIODIC REVIEW
REPORT (PRR) RESPONSE LETTER
HOUDAILLE INDUSTRIES; STRIPPIT DIVISION,
AKRON, ERIE COUNTY, SITE NO.: 915053**

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for the period of: 02/01/2011 to 01/31/2012.

The Department hereby accepts the PRR and associated Certification. However, we have two comments:

1. The SPDES Multi-Sector General Permit (MSGP) was not completed and therefore reported to Mr. Thomas Wantuck, project manager for your site, in the Division of Water. Mr. Wantuck said that he contacted you, and the necessary sampling will be done in 2012. We thank you in advance for this compliance.
2. The pH's in the groundwater monitoring wells have and continue to be outside the acceptable range. What do you believe is the cause for the elevated pH?

The frequency of Periodic Reviews for this site is 1 year; your next PRR is due on March 4, 2013. You will receive a reminder letter and updated certification form 45 days prior to the due date.

If you have any questions, or need additional forms, please contact me at 716-851-7220 or e-mail: bpsadows@gw.dec.state.ny.us

Sincerely,

Brian Sadowski
Project Manager

BS:vm

cc: Mr. Gregory P. Sutton, P.E., RWHE, NYSDEC Buffalo
Mr. Matthew Forcucci, NYS DOH, Buffalo

ATTACHMENT B

The following text is a compilation of information obtained through review of company records and personnel interviews. This document was generated by Mr. Robert Johnson, Manufacturing Engineering Manager, Strippit, Inc.

SUMMARY: Heat Treating Sludge

The disposal of heat treatment sludge (from 1956 to 1975) at the refuse site located behind the facility is referenced by various EPA/NYSDEC reports from 1978 through 1991. The source of information for such reports includes both company responses to environmental questionnaires, as well as interviews with former employee Ken Bartha (retired). Recently conducted interviews of Mr. Bartha and other former employees directly involved with waste disposal generally confirm the information on heat treatment sludge disposal reported by the government.

Company records seem to indicate that from 1956 to 1975 the heat treat sludge was disposed of in the refuse site with volumes equalling three tons/year (12 drums @ 500 pounds/drum), consistent with the manufacturing process in existence at the time. Chemical analysis reports of the sludge samples indicate contents of sodium chloride, barium chloride, potassium nitrate, sodium nitrite, sodium nitrate compounds and metal scale. The sludge was apparently taken to the refuse disposal site and disposed of in an open pit in a location along the western boundary of the refuse disposal site.

It is not clear if the sludge was disposed of in open top barrels or was dumped on the site with barrel removed. Although there is a question about whether Buffalo Arms produced waste cyanide salts, no one interviewed has any direct knowledge of Buffalo Arms disposal practices.

INTERVIEWS: Heat Treat Sludge

1. Clark Ralph, Maintenance Supervisor at Akron Site, 1956-1968

9/12/91 - Letter

Indicates disposal of heat treat salt sludge 3-4 times per year along the western boundary of the disposal site.

10/11/91 - Letter

"...repairing 'salt furnaces' the brick and salt was disposed upon the ground."

2. Bob Webster, Maintenance Supervisor (1969-1989)

8/20/91 - Phone Interview - Paraphrase

Prior to 1975, salt waste may have been put out there in drums. About 12 drums per year could be correct.

3. Ken Bartha, Employee (1950s-1991). Involvement with landfill and hazardous materials about 1975-1991.

8/20/91 - Interview - Paraphrase

I cannot answer for sure and never saw firsthand, but I suspect that the heat treat sludge, drum and all, was thrown into the open pit. The drum would then corrode quickly. It would be too difficult to get the salt out.

In the 1980 inspection, the investigator saw 12 drums of heat treat salt ready for off-site disposal. He never saw 216 drums...that was a calculated amount.

No drums were put under the dirt of the 1979 plant expansion.

REFERENCES: Heat Treat Sludge

1. Phase II Investigation, Executive Summary, Page I-1, NYSDEC, March, 1991.

"During the period 1956-1975, Strippit disposed of approximately... three tons per year of heat treatment sludge...." (NYSDEC, 1978)

"An estimated 216 drums of heat treatment sludge waste were alleged to be stored on site in 1980." (USEPA, 1980)

".... and non combustibles were buried in the landfill." (Bartha, 1987)

2. Phase II Investigation, Site Assessment, Page IV-4, NYSDEC, March, 1991

"According to the USEPA site assessment, the heat treatment sludge poses a hazard to groundwater, although the presence of hazardous substances in the sludge is not known." (USEPA, 1980)

3. Phase II Workplan, Page 1, NYSDEC, March, 1990

"Some of the heat treatment sludge was stored on the site. In 1979, the waste site, including the heat treatment sludge drums, were covered with an approximately 16,000 cubic yards of clean fill from an on-site plant expansion project." (No reference)

"Houdaille disposed of approximately.....three tons per year of heat treatment sludge from the metal fabrication operations." (No reference)

4. NUS 1989, Final Draft Site Inspection Report for USEPA, Executive Summary, January 19, 1989

"From 1956 to 1979, approximately....three tons per year of heat treatment sludge...were disposed of in a two acre landfill immediately behind the plant, In 1979, the disposal area was covered with approximately five feet of clean fill during a plant expansion." (No reference)

5. Bartha 1987, Interview with R. Steele of ES, January 20, 1987

"Houdaille used the site for waste disposal of heat treat sludge, ..." (Personal Interview)

6. Phase I Investigation, Executive Summary, NYSDEC, January, 1986

"Starting in 1956, Houdaille disposed of approximately....three tons per year of heat treatment sludge....(NYSDEC, 1982) in a two acre area on site." (NYSDEC, 1982)

7. Phase I Investigation, Site Assessment, Page IV-12, NYSDEC

Site History:

"...other non-combustible material such as the heat treatment sludge were left uncovered on the site (ES and D&M Site Inspection, 1985). Some of the heat treatment sludge was stored in an estimated 216 drums on the site. In 1979, the waste site, including the heat treatment sludge drums, were covered with approximately 16,000 cubic yards of clean fill from an on-site plant expansion project (EPA, 1980).

Site Contamination:

"According to Houdaille Industries (NYSDEC, 1978; Bartha, 1985), approximately....three tons/year of heat treatment sludge (1950-1979)....were disposed of in the on-site landfill."

"According to an EPA site assessment (EPA, 1980), the heat treatment sludge also poses a hazard to ground waters, although the presence of hazardous substances in the sludge is not known. Some of the heat treatment sludge was stored in approximately 216 drums. In 1979, the site was covered, including the drums containing heat treatment sludge, with approximately 16,000 cubic yards of clean fill."

8. Phase I Investigation, Preliminary Application of Hazard Ranking System, NYSDEC

"Beginning in 1956, Houdaille disposed approximately....three tons/year of heat treatment sludge...at the site." (NYSDEC, 1987).

"...and sludge were landfilled on site (ES and D & M Site Inspection, 1985)... An estimated 216 drums of heat treatment sludge waste are alleged to be disposed on site (EPA, 1980).

"Houdaille Industries, Strippit Division, disposed of...heat treatment sludge...on a 2-acre site located behind their manufacturing facility."

9. EPA Potential Hazardous Waste Site Inspection Report, Conducted by R. Steele (ES) and Eileen Gilligan (Geologist), Information provided by Ken Bartha on site, March 27, 1985

"Part II Waste Information

III. Waste Type

Sludge 57 Tons Heat Treatment Sludge"

"Part IV

IV. Containment

... and heat treatment sludge were disposed of directly on the ground...There are reports of storing heat treatment sludge in drums on the site." (Interagency Task Force Report, 1978, and Site Inspection 3/27/85.)

"Part VI

V. Other

Several rusty drums, partially exposed were observed along the outer edges of the landfill area. The drums were presumed to be leaking, because of their condition." (Site Inspection 3/27/85)

"Part II"

In April, 1980, the EPA investigated the disposal of heat treatment sludge on site. The investigator found 12 drums of sludge waste, which was used in metal working processes and contains barium chloride and sodium and nitrate salts. An additional 216 drums were estimated to be on site. (EPA Hazardous Waste Site Assessment 4/15/80.) (Note: Also contacted for this report were Peter Buechi [NYSDEC] who was the principal site contact for the 4/15/80 EPA Hazardous Waste Site Assessment also referred to as USEPA, 1980) and Ron Koczaja of EC Division of Environment and Planning, who made a site inspection in 1978 for the Bureau of Water Resources and concluded that the landfill was properly closed, but requested an analysis of the heat treatment sludge on 12/1/78.)

10. NYSDEC Inactive Hazardous Waste Disposal Site Report, January 24, 1985

"Strippit Division...used this site to dispose...heat treatment sludge during the period 1955-1975". (No reference)

"Disposed heat treatment sludge three tons per year suspected." (No reference)

(Report by Peter Buechi, Associate Sanitary Engineer)

11. Bartha, 1985 Interview conducted by R. Steel and J. Batts (ES) on 3/27/85

Site inspection as a part of EPA Potential Hazardous Waste Site Inspection Report of 3/27/85

"Wastes disposed of at the site included...heat treatment sludgenon-combustibles were left on site."

12. ECDEP, 1984 Site # 915053 Report, Page 1

"Background

Prior inspection reports and ECDEP files indicate that the Strippit Corporation disposed of...heat treating sludge at this site."

"Sampling Results

The sample does not show any analysis for barium. However, barium salts were a major component of the heat treating sludge that was disposed of at this site."

13. NYSDEC, 1983 Inactive Hazardous Waste Disposal Site Report,
Page 9-203

"Type and Quantity of Hazardous Wastes Disposed

Type	Quantity
Heat Treatment Sludge	3 tons/year"

"Site Description:

Strippit Division of Houdaille Industries and its predecessors used this site to dispose...and heat treatment sludge during the period 1955-1975. (No reference)

Persons completing this form:
Abul Barkat, Sr. Sanitary Engineer
Peter Buechi, Associate Sr. Sanitary Engineer.

14. NYSDEC Hazardous Waste Disposal Site Questionnaire, 1983

Information provided by Bartha

<u>Disposal Site</u>	<u>Hazardous Waste</u>	<u>EPA Code</u>	<u>Quantity</u>	<u>Solid</u>	<u>Disposal Dates</u>	<u>Transporter</u>
Strippit, Akron, N.Y.	Heat Treat Sludge	FO11	3 tons/yr	X	1956-1975	-----
Niagara Sanitation	Heat Treat Sludge	FO11	.6 tons/yr	X	1975-1978	Niagara Sanitation

15. NYSDEC, 1982 Site Assessment Report

"History - The following has been deposited...heat treatment sludge (3 tons/yr)..." (No reference)

16. USEPA, 1980, Potential Hazardous Waste Site Identification, April 14, 1980

"Site Description - Strippit Division solid waste disposal site used 1957 to 1975 for disposal of about 216 drums of heat treatment sludge."
Report by Peter Buechi, Associate Sanitary Engineer, DEC

17. Letter Bartha to R. Koczaja, Bureau of Water Resources, EC

Letter written in response to R. Koczaja request for analysis of heat treatment sludge (12/1/78). The letter said the sludge was not toxic. Lab analysis from the manufacturer of the heat treat salts, E. Houghton, was included indicating presence of various barium compounds.

18. Various documents written by Bartha in preparation for response to R. Koczaja request for analysis of heat treatment sludge (12/1/78). Included is a documented phone conversation with an engineer from E. Houghton, the manufacturer of the heat treatment salts. The document lists the expected composition of the sludge: sodium chloride, barium chloride, potassium nitrate, sodium nitrite, sodium nitrate, scale, and oxides of above. Included also is the lab analysis of the heat treatment sludge by E. Houghton indicating the presence of barium compounds.
January, 1979.

19. Letter from R. Koczaja, Bureau of Water Resources ECDEP, December 1, 1978

"Waste Disposal Site Inspection

We would request that you forward results of the chemical analyses of the solidified waste heat treatment sludge to this office...."

20. NYSDEC 1978 Interagency Task Force on Hazardous Wastes Report, Information provided by Bartha, November 1978

"IV. Industrial Waste Production

2. Products 1930-1975

Heat Treat Sludge 1956-1975

3. On site Waste Treatment

Buried all non combustibles on refuse disposal site 1956-1975

V. Identify all Treatment of Disposal Sites in Erie or Niagara County used since 1930.

Lancaster Sanitary Landfill

Heat Treat Sludge Solid

Qty.: 3 ton/yr

Type of Container: 55-gallon drums (Pencil note, Bartha: 10-15 drums)

SUMMARY: Solvents/Paints

The disposal of solvents and paint waste at the refuse site located behind the facility is referenced in various EPA/NYSDEC reports from 1978 through 1991. The source of information includes both company responses to environmental questionnaires, as well as interviews with former employee Ken Bartha (retired). Recently conducted interviews of other former employees directly involved with waste disposal sheds some light on the situation.

From the information accumulated, evidence from interviews indicates that during the 1956-1970 time period, paint thinner was poured onto trash for use as a fire starter. The approximate location of the burning is recalled by Clark Ralph, a former employee and eyewitness, as located northwest of the former railroad spur within the disposal site. Aerial photographs from the 1960s time period seem to give evidence to this location also. There is no indication that any thinner was ever put into the landfill in drums or poured onto the ground as a means of disposal, nor would it be logical or necessary to do so.

The situation surrounding the disposal of chlorinated solvents is not as clear, as this type of solvent is not usable as a fire starter. Evidence supplied by Clark Ralph indicates that, to the best of his knowledge, these solvents were taken off site by commercial disposal haulers (possibly for reclaiming).

There is no evidence that would indicate chlorinated solvents were poured on the ground, and all interviews with former employees directly involved with waste disposal during the period 1956-1975 state that no drums of any solvent were put into the landfill.

REFERENCES: Solvents/Paints

1. Phase II Investigation, Executive Summary, Page I-1, 1991 (NYSDEC)

"All combustible materials were burned at the disposal site and the resulting ash...were buried in the landfill." (Bartha, 1987)
"Waste solvents generated at the plant were reportedly used to ignite the combustible materials in the disposal area." (Bartha, 1985)

2. Phase II Investigation, Site Assessment, Page IV-1, 1991, (NYSDEC)

"All combustible materials were burned at the site and the resulting ash were buried in the landfill. (Bartha, 1987) "Waste solvents generated at the plant were reportedly used to ignite the combustible materials at the disposal area." (Bartha, 1985)

3. Phase II Investigation, Site Contamination Assessment, Page IV-4, 1991, (NYSDEC)

"The solvents and combustible refuse were burned and the resulting ash was landfilled."

4. Phase II Workplan, Introduction, Page 1, 1990 (NYSDEC)

"An estimated five 55-gallon drums/year of waste solvents generated at the plant was used as an accelerator to open burn the plant's solid waste."

5. Site Inspection Report, 1989, (NUS)

"From 1956 to 1979, approximately 20,000 gallons per year of cutting oils, coolants, and degreasing solvents...were disposed of in a 2-acre landfill immediately behind the plant."

6. Interview of Ken Bartha, 1987, (Steele, ES)

"Solvents were used to burn plant refuse."

7. Phase I Investigation, Executive Summary, Page I-1, 1986, (NYSDEC)

"An estimated five 55-gallon drums/year of waste solvent generated at the plant was used to open burn the plant's solid waste. Solvents were not known to be disposed of on the ground."

8. Phase I Investigation, Site Assessment, Page IV-1, 1986, (NYSDEC)

"The ash from open burning of solid waste...were left uncovered on the site." (ES and D&M Site Inspection, 1985)

9. Phase I Investigation, Site Contamination, Page IV-4, 1986, (NYSDEC)

"The solvents and combustible refuse were burned and the resulting ash...were landfilled."

10. Phase I, Preliminary Application of Hazard Ranking System, 1986, (NYSDEC)

"Solvents generated from plant manufacturing operations were used to burn the plant's combustible wastes. The resulting ash...were landfilled on site." (ES and D&M Site Inspection, 1985) "No solvent wastes were known to have been poured directly on the ground." (Bartha, 1985)

11. Interview of Ken Bartha, 1985, (Steele, ES)

"Combustible materials were burned at the disposal site and the resulting ash...were disposed on site. No solvents were known to have been disposed directly on the ground at the site. Solvents generated at the plant were used as starter fluid for the solid wastes." (Bartha, 1985)

12. Interview of Ken Bartha, 1985, (Steele, ES)

"Small quantities of waste solvents, five 55-gallon drums per year, were burned on site. The solvent was used as a fire starter for the burning of the plant's solid waste. No solvents were poured on the ground."

13. Potential Hazardous Waste Site, 1985, (EPA)

"Solvents...were poured onto plant refuse and burned. The resulting ash is disposed on site."

"Solvents...were poured onto plant-generated refuse and burned. Most of the...solvents were probably destroyed. The ash from that burning was disposed of on site."

"Ash from the burning of solvents...were disposed of directly on the ground."

14. NYSDEC Inactive Hazardous Waste Disposal Site Report, 1985, (NYSDEC)

"...used this site to dispose solvents, paint..."

15. Hazardous Waste Disposal Questionnaire, 1984 (NYSDEC)

Reference: "Generator Form Part-II"

Hazardous Waste Disposal Site: Strippit, Di-Acro

Description of Hazardous Waste: Chlorinated solvents

EPA Waste Code: F001

Waste Disposed of Quantity of Waste (tons): 2.4 tons/yr

Form: Liquid

Waste Disposal Dates: 1956-1975

15. Reference: "Generator Form Part-II" (Cont.)

Hazardous Waste Disposal Site: Strippit, Di-Acro

Description of Hazardous Waste: Paint Thinner

EPA Waste Code: D001

Waste Disposed of Quantity of Waste (tons): 4.4 tons/yr

Form: Liquid

Waste Disposal Dates: 1956-1975

16. NYSDEC Inactive Hazardous Waste Disposal Site Report, 1983 (NYSDEC)

"Strippit Division of Houdaille Industries and its predecessors used this site to dispose...solvents, paint...during the period 1956-1975."

Hazardous Waste Disposed - Suspected

<u>Type</u>	<u>Quantity</u>
Cutting oils, solvents, paints	20,000 gallons/yr

Note by Ken Bartha indicates "burned".

17. NYSDEC Site Profile Report, 1982, (NYSDEC)

"The following has been deposited: cutting oils, solvents, paint (20,000 gal/yr),..."

18. Interagency Task Force on Hazardous Waste Hearing Officer's Report, 1979

"...solvents, water with paint contamination (20,000 gallons/yr) and paint thinners and filters were also disposed of on premises until 1975."

19. Interagency Task Force on Hazardous Waste, 1978

On Site Waste Treatment (1930 - 1975)

a. Incinerate all combustibles 1956-1970

20. Ken Bartha Letter to G. Lawrie, 1978

"The only information I have received is that prior to 1975, cutting fluids, paint, thinner, etc. were dumped in the ditch in the back of the plant." (Later note added, "and burned".)

21. Letter to Robert Webster from Erie County Department of Health, 1974

"Please inform our office of the quantity of the following items that were hauled away from your plant in 1973."

2. The spent chlorothene used in the degreasing tank"

INTERVIEWS: Solvents/Paints

1. Clark Ralph, Maintenance Supervisor at Akron site 1956-1975.

Letter 9/12/91 - Paraphrase

No knowledge of disposal method of paint and paint thinner. Liquid degreasing solvents were "not used in my time. Combustibles were burned along the western property line to the northwest of the former railroad spur.

Letter 10/11/91

"To the best of my knowledge, the solvents and cleaners were taken out by truck by collectors of these materials."

"We did burn a lot of flammables that were not safe to put in the incinerator, up on the dump site."

2. Robert Webster, Maintenance Supervisor, 1969-1989

Phone Interviews - Paraphrase

8/15/91

Also, prior to my time, garbage was taken out back and thinner poured on it and lit.

No solvents in drums or otherwise were dumped in my time. Most solvents were consumed in the process, flashed off, etc.

8/20/91

I do not ever remember anyone putting a drum of solvent/thinner in the site.

They used to have a dump truck to collect the trash and dump it on site. Maintenance people would then pour solvents/thinner over it and light it.

3. Gene Lawrie, Plant Manager, 1976-1978 and employee in the late 1960s

Phone Interview - Paraphrase

Solvents and thinner were burned on trash or rags. I would not believe there are any solvents or thinner in drums. I saw the trash burned around 1969. It was burned in a ditch at the rise of ground as you approach the refuse site. The refuse site was always elevated - probably from dirt from original plant excavation.

4. Ken Bartha, employee involved with hazardous waste disposal 1974-1991

Interview - Paraphrase - 8/20/91

There are no drums of solvents or thinner out there. All were burned according to information from Bob Webster.

SUMMARY: Coolant/Cutting Fluids/Cutting Oils

The disposal of coolants, cutting fluids, and cutting oils at the refuse site is referenced in various EPA/NYSDEC reports from 1978 through 1991. The source of information includes both company responses to environmental questionnaires, as well as interviews with former employee, Ken Bartha (retired). Recently conducted interviews of other former employees directly involved with waste disposal indicate that it is likely that water soluble coolants were disposed of on the ground near the former railroad spur within the refuse site. There is no evidence to indicate that any drums of coolant were placed in the landfill. Clark Ralph, an eyewitness and former employee, indicates that coolant was disposed of by dumping on the ground.

The disposal of cutting oils is somewhat unclear because conflicting information indicates that cutting oils were burned along with trash at the site, while eyewitness interviews indicate that waste oil was taken off site since 1956. It seems most likely that the routine disposal method for cutting oils was removal off site by a used oil hauler. However, oil-containing filters and other refuse were burned with the trash. There is no evidence to indicate that drums of cutting oil were put into the landfill.

REFERENCES: Coolants/Cutting Fluids/Cutting Oils

1. Phase II Investigation, Executive Summary, Phase I-1, 1991 (NYSDEC)

"During the period 1956 to 1975, Strippit disposed of 20,000 gallons per year of water soluble coolants."

2. Phase II Workplan, Introduction, Page 1, 1990 (NYSDEC)

"Houdaille disposed of approximately 20,000 gallons/year of biodegradable water based coolant,..."

3. Site Inspection Report, 1989, (NUS)

"From 1956 to 1979, approximately 20,000 gallons/year of cutting fluids, coolants...were disposed of in a 2-acre landfill immediately behind the plant."

4. Interview of Ken Bartha, 1987, (Steele, ES)

"Houdaille used the site for waste disposal of...cutting oils, coolants,..."

5. Phase I Investigation, Executive Summary, Page I-1, 1986
(NYSDEC)

"Starting in 1956, Houdaille disposed of approximately 20,000 gallons/year of biodegradable, water-based coolants...in a 2-acre area on site."

6. Interview Ken Bartha, 1985, (Steele, ES)

"Approximately 20,000 gallons of water soluble, biodegradable coolant was disposed of via the on-site disposal fill area. The practice occurred from 1956 to 1968."

"Cutting oils were generated on-site (ten to fifteen 55-gallon drums/year) which were recycled and collected by Booth Oil Company. This practice has been in place since Strippit began operations in 1956."

7. Potential Hazardous Waste Site, 1985, (EPA)

"Solvents and cutting oils were poured onto plant refuse and burned. The resulting ash is disposed of on site."

"Solvents and oil-based oils were poured onto plant-generated refuse and burned."

"Ash from the burning of solvents and cutting oils, coolants...were disposed of directly on the ground."

8. NYSDEC Inactive Hazardous Waste Disposal Site Report, 1985,
(NYSDEC)

"...used this site to dispose cutting oil,..."

9. NYSDEC Inactive Hazardous Waste Disposal Site Report, 1983,
(NYSDEC)

"Hazardous Waste Disposed - Suspected"

<u>Type</u>	<u>Quantity</u>
Cutting oils, solvents, paints	20,000 gallons/year

Note by Ken Bartha indicates "burned".

10. NYSDEC Site Profile Report, 1982, (NYSDEC)

"The following has been deposited: cutting oils, solvents, paint (20,000 gallons/year);..."

11. Interagency Task Force on Hazardous Waste Hearing Officer's Report, 1979

"Coolants (20,000 gallons/year) were also disposed of at this site until 1975."

"..., cutting oil compounds...were also disposed of on premises until 1975."

12. Interagency Task Force on Hazardous Waste, 1978

"On-Site Waste Treatment (1930-1975)"

Coolant dumped on refuse disposal site 1956-1975

13. Ken Bartha letter to G. Lawrie, 1978

"No documented information available on how the cutting fluids were disposed of prior to 1975. The only information I have received is that prior to 1975, cutting fluids, paint thinner, etc. were dumped in the ditch in the back of the plant." (Later note added, "and burned".)

"Cutting Fluids

<u>Type</u>	<u>Pollutant</u>	<u>Quantity</u>
Norton 203 Grinding Sol (Water Soluble)	Nitrite Amine	20,000 gal/yr Total
Trimsol (Water Soluble)	Phenol	
Mobile Met 715	Straight oil	1,000 gal/yr Total
Texaco 240	Straight oil	
Texaco 499 EDM Fluid	Straight oil	
Honing Oil	Straight oil	No waste

INTERVIEWS: Coolants/Cutting Fluids/Cutting Oils

1. Clark Ralph, Maintenance Supervisor at Akron Site 1956-1975

Letter 9/12/91 - Paraphrase

"About 'ELOX' Machines...We built 'filters' to contain bags of burnt fullers earth which, when changed, were taken to 'disposal' site and burned."

"Grinding sludge was sold, to the best of my knowledge. We used 'Cimcool' from Cincinnati Milling Machine Co. for most of our work on grinders and turrets, and automatics such as Cone, Brown and Sharpe and W & S Turrets and Misc."

Coolants and some grinding sludge was dumped on the ground at locations to the northwest of the former railroad spur within the disposal site.

2. Robert Webster, Maintenance Supervisor, 1969-1989

Phone Interview - Paraphrase, 8/15/91

"There was no waste oil disposed of...paid to take away."

New York State Department of Environmental Conservation

Division of Environmental Remediation, Region 9

270 Michigan Avenue, Buffalo, New York 14203-2915

Phone: (716) 851-7220 • Fax: (716) 851-7226

Website: www.dec.ny.gov



Joe Martens
Commissioner

June 11, 2012

Mr. Anthony Marzullo
Strippit LVD
Director of Engineering
12975 Clarence Center Road
Akron, New York 14001

Dear Mr. Marzullo:

Letter Evaluating High pH in Monitoring Wells
Houdaille Industries; Strippit Division
Site No. 915053
Akron, Erie County

The New York State Department of Environmental Conservation (NYSDEC) is in receipt of the April 26, 2012 letter from Day Environmental, Inc. (Day), that evaluates the high pH of groundwater in monitoring wells at this subject site. This letter is a response to a question presented in a March 14, 2012 letter from the NYSDEC to Mr. Anthony Marzullo of Strippit LVD.

The Day letter concludes that the glacial till deposit that underlies the site is a confining layer that would prevent the downward migration of contaminants and high pH groundwater from the landfill to the underlying water-bearing sandy silt deposit that is being monitored at the site. The Day letter also concludes that the source of the elevated pH levels "must be a natural occurrence and/or attributable to an unidentified upgradient source area (i.e., none of which are evident)".

The NYSDEC finds the Day response to be acceptable and requests that the pH of groundwater in site monitoring wells continued to be measured and reported at the frequency currently being conducted.

Should you have any comments or questions, please feel free to contact me at 716-851-7220.

Sincerely yours,

Brian Sadowski
Project Manager

BS:sz

cc: Mr. Gregory Sutton, NYSDEC, Region 9
Mr. Glenn May, NYSDEC, Region 9

APPENDIX C

MONITORING WELL SAMPLE LOGS,
PARADIGM ENVIRONMENTAL SERVICES, INC. REPORT
AND
CHAIN-OF-CUSTODY DOCUMENTATION:
JANUARY 16, 2013 SAMPLE EVENT

**DAY ENVIRONMENTAL, INC.
MONITORING WELL SAMPLING LOG**

WELL GW-1

SECTION 1 - SITE INFORMATION

SITE LOCATION: 12975 Clarence Center Road **JOB #:** 4653R-12
Akron, New York **DATE :** 1-16-13
SAMPLE COLLECTOR(S): C. Hampton
WEATHER CONDITIONS: 35°F, Cloudy **PID IN WELL (PPM):** N/M **LNAPL** N/O **DNAPL** N/O

SECTION 2 - PURGE INFORMATION

DEPTH OF WELL [FT]: 58.45 (MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]: 41.36 (MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]: 17.09 (DEPTH OF WELL - SWL)
CALCULATED VOL. OF H₂O PER WELL CASING [GAL]: 2.79 **CASING DIA.:** 2"
CALCULATIONS:

CASING DIA. (FT)	WELL CONSTANT(GAL/FT)	CALCULATIONS
3/4" (0.0625)	0.023	VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
1" (0.0833)	0.041	
1 1/4" (0.1041)	0.063	
2" (0.1667)	0.1632	
3" (0.250)	0.380	
4" (0.3333)	0.6528	
4 1/2" (0.375)	0.826	
6" (0.5000)	1.4688	
8" (0.666)	2.611	

CALCULATED PURGE VOLUME [GAL]: 8.37 (3 TIMES CASING VOLUME)
ACTUAL VOLUME PURGED [GAL]: 7.0 (Dry)
PURGE METHOD: Bailer **PURGE START:** 11:05 **END:** 11:35

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS

SAMPLE ID #	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)
GW-1	1-16-13 / 14:00	Bailer	Ba, Fe, Mg, Mn

SECTION 4 - WATER QUALITY DATA

SWL (FT)	TEMP (°C)	pH	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
53.75	9.2	9.15	1.13	208.0	4.06	-40	Clear

**DAY ENVIRONMENTAL, INC.
MONITORING WELL SAMPLING LOG**

WELL GW-2

SECTION 1 - SITE INFORMATION

SITE LOCATION: 12975 Clarence Center Road **JOB #:** 4653R-12
Akron, New York **DATE :** 1-16-13
SAMPLE COLLECTOR(S): C. Hampton
WEATHER CONDITIONS: 35°F, Cloudy **PID IN WELL (PPM):** N/M **LNAPL** N/O **DNAPL** N/O

SECTION 2 - PURGE INFORMATION

DEPTH OF WELL [FT]: 78.65 (MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]: 52.56 (MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]: 26.09 (DEPTH OF WELL - SWL)
CALCULATED VOL. OF H₂O PER WELL CASING [GAL]: 4.26 **CASING DIA.:** 2"
CALCULATIONS:

<u>CASING DIA. (FT)</u>	<u>WELL CONSTANT(GAL/FT)</u>	<u>CALCULATIONS</u>
¾" (0.0625)	0.023	VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
1" (0.0833)	0.041	
1¼" (0.1041)	0.063	
2" (0.1667)	0.1632	
3" (0.250)	0.380	
4" (0.3333)	0.6528	
4½" (0.375)	0.826	
6" (0.5000)	1.4688	
8" (0.666)	2.611	

CALCULATED PURGE VOLUME [GAL]: 12.77 (3 TIMES CASING VOLUME)
ACTUAL VOLUME PURGED [GAL]: 4.5 (Dry)
PURGE METHOD: Bailer **PURGE START:** 11:36 **END:** 11:50

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS

SAMPLE ID #	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)
GW-2	1-16-13 / 13:35	Bailer	Ba, Fe, Mg, Mn

SECTION 4 - WATER QUALITY DATA

SWL (FT)	TEMP (°C)	pH	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
70.63	9.3	10.21	0.556	90.5	6.76	40	Clear

**DAY ENVIRONMENTAL, INC.
MONITORING WELL SAMPLING LOG**

WELL GW-3

SECTION 1 - SITE INFORMATION

SITE LOCATION: 12975 Clarence Center Road **JOB #:** 4653R-12
Akron, New York **DATE :** 1-16-13
SAMPLE COLLECTOR(S): C. Hampton
WEATHER CONDITIONS: 35°F, Cloudy **PID IN WELL (PPM):** N/M **LNAPL** N/O **DNAPL** N/O

SECTION 2 - PURGE INFORMATION

DEPTH OF WELL [FT]: 51.55 (MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]: 33.98 (MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]: 17.57 (DEPTH OF WELL - SWL)
CALCULATED VOL. OF H₂O PER WELL CASING [GAL]: 2.87 **CASING DIA.:** 2"
CALCULATIONS:

<u>CASING DIA. (FT)</u>	<u>WELL CONSTANT(GAL/FT)</u>	<u>CALCULATIONS</u>
¾" (0.0625)	0.023	VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
1" (0.0833)	0.041	
1¼" (0.1041)	0.063	
2" (0.1667)	0.1632	
3" (0.250)	0.380	
4" (0.3333)	0.6528	
4½" (0.375)	0.826	
6" (0.5000)	1.4688	
8" (0.666)	2.611	

CALCULATED PURGE VOLUME [GAL]: 8.60 (3 TIMES CASING VOLUME)
ACTUAL VOLUME PURGED [GAL]: 8.6 (Dry)
PURGE METHOD: Bailer **PURGE START:** 10:30 **END:** 11:05

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS

SAMPLE ID #	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)
GW-3	1-16-13 / 13:02	Bailer	Ba, Fe, Mg, Mn

SECTION 4 - WATER QUALITY DATA

SWL (FT)	TEMP (°C)	pH	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
33.98	10.3	8.00	0.723	73.3	0.83	-99	Clear

**DAY ENVIRONMENTAL, INC.
MONITORING WELL SAMPLING LOG**

WELL GW-4

SECTION 1 - SITE INFORMATION

SITE LOCATION: 12975 Clarence Center Road **JOB #:** 4653R-12
Akron, New York **DATE :** 1-16-13
SAMPLE COLLECTOR(S): C. Hampton
WEATHER CONDITIONS: 35°F, Cloudy **PID IN WELL (PPM):** N/M **LNAPL** N/O **DNAPL** N/O

SECTION 2 - PURGE INFORMATION

DEPTH OF WELL [FT]: 46.50 (MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]: 38.24 (MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]: 8.26 (DEPTH OF WELL - SWL)
CALCULATED VOL. OF H₂O PER WELL CASING [GAL]: 1.35 **CASING DIA.:** 2"
CALCULATIONS:

CASING DIA. (FT)	WELL CONSTANT(GAL/FT)	CALCULATIONS
¾" (0.0625)	0.023	VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
1" (0.0833)	0.041	
1¼" (0.1041)	0.063	
2" (0.1667)	0.1632	
3" (0.250)	0.380	
4" (0.3333)	0.6528	
4½" (0.375)	0.826	
6" (0.5000)	1.4688	
8" (0.666)	2.611	

CALCULATED PURGE VOLUME [GAL]: 4.04 (3 TIMES CASING VOLUME)
ACTUAL VOLUME PURGED [GAL]: 3.5 (Dry)
PURGE METHOD: Bailer **PURGE START:** 12:05 **END:** 12:20

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS

SAMPLE ID #	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)
GW-4	1-16-13 / 13:45	Bailer	Ba, Fe, Mg, Mn

SECTION 4 - WATER QUALITY DATA

SWL (FT)	TEMP (°C)	pH	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
40.82	10.9	10.05	0.845	45.2	5.97	-67	Clear

**DAY ENVIRONMENTAL, INC.
MONITORING WELL SAMPLING LOG**

WELL GW-5

SECTION 1 - SITE INFORMATION

SITE LOCATION: 12975 Clarence Center Road **JOB #:** 4653R-12
Akron, New York **DATE :** 1-16-13
SAMPLE COLLECTOR(S): C. Hampton
WEATHER CONDITIONS: 35°F, Cloudy **PID IN WELL (PPM):** N/M **LNAPL** N/O **DNAPL** N/O

SECTION 2 - PURGE INFORMATION

DEPTH OF WELL [FT]: 73.95 (MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]: 52.78 (MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]: 21.17 (DEPTH OF WELL - SWL)
CALCULATED VOL. OF H₂O PER WELL CASING [GAL]: 3.45 **CASING DIA.:** 2"
CALCULATIONS:

CASING DIA. (FT)	WELL CONSTANT(GAL/FT)	CALCULATIONS
3/4" (0.0625)	0.023	VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
1" (0.0833)	0.041	
1 1/4" (0.1041)	0.063	
2" (0.1667)	0.1632	
3" (0.250)	0.380	
4" (0.3333)	0.6528	
4 1/2" (0.375)	0.826	
6" (0.5000)	1.4688	
8" (0.666)	2.611	

CALCULATED PURGE VOLUME [GAL]: 10.36 (3 TIMES CASING VOLUME)
ACTUAL VOLUME PURGED [GAL]: 5.25 (Dry)
PURGE METHOD: Bailer **PURGE START:** 11:50 **END:** 12:05

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS

SAMPLE ID #	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)
GW-5	1-16-13 / 13:22	Bailer	Ba, Fe, Mg, Mn

SECTION 4 - WATER QUALITY DATA

SWL (FT)	TEMP (°C)	pH	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
67.25	8.9	11.02	0.852	67.7	3.98	-23	Clear



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Generated For:

Day Environmental, Inc.

For Lab Project ID

130261

Referencing

12975 Clarence Center Rd., 4653R-12

on

Tuesday, January 22, 2013

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, consisting of several overlapping, slanted strokes, positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Lab Project ID: 130261

Client: Day Environmental, Inc.

Project Reference: 12975 Clarence Center Rd., 4653R-12

Sample Identifier: GW-1

Lab Sample ID: 130261-01

Matrix: Groundwater

Date Sampled: 1/16/2013

Date Received: 1/17/2013

Metals

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Barium	< 0.10	mg/L		1/21/2013
Iron	1.5	mg/L		1/21/2013
Magnesium	44	mg/L		1/21/2013
Manganese	0.075	mg/L		1/21/2013

Method Reference(s): EPA 6010B

EPA 3005

Data File: 012113b

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Lab Project ID: 130261

Client: Day Environmental, Inc.

Project Reference: 12975 Clarence Center Rd., 4653R-12

Sample Identifier: GW-2

Lab Sample ID: 130261-02

Matrix: Groundwater

Date Sampled: 1/16/2013

Date Received: 1/17/2013

Metals

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Barium	< 0.10	mg/L		1/21/2013
Iron	1.0	mg/L		1/21/2013
Magnesium	4.0	mg/L		1/21/2013
Manganese	0.020	mg/L		1/21/2013

Method Reference(s): EPA 6010B
EPA 3005
Data File: 012113b

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Lab Project ID: 130261

Client: Day Environmental, Inc.

Project Reference: 12975 Clarence Center Rd., 4653R-12

Sample Identifier: GW-3

Lab Sample ID: 130261-03

Matrix: Groundwater

Date Sampled: 1/16/2013

Date Received: 1/17/2013

Metals

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Barium	< 0.10	mg/L		1/21/2013
Iron	1.7	mg/L		1/21/2013
Magnesium	28	mg/L		1/21/2013
Manganese	0.092	mg/L		1/21/2013

Method Reference(s): EPA 6010B
EPA 3005
Data File: 012113b

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Lab Project ID: 130261

Client: Day Environmental, Inc.

Project Reference: 12975 Clarence Center Rd., 4653R-12

Sample Identifier: GW-4

Lab Sample ID: 130261-04

Matrix: Groundwater

Date Sampled: 1/16/2013

Date Received: 1/17/2013

Metals

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Barium	< 0.10	mg/L		1/21/2013
Iron	0.31	mg/L		1/21/2013
Magnesium	14	mg/L		1/21/2013
Manganese	< 0.015	mg/L		1/21/2013

Method Reference(s): EPA 6010B

EPA 3005

Data File: 012113b

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Lab Project ID: 130261

Client: Day Environmental, Inc.

Project Reference: 12975 Clarence Center Rd., 4653R-12

Sample Identifier: GW-5

Lab Sample ID: 130261-05

Matrix: Groundwater

Date Sampled: 1/16/2013

Date Received: 1/17/2013

Metals

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Barium	< 0.10	mg/L		1/21/2013
Iron	1.4	mg/L		1/21/2013
Magnesium	2.9	mg/L		1/21/2013
Manganese	0.031	mg/L		1/21/2013

Method Reference(s): EPA 6010B

EPA 3005

Data File: 012113b

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Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"V" = Sample concentration is >10 times the spike. No meaningful Spike Recovery can be calculated.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

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Chain of Custody Supplement

Client: Day Envir. Completed by: mm
Lab Project ID: 130261 Date: 1/17/13

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

NELAC compliance with the sample condition requirements upon receipt			
Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Metals
Comments	<u>3°C ice d</u>		
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			

APPENDIX D

SUMMARY OF DETECTED PARAMETERS

12975 CLARANCE CENTER RD
AKRON, NEW YORK
NYSDEC SITE #915053

POST CLOSURE MONITORING SUMMARY OF DETECTED GROUNDWATER PARAMETERS

GW-1

SAMPLING DATES 4/95 THROUGH 1/13

TEST PARAMETER	UNITS	SAMPLE ROUND																			
		4/11/1995	7/12/1995	10/16/1995	1/22/1996	5/8/1996	8/6/1996	10/29/1996	2/6/1997	6/9/1997	9/15/1997	12/16/1997	3/13/1998	6/11/1998	12/14/1998	6/23/1999	12/15/1999	6/22/2000	1/11/2001	7/3/2001	12/12/2001
barium, total	mg/L	0.079	0.123	0.070	0.130	0.054	0.040	0.058	0.041	0.062	0.033	0.035	0.023	0.032	0.095	0.041	0.036	0.025	0.027	0.025	0.023
iron, total	mg/L	1.460	6.820	2.530	8.340	0.150	0.170	2.960	1.000	5.910	0.985	1.210	0.229	0.676	8.660	1.960	0.724	0.100	0.522	0.246	0.188
magnesium, total	mg/L	54.000	52.000	56.800	68.800	62.900	71.200	64.800	65.600	66.300	69.300	78.000	65.800	64.500	59.800	63.600	57.700	52.700	43.400	44.300	39.100
manganese, total	mg/L	0.038	0.171	0.080	0.240	0.039	0.024	0.085	0.041	0.158	0.030	0.049	0.019	0.069	0.255	0.084	0.049	0.033	0.030	0.041	0.027
total phenols	mg/L					0.005	0.005	0.005	0.005	0.005	0.002	0.002	0.005	0.030	0.029	0.002	0.002	0.004	0.002	0.002	0.002

TEST PARAMETER	UNITS	SAMPLE ROUND																	
		6/20/2002	1/10/2003	6/10/2003	1/22/2004	6/29/2004	12/30/2004	6/8/2005	12/29/2005	7/14/2006	3/8/007	9/25/2007	4/23/2008	10/22/2008	6/2/2009	1/12/2010	1/11/2011	1/12/2012	1/16/2013
barium, total	mg/L	0.020	0.034	0.037	0.031	0.028	0.026	0.033	0.031	0.042	0.022	0.048	0.050	0.040	0.025	0.076	0.036	0.0520J	0.100
iron, total	mg/L	0.100	0.419	0.284	0.237	0.100	0.204	0.238	0.286	1.650	0.103	2.830	0.100	0.100	1.130	6.060	1.930	5.100	1.500
magnesium, total	mg/L	38.700	47.700	49.700	13.100	39.100	33.200	32.100	51.700	11.300	2.180	45.300	2.060	2.250	50.500	60.800	45.000	41.500	44.000
manganese, total	mg/L	0.290	0.061	0.143	0.010	0.102	0.052	0.053	0.171	0.063	0.010	0.200	0.010	0.010	0.094	0.199	0.104	0.145	0.075
total phenols	mg/L	0.008	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.011	0.002	0.003	0.002	0.002	0.002			

- Notes:
- values shown in **BOLD** and SHADED print indicate parameter was "not detected" at the detection limit presented on this table
 - J = estimated value
 - values left blank indicate sample was either not collected or not tested
 - soluble metals and volatile organic compounds have not been tested since June 20, 2002 (as approved in a letter from the NYSDEC dated August 21, 2002).
 - As outlined in a letter dated February 10, 2010 by the NYSDEC, testing of total phenols is no longer required.

12975 CLARANCE CENTER RD
AKRON, NEW YORK
NYSDEC SITE #915053

POST CLOSURE MONITORING SUMMARY OF DETECTED GROUNDWATER PARAMETERS

GW-2

SAMPLING DATES 4/95 THROUGH 1/13

TEST PARAMETER	UNITS	SAMPLE ROUND																			
		4/11/1995	7/12/1995	10/16/1995	1/22/1996	5/8/1996	8/6/1996	10/29/1996	2/6/1997	6/9/1997	9/15/1997	12/16/1997	3/13/1998	6/11/1998	12/14/1998	6/23/1999	12/15/1999	6/22/2000	1/11/2001	7/3/2001	12/12/2001
barium, total	mg/L	0.210	0.211	0.210	0.180	0.118	0.130	0.139	0.127	0.108	0.110	0.099	0.091	0.118	0.107	0.146	0.172	0.122	0.176	0.159	0.145
iron, total	mg/L	0.250	0.490	1.440	1.260	0.090	0.180	0.260	0.410	0.100	0.319	9.350	0.194	0.247	0.431	1.230	2.230	1.270	2.360	0.566	3.110
magnesium, total	mg/L	1.030	0.360	0.910	1.360	0.470	2.510	2.800	0.342	0.500	0.500	23.300	0.222	0.393	0.404	1.140	1.860	1.580	1.660	0.342	2.930
manganese, total	mg/L	0.006	0.150	0.020	0.040	0.005	0.005	0.030	0.009	0.010	0.020	0.224	0.010	0.010	0.010	0.025	0.040	0.040	0.042	0.010	0.064
total phenols	mg/L					0.005	0.020	0.008	0.005	0.005	0.020	0.002	0.005	0.008	0.008	0.002	0.002	0.002	0.002	0.002	0.002

TEST PARAMETER	UNITS	SAMPLE ROUND																	
		6/20/2002	1/10/2003	6/10/2003	1/22/2004	6/29/2004	12/30/2004	6/8/2005	12/29/2005	7/14/2006	3/8/2007	9/25/2007	4/23/2008	10/22/2008	6/2/2009	1/12/2010	1/11/2011	1/12/2012	1/16/2013
barium, total	mg/L	0.131	0.125	0.164	0.140	0.125	0.127	0.184	0.170	0.128	0.108	0.153	0.101	0.088	0.085	0.078	0.079	0.0900J	0.100
iron, total	mg/L	1.630	0.169	1.450	0.100	0.277	1.550	3.050	4.500	0.559	0.512	3.360	0.100	0.100	1.200	0.263	0.653	1.500	1.000
magnesium, total	mg/L	1.700	0.611	2.250	0.175	0.692	1.990	2.820	4.320	0.917	0.694	4.320	0.165	0.200	2.760	3.460	2.930	5.850	4.000
manganese, total	mg/L	0.033	0.010	0.031	0.010	0.013	0.029	0.057	0.086	0.011	0.010	0.065	0.100	0.100	0.024	0.010	0.013	0.045	0.020
total phenols	mg/L	0.007	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.003	0.002	0.004	0.002			

Notes:

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12975 CLARANCE CENTER RD
AKRON, NEW YORK
NYSDEC SITE #915053

POST CLOSURE MONITORING SUMMARY OF DETECTED GROUNDWATER PARAMETERS

GW-3

SAMPLING DATES 4/95 THROUGH 1/13

TEST PARAMETER	UNITS	SAMPLE ROUND																			
		4/11/1995	7/12/1995	10/16/1995	1/22/1996	5/8/1996	8/6/1996	10/29/1997	2/6/1997	6/9/1997	9/15/1997	12/16/1997	3/13/1998	6/11/1998	12/14/1998	6/23/1999	12/15/1999	6/22/2000	1/11/2001	7/3/2001	12/12/2001
barium, total	mg/L	0.065	0.173	0.165	0.090	0.078	0.086	0.078	0.083	0.072	0.076	0.087	0.063	0.069	0.071	0.078	0.084	0.064	0.087	0.068	0.060
iron, total	mg/L	1.560	6.710	13.550	4.090	4.230	1.300	2.000	2.370	2.255	3.800	4.650	1.720	1.380	1.810	1.960	3.150	0.250	4.790	1.690	0.943
magnesium, total	mg/L	28.300	68.700	72.550	32.450	30.950	32.700	16.650	32.900	30.350	35.800	39.350	28.700	27.550	24.600	32.150	31.600	26.300	31.600	26.800	25.000
manganese, total	mg/L	0.120	0.456	0.660	0.210	0.142	0.141	0.128	0.148	0.001	0.120	0.195	0.097	0.011	0.079	0.128	0.111	0.067	0.170	0.082	0.082
total phenols	mg/L					0.005	0.140	0.005	0.005	0.005	0.002	0.002	0.050	0.050	0.001	0.002	0.002	0.002	0.002	0.002	0.002

TEST PARAMETER	UNITS	SAMPLE ROUND																	
		6/20/2002	1/10/2003	6/10/2003	1/22/2004	6/29/2004	12/30/2004	6/8/2005	12/29/2005	7/14/2006	3/8/2007	9/25/2007	4/23/2008	10/22/2008	6/2/2009	1/12/2010	1/11/2011	1/12/2012	1/16/2013
barium, total	mg/L	0.066	0.068	0.093	0.064	0.079	0.086	0.067	0.103	0.078	0.067	0.062	0.055	0.062	0.061	0.070	0.073	0.072J	0.100
iron, total	mg/L	1.830	0.897	4.850	0.571	1.610	2.740	0.999	4.640	1.870	0.583	0.388	0.268	0.416	0.573	0.935	1.470	1.090	1.700
magnesium, total	mg/L	26.600	27.700	33.700	27.300	27.300	27.000	24.200	32.200	29.000	24.900	26.700	22.500	24.300	26.100	26.600	26.000	26.500	28.000
manganese, total	mg/L	0.120	0.083	0.175	0.072	0.261	0.112	0.097	0.178	0.119	0.077	0.085	0.061	0.068	0.066	0.089	0.096	0.081	0.092
total phenols	mg/L	0.004	0.002	0.002	0.002	0.014	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.003	0.002	0.002			

- Notes:
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12975 CLARANCE CENTER RD
AKRON, NEW YORK
NYSDEC SITE #915053

POST CLOSURE MONITORING SUMMARY OF DETECTED GROUNDWATER PARAMETERS

GW-4

SAMPLING DATES 4/95 THROUGH 1/13

TEST PARAMETER	UNITS	SAMPLE ROUND																			
		4/11/1995	7/12/1995	10/16/1995	1/22/1996	5/8/1996	8/6/1996	10/29/1996	2/6/1997	6/9/1997	9/15/1997	12/16/1997	3/13/1998	6/11/1998	12/14/1998	6/23/1999	12/15/1999	6/22/2000	1/11/2001	7/3/2001	12/12/2001
barium, total	mg/L	0.179	0.099	0.120	0.130	0.044	0.044	0.054	0.071	0.058	0.060	0.055	0.055	0.055	0.081	0.059	0.078	0.065	0.058	0.116	0.072
iron, total	mg/L	12.020	6.720	11.900	9.850	1.000	0.043	2.140	2.870	1.290	1.320	0.766	0.286	1.510	4.420	1.580	4.000	0.110	1.430	8.190	3.130
magnesium, total	mg/L	77.900	48.300	66.000	49.400	39.700	38.800	49.100	46.150	39.000	33.750	42.300	36.000	35.900	31.000	40.100	27.700	25.200	32.100	35.700	17.200
manganese, total	mg/L	0.320	0.162	0.320	0.240	0.022	0.022	0.086	0.076	0.034		0.023	0.010	0.072	0.094	0.039	0.086	0.010	0.027	0.106	0.074
total phenols	mg/L					0.005	0.005	0.005	0.012	0.005	0.020	0.003	0.005	0.005	0.002	0.002	0.002	0.002	0.002	0.002	0.002

TEST PARAMETER	UNITS	SAMPLE ROUND																	
		6/20/2002	1/10/2003	6/10/2003	1/22/2004	6/29/2004	12/30/2004	6/8/2005	12/29/2005	7/14/2006	3/8/2007	9/25/2007	4/23/2008	10/22/2008	6/2/2009	1/12/2010	1/11/2011	1/12/2012	1/16/2013
barium, total	mg/L	0.052	0.062	0.075	0.036	0.043	0.063	0.070	0.067	0.048	0.032	0.039	0.040	0.033	0.059	0.063	0.068	0.060J	0.100
iron, total	mg/L	0.155	0.182	0.919	0.302	0.078	0.183	0.300	0.373	0.757	0.100	0.100	0.100	0.100	0.122	0.505	0.405	0.265	0.310
magnesium, total	mg/L	17.300	15.200	14.700	1.970	1.460	7.170	9.000	9.010	2.740	0.564	1.750	0.577	1.040	17.600	24.700	15.300	15.800	14.000
manganese, total	mg/L	0.010	0.010	0.022	0.010	0.010	0.010	0.010	0.010	0.019	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.015	0.020
total phenols	mg/L	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002			

Notes:

- values shown in **BOLD** and SHADED print indicate parameter was "not detected" at the detection limit presented on this table
- J = estimated value
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12975 CLARANCE CENTER RD
AKRON, NEW YORK
NYSDEC SITE #915053

POST CLOSURE MONITORING SUMMARY OF DETECTED GROUNDWATER PARAMETERS

GW-5

SAMPLING DATES 4/95 THROUGH 1/13

TEST PARAMETER	UNITS	SAMPLE ROUND																			
		4/11/1995	7/12/1995	10/16/1995	1/22/1996	5/8/1996	8/6/1996	10/29/1996	2/6/1997	6/9/1997	9/15/1997	12/16/1997	3/13/1998	6/11/1998	12/14/1998	6/23/1999	12/15/1999	6/22/2000	1/11/2001	7/3/2001	12/12/2001
barium, total	mg/L	0.172	0.600	0.180	0.230	0.053	0.055	0.090	0.114	0.053	0.067	0.148	0.065	0.071	0.146	0.068	0.076	0.050	0.073	0.042	0.082
iron, total	mg/L	23.000	1.730	24.700	34.300	0.510	0.280	1.330	8.670	1.300	4.930	1.660	1.820	2.220	17.700	3.230	4.210	0.527	5.100	0.443	7.970
magnesium, total	mg/L	32.200	9.710	32.800	42.500	2.530	2.490	3.050	18.600	3.650	8.000	1.640	5.380	9.300	23.600	5.850	7.150	3.970	7.850	1.450	13.900
manganese, total	mg/L	0.485	0.038	0.620	0.760	0.011	0.008	0.030	0.218	0.024	0.080	0.035	0.037	0.105	0.382	0.068	0.088	0.036	0.106	0.010	0.198
total phenols	mg/L					0.005	0.005	0.005	0.005	0.005	0.002	0.002	0.005	0.081	0.002	0.002	0.002	0.002		0.002	0.002

TEST PARAMETER	UNITS	SAMPLE ROUND																	
		6/20/2002	1/10/2003	6/10/2003	1/22/2004	6/29/2004	12/30/2004	6/8/2005	12/29/2005	7/14/2006	3/8/2007	9/25/2007	4/23/2008	10/22/2008	6/2/2009	1/12/2010	1/11/2011	1/12/2012	1/16/2013
barium, total	mg/L	0.051	0.050	0.053	0.057	0.042	0.054	0.063	0.052	0.054	0.033	0.028	0.028	0.028	0.047	0.042	0.054	0.047J	0.100
iron, total	mg/L	1.770	0.209	1.540	1.320	0.433	1.890	2.710	1.870	2.340	0.157	0.100	0.100	0.100	3.200	0.737	2.310	2.56M	1.400
magnesium, total	mg/L	6.130	8.850	4.000	4.350	4.950	3.360	5.540	3.830	5.230	0.498	0.471	0.311	0.267	10.900	3.170	5.210	5.460	2.900
manganese, total	mg/L	0.039	0.010	0.037	0.029	0.030	0.044	0.051	0.039	0.045	0.010	0.010	0.010	0.010	0.059	0.016	0.056	0.055	0.031
total phenols	mg/L	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.002	0.002		

Notes:

- values shown in **BOLD** and SHADED print indicate parameter was "not detected" at the detection limit presented on this table
- J = estimated value
- D = Duplicate results outside QC limits. May indicate non-homogenous matrix
- M = Matrix spike recoveries outside QC limits. Matrix bias indicated.
- values left blank indicate sample was either not collected or not tested
- soluble metals and volatile organic compounds have not been tested since June 20, 2002 (as approved in a letter from the NYSDEC dated August 21, 2002).
- As outlined in a letter dated February 10, 2010 by the NYSDEC, testing of total phenols is no longer required.

APPENDIX E

INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM



Site Details

Site No. 915053

Box 1

Site Name Houdaille Industries; Strippit Division

Site Address: 12975 Clarence Center Road Zip Code: 14001

City/Town: Akron

County: Erie

Site Acreage: 2.5

Reporting Period: February 1, 2012 to January 31, 2013

YES NO

1. Is the information above correct?

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

A copy of the 2012 Annual Certification Report for SPDES Permit No. NYR00B074 is attached.

5. Is the site currently undergoing development?

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below?
Closed Landfill

7. Are all ICs/ECs in place and functioning as designed?

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date _____

SITE NO. 915053

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

47.18-1-33./A

STRIPPIT LVD

Monitoring Plan
O&M Plan

Description of Engineering Controls

Box 4

Parcel

Engineering Control

47.18-1-33./A

Cover System
Fencing/Access Control

Control Description for Site No. 915053

Parcel: 47.18-1-33./A

IRM; construction of 40-mil HDPE and associated soil/topsoil final cover system per Part 360 regulations. A No Further Action Record of Decision (ROD) was issued in March 1995. A Deed Restriction was not required. Post-closure maintenance and monitoring are required that includes cover system integrity inspections and groundwater quality sampling to ensure long term effectiveness of the remedy and to provide early detection should failure occur. The site is fenced.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO



2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO



**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 915053

Box 6

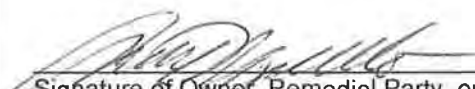
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Anthony Marzullo at Strippit, Inc., 12975 Clarence Center Road, Akron NY 14001,
print name print business address

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.


Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

2/18/2013
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Raymond L. Kampff at Day Environmental, Inc., 1563 Lyell Avenue, Rochester, NY 14606
print name print business address

am certifying as a Qualified Environmental Professional for the Owner
(Owner or Remedial Party)


Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification

Stamp
(Required for PE)

2-19-2013
Date

The permittee shall complete this Annual Certification Report form by answering the following questions, describing improvements to the facility's Stormwater Pollution Prevention Plan (SWPPP), provide copies of monitoring results on appropriate Monitoring Reports Forms and signing the certification at the end of this form. This completed report is to be submitted each calendar year by March 31st of the following year to: Industrial Stormwater General Permit Coordinator, NYSDEC, Bureau of Water Permits, 625 Broadway, Albany, NY, 12233-3505

SECTION I: FACILITY INFORMATION

Permit I.D. No.: NYR00

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Report for Calendar Year:

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Owner Name

[illegible]**Facility Name**[illegible]

SECTION II: GENERAL INFORMATION:

1. List the number of stormwater outfalls at the facility that are from areas of industrial activity.

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2. Is the facility claiming any monitoring waivers? ☐ Yes ☐ No
[describe and certify in your cover letter]

- Representative Outfall
- Inactive or Unstaffed Site
- Adverse Climatic Conditions
- Alternate Certification of "Not Present" or "No Exposure"

3. Is the information provided in your original Notice of Intent or Termination (NOIT) submission still accurate and up to date? If not, please submit an updated NOIT indicating the correct facility information. ☐ Yes ☐ No

4. Has a comprehensive site compliance evaluation been conducted at the facility in the past year? ☐ Yes ☐ No

5. Is the facility's Stormwater Pollution Prevention Plan (SWPPP) kept up to date and modified when necessary? ☐ Yes ☐ No

SECTION III: QUARTERLY VISUAL EXAMINATIONS AND DRY WEATHER FLOW INSPECTIONS:

6. Have the required quarterly visual examinations of stormwater at the facility been performed during this reporting period? ☐ Yes ☐ No

7. Did any of the quarterly visual examinations result in observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, or other indicators of stormwater pollution and contamination? ☐ Yes ☐ No

8. Was the annual dry weather flow inspection performed during this reporting period? ☐ Yes ☐ No

9. Were any indicators of stormwater pollution or unauthorized discharges identified? ☐ Yes ☐ No

10. Did any of these findings result in modification of the SWPPP? ☐ Yes ☐ No ☐ NA

SECTION IV: STORMWATER MONITORING - BENCHMARK PARAMETERS:

11. Is the permittee required to monitor stormwater at the facility for benchmark parameters? (If no, skip to Section V) ☐ Yes ☐ No
12. Were there any of the sampling results from this year higher than the cut-off values listed in the permit? ☐ Yes ☐ No
13. Were there any monitoring problems? (Answer "Yes" if storm event criteria was not met or if the laboratory indicated quality assurance/quality control problems) ☐ Yes ☐ No
14. If any of the sampling results were higher than the benchmark values listed in the permit, was the facility inspected to identify the source? ☐ Yes ☐ No ☐ NA
15. Did this result in modification of the SWPPP? ☐ Yes ☐ No ☐ NA

SECTION V: STORMWATER MONITORING - COMPLIANCE MONITORING

16. Is the permittee required to conduct compliance monitoring for storm water discharges subject to Point Source Category Effluent Limitation? ☐ Yes ☐ No
17. Is the permittee required to conduct compliance monitoring for storm water discharges from coal piles? (If no to questions 16 & 17, go to Section VI) ☐ Yes ☐ No
18. Were there any monitoring problems? (Answer "Yes" if storm event criteria was not met or if the laboratory indicated quality assurance/quality control problems) ☐ Yes ☐ No
19. Were any of the sampling results from this year higher than the effluent limitation listed in the permit? ☐ Yes ☐ No
20. If any of the sampling results were higher than the effluent limitations listed in the permit, was the facility inspected to identify the source? ☐ Yes ☐ No ☐ NA
21. Did this result in modification of the SWPPP? ☐ Yes ☐ No ☐ NA

SECTION VI: SUMMARY

Provide a brief description of any facility changes; problems identified during comprehensive compliance evaluations, quarterly visual observations or monitoring results; and action taken to improve the quality of the stormwater discharge.

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name (please print or type)

MI

Date

Owner/Operator Last Name (please print or type)

Owner/Operator Signature